

ALFAGOMMA

INDUSTRIAL FITTINGS • RACCORDS INDUSTRIELS 2019



INDUSTRIAL DIVISION • DIVISION INDUSTRIEL



Hose Coupling Workshops

In an effort to provide our customers with information regarding the proper and safe methods of assembling hose and couplings, Alfagomma offers Hose Coupling Workshops suitable for a company's sales force and shop personnel.

Classes consist of lectures and/or "hands-on" demonstrations of coupling selection, hose preparation, coupling installation, assembly testing and maintenance procedures. Morning, afternoon and all day classes are available. For more information, please contact the factory at 800-522-2532.

We encourage you to share this information with anyone who may be affected by the selection, installation, maintenance or use of any hose assembly. Always use quality products to **Be Safe**.

Be Safe

Hose assemblies must be inspected prior to each use. Worn out fittings, attachment devices, hose and accessory items must be replaced. Retaining devices (safety devices) such as clips, cables or chains must be used. Clamps must be checked regularly to the specified torque. Under no circumstance should any coupling be disconnected while under pressure unless the coupling is specifically designed to do so. Disconnecting couplings under pressure could result in serious injury or death, and destruction to property and equipment.

For all hose assemblies in use:

- Beware -** Hose assemblies when used improperly or in the wrong application can be dangerous. The maximum working pressure shown on the hose is not an indication of the working pressure of the assembly. Based on the hose, fittings and attachment method used, all assemblies should be permanently marked with the designed working pressure and the intended media. The assembly working pressure should be permanently displayed. Hose assemblies must be used for the intended service only. Never alter manufactured product or substitute component parts.
- Eliminate -** Hazardous conditions by inspecting, maintaining and testing hose assemblies. It is recommended that all hose assemblies be tested in accordance with the hose manufacturer's specifications. The application determines the regularity of the re-testing schedule.
- Secure -** and inspect hose, fittings, clamping devices and safety accessories before each use. Never take for granted that the coupling or attachment devices are properly installed.
- Always -** inspect and re-tighten the bolts of any bolt style clamping device to the manufacturer's torque specifications.
- Fittings -** hose and clamping devices that are worn out or damaged must be removed from service.
- Educate -** your employees about the proper use, care and potential hazards of hose assemblies. Take advantage of Alfagomma's free Hose Assembly Safety Program and the follow up Training Seminar to aid you in setting up your own inspection program. Any questions on applications, use or assembly call 800-522-2532.



The Importance of Whip Hose



The constant vibration created by air tools, like air drills and pavement breakers, is destructive to air hose couplings, especially the quick-acting type. To provide protection against coupling breakage and related hazards, It is recommended the use of a whip hose. To construct a whip hose, connect one end of a short (3' to 10') air hose to the air tool using a 3500 type steel nipple. Connect the other end of the hose to the air supply using the standard quick-acting coupling. The heat-treated 3500 nipple will withstand vibration far better than the standard coupling and provide a safer connection. The whip hose should remain permanently connected to the tool.

Hose Assembly Safety Program

Alfagomma is pleased to offer a hose and coupling safety survey of your plant, at no cost to you, to assist in your efforts to make your facility as safe, efficient and productive as possible.

Today, plant safety is an enormous, ongoing endeavor in which it is impossible to be an expert in every field.

The use of damaged or misapplied hose couplings and related items occurs. To the untrained eye, these hazards may continue to exist until an accident happens, threatening not only plant machinery, but also the well-being of plant personnel.

Our program includes a visual inspection of hose assemblies and related accessories in your plant by trained technicians. A professionally written report containing our observations and recommendations for corrective action is subsequently provided to augment your own ongoing safety program. If desired, photographs of the areas of concern can be supplied with the report. As a follow-up, the program offers an educational hands-on seminar directly relating to the safety concerns in your facility.

Plant safety is coming under increasing scrutiny by various regulatory agencies. Let Alfagomma's trained personnel assist you in establishing and maintaining safety compliance in your plant.

The safety survey report is completely confidential and will only be shown to authorized plant personnel. Again, there is no cost to you for this service.

Pressure Recommendations

Mark hose assembly with pressure from this chart or hose working pressure, whichever is lower.

All pressure recommendations are in pounds per square inch (PSI).

- This chart is intended as a guide only. It only applies to metal couplings as shown for ambient temperature (70°F) applications with true I.D. hose. It assumes new Dixon supplied couplings, new Dixon supplied clamps, new quality hose and proper installation by a qualified assembler using Dixon procedures and equipment.
Temperature can affect the coupling retention. For questions relating to temperatures other than ambient (70°F) contact the hose manufacturer
- This chart does not apply to non-Dixon products, with used hose, in non-approved or unsupported applications or in non-standard assemblies.
- Do not use this chart if it conflicts with the hose manufacturer's recommendations.

Hose (rubber covered)	Couplings	DPL sect.	Clamps & Ferrules	* Assembly * Procedure	1/4"	3/8"	1/2"	5/8"	3/4"
Air <i>textile reinforced rubber lined</i>	Air King Universal	E	Preformed Band Clamp	2102			150	150	150
	Machined - Short Shank	F	Crimp	2304	200	150	150	100	100
	Machined - Short Shank	F	Preformed Band Clamp	2100-2101			150	100	100
	Reusable - Brass	G	n/a	2305	250	250	250		
	King Machined - Medium Shank	F	Preformed Band Clamp	2100-2101			250	200	200
	King Machined - Long Shank	F	Preformed Band Clamp	2100-2101			300	300	300
Air <i>textile or wire reinforced rubber lined</i>	Air King Universal	E	Air King or Boss Interlocking Clamp	2000		150	150		150
	Air King Universal	E	Swage/Crimp	see DPL			150		150
	Boss Couplings	D	Boss Interlocking Clamp	2000-2004	600	600	600		600
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual	600	600	600		600
Asphalt & Hot Tar	Boss Couplings	D	Boss Interlocking Clamp	2001-2002					
Chemical <i>plastic lined for liquid service</i>	King Machined - Medium Shank	F	Preformed Band Clamp	2100-2101			125		125
	King Machined - Medium Shank	F	Band & Buckle	2104					
	King Machined - Long Shank	F	Preformed Band Clamp	2100-2101			150		150
	King Machined - Long Shank	F	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Preformed Band Clamp	2100-2101			150		150
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					250
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual			600		600
Chemical <i>rubber lined for liquid service</i>	King Machined - Medium Shank	F	Preformed Band Clamp	2100-2101			125		125
	King Machined - Medium Shank	F	Band & Buckle	2104					
	King Machined - Long Shank	F	Preformed Band Clamp	2100-2101			150		150
	King Machined - Long Shank	F	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Preformed Band Clamp	2100-2101			150		150
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					250
	Boss Couplings	D	Boss Interlocking Clamp	2000-2004			600		600
	Holedall Internal Expansion	K	Internal Expansion	see Ram Manual					
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual			600		600
Food Grade <i>conforming to 3A</i>	Flow Chief Sanitary	K	Internal Expansion	see Ram Manual					
Food Grade <i>rubber lined</i>	King Machined - Medium Shank	F	Preformed Band Clamp	2100-2101			125		125
	King Machined - Medium Shank	F	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Preformed Band Clamp	2100-2101			150		150
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					250
	Holedall Internal Expansion	K	Internal Expansion	see Ram Manual					
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual			600		600
Layflat	Flat Seal	A / M	Flat Seal Clamps	2202					

4. All hose assemblies should be pressure tested to hose manufacturers or Rubber Manufacturers Association (R.M.A.) specifications prior to being put into service.
5. Our test experience indicates that coupling retention can vary with changes in hose design. For pressure ratings other than those listed and shown, or if questions arise, please call Dixon Valve & Coupling Company at 1-800-355-1991 for assistance.
6. All hose assembly components must be compatible with the materials and environments with which they are to come in contact.
7. Dixon recommends that all hose assemblies be marked with the assembly working pressure and media of the intended application. Under no circumstances should the assembly working pressure exceed the working pressure of the lowest rated component (coupling, clamp, ferrule or hose).

* Procedures can be found at www.dixonvalve.com or by calling 1-800-355-1991.

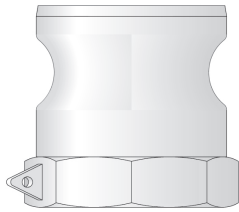
Hose (rubber covered)	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	Notes	
Air textile reinforced rubber lined	150									(2) bands on 5/8" or larger; Must use mating Dixon Air King fittings with safety clip installed.	
	100										
	100										
											(2) bands on 1/2" to 1"
	150										
	300										
Air textile or wire reinforced rubber lined	150									Must use mating Dixon Air King fittings with safety clip installed.	
	150									Coupling and ferrule are sold assembled. Must use mating Dixon Air King fittings with safety clip installed.	
	600	600	600	600	450	450	250		250		
	600	600	600	600	600	600	500	450	400		
Asphalt & Hot Tar	200	200	200	200	200	200	200			Consult factory	
Chemical plastic lined for liquid service	125	125	125	75	75	50	50			(3) bands on 3" & 4"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
		125	125	75	75	50	50			(3) bands on 3" & 4"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
	150	150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on 1-1/4" & 1-1/2"; (2) bands on the rest	
		150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on the rest	
	250	250	250	250	150	125	100				
		250	250	250	150	125	100				
	250		250	250		125	100			Requires properly matched stem and ferrule.	
Chemical rubber lined for liquid service	125	125	125	75	75	50	50			(3) bands on 3" & 4"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
		125	125	75	75	50	50			(3) bands on 3" & 4"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
	150	150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on 1-1/4" & 1-1/2"; (2) bands on the rest	
		150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on the rest	
	250	250	250	250	150	125	100				
		250	250	250	150	125	100				
	250		250	250		125	100			Requires properly matched stem and ferrule.	
	600	600	600	600	450	450	250				
	800	800	800	800	600	600	500			Consult factory for ratings on IXF48-3 to IXF48-5 & IXF64-2 to IXF64-5 ferrules. Internal Expansion is NOT recommended for XLPE, UHMWPE & Gum Rubber lined hoses.	
600	600	600	600	600	600	500					
Food Grade conforming to 3A			250	250		250				Use Stainless Steel Food Grade Ferrule ONLY.	
Food Grade rubber lined	125	125	125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
		125	125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest	
	250	250	250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest	
		250	250	205	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest	
	250		250	250		125	100			Requires properly matched stem and ferrule.	
	250		250	250	250	250	200				
600	600	600	600	600	600	500	450	400			
Layflat			300	300	300	300	225		150	To be used as a set ONLY. 6" Cam & Groove couplings are rated to 75PSI.	

Hose (rubber covered)	Couplings	DPL sect.	Clamps & Ferrules	* Assembly * Procedure	1/4"	3/8"	1/2"	5/8"	3/4"
Material Handling <i>rubber lined</i>	Cast Short Shank	F	Prefomed Band Clamp	2100-2101					
	Cast Short Shank	F	Band & Buckle	2104					
	King Machined - Medium Shank	F	Prefomed Band Clamp	2100-2101					
	King Machined - Medium Shank	F	Band & Buckle	2104					
	King Machined - Long Shank	F	Prefomed Band Clamp	2100-2101					
	King Machined - Long Shank	F	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Prefomed Band Clamp	2100-2101					
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual					
	Holedall Internal Expansion	K	Internal Expansion	see Ram Manual					
Material Handling <i>no helical wire rubber lined</i>	Cast Short Shank	F	Double Bolt Clamp	2201					
	King Machined - Medium Shank	F	Double Bolt Clamp	2201					
	King Machined - Long Shank	F	Double Bolt Clamp	2201					
Material Handling <i>cement rubber lined</i>	Boss Couplings	D	Boss Interlocking Clamp	2000-2004					
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual					
	Holedall Internal Expansion	K	Internal Expansion	see Ram Manual					
Petroleum Transfer	King Machined - Medium Shank	F	Prefomed Band Clamp	2100-2101			125		125
	King Machined - Medium Shank	F	Band & Buckle	2104					
	King Machined - Long Shank	F	Prefomed Band Clamp	2100-2101			150		150
	King Machined - Long Shank	F	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Prefomed Band Clamp	2100-2101			150		250
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					250
	Holedall Internal Expansion	K	Internal Expansion	see Ram Manual					
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual			600		600
Air Craft Refueling <i>conforming to API 1529</i>	Holedall Internal Expansion (Petroleum)	K	Internal Expansion (Petroleum)	see Ram Manual					
Push-On	Push-On	G	n/a	2001-2002	175	175	175	175	175
Steam	Boss Couplings	D	Boss Interlocking Clamp	2000-2004			250		250
Water	Air King Universal	E	Prefomed Band Clamp	2100-2101			150	150	150
	Air King Universal	E	Air King or Boss Interlocking Clamp	2000-2001		150	150		150
	Machined - Short Shank	F	Prefomed Band Clamp	2100-2101			150	100	100
	Machined - Short Shank	F	Crimp	2304	200	150	150	100	100
	Cast Short Shank	F	Prefomed Band Clamp	2100-2101			150	100	100
	Cast Short Shank	F	Band & Buckle	2104					
	King Machined - Medium Shank	F	Prefomed Band Clamp	2100-2101			250	200	200
	King Machined - Long Shank	F	Prefomed Band Clamp	2100-2101			300	300	300
	Boss-Lock Cam & Groove	A	Prefomed Band Clamp	2100-2101			150		250
	Boss-Lock Cam & Groove	A	Band & Buckle	2104					
	Boss-Lock Cam & Groove	A	Swage/Crimp	see Ram Manual					250
	Boss Couplings	D	Boss Interlocking Clamp	2000-2002	600	600	600		600
	Holedall Swage/Crimp	K	Swage/Crimp	see Ram Manual	600	600	600		600
	Water <i>no helical wire</i>	Cast Short Shank	F	Double Bolt Clamp	2201				
King Machined - Medium Shank		F	Double Bolt Clamp	2201					
King Machined - Long Shank		F	Double Bolt Clamp	2201					

Hose (rubber covered)	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	Notes
Material Handling rubber lined			75	75	50	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"
			75	75	50	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"
			125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"
			125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"
			150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on the res
			150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on the res
			250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
			250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
			250	250		125	100			Requires properly matched stem and ferrule.
		600	600	600	600	500	450	400		
		800	800	600	600	500		400	Consult factory for ratings on IXF48-3 to IXF48-5 & IXF64-2 to IXF64-5 ferrules. Internal Expansion is NOT recommended for XLPE, UHMWPE & Gum Rubber lined hoses.	
Material Handling no helical wire rubber lined			75	75	50	50	50	25	25	(3) double bolt clamps on 5" & 6"; (2) double bolt clamps on 3" to 4"; (1) double bolt clamp on the rest
			125	75	75	50	50	25	25	(3) double bolt clamps on 5" & 6"; (2) double bolt clamps on 3" to 4"; (1) double bolt clamp on the rest
			150	125	100	75	75			(3) double bolt clamps on all sizes
Material Handling cement rubber lined	600	600	600	600	450	450	250		250	Cement will erode ID
	600	600	600	600	600	600	500	450	400	Cement will erode ID
	800	800	800	800	600	600	500		400	Cement will erode ID Consult factory for ratings on IXF48-3 to IXF48-5 & IXF64-2 to IXF64-5 ferrules.
Petroleum Transfer	125	125	125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest
		125	125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest
	150	150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on 1-1/4" & 1-1/2"; (2) bands on the rest
		150	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on the rest
	250	250	250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
		250	250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
	250		250	250		125	100			Requires properly matched stem and ferrule.
	800	800	800	800	600	600	500		400	Consult factory for ratings on IXF48-3 to IXF48-5 & IXF64-2 to IXF64-5 ferrules.
600	600	600	600	600	600	500	450	400		
Air Craft Refueling conforming to API 1529	300	300	300	300	300	300	300			
Push-On										Push-On fittings should ONLY be used on Push-On hose.
Steam	250	250	250	250	250	250	250		250	
Water	150									(2) bands on 5/8" or larger; Must use mating Dixon Air King fittings with safety clip installed. Band & Buckle is NOT recommended for 1-1/2" and smaller.
	150									Must use mating Dixon Air King fittings with safety clip installed. Band & Buckle is NOT recommended for 1-1/2" and smaller.
	100									(1) band; Band & Buckle is NOT recommended for 1-1/2" and smaller.
	100									
	100	75	75	75	50	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest
		75	75	75	50	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest
	150	150	125	75	75	50	50	25	25	(4) bands on 6"; (3) bands on 3" to 5"; (2) bands on 1-1/2" to 2-1/2"; (1) band on the rest
	300	300	150	125	100	75	75			(5) bands on 3" & 4"; (4) bands on 2" & 2-1/2"; (3) bands on 1-1/4" & 1-1/2"; (2) bands on the rest
	250	250	250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
		250	250	250	150	125	100	75	75	(3) bands on 6"; (2) bands on the rest
	250		250	250		125	100			Requires properly matched stem and ferrule.
	600	600	600	600	450	450	250		250	
	600	600	60	600	600	600	500	450	400	
Water no helical wire			75	75	50	50	50	25	25	(3) double bolt clamps on 5" & 6"; (2) double bolt clamps on 3" to 4"; (1) double bolt clamp on the rest
			125	75	75	50	50	25	25	(3) double bolt clamps on 5" & 6"; (2) double bolt clamps on 3" to 4"; (1) double bolt clamp on the rest
			150	125	100	75	75			(3) double bolt clamps on all sizes

Stainless Steel/
Acier inox. 316

Part "A" Adaptor

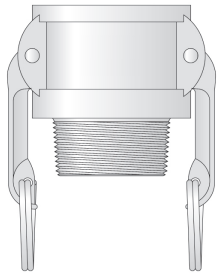


Grandeur/Size Inch/Pouce	# de Piece Part #		# de Piece Part #		# de Piece Part #
3/4	IPD 075 AA		IPD 075 AS		IPD 075 AB
1	IPD 100 AA		IPD 100 AS		IPD 100 AB
1 1/4	IPD 125 AA		IPD 125 AS		IPD 125 AB
1 1/2	IPD 150 AA		IPD 150 AS		IPD 150 AB
2	IPD 200 AA		IPD 200 AS		IPD 200 AB
2 1/2	IPD 250 AA		IPD 250 AS		IPD 250 AB
3	IPD 300 AA		IPD 300 AS		IPD 300 AB
4	IPD 400 AA		IPD 400 AS		IPD 400 AB
5	IPD 500 AA		IPD 500 AS		IPD 500 AB
6	IPD 600 AA		IPD 600 AS		IPD 600 AB

Tank Truck

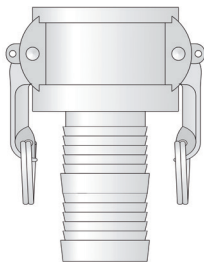
Boss

Part "B" Coupler



Grandeur/Size Inch/Pouce	# de Piece Part #	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
			# de Piece Part #		# de Piece Part #		# de Piece Part #
3/4	IPD 075 BA		IPD 075 BS		IPD 075 BB		
1	IPD 100 BA		IPD 100 BS		IPD 100 BB		
1 1/4	IPD 125 BA		IPD 125 BS		IPD 125 BB		
1 1/2	IPD 150 BA		IPD 150 BS		IPD 150 BB		
2	IPD 200 BA		IPD 200 BS		IPD 200 BB		
2 1/2	IPD 250 BA		IPD 250 BS		IPD 250 BB		
3	IPD 300 BA		IPD 300 BS		IPD 300 BB		
4	IPD 400 BA		IPD 400 BS		IPD 400 BB		
5	IPD 500 BA		IPD 500 BS		IPD 500 BB		
6	IPD 600 BA		IPD 600 BS		IPD 600 BB		

Air

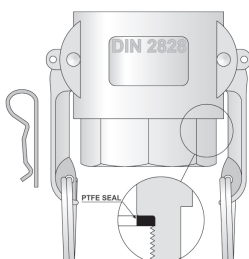
Part "C"
Shank Coupler

Grandeur/Size Inch/Pouce	# de Piece Part #	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
			# de Piece Part #		# de Piece Part #		# de Piece Part #
3/4	IPD 075 CA		IPD 075 CS		IPD 075 CB		
1	IPD 100 CA		IPD 100 CS		IPD 100 CB		
1 1/4	IPD 125 CA		IPD 125 CS		IPD 125 CB		
1 1/2	IPD 150 CA		IPD 150 CS		IPD 150 CB		
2	IPD 200 CA		IPD 200 CS		IPD 200 CB		
2 1/2	IPD 250 CA		IPD 250 CS		IPD 250 CB		
3	IPD 300 CA		IPD 300 CS		IPD 300 CB		
4	IPD 400 CA		IPD 400 CS		IPD 400 CB		
5	IPD 500 CA		IPD 500 CS		IPD 500 CB		
6	IPD 600 CA		IPD 600 CS		IPD 600 CB		

Shank

Brass

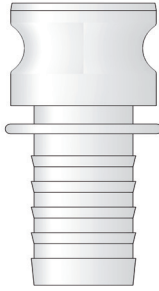
Part "D" Coupler



Grandeur/Size Inch/Pouce	# de Piece Part #	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
			# de Piece Part #		# de Piece Part #		# de Piece Part #
3/4	IPD 075 DA		IPD 075 DS		IPD 075 DB		
1	IPD 100 DA		IPD 100 DS		IPD 100 DB		
1 1/4	IPD 125 DA		IPD 125 DS		IPD 125 DB		
1 1/2	IPD 150 DA		IPD 150 DS		IPD 150 DB		
2	IPD 200 DA		IPD 200 DS		IPD 200 DB		
2 1/2	IPD 250 DA		IPD 250 DS		IPD 250 DB		
3	IPD 300 DA		IPD 300 DS		IPD 300 DB		
4	IPD 400 DA		IPD 400 DS		IPD 400 DB		
5	IPD 500 DA		IPD 500 DS		IPD 500 DB		
6	IPD 600 DA		IPD 600 DS		IPD 600 DB		

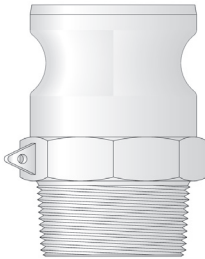
Clamp

Part "E" Shank Adaptor



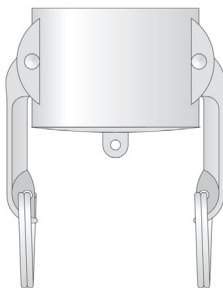
Grandeur/Size Inch/Pouce	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
	# de Piece Part #		# de Piece Part #		# de Piece Part #	
3/4	IPD 075 EA		IPD 075 ES		IPD 075 EB	
1	IPD 100 EA		IPD 100 ES		IPD 100 EB	
1 1/4	IPD 125 EA		IPD 125 ES		IPD 125 EB	
1 1/2	IPD 150 EA		IPD 150 ES		IPD 150 EB	
2	IPD 200 EA		IPD 200 ES		IPD 200 EB	
2 1/2	IPD 250 EA		IPD 250 ES		IPD 250 EB	
3	IPD 300 EA		IPD 300 ES		IPD 300 EB	
4	IPD 400 EA		IPD 400 ES		IPD 400 EB	
5	IPD 500 EA		IPD 500 ES		IPD 500 EB	
6	IPD 600 EA		IPD 600 ES		IPD 600 EB	

Part "F" Adaptor



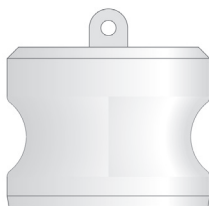
Grandeur/Size Inch/Pouce	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
	# de Piece Part #		# de Piece Part #		# de Piece Part #	
3/4	IPD 075 FA		IPD 075 FS		IPD 075 FB	
1	IPD 100 FA		IPD 100 FS		IPD 100 FB	
1 1/4	IPD 125 FA		IPD 125 FS		IPD 125 FB	
1 1/2	IPD 150 FA		IPD 150 FS		IPD 150 FB	
2	IPD 200 FA		IPD 200 FS		IPD 200 FB	
2 1/2	IPD 250 FA		IPD 250 FS		IPD 250 FB	
3	IPD 300 FA		IPD 300 FS		IPD 300 FB	
4	IPD 400 FA		IPD 400 FS		IPD 400 FB	
5	IPD 500 FA		IPD 500 FS		IPD 500 FB	
6	IPD 600 FA		IPD 600 FS		IPD 600 FB	

Dust Cap "DC"



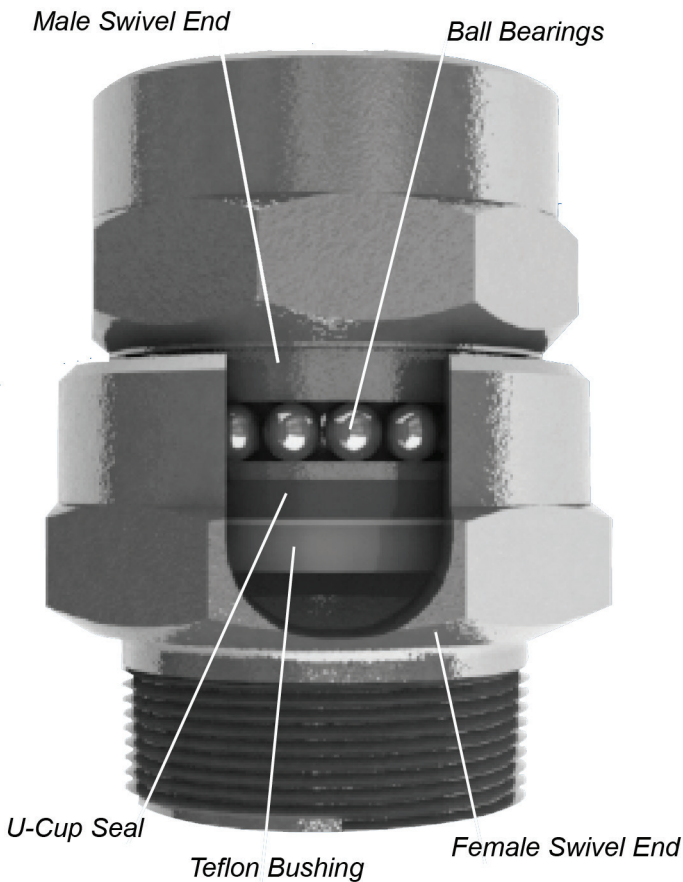
Grandeur/Size Inch/Pouce	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
	# de Piece Part #		# de Piece Part #		# de Piece Part #	
3/4	IPD 075 DCA		IPD 075 DCS		IPD 075 DCB	
1	IPD 100 DCA		IPD 100 DCS		IPD 100 DCB	
1 1/4	IPD 125 DCA		IPD 125 DCS		IPD 125 DCB	
1 1/2	IPD 150 DCA		IPD 150 DCS		IPD 150 DCB	
2	IPD 200 DCA		IPD 200 DCS		IPD 200 DCB	
2 1/2	IPD 250 DCA		IPD 250 DCS		IPD 250 DCB	
3	IPD 300 DCA		IPD 300 DCS		IPD 300 DCB	
4	IPD 400 DCA		IPD 400 DCS		IPD 400 DCB	
5	IPD 500 DCA		IPD 500 DCS		IPD 500 DCB	
6	IPD 600 DCA		IPD 600 DCS		IPD 600 DCB	

Dust Plug "DP"



Grandeur/Size Inch/Pouce	Aluminum/ Aluminium		Stainless Steel/ Acier inox. 316		Brass/Laiton	
	# de Piece Part #		# de Piece Part #		# de Piece Part #	
3/4	IPD 075 DPA		IPD 075 DPS		IPD 075 DPB	
1	IPD 100 DPA		IPD 100 DPS		IPD 100 DPB	
1 1/4	IPD 125 DPA		IPD 125 DPS		IPD 125 DPB	
1 1/2	IPD 150 DPA		IPD 150 DPS		IPD 150 DPB	
2	IPD 200 DPA		IPD 200 DPS		IPD 200 DPB	
2 1/2	IPD 250 DPA		IPD 250 DPS		IPD 250 DPB	
3	IPD 300 DPA		IPD 300 DPS		IPD 300 DPB	
4	IPD 400 DPA		IPD 400 DPS		IPD 400 DPB	
5	IPD 500 DPA		IPD 500 DPS		IPD 500 DPB	
6	IPD 600 DPA		IPD 600 DPS		IPD 600 DPB	

Versatile Swivel System



With the new line of Ball Bearing swivels from PT Coupling Co. you finally have the ability to choose the swivel that best fits your application. PT Coupling Co. is offering a new concept of interchangeable components in swivel design. Now the choice is up to you on what exactly you want on each end of the swivel. Choose from over 5 different designs on the female Swivel end and over 8 different designs on the male swivel end. This gives you 40 plus combinations of swivels per size. The swivels will come to you assembled.

The swivels are made with stainless steel ball bearings. Body materials available are aluminum, stainless steel and others upon request. U-Cup Seal Materials available are Buna fuel, Viton and others upon request. The sizes currently offered range from 1.25" all the way up to 6". The pressure ratings on the swivels are the same as our standard cam and groove fittings. We do not recommend that these swivels be used in a vacuum applications.

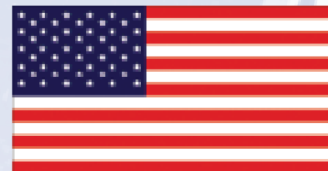
Versatile Swivel System (VERSA Swivel)

Assemblies

PART NUMBER	DESCRIPTION
##FFSV	Female Thread x Female Thread
##FSSV	Female Thread x Hose Shank
##FWSSV	Female Thread x Socket Weld
##FWBSV	Female Thread x Butt Weld
##FGSV	Female Thread x Groove (Vict)
##MFSV	Male Thread x Female Thread
##MMSV	Male Thread x Male Thread
##MSSV	Male Thread x Hose Shank
##MWSSV	Male Thread x Socket Weld
##MWBSV	Male Thread x Butt Weld
##MGSV	Male Thread x Groove (Vict)
##ASV	Male Cam and Groove x Female Thread
##FSV	Male Cam and Groove x Male Thread
##ESV	Male Cam and Groove x Hose Shank
##AWSSV	Male Cam and Groove x Socket Weld
##AWBSV	Male Cam and Groove x Butt Weld
##AGSV	Male Cam and Groove x Groove (Vict)
##DSV	Female Cam and Groove x Female Thread
##BSV	Female Cam and Groove x Male Thread
##CSV	Female Cam and Groove x Hose Shank
##DWSSV	Female Cam and Groove x Socket Weld
##DWBSV	Female Cam and Groove x Butt Weld
##DGSV	Female Cam and Groove x Groove (Vict)
PF##FSV	Pipe Flange x Female Thread
PF##MSV	Pipe Flange x Male Thread
PF##ASV	Pipe Flange x Male Cam and Groove
PF##CSV	Pipe Flange x Female Cam and Groove
PF##SSV	Pipe Flange x Hose Shank
TTF##FSV	TTMA Flange x Female Thread
TTF##MSV	TTMA Flange x Male Thread
TTF##ASV	TTMA Flange x Male Cam and Groove
TTF##CSV	TTMA Flange x Female Cam and Groove
TTF##SSV	TTMA Flange x Hose Shank
##HMSV	Hose Shank x Hose Shank
##WSSSV	Hose Shank x Socket Weld
##WBSSV	Hose Shank x Butt Weld
##SGSV	Hose Shank x Groove (Vict)

Repair Kits

PART NUMBER	DESCRIPTION
5019012	12SV SWVL REP KIT-VITON
5019015	15SV SWVL REP KIT-VITON
5019020	20SV SWVL REP KIT-VITON
5019025	25SV SWVL REP KIT-VITON
5019030	30SV SWVL REP KIT-VITON
5019040	40SV SWVL REP KIT-VITON
5019050	50SV SWVL REP KIT-VITON
5019060	60SV SWVL REP KIT-VITON
5018012	12SV SWVL REP KIT-BUNA
5018015	15SV SWVL REP KIT-BUNA
5018020	20SV SWVL REP KIT-BUNA
5018025	25SV SWVL REP KIT-BUNA
5018030	30SV SWVL REP KIT-BUNA
5018040	40SV SWVL REP KIT-BUNA
5018050	50SV SWVL REP KIT-BUNA
5018060	60SV SWVL REP KIT-BUNA

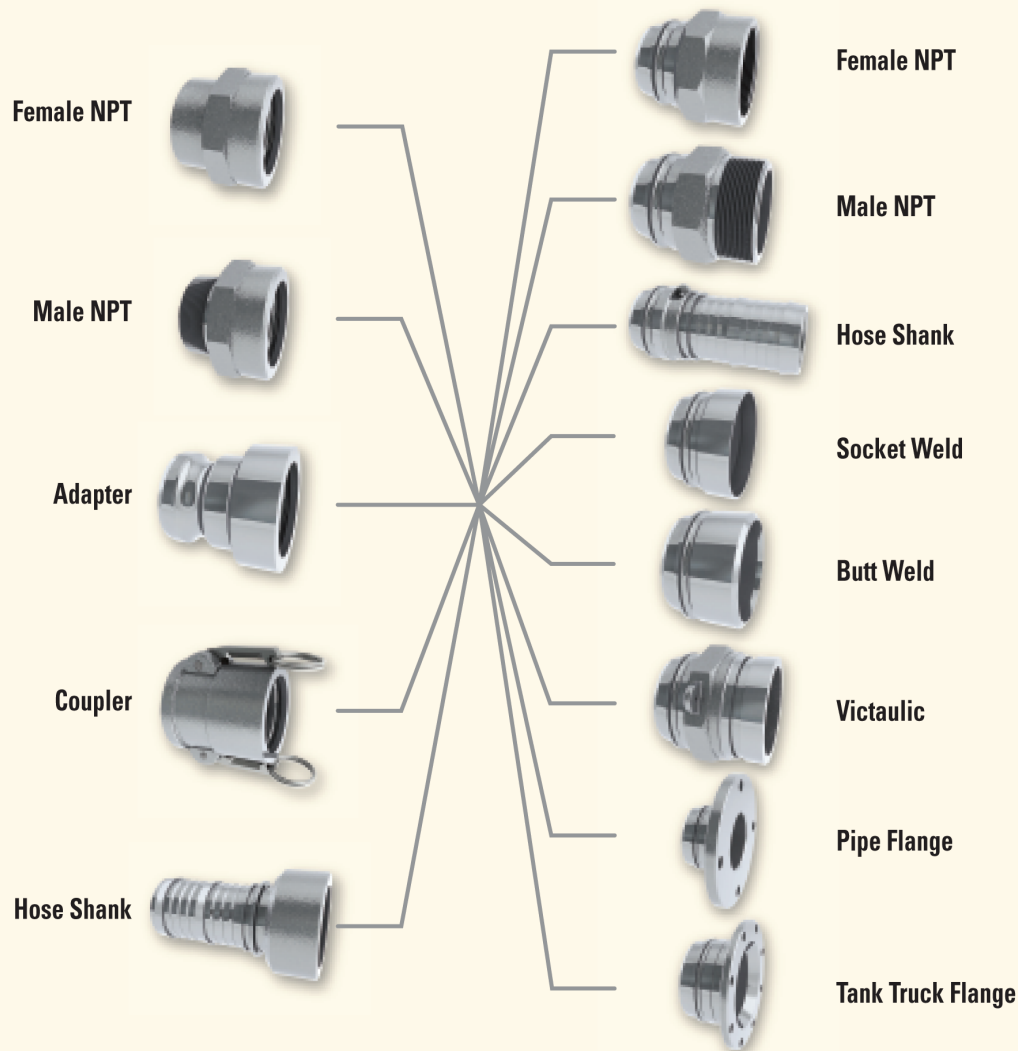


Support American Made Products

Versatile Swivel System

Female Swivel End

Male Swivel End



To order complete swivel assembly, choose a size, a female swivel end, a male swivel end, a body material, and a gasket material.

Example: 30MFSV ALUM BUNA

VERSATILE SWIVEL ASSEMBLY NAMING CHART

FEMALE SWIVEL END

MALE SWIVEL END

	FEMALE NPT THREAD	MALE NPT THREAD	HOSE SHANK	SOCKET WELD	BUTT WELD	GROOVE (VICT)	PIPE FLANGE	TANK TRUCK FLG.
FEMALE NPT THREAD	##FFSV	##MFSV	##FSSV	##FWSSV	##FWBSV	##FGSV	PF##FSV	TTF##FSV
MALE NPT THREAD		##MMSV	##MSSV	##MWSSV	##MWBSV	##MGSV	PF##MSV	TTF##MSV
ADAPTER	##ASV	##FSV	##ESV	##AWSSV	##AWBSV	##AGSV	PF##ASV	TTF##ASV
COUPLER	##DSV	##BSV	##CSV	##DWSSV	##DWBSV	##CGSV	PF##CSV	TTF##CSV
HOSE SHANK			##HMSV	##SWSSV	##SWBSV	##SGSV	PF##SSV	TTF##SSV

SIZES	1.25"	1.5"	2"	2.5"	3"	4"	5"	6"
PT DESCRIPTION SIZES	12	15	20	25	30	40	50	60
BODY MATERIALS	ALUMINUM				STAINLESS STEEL			
GASKET MATERIALS	BUNA				VITON			

COMBINATION NIPPLE

Male NPT - Helical hose shank for composite hose



Part #	Hose ID	Thread in	Thread Type	Material
I1228100-050060	50	2	NPT	PLATED STEEL
I1228100-080090	80	3	NPT	PLATED STEEL
I1228100-100114	100	4	NPT	PLATED STEEL

Part #	Hose ID	Thread in	Thread Type	Material
I1328100-050060	50	2	NPT	S/S 316
I1328100-080090	80	3	NPT	S/S 316
I1328100-100114	100	4	NPT	S/S 316

LUGGED COUPLING

Pin lug swivel female BSP - Helical hose shank for composite hose



Part #	Hose ID	Thread in	Thread Type	Material
I728L206-050060	50	2	BSP	BRONZE
I728L206-080090	80	3	BSP	BRONZE
I728L206-100114	100	4	BSP	BRONZE

LUGGED COUPLING

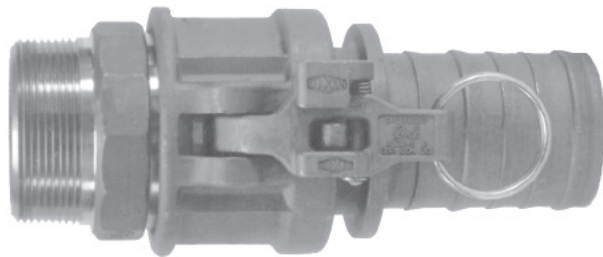
Lug male BSP - Helical hose shank for composite hose



Part #	Hose ID	Thread in	Thread Type	Material
I728L106-050060	50	2	BSP	BRONZE
I728L106-080090	80	3	BSP	BRONZE
I728L106-100114	100	4	BSP	BRONZE

EZ Boss-Lock

No more fumbling with clamps, wire, clips or pins.
Just close the handles and the locking
mechanism is engaged.

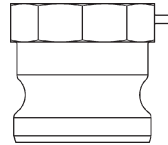


Unlike other safety couplings . . .

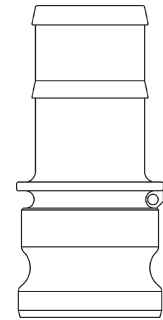
- *The EZ Boss-Lock is extremely easy to open!!!*
The release lever is under your thumb when you want to open the fitting. Ergonomic.
- *The EZ Boss-Lock is resistant to accidental disconnection when being dragged.* The release lever opens in the direction opposite to the cam arm, so movements that tend to open the release lever also tend to close the cam arm!!!
- *The EZ Boss-Lock alerts you if it is not properly engaged.* If the rotating lever is not flush with the handle, it is not properly engaged.
- *The EZ Boss-Lock has no sliding pins to jam.* The EZ Boss-Lock's rotating action helps keep the locking device free of debris.
- *The EZ Boss-Lock has no sliding pins to pop open.* The EZ Boss-Lock is designed to protect critical parts from impact and to withstand rugged use.
- *The EZ Boss-Lock can be supplied with special shanks custom suited to your needs.* The EZ Boss-Lock is available with swaged and PF shank designs for hard to couple chemical hoses.
- *The EZ Boss-Lock cam arm assemblies are made of investment cast stainless steel with plated carbon steel pull rings.*
- *The EZ Boss-Lock is easier to insert into the hose tubes on tank trucks, and easier to use in restricted spaces.* This is due to the smaller maximum OD and a more snag free exterior.
- *The EZ Boss-Lock cam arm assemblies can be retrofitted onto undamaged stainless steel Boss-Lock.* This allows you to protect your investment in stainless steel Boss-Lock couplings while you upgrade.
- *The EZ Boss-Lock is made in the USA.*

Cam and Groove Line Drawings

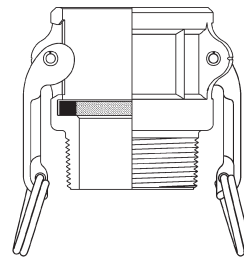
Line drawings are representative of the Dixon line of cam and groove.



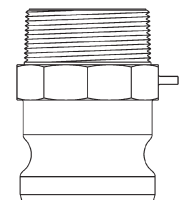
Type A
male adapter x female NPT



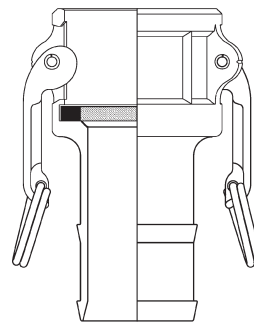
Type E
male adapter x hose shank



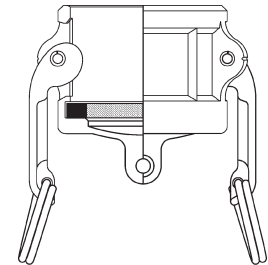
Type B
female coupler x male NPT



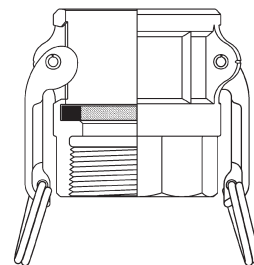
Type F
male adapter x male NPT



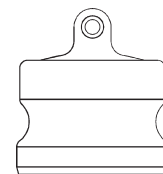
Type C
female coupler x hose shank



Type DC *
dust cap



Type D
female coupler x female NPT



Type DP *
dust plug

* Dust caps and dust plugs are **not** to be used in pressure applications for safety and environmental reasons.

Warning !

Under no circumstances should cam and groove couplings be used for compressed air or steam service!



Polypropylene Cam and Groove Adapters

SAFETY
ALERT

NOT recommended for use with Teflon® gaskets

- recommended for a maximum working pressure of **125 PSI** (½" - 1"), **100 PSI** (1¼" - 2") and **75 PSI** (3" - 4"); recommendations based on the use of mating Dixon fittings at an ambient temperature of **70°F** with standard seal installed
- ½" couplers and adapters will interchange with ¾" couplers and adapters. Only the threads and barbs are ½".
- 1¼" couplers and adapters will interchange with 1½" couplers and adapters. Only the threads and barbs are 1¼".
- Polypropylene cam and groove should not be mixed with aluminum fittings.
- Adapters are manufactured from a glass-filled polypropylene.

SAFETY
ALERT

¹ Dust caps and dust plugs are not to be used in pressure applications for safety and environmental reasons.

SAFETY
ALERT

Tank Truck

Boss



female NPT x male adapter

type A

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPA50	24
¾"	PPA75	24
1"	PPA100	24
1½" x 1¼"	PPA125	24
1½"	PPA150	24
2"	PPA200	24
3"	PPA300	24
4"	PPA400	8



male NPT x male adapter

type F

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPF50	24
¾"	PPF75	24
1"	PPF100	24
1½" x 1¼"	PPF125	24
1½"	PPF150	24
2"	PPF200	24
3"	PPF300	24
4"	PPF400	8

Air



hose shank x male adapter

type E

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPE50	24
¾"	PPE75	24
1"	PPE100	24
1½" x 1¼"	PPE125	24
1½"	PPE150	24
2"	PPE200	24
3"	PPE300	24
4"	PPE400	8

dust plug¹type P¹

Size	Polypropylene Part #	Opt Qty
¾"	PPP75	24
1"	PPP100	24
1½"	PPP150	24
2"	PPP200	24
3"	PPP300	24
4"	PPP400	8

Shank

Polypropylene Adapter Elbows

- recommended for a maximum working pressure of **100 PSI** (1½" - 2"); recommendations based on the use of mating Dixon fittings at an ambient temperature of **70°F** with standard seal installed.
- Adapter elbows are manufactured from a glass-filled polypropylene.
- For use at elevated temperatures or other unusual operating conditions, consult factory.

SAFETY
ALERT

Brass



male adapter x female NPT

90° elbow x FNPT

Size	Polypropylene Part #	Opt Qty
1½"	90PPA150	24
2"	90PPA200	24



male adapter x male NPT

90° elbow x MNPT

Size	Polypropylene Part #	Opt Qty
1½"	90PPF150	24
2"	90PPF200	24

Clamp

Polypropylene Cam and Groove Couplers

NOT recommended for use with Teflon® gaskets

**SAFETY
ALERT**

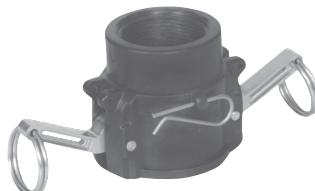
- recommended for a maximum working pressure of **125 PSI** (½" - 1"), **100 PSI** (1¼" - 2") and **75 PSI** (3" - 4"); recommendations based on the use of mating Dixon fittings at an ambient temperature of **70°F** with standard seal installed.
- ½" couplers and adapters will interchange with ¾" couplers and adapters. Only the threads and barbs are ½".
- 1¼" couplers and adapters will interchange with 1½" couplers and adapters. Only the threads and barbs are 1¼".
- Polypropylene cam and groove should not be mixed with aluminum fittings. **SAFETY ALERT**
- supplied with EPDM gaskets, 304 stainless steel handles and pins
- Couplers are manufactured from a glass-filled polypropylene.

**SAFETY
ALERT**

- Dust caps and dust plugs are not to be used in pressure applications for safety and environmental reasons.
- 4" coupler has 3 handles

type D

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPD50	24
¾"	PPD75	24
1"	PPD100	24
1½" x 1¼"	PPD125	24
1½"	PPD150	24
2"	PPD200	24
3"	PPD300	24
4"	PPD400²	8



female NPT x female coupler

type B

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPB50	24
¾"	PPB75	24
1"	PPB100	24
1½" x 1¼"	PPB125	24
1½"	PPB150	24
2"	PPB200	24
3"	PPB300	24
4"	PPB400²	8



male NPT x female coupler

type C

Size	Polypropylene Part #	Opt Qty
¾" x ½"	PPC50	24
¾"	PPC75	24
1"	PPC100	24
1½" x 1¼"	PPC125	24
1½"	PPC150	24
2"	PPC200	24
3"	PPC300	24
4"	PPC400²	8



hose shank x female coupler

type H¹

Size	Polypropylene Part #	Opt Qty
¾"	PPH75	24
1"	PPH100	24
1½"	PPH150	24
2"	PPH200	24
3"	PPH300	24
4"	PPH400²	8



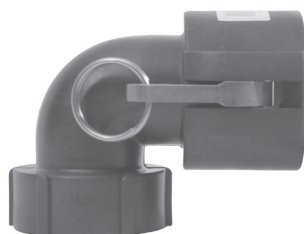
dust cap¹

Polypropylene Coupler Elbows

- recommended for a maximum working pressure of **100 PSI** (1½" - 2"); recommendations based on the use of mating Dixon fittings at an ambient temperature of **70°F** with standard seal installed.
- Coupler elbows are manufactured from a glass-filled polypropylene.
- Supplied with EPDM gaskets, 304 stainless steel handles and pins.
- For use at elevated temperatures or other unusual operating conditions, consult factory. **SAFETY ALERT**

FNPT x 90° Elbow

Size	Polypropylene Part #	Opt Qty
1½"	90PPD150	24
2"	90PPD200	24



female NPT x female coupler

Hose Shank x 90° Elbow

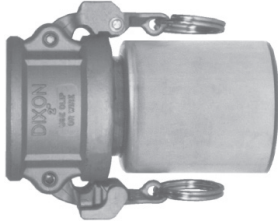
Size	Polypropylene Part #	Opt Qty
1½"	90PPC150	24
2"	90PPC200	24



hose shank x female coupler

Swaged Cam and Groove

- Developed specifically for chemical transport hoses having Crosslinked Polyethylene (XLPE) or Ultra High Molecular Weight Polyethylene (UHMW) tubes. Swaged Boss-Lock provides you with a permanently attached Cam and Groove fitting when superior coupling retention is required.
- In testing tank transport hoses from a wide variety of manufacturers, the swaged Boss-Lock fitting proved itself to be the clear winner in overall performance.
- Fittings are also available on special order for other sizes or hose OD's. Consult the factory for pricing and availability.
- Consult the factory for pricing and availability of the *special equipment required for installation*.

SAFETY
ALERT

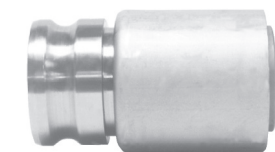
coupler x hose shank with ferrule

EZ Boss-Lock type C Coupler with Ferrule

Size	Hose OD		316 Stainless Steel
	from	to	Part #
3/4"	1-6/64"	1-22/64"	RC075EZ-70
1"	1-29/64"	1-35/64"	RC100EZ-20
1"	1-36/64"	1-44/64"	RC100EZ-70

Boss-Lock type E Adapter with Ferrule

Size	Hose OD		316 Stainless Steel
	from	to	Part #
3/4"	1-6/64"	1-22/64"	RE075-1370
1"	1-29/64"	1-35/64"	RE100-1620
1"	1-36/64"	1-44/64"	RE100-1770



adapter x hose shank with ferrule

Crimp Sleeves

- The hose OD ranges for the crimp sleeves are the same as for Dixon's standard cam and groove notched ferrules.
- The crimp sleeve is not designed to be used in applications where the assembly is exposed to high temperatures.
- Carbon steel is also available. Contact the factory for pricing and availability.



Size	Hose OD		304 Stainless Steel
	from	to	Part #
2"	2-30/64"	2-44/64"	GCS2709
3"	3-30/64"	3-46/64"	GCS3760

Dixon stems and ferrules are specifically designed to be used together as a coupling system. Due to differences in dimensions and tolerances for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT

Notched Ferrules

Size	Hose OD		304 Stainless Steel
	from	to	Part #
1 1/2"	1-60/64"	2-12/64"	GAS2334NO
1 1/2"	2-4/64"	2-22/64"	GAS2370NO
2"	2-30/64"	2-44/64"	GAS2709NO
2"	2-42/64"	2-54/64"	GAS2885NO
3"	3-30/64"	3-46/64"	GAS3760NO
3"	3-47/64"	3-54/64"	GAS3885NO
4"	4-40/64"	4-47/64"	GAS5010NO

Dixon stems and ferrules are specifically designed to be used together as a coupling system. Due to differences in dimensions and tolerances for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT

Notched Cam and Groove

- The largest advantage of the notched EZ Boss-Lock design is that the coupling can be removed from a damaged hose by cutting away the ferrule, without necessarily damaging the fitting. After inspection to of the fitting determine its suitability for reuse, it can be reinstalled into another hose by using a *new ferrule*.
- The notched EZ Boss-Lock system allows you to better manage your inventories. You can stock one coupling and two ferrules, and cover the same hose range with less inventory. *You must purchase a fitting and the matching ferrule to create an assembly.*

SAFETY
ALERT

Dixon stems and ferrules are specifically designed to be used together as a coupling system. Due to differences in dimensions and tolerances for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT

Couplers

EZ Boss-Lock type C

Size	316 Stainless Steel Part #
1½"	RC150EZNO
2"	RC200EZNO
3"	RC300EZNO
4"	RC400EZNO

Boss-Lock type C

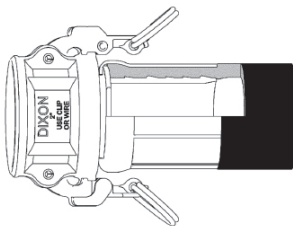
Size	316 Stainless Steel Part #
1½"	RC150BLNO
2"	RC200BLNO
3"	RC300BLNO
4"	RC400BLNO



female coupler x
notched hose shank



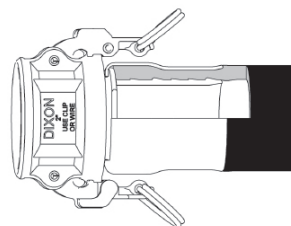
female coupler x
notched hose shank



crimped assembly

SAFETY
ALERT

Contact the factory for swage
and crimp recommendations.

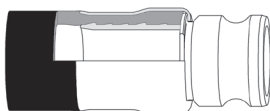


swaged assembly

Adapters

Boss-Lock type E

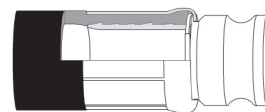
Size	316 Stainless Steel Part #
1½"	RE150NO
2"	RE200NO
3"	RE300NO
4"	RE400NO



swaged assembly

SAFETY
ALERT

Contact the factory for swage
and crimp recommendations.



crimped assembly



male adapter x
notched hose shank

Boss-Lock PF Cam and Groove



female coupler x PF hose shank

- The shank design on these fittings was developed specifically for chemical transport hoses having Crosslinked Polyethylene (XLPE) or Ultra High Molecular Weight Polyethylene (UHMW) tubes, where shank retention can be a problem when using conventional band clamps. In testing tank transport hoses from a wide variety of manufacturers, the Boss-Lock-PF fitting showed significant improvement in hose coupling retention over the conventional cam and groove shank design.
- Other sizes are available on special order. Consult the factory for pricing and availability.
- For best results we recommend the use of 3/4" wide band clamps found on pages 312 and 313.

Tank Truck

Boss

Air

Shank

Brass

Clamp



male adapter x PF hose shank

type C coupler x special hose shank

Size	Stainless Steel Part #	Opt Qty
2"	RC200EZPF	10
3"	RC300EZPF	5

type E adapter x special hose shank

Size	Stainless Steel Part #	Opt Qty
2"	RE200PF	10

Dixon Tank Car Adapters

- standard 5" Railroad Tank Car thread

Size	Aluminum Part #	Brass Part #	Iron Part #	Stainless Steel Part #
2"	200-TCA-AL	---	---	200-TCA-SS
3"	300-TCA-AL	300-TCA-BR	300-TCA-MI	300-TCA-SS
4"	400-TCA-AL	400-TCA-BR	---	400-TCA-SS



railroad thread x male adapter

Stainless steel adapters are not compatible with the aluminum and brass adapters.



- standard 5" Railroad Tank Car thread
- 45° tank car swivel adapter
- unit has a long handle brass swivel nut and a swivel retaining ring

Size	Aluminum Part #
4"	40A-45TCAL



swivel railroad thread x 45° male adapter

Dixon Railroad Tank Car Gaskets

Old Style

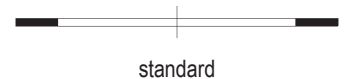
- for use with Dixon fittings

Size	OD	ID	THK	Material	Part #
5"	5-1/4"	3-1/2"	3/16"	leather	G9

Standard

- for use with Dixon fittings

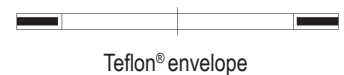
Size	OD	ID	THK	Material	Part #
5"	5-1/4"	3-7/8"	1/8"	Buna-N	500GTCABU
5"	5-1/4"	3-7/8"	1/8"	Viton®	500GTCAVI



Teflon® Envelope

- for use with Dixon fittings
- may be too thick for insertion in some older Dixon fittings

Size	OD	ID	THK	Material	Part #
5"	5-1/4"	3-13/16"	3/16"	Teflon® with Buna-N filler	500GTCATF
5"	5-1/4"	3-13/16"	3/16"	Teflon® with Viton® filler	500GTCATV



Railroad Tank Car Connections

Style S

railroad thread swivel nut
x 20° hose shank

- all swivel nuts have standard 5" Railroad Tank Car Thread
- all sizes 20° below horizontal, except 3" threaded, which is 30° below horizontal
- Tank car connections are also available in other materials and in 2" and 2½" sizes. Consult factory for pricing and availability.

Shank Size	Swivel Nut	Iron Part #	Aluminum Part #
3"	5"	TCS30	ATCS30
4"	5"	TCS40	ATCS40

Style T

railroad thread swivel nut
x 30° male NPT

Male NPT	Swivel Nut	Iron Part #	Aluminum Part #
3"	5"	TCT30	ATCT30
4"	5"	TCT40	ATCT40

Style T

railroad thread swivel nut
x 30° male NPT

- Stainless steel railroad tank car connections are not compatible with aluminum and brass.

Male NPT	Swivel Nut	Stainless Steel Part #
3"	5"	RTCT30
4"	5"	RTCT40

Style A

railroad thread swivel nut
x 20° adapter

Adapter	Swivel Nut	Stainless Steel Part #
3"	5"	RTCA30
4"	5"	RTCA40¹

¹ Parts are produced as a welded fabrication.

Wrenches

Pin Lug



- used on aluminum and iron

Iron
Part #
G10

Long Handle



- used on stainless steel

Iron
Part #
LHW

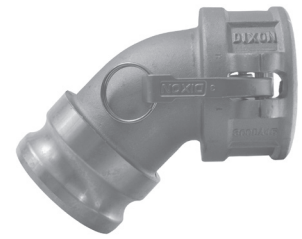
Cam and Groove x Cam and Groove Elbows

45° Elbows

adapter x coupler

Size	Aluminum Part #	Stainless Steel Part #
2"	200DA-45AL ¹	200DA-45SS ¹
3"	300DA-45AL	300DA-45SS ¹
4"	400DA-45AL	400DA-45SS ¹
6"	600DA-45AL	---

¹ Parts are produced as a welded fabrication.



male adapter x female coupler

coupler x coupler

Size	Aluminum Part #	Stainless Steel Part #
2"	200DD-45AL	---
3"	300DD-45AL	300DD-45SS
4"	400DD-45AL	---
6"	600DD-45AL	---

Parts are produced as a welded fabrication.



female coupler x female coupler

90° Elbows

adapter x coupler

Size	Aluminum Part #	Stainless Steel Part #
1"	---	100DA-90SS ¹
1½"	150DA-90AL ¹	150DA-90SS ¹
2"	200DA-90AL	200DA-90SS
3"	300DA-90AL	300DA-90SS
4"	400DA-90AL	400DA-90SS
5"	500DA-90AL ¹	---
6"	600DA-90AL	---
6"	---	RDA90600EZ ^{1,2}

¹ Parts are produced as a welded fabrication.

² EZ Boss-Lock design (not pictured)



male adapter x female coupler

coupler x coupler

Size	Aluminum Part #	Stainless Steel Part #
2"	200DD-90AL	---
3"	300DD-90AL	300DD-90SS
4"	400DD-90AL	---
6"	600DD-90AL	---

Parts are produced as a welded fabrication.



female coupler x female coupler

Cam and Groove Elbows

Type A

adapter x female NPT 90° elbow



male adapter x female NPT

Size	Aluminum	Stainless Steel
	Part #	Part #
1½"	150A-90AL	---
2"	200A-90AL	200A-90SS ¹
3"	300A-90AL	300A-90SS
4"	400A-90AL	---

¹ Parts are produced as a welded fabrication.

Type D

coupler x female NPT 90° elbow



female coupler x female NPT

Size	Aluminum	Brass	Stainless Steel
	Part #	Part #	Part #
1"	---	---	100D-90SS
1¼"	---	125D-90BR	---
1½"	150D-90AL	150D-90BR	---
2"	200D-90AL	200D-90BR	200D-90SS
2½"	---	---	---
3"	300D-90AL	---	300D-90SS
4"	400D-90AL	---	400D-90SS ¹
4"	AD90400EZ ²	---	---
6"	600D-90AL	---	---

¹ Parts are produced as a welded fabrication.² EZ Boss-Lock design (not pictured)

Type E

adapter x hose shank 90° elbow



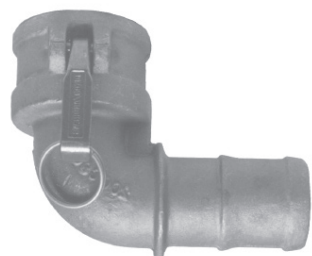
male adapter x hose shank

Size	Aluminum	Stainless Steel
	Part #	Part #
2"	---	200E-90SS ¹
3"	300E-90AL	300E-90SS
4"	400E-90AL	400E-90SS ¹
6"	600E-90AL ¹	---

¹ Parts are produced as a welded fabrication.

Type C

coupler x hose shank 90° elbow



female coupler x hose shank

Size	Aluminum	Brass	Stainless Steel
	Part #	Part #	Part #
1¼"	---	125C-90BR	---
1½"	150C-90AL	---	150C-90SS
2"	200C-90AL	200C-90BR	200C-90SS
3"	300C-90AL	---	300C-90SS
4"	400C-90AL	---	400C-90SS ¹
6"	600C-90AL	---	---

¹ Parts are produced as a welded fabrication.

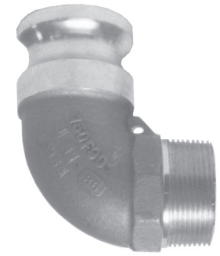
Cam and Groove Elbows

Type F

adapter x male NPT 90° elbow

Size	Aluminum Part #	Stainless Steel Part #
1½"	150F-90AL	---
2"	200F-90AL	200F-90SS ¹
3"	---	300F-90SS ¹

¹ Parts are produced as a welded fabrication.



male adapter x male NPT

Type B

adapter x male NPT 90° elbow

Size	Aluminum Part #	Stainless Steel Part #
1½"	150B-90AL	---
2"	200B-90AL	200B-90SS ¹
3"	---	300B-90SS ¹

¹ Parts are produced as a welded fabrication.



female coupler x male NPT

Holedall

Sanitary

Fire Hose

Valves

Pipe & Welding

Maintenance & Repair

PTFE Hose & Fittings

Reducing Cam and Groove Couplings

In reducing couplings, the coupler or adapter is the first size (i.e., a 4030-C-AL is a 4" coupler to a 3" hose shank).

Type A

adapter x female NPT



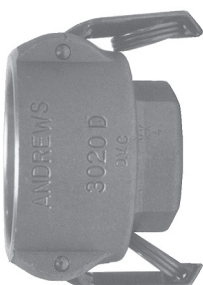
reducing
male adapter x female NPT

Size	Aluminum Part #	Opt Qty	Stainless Steel Part #	Opt Qty
2" x 1½"	2015-A-AL	--	2015-A-SS ¹	--
2" x 3"	2030-A-AL	10	2030-A-SS	10
3" x 2"	3020-A-AL	5	3020-A-SS	10
3" x 4"	3040-A-AL	10	---	--
4" x 3"	4030-A-AL	10	4030-A-SS ¹	--
4" x 6"	4060-A-AL	5	---	--
6" x 4"	6040-A-AL	5	6040-A-SS ¹	--

¹ Parts are produced as a welded fabrication.

Type D

coupler x female NPT



reducing
female coupler x female NPT

Size	Aluminum Part #	Opt Qty	Brass Part #	Stainless Steel Part #
1½" x 1"	1510-D-AL ¹	10	---	1510-D-SS ¹
2" x 1½"	2015-D-AL	10	---	2015-D-SS
3" x 2"	3020-D-AL	10	---	3020-D-SS
4" x 3"	4030-D-AL	10	4030-D-BR	4030-D-SS ¹
5" x 4"	5040-D-AL ¹	--	---	---
6" x 4"	6040-D-AL ¹	--	---	---

¹ Parts are produced as a welded fabrication.

Type E

adapter x hose shank



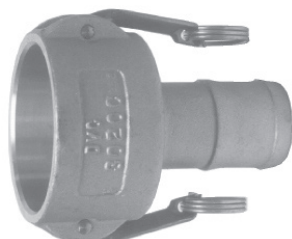
reducing
male adapter x hose shank

Size	Aluminum Part #	Opt Qty	Stainless Steel Part #
2" x 1½"	2015-E-AL ¹	--	2015-E-SS ¹
3" x 2"	---	--	3020-E-SS ¹
3" x 2½"	---	--	3025-E-SS
4" x 3"	4030-E-AL	10	4030-E-SS ¹
5" x 4"	5040-E-AL ¹	--	---

¹ Parts are produced as a welded fabrication.

Type C

coupler x hose shank



reducing
female coupler x hose shank

Size	Aluminum Part #	Opt Qty	Stainless Steel Part #
2" x 1½"	2015-C-AL ¹	--	2015-C-SS ¹
3" x 2"	3020-C-AL	10	3020-C-SS
3" x 2½"	---	--	3025-C-SS
3" x 4"	3040-C-AL	5	---
4" x 3"	4030-C-AL	5	4030-C-SS ¹
5" x 4"	5040-C-AL ¹	--	---

¹ Parts are produced as a welded fabrication.

Reducing Cam and Groove Couplings

In reducing cam and groove couplings, the coupler is the first size (i.e., a 4030-DA-AL is a 4" coupler to a 3" adapter).

¹ Parts are produced as a welded fabrication.

² The 8" coupler has 4 cam arms and *does not interchange*.



3" coupler x 1½" adapter



4" coupler x 6" adapter



3" coupler x 2½" adapter



5" coupler x 6" adapter

coupler x adapter

Size	Aluminum Part #	Opt Qty	Stainless Steel Part #
1" x 1½"	1015-DA-AL ¹	--	1015-DA-SS ¹
1½" x 1"	1510-DA-AL	--	1510-DA-SS ¹
1½" x 2"	1520-DA-AL	10	1520-DA-SS
2" x 1"	2010-DA-AL ¹	--	2010-DA-SS ¹
2" x 1½"	2015-DA-AL	10	2015-DA-SS
2" x 2½"	2025-DA-AL ¹	--	2025-DA-SS ¹
2" x 3"	2030-DA-AL	5	2030-DA-SS
2" x 4"	2040-DA-AL	--	2040-DA-SS ¹
2½" x 2"	---	--	2520-DA-SS ¹
2½" x 3"	---	--	2530-DA-SS ¹
3" x 1½"	3015-DA-AL	--	3015-DA-SS ¹
3" x 2"	3020-DA-AL	10	3020-DA-SS
3" x 2½"	3025-DA-AL ¹	--	3025-DA-SS ¹
3" x 4"	3040-DA-AL	5	3040-DA-SS
3" x 6"	3060-DA-AL ¹	--	3060-DA-SS ¹
4" x 2"	4020-DA-AL	5	4020-DA-SS ¹
4" x 2½"	4025-DA-AL	--	4025-DA-SS ¹
4" x 3"	4030-DA-AL	5	4030-DA-SS
4" x 5"	4050-DA-AL	2	---
4" x 6"	4060-DA-AL	2	4060-DA-SS ¹
5" x 3"	5030-DA-AL ¹	2	5030-DA-SS ¹
5" x 4"	5040-DA-AL	2	5040-DA-SS ¹
5" x 6"	5060-DA-AL ¹	--	5060-DA-SS
6" x 3"	6030-DA-AL	2	6030-DA-SS ¹
6" x 4"	6040-DA-AL	2	6040-DA-SS
6" x 5"	6050-DA-AL	--	6050-DA-SS ¹
8" x 6"	8060-DA-AL ^{1,2}	--	---

Size	Aluminum Hard Coat Part #	Brass Part #	Opt Qty	Iron Part #	Opt Qty
3" x 2"	3020-DA-ALH	3020-DA-BR	10	3020-DA-MI	10
3" x 4"	---	3040-DA-BR	5	---	--
4" x 3"	4030-DA-ALH	4030-DA-BR	2	4030-DA-MI	--
6" x 4"	---	6040-DA-BR	--	6040-DA-MI	--

Reducing Couplers x Adapters with Port



Size	Tap Size	Stainless Steel Part #
3" x 2"	1/4"	3020DAT25SS
3" x 2"	3/8"	3020DAT38SS
3" x 2"	1/2"	3020DAT50SS
3" x 2"	3/4"	3020DAT75SS

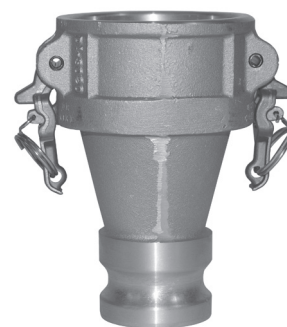
Boss-Lock Reducing Cam and Groove Couplings

In reducing cam and groove couplings, the coupler is the first size (i.e., a 4030-DA-AL is a 4" coupler to a 3" adapter).

¹ Parts are produced as a welded fabrication.

² The 8" coupler *does not interchange*.

Size	Aluminum Part #	Stainless Steel Part #	Opt Qty
2" x 3"	ADA2030 ¹	RDA2030BL	10
2½" x 2"	ADA2520 ¹	---	--
2½" x 3"	ADA2530 ¹	---	--
3" x 2"	ADA3020	RDA3020BL	10
3" x 4"	ADA3040 ¹	RDA3040BL	10
4" x 2"	ADA4020 ¹	RDA4020BL	10
4" x 3"	ADA4030	RDA4030BL	10
6" x 4"	ADA6040 ¹	---	--
8" x 6"	ADA8060 ^{1,2}	---	--



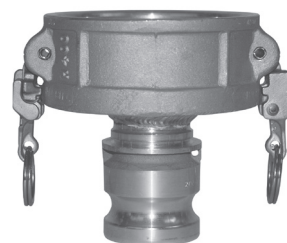
3" coupler x 2" adapter

EZ Boss-Lock Reducing Cam and Groove Couplings

In reducing cam and groove couplings, the coupler is the first size (i.e., a 4030-DA-AL is a 4" coupler to a 3" adapter).

¹ Parts are produced as a welded fabrication.

Size	Aluminum Part #	Stainless Steel Part #
2" x 3"	ADA2030EZ ¹	RDA2030EZ ¹
3" x 2"	ADA3020EZ	RDA3020EZ
3" x 4"	ADA3040EZ ¹	RDA3040EZ ¹
4" x 2"	ADA4020EZ ¹	RDA4020EZ ¹
4" x 3"	ADA4030EZ	RDA4030EZ
6" x 4"	ADA6040EZ ¹	RDA6040EZ



4" coupler x 2" adapter

Lockable Dust Caps

Size	Aluminum Part #	Opt Qty	Brass Part #	Opt Qty
1½"	150DC-LAL	10	150DC-LBR	10
2"	200DC-LAL	10	200DC-LBR	10
3"	300DC-LAL	10	300DC-LBR	10
4"	400DC-LAL	10	400DC-LBR	10
6"	600DC-LAL	2	---	--



- with angled, ergonomic thumb release

Size	Stainless Steel Part #
1½"	150DC-LSS
2"	200DC-LSS
3"	300DC-LSS
4"	400DC-LSS



Spool Adapters



increaser / reducer



same size

Size	Aluminum Part #	Stainless Steel Part #
1"	---	100-AA-SS
1¼"	---	125-AA-SS ¹
1½"	150-AA-AL	150-AA-SS
1½" x 2"	1520-AA-AL	1520-AA-SS
2"	200-AA-AL	200-AA-SS
2" x 3"	2030-AA-AL	2030-AA-SS
2" x 4"	2040-AA-AL	2040-AA-SS ¹
2½" x 3"	2530-AA-AL ¹	2530-AA-SS ¹
2½" x 4"	2540-AA-AL ¹	---
3"	300-AA-AL	300-AA-SS
3" x 4"	3040-AA-AL	3040-AA-SS ¹
4"	400-AA-AL	400-AA-SS
4" x 5"	4050-AA-AL	---
4" x 6"	4060-AA-AL	4060-AA-SS ¹
5"	500-AA-AL ¹	500-AA-SS ¹
5" x 6"	5060-AA-AL ¹	---
6"	600-AA-AL	600-AA-SS ¹
<i>Brass</i>		
Size	Part #	
2"	200-AA-BR	
3"	300-AA-BR	

¹ Parts are produced as a welded fabrication.

Spool Couplers



reducer / increaser



same size

Size	Aluminum Part #	Stainless Steel Part #
1½"	---	150-DD-SS ¹
2"	200-DD-AL	200-DD-SS
2" x 3"	2030-DD-AL	2030-DD-SS
3"	300-DD-AL	300-DD-SS
3" x 4"	3040-DD-AL	3040-DD-SS ¹
4"	400-DD-AL	400-DD-SS ¹
4" x 5"	4050-DD-AL ¹	4050-DD-SS ¹
4" x 6"	4060-DD-AL ¹	4060-DD-SS
5"	500-DD-AL ¹	500-DD-SS
6"	600-DD-AL ¹	600-DD-SS

¹ Parts are produced as a welded fabrication.

Boss-Lock Spool Couplers



reducer /
increaser



same size

Size	Aluminum Part #	Stainless Steel Part #
2"	ADD200 ¹	RDD200EZ
2" x 3"	ADD2030 ¹	RDD2030EZ ¹
3"	ADD300 ¹	RDD300EZ ¹
3" x 4"	ADD3040 ¹	RDD3040EZ ¹
4"	ADD400 ¹	RDD400EZ ¹
6"	---	RDD600EZ ¹

¹ Parts are produced as a welded fabrication.

Adapters and Couplers x 150# Flanged Drilling

See page 567 for flange drilling standards.

adapter x 150# flange

Size	Aluminum Part #	Stainless Steel Part #	Stainless Steel Part #
1"	---	---	100-AL-SS
1½"	---	---	150-AL-SS
2"	IPD200-ADA-XFLG	---	200-AL-SS
3"	IPD300-ADA-XFLG	300-AL-MI	300-AL-SS
4"	IPD400-ADA-XFLG	---	400-AL-SS
6"	IPD600-ADA-XFLG	---	600-AL-SS
8"	IPD800-ADA-XFLG	---	---



adapter x 150# ASA flange

Boss-Lock coupler x 150# flange

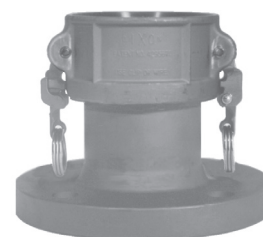
Size	Aluminum Part #	Stainless Steel Part #
1"	---	100-DL-SS
1½"	---	150-DL-SS
2"	IPD200-CPL-XFLG	200-DL-SS
3"	IPD300-CPL-XFLG	300-DL-SS
4"	IPD400-CPL-XFLG	400-DL-SS
6"	IPD600-CPL-XFLG	600-DL-SS
8"	IPD800-CPL-XFLG	---



coupler x 150# ASA flange

EZ Boss-Lock coupler x 150# flange

Size	Stainless Steel Part #
1"	RDL100EZ ¹
1½"	RDL150EZ ¹
2"	RDL200EZ
3"	RDL300EZ ¹
4"	RDL400EZ ¹
6"	RDL600EZ ¹

EZ Boss-Lock coupler
x 150# ASA flange¹ Parts are produced as a welded fabrication.

In-Line Sight Glass for Bulk Transfer

Designed for dry bulk transfer hose. Includes aluminum bodies, Buna seals, acrylic sight glasses, stainless steel hardware and bronze cam arms (where applicable).

coupler x adapter

Size	Part #
4" x 4"	3544CA
3" x 3"	3533CA
4" x 3"	3543CA
3" x 4"	3534CA

adapter x adapter

Size	Part #
3" x 3"	3533AA
4" x 4"	3544AA
3" x 4"	3534AA

coupler x coupler

Size	Part #
4" x 4"	3544CC
3" x 3"	3533CC
4" x 3"	3543CC



Adapters and Couplers with Straight Pipe Thread (NPSM)

- for delivery of dry goods
- Cork buna gaskets are standard in threaded end.
Replacement gasket; **400GAGFI**, \$4.30



adapter

Size	Aluminum Part #
4"	400-AS-AL



Boss-Lock coupler

Size	Aluminum Part #
4"	ADS400

TTMA Series Flange Adapters

- The TTMA pattern bolts quickly and easily to standard 4" TTMA flanges and provides a 3" or 4" male or female NPT thread.
- adapter provides a simple and easy way to convert threaded components to a standard TTMA flange configuration
- made of lightweight, solid cast aluminum that is more durable than welded fabrications
- design improves flow through adapter even on the 3" reducer
- compact size reduces the overall space needed to install the adapter
- see page 567 for flange drilling standards

Male Threaded



TTMA flange x male NPT

TTMA flange x standard male NPT

TTMA Flange	Male NPT	Aluminum Part #	Aluminum - hardcoated Part #
3"	3"	TTF3AL-3MT	---
4"	3"	TTF4AL-3MT	TTF4ALHC-3MT
4"	4"	TTF4AL-4MT	TTF4ALHC-4MT

Extended Length - Male Threaded



TTMA flange x male NPT
extended length

TTMA flange x extended length male NPT

TTMA Flange	Male NPT	Aluminum Part #
4"	3"	TTF4AL-3EMT
4"	4"	TTF4AL-4EMT

Female Threaded



TTMA flange x female NPT

TTMA flange x female NPT

TTMA Flange	Female NPT	Aluminum Part #
4"	3"	TTF4AL-3FT
4"	4"	TTF4AL-4FT

Dixon Adapters and Couplers x Round Tank Truck Flange

Enquire for flange drilling standards.

adapter x round tank truck flange

Size	Aluminum Part #	Stainless Steel Part #
3"	300-ALT-AL	300-ALT-SS ¹
3" x 4"	3040ALTAL	---
4"	400-ALT-AL	400-ALT-SS ¹
6"	600-ALT-AL	---

¹ Parts are produced as a welded fabrication.



adapter x round tank truck flange

coupler x round tank truck flange

Size	Aluminum Part #
3"	300-DLT-AL
3" x 4"	3040DLTAL
4"	400-DLT-AL
6"	600-DLT-AL



coupler x round tank truck flange

Dixon 22½° Adapters and Couplers x Round Tank Truck Flange

22½° adapter x round tank truck flange

Size	Aluminum Part #
4"	40022ALTAL



22½° adapter x round flange

22½° coupler x round tank truck flange

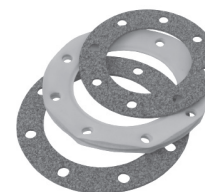
Size	Aluminum Part #
4"	40022DLTAL



22½° coupler x round flange

Round Tank Truck Flange Gaskets

Size	OD	ID	THK	Material	Part #
3"	5-5/8"	3-1/2"	1/8"	Cork / Buna	300GTTFCB
3"	5-5/8"	3-1/2"	1/16"	Teflon® envelope with Klinger filler	300GTTFTK
3"	5-5/8"	3-1/2"	1/8"	Klingersil® C-4401	300GTTFK
4"	6-5/8"	4-9/16"	1/8"	Cork / Buna	400GTTFCB
4"	6-5/8"	4-9/16"	1/16"	Teflon® envelope with Klinger filler	400GTTFTK
4"	6-5/8"	4-9/16"	1/8"	Klingersil® C-4401	400GTTFK



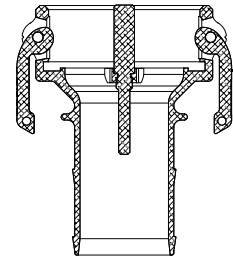
Dixon Vapor Recovery Couplers

- cast aluminum body
- bronze arms with stainless steel pins
- plated carbon steel finger rings
- Buna-N gasket



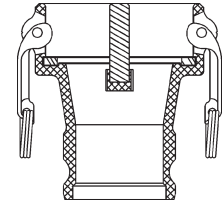
Coupler with Probe x Hose Shank

Coupler Size	Hose Shank Size	Aluminum Part #
4"	3"	4030-CVR-AL
4"	4"	400-CVR-AL



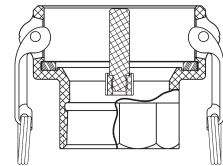
Coupler with Probe x Adapter

Coupler Size	Adapter Size	Aluminum Part #
4"	3"	4030-DAVR-AL



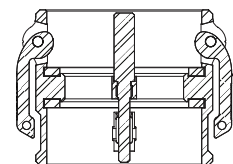
Coupler with Probe x Female NPT

Coupler Size	Female NPT Size	Aluminum Part #
4"	3"	4030-DVR-AL
4"	4"	400-DVR-AL



Coupler with Probe x Coupler with Probe

Coupler Size	Coupler Size	Aluminum Part #
4"	4"	400-DDVR-AL



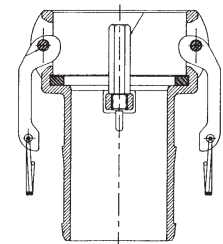
Dixon Bayco Vapor Recovery Couplers

- for use with 3" vapor hose
- cast aluminum body, bronze arms with stainless steel pins and finger rings
- Buna-N gasket
- The VR4030CS-AL has a Viton® O-ring poppet seal.
- *The Dixon replacement handle assemblies will not work on these fittings.* **SAFETY ALERT**



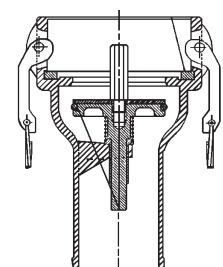
coupler with probe x hose shank

Coupler Size	Hose Shank Size	Aluminum Part #
3"	3"	VRC3000AL



coupler with poppet and probe x hose shank

Coupler Size	Hose Shank Size	Aluminum Part #
4"	3"	VR4030CS-AL¹



¹ The VR4030CS-AL will interchange with all competitor vapor valves except Civacon #633LVH (special bulb design). **SAFETY ALERT**

Dixon Standard Handle Assemblies



Size	Description	Brass Part #	Sintered Part #	Investment Part #
1/2"	cam arm and pin	---	50-HP-SP	---
3/4"	cam arm and pin	---	75-HP-SP	---
1"	cam arm and pin	---	100-HP-SP	---
1 1/4" thru 2 1/2"	cam arm, ring and pin	200-HRP-BR	200-HRP-SP	---
2"	cam arm, ring and pin	---	---	200-HSCRPI-SI
3"	cam arm, ring and pin	---	---	300-HSCRPI-SI
3" thru 5"	cam arm, ring and pin	300-HRP-BR	300-HRP-SP	---
3" thru 5"	cam arm, ring and short (1 1/2") pin	300-HR325P-BR	300-HR325P-SP	300-HR325P-SI
6"	cam arm, ring and pin	600-HRP-BR	---	600-HRP-SI
8"	cam arm and pin	800-HP-BR ¹	---	---
8"	cam arm and pin for new 8" couplers	800-HNP-BR	---	---

¹ Consult the factory for specifications when ordering replacement arms for 8" couplings. Stainless steel pins are standard with all assemblies. Pull rings are standard on 1 1/4" thru 6", optional on other sizes.

Locking Handle for Dixon Dust Caps

- not supplied with pins

Coupler Size	Hole Diameter	Brass Part #
2"	9/32"	200-LH-BR
3"	5/16"	300-LH-BR
4"	3/8"	400-LH-BR



Paddle Handle for Dixon Couplings

- not supplied with pins

Coupler Size	Brass Part #
3" and 4"	300H-PADBR



Coupler Size	316 Investment Cast Stainless Steel Part #
3" and 4"	300H-PADSS



Boss-Lock Standard Handle Assemblies

assembly includes cam arm, pin and pull ring safety clip

Size	Brass	Investment Cast Stainless Steel	Plated Iron
	Part #	Part #	Part #
3/4" - 1"	BHSC175	RHSC175	---
1 1/4" - 2 1/2"	BHSC152	RHSC152	IHSC152
3" and 4"	BHSC34	RHSC34	IHSC34



assembly includes cam arm, pin and pull ring

Size	Brass Part #	Plated Iron Part #
6" and 8"	BH6	IH6



EZ Boss-Lock Handles

- investment cast stainless steel cam arm and lever
- 316 stainless steel spring
- stainless steel pin, washer, plated carbon steel pull ring



Coupler Size	Stainless Steel Part #
3/4" - 1"	RHEZ175
1 1/4" - 2 1/2"	RHEZ152
3" and 4"	RHEZ34

SAFETY ALERT Under no circumstances should the EZ Boss-Lock cam arms be used on any fitting not specifically produced for their use. The aluminum, brass and iron are made from sand castings. To ensure proper functioning of the EZ Boss-Lock cam arm assemblies, we sort the castings to ensure there is sufficient length and orientation on the lugs on the main casting to engage the lever. We also buff or grind the rougher sand cast surface to ensure that the lever will move freely. The EZ Boss-Lock cam arms cannot be retrofitted onto existing aluminum, brass or plated iron Boss-Lock already in service.

Bayco Replacement Handle Assemblies

for Bayco couplers only

- stainless steel cam arm and pin
- ring *not included*



Coupler Size	Stainless Steel Part #
3/4"	75-HP-SP
1"	100-HP-SP

- brass cam arm
- carbon steel ring
- stainless steel pin

Coupler Size	Part #
1 1/4" thru 2 1/2"	CARP12BZ
3" thru 5"	CARP34BZ
6"	CARP60BZ
8"	CARP80BZ

Pull Ring Safety Clips for Boss-Lock Couplings



Coupler Size	Carbon Steel	Stainless Steel
	Part #	Part #
3/4" x 1"	---	100PRSCSS
1 1/4" to 2 1/2"	200PRSCCS	200PRSCSS
3" and 4"	300PRSCCS	300PRSCSS

Stainless Steel Pull Rings



304 Stainless Steel Part #
R200SS

Clips and Lanyard for Boss-Lock Couplings

- carbon steel clip
- nylon lanyard



Coupler Size	Part #
3/4" - 1"	ACL4
1 1/4" - 4"	ACL2



Coupler Size	Carbon Steel Part #
6"	ACL3

CAM & GROOVE FITTINGS

Carbon Steel Clip Assembly

- for use with Boss-Lock couplings
- includes a pull ring, chain and AC3 clip

Part #
BLCA152CS



Stainless Steel Clip and Lanyard for Boss-Lock Couplings

Part #
AC7



- 304 stainless
- breaking strength: 160 lbs.
- overall length: 7" eye to eye

Part #
LR7



Jack Chains with S-Hooks

Description	Part #	Opt Qty
6" brass	CH-B-6	10
12" brass	CH-B-12	10
24" brass	CH-B-24	--
12" carbon steel	CH-C-12	10
6" stainless	CH-SS-6	10
12" stainless	CH-SS-12	10
24" stainless	CH-SS-24	10



Sash Chains with Pull Rings

- brass chain, plated steel pull ring

Length	Part #
4½"	J125
6½"	J150
8½"	J300
12¾"	J500



PVC Coated Lanyards

- PVC coated carbon steel with aluminum crimp sleeves
- one end factory crimped, one end uncrimped for field installation

Length	Part #
15"	CAL15
25"	CAL25



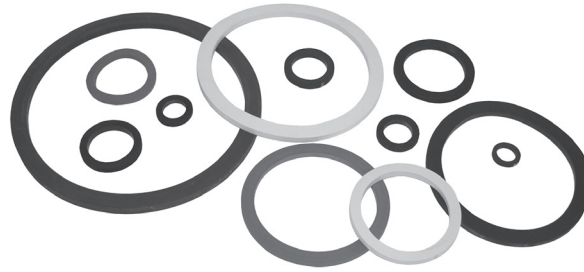
Hand Swager with Cutter

- for 1/16", 3/32" and 1/8" wire rope
- designed for crimping aluminum oval sleeves
- jaws are made of forged alloy steel
- provides a clean, sharp cut on wire rope

Part #
22-ST14C



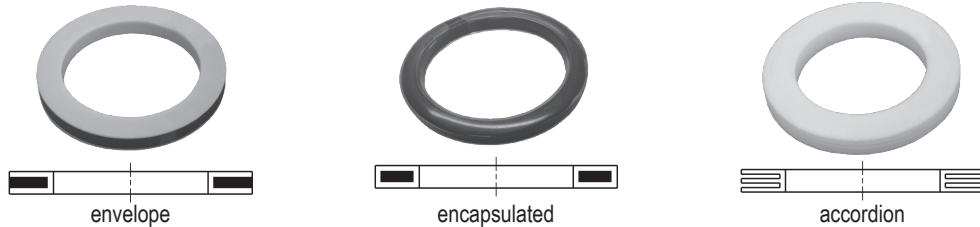
Cam and Groove Gaskets



- White neoprene and white Buna-N gaskets contain all FDA approved materials.

Size	Part #	Buna-N	Viton®-A	extra thick Buna-N	Ethylene Propylene	white Buna-N	Silicone
		-BU	-VI	-THK	-EPR	-WB	-SIL
1/2"	CAMWASHER-050						
3/4"	CAMWASHER-075						
1"	CAMWASHER-100						
1 1/4"	CAMWASHER-125						
1 1/2"	CAMWASHER-150						
2"	CAMWASHER-200						
2 1/2"	CAMWASHER-250						
3"	CAMWASHER-300						
4"	CAMWASHER-400						
5"	CAMWASHER-500						
6"	CAMWASHER-600						
8"	CAMWASHER-800						

Teflon® Gaskets



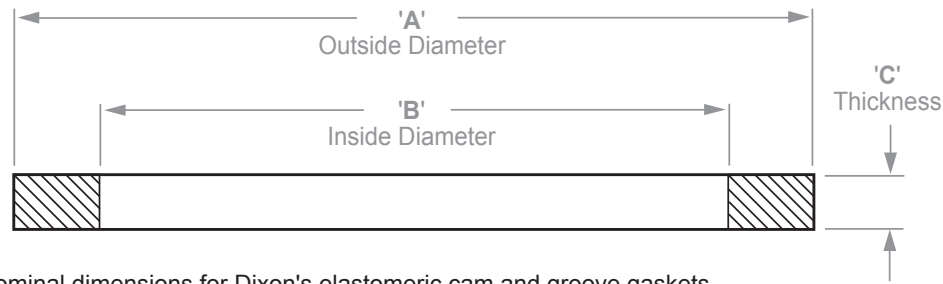
- Teflon® white Buna filler (TFWB) and Teflon® encapsulated silicone (TES) contain all FDA approved materials.
- Teflon® accordion gaskets (TFACC) are recommended for use with viscous (thick) fluids only.
- Encapsulated gasket pressure ratings are reduced to **125 PSI** for 1/2" - 2 1/2" at ambient temperature (**70°F**)
- Teflon® encapsulated Viton® (TEV) gaskets - maximum operating temperature **200°F**
- Teflon® encapsulated silicone gaskets (TES) gaskets - maximum operating temperature **225°F**
- Maximum operating temperatures for specific chemicals may be lower. Contact the Dixon Factory for specific recommendations.

**SAFETY
ALERT**

The torque (force) required to close the handles on a pair of cam and groove fittings will vary according to the gasket chosen. Due to the nature of the Teflon® material, the various Teflon® gasket designs will require the most torque, increasing as you go from envelope to encapsulated, and finally, accordion.

Size	Part #	Envelope		Encapsulated		Accordion		
		Teflon® Buna filler	Teflon® Viton® filler	Teflon® white Buna filler	Teflon® Ethylene Propylene filler	Teflon® encapsulated silicone	Teflon® encapsulated Viton®	Teflon® accordion
		-TF	-TFVI	-TFWB	-TFEP	-TES	-TEV	-TFACC
1/2"	50-G							
3/4"	75-G							
1"	100-G							
1 1/4"	125-G							
1 1/2"	150-G							
2"	200-G							
2 1/2"	250-G							
3"	300-G							
4"	400-G							
5"	500-G							
6"	600-G							

Dixon Cam and Groove Gasket Dimensions



- The following are the nominal dimensions for Dixon's elastomeric cam and groove gaskets.
- The ID's of the Teflon® envelope gaskets and the Teflon® accordion gaskets are $1/16''$ smaller than the ID's for the elastomeric gaskets shown below.
- Thicknesses of Teflon® accordion gaskets may vary from chart below.

Size	Part #	'A'	'B'	'C'
1/2"	50-G ¹	1-1/32"	11/16"	.156"
3/4"	75-G	1-3/8"	7/8"	.218"
1"	100-G	1-9/16"	1-1/16"	.250"
1 1/4"	125-G	1-15/16"	1-23/64"	.250"
1 1/2"	150-G	2-3/16"	1-5/8"	.250"
2"	200-G	2-5/8"	2"	.250"
2 1/2"	250-G	3-1/8"	2-3/8"	.250"
3"	300-G	3-23/32"	3"	.250"
4"	400-G	4-7/8"	4"	.250"
5"	500-G	5-15/16"	4-7/8"	.250"
6"	600-G	7-1/16"	6"	.250"
8"	800-G ¹	9-5/16"	8-1/8"	.343"

¹ No interchange standard exists for the 1/2" and 8" fittings. Generally, these sizes do not interchange with other manufacturer's products. As such, the gaskets in these sizes are not suitable for use in other manufacturers' couplings.

SAFETY
ALERT

Dixon Cam and Groove Gasket Color Codes

Gasket Code	Gasket Material	Material Color	Color code stripes (appear on the OD of the gasket or filler)
-BU	Buna-N (standard in all metal fittings)	black	1 blue
-VI	Viton®	black	1 yellow
-THK	Extra Thick Buna	black	2 blue
-EPR	Ethylene Propylene	black	1 white
-NE	Neoprene	black	1 red
-WNE	White Neoprene, FDA approved material	white	none
-WB	White Buna N, FDA approved material	white	blue
-SIL	Silicone	red	none
-TF	Teflon® (TFE) Envelope with Buna-N filler	white / black	1 blue
TFVI	Teflon® (TFE) Envelope with Viton® filler	white / black	1 yellow
TFWB	Teflon® (TFE) Envelope with White Buna-N filler, FDA approved materials	white / white	blue
TFEP	Teflon® (TFE) Envelope with Ethylene Propylene filler	white / black	1 white stripe
-TES	Teflon® (FEP) Encapsulated Silicone core, FDA approved materials	translucent / red	none
-TEV	Teflon® (FEP) Encapsulated Viton® core	translucent / black	none
TFACC	Teflon® (TFE) Accordion, FDA approved materials	white	none

Since other manufacturer's coding systems vary, this chart should not be used as a reference in identifying gaskets of unknown origin.

SAFETY
ALERT

Storz Fittings



- designed for applications where a non-valved, locking coupling is required
- machined from forged 6061 - T6 aluminum
- hardcoat anodized components per MIL-A-8625 Type III Class 1

- Buna-N gaskets
- working pressure: **150 PSI**
- stainless steel lock lever assembly on 4", 5" and 6"
- oversize heads allow pigging without disassembly on all sizes except 6" x 6"

Storz x Rigid Male NPT



Storz x Rigid Male NPT	Part #
1½" x 1" NPT	SZM1510T
2" x 1½" NPT	SZM2015T
4" x 3" NPT	SZM4030T
5" x 4" NPT	SZM5040T
6" x 6" NPT	SZM6060T

Storz x Rigid Female NPT



Storz x Rigid Female NPT	Part #
1½" x 1" NPT	SZF1510T
2" x 1½" NPT	SZF2015T
3" x 2" NPT	SZF3020T
4" x 3" NPT	SZF4030T
5" x 4" NPT	SZF5040T
6" x 6" NPT	SZF6060T

Continuous Swivel Storz x Rigid Female NPT



Storz x Continuous Swivel Female NPT	Part #
4" x 3" NPT	SZCSF4030T
5" x 4" NPT	SZCSF5040T
6" x 6" NPT	SZCSF6060T

Storz Dust Cap with Cable



Storz Cap	Part #
1½"	SZC150
2"	SZC200
3"	SZC300
4"	SZC400
5"	SZC500
6"	SZC600

Storz Gaskets

All Storz gasket faces should be kept free of sand, grit, etc. and lubricated with O-ring grease or silicone.

The pressure seals have a flat face ; while the suction seals have a beaded face

Storz Cap	Application	Part #
4"	pressure	SZG400P
4"	suction	SZG400S
5"	pressure	SZG500P
5"	suction	SZG500S
6"	pressure / suction	SZG600P

Safety Break-away Couplings - Breaking Bolt Series

NEW

Industrial Version

The breaking bolt industrial breakaway coupling is designed to minimize spillage and damage associated with drive away and pull away incidents

- coupling automatically senses an excessive load, closes the valves and disconnects
- simple mechanism, no loose components lost after release
- high flow rate / low pressure drop
- female NPT is standard, optional ANSI / DIN flanges are available
- stainless steel or aluminum
- working pressure: **230 PSI**
- Viton® is standard seal

Size	Width	Length	Weight in Lbs.		Flow Rate/ GPM
			stainless	aluminum	
2"	3.74"	5.63"	6.83	2.80	106
3"	5.04"	7.66"	15.65	9.03	290
4"	5.71"	8.66"	24.81	13.23	370

Size	DN	Stainless Steel	Aluminum
		Part #	Part #
2"	50	SBC200SS	SBC200AL
3"	80	SBC300SS	SBC300AL
4"	100	SBC400SS	SBC400AL



Marine Version

The breaking bolt marine version break-away coupling is designed to minimize spillage and damage associated with pull-away incidents.

- designed to be installed within a hose string where the coupling will have a length of hose attached to both sides
- typical applications include: ship-to-offshore platform and ship-to-ship product transfer operations
- coupling automatically senses an excessive load, closes the valves and disconnects
- release is executed when force causes bolts to break
- 316T1 stainless steel body with Viton® O-rings
- working pressure: **360 PSI**
- female NPT, both ends

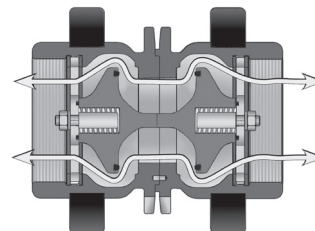
Size	Width	Length	Weight in Lbs.	Flow Rate/ GPM
2"	3.74"	5.63"	6.83	106
3"	5.04"	7.66"	15.65	290
4"	5.71"	8.66"	24.81	370

Size	DN	Stainless Steel
		Part #
2"	50	MSBC200SS
3"	80	MSBC300SS
4"	100	MSBC400SS

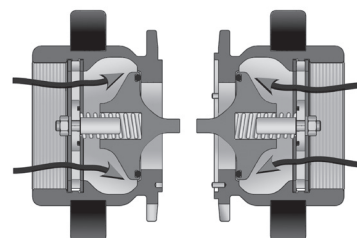


How it Works

The safety break-away valve consists of two halves, each with a valve that has a flat type-sealing surface similar to a dry disconnect coupling.



When the safety break-away couplings separate, it allows the poppets to close. The two poppets close rapidly, minimizing exposure to personnel and the environment.



Safety Break-away Couplings - Cable Release Series

Industrial Version



Cable release series break-away couplings are designed to minimize spillage and damage associated with drive away and pull-away incidents. Couplings feature a simple mechanism and no loose components to lose after release. In some applications the necessary force of the breaking bolts may be too high to prevent damage to loading arms or other pipe and equipment; under these conditions the use of cable release safety break-aways may be more suitable.

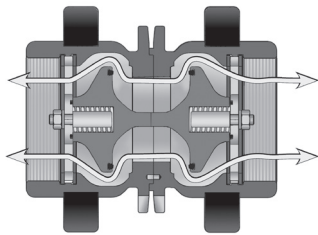
- coupling automatically senses an excessive load, closes the valves and disconnects
- release is executed by pulling out the locking bolts with the help of a cable
- when the coupling separates, the poppets close
- 316 T1 stainless steel body with Viton® O-rings
- working pressure: **360 PSI**



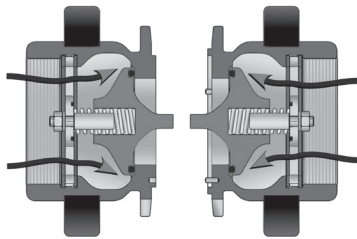
Size	Width	Length	Weight	Flow Rate/GPM
1½"	3.86"	5.59"	6.83 lbs	100
2"	4.33"	5.67"	9.15 lbs	132
3"	5.71"	7.68"	18.85 lbs	264
4"	7.28"	8.90"	35.49 lbs	396

Size	DN	Part #
1½"	40	SBC150SS-CR
2"	50	SBC200SS-CR
3"	80	SBC300SS-CR
4"	100	SBC400SS-CR

How it Works



The safety break-away valve consists of two halves, each with a valve that has a flat type-sealing surface similar to a dry disconnect coupling.



When the safety break-away couplings separate, it allows the poppets to close. The two poppets close rapidly, minimizing exposure to personnel and the environment.



Stainless Steel Hose Swivels

Swivel function - allows the hose to relax to its natural rest position while allowing freedom of movement without adding torque stress at the point of connection (torque stress is the largest single cause of composite, PTFE and stainless steel hose failure).



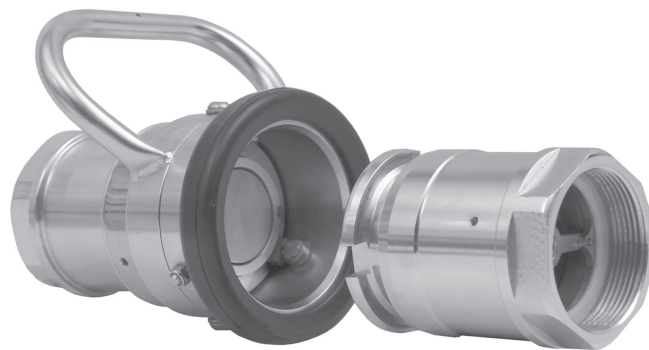
- simple design, low maintenance - each unit consists of two 316 stainless body halves, ball bearings and a washer
- Viton® seals are standard, Chemraz® and Kalrez® are optional
- working pressure: **150 PSI**

Size	Part #
¾"	HS075SS
1"	HS100SS
1½"	HS150SS
2"	HS200SS
3"	HS300SS
4"	HS400SS

Dry Disconnect Couplings

When your product is:

- expensive
- expensive to clean up
- expensive to reprocess or dispose
- hazardous to workers or the environment
- prone to accidental spillage and product loss



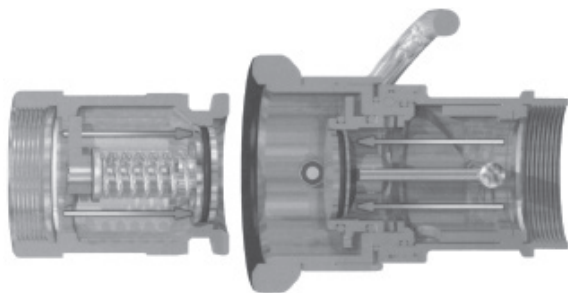
Dry disconnect couplings are designed for quick and spill free connection and disconnection of hoses and pipelines. They are used by producers of ink, adhesives, fatty acids, pharmaceuticals, liquid soaps, petroleum, chemicals, agricultural and a wide variety of common caustic and specialty acids.

- Easy to handle - push and turn - free flow, turn and pull - closed
- Time saving - no need to drain hoses or pipe systems
- Economical - no loss or spillage of liquids at connection or disconnection
- Safety - the valve cannot be opened until the unit is coupled
- Environment friendly - accidental spillage eliminated
- Safe and reliable - due to rugged construction
- Product life - uncomplicated design and high quality materials ensures longer product life
- Selectivity - To avoid product contamination caused by connecting a coupler to the wrong adapter, selective versions of the adapters are available. Contact the factory for further information.
- Working Pressure -
 - aluminum: **260 PSI**
 - brass/ gunmetal: **360 PSI**
 - stainless steel: **360 PSI**
- Optional seals:
 - EPDM
 - NBR - nitrile
 - Kalrez®
 - Chemraz®
 - Perlast®
- Seal kits are available

Interchanges with Avery Hardoll and Todo-matic®

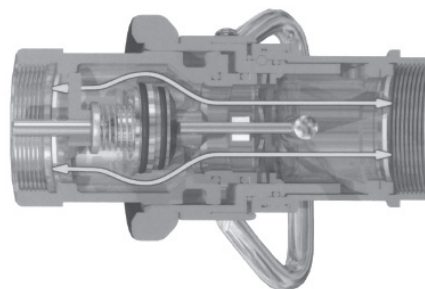
How it Works

The principle of operation is identical for all sizes of couplings.



Closed:

- Turn and pull
it's released - no spillage



Open:

- Push and turn
it's coupled - full flow

Dry Quick Disconnect Couplers

- coupler has built-in swivel
- stainless steel ball bearings
- shaft journal in stainless steel embedded in PTFE (Teflon®) to eliminate seizure
- riveted piston pin to minimize the risk for failure under extreme pressure conditions
- protecting ring is weather resistant rubber, electrically conductive
- all wetted parts are stainless steel
- rollers for the stainless steel units are Hastelloy C276 on the stainless steel shaft
- rollers for the aluminum and brass units are aluminum-bronze on the stainless steel shaft
- Composite (Polyeten PE-HD 300) plugs provide very good protection against corrosion, and withstand hot and cold environments.

Coupler - Hose Unit



3/4" and 1" design
aluminum



1 1/2" and 2" design
aluminum

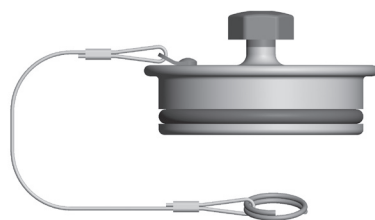


3" and 4" design
aluminum

dry quick disconnect couplers x female NPT with Viton® seals

Female NPT	Body Size	316 Stainless Steel Part #	Anodized Aluminum Part #	Brass / Gunmetal Part #
3/4"	56 mm	DDC075SS	DDC075AL	DDC075BR
1"	56 mm	DDC100SS	DDC100AL	DDC100BR
1 1/2"	70 mm	DDC150SS	DDC150AL	DDC150BR
2"	70 mm	DDC200SS	DDC200AL	DDC200BR
3"	105 mm	DDC300SS105	DDC300AL105	DDC300GM105
3"	119 mm	DDC300SS	DDC300AL	DDC300GM
4"	164 mm	DDC400SS	DDC400AL	DDC400GM
6"	238 mm	DDC600SS	DDC600AL	---

Dust Plugs for Couplers



Size	Body Size	Polyeten PE-HD 300 Part #
3/4" and 1"	56 mm	DDDP075
1 1/2" and 2"	70 mm	DDDP150
3"	105 mm	DDDP300105
3"	119 mm	DDDP300
4"	164 mm	DDDP400
6"	238 mm	DDDP600 *

* 6" dust plug is aluminum

Dry Quick Disconnect Adapters

- adapter is usually installed on the tank or manifold
- available in female NPT or 150# ASA flange
- conical valve seat eliminates the risk for "piston blow out"
- PTFE (Teflon®) bearing between the piston shaft and the piston guide eliminate the risk for seizure
- Composite (Polyeten PE-HD 300) caps provide very good protection against corrosion and withstand hot and cold environments.

Construction:

- aluminum adapter - aluminum poppet, stainless steel internal parts
- stainless steel adapter - stainless steel poppet, stainless steel internal parts
- brass / gunmetal adapter - brass poppet, brass and stainless steel internal parts

Adapter - Tank Unit

dry quick disconnect adapters x female NPT with Viton® seals

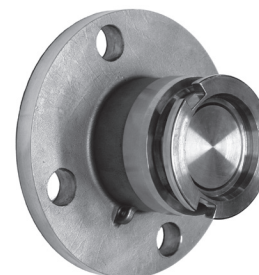
Female NPT	Body Size	316 Stainless Steel Part #	Anodized Aluminum Part #	Brass / Gunmetal Part #
¾"	56 mm	DDA075SS	DDA075AL	DDA075BR
1"	56 mm	DDA100SS	DDA100AL	DDA100BR
1½"	70 mm	DDA150SS	DDA150AL	DDA150BR
2"	70 mm	DDA200SS	DDA200AL	DDA200BR
3"	105 mm	DDA300SS105	DDA300AL105	DDA300GM105
3"	119 mm	DDA300SS	DDA300AL	DDA300GM
4"	164 mm	DDA400SS	DDA400AL	DDA400GM
6"	238 mm	DDA600SS	DDA600AL	---



female NPT x adapter

dry quick disconnect adapters x 150# ASA flange with Viton® seals

150# Flange	Body Size	316 Stainless Steel Part #	Anodized Aluminum Part #	Brass / Gunmetal Part #
¾"	56 mm	DDA075SSFL	---	---
1"	56 mm	DDA100SSFL	DDA100ALFL	DDA100BRFL
1½"	70 mm	DDA150SSFL	DDA150ALFL	DDA150BRFL
2"	70 mm	DDA200SSFL	DDA200ALFL	DDA200BRFL
3"	105 mm	DDA300SS105FL	DDA300AL105FL	DDA300GM105FL
3"	119 mm	DDA300SSFL	DDA300ALFL	DDA300GMFL
4"	164 mm	DDA400SSFL	DDA400ALFL	DDA400GMFL
6"	238 mm	DDA600SSFL	DDA600ALFL	---



150# flange x adapter

dry quick disconnect adapters x TTMA flange with Viton® seals

TTMA Flange	Body Size	Anodized Aluminum Part #
3"	105 mm	DDA300AL105TTMA
3"	119 mm	DDA300AL119TTMA
4"	164 mm	DDA400AL164TTMA



TTMA flange x adapter

Dust Caps for Adapters

Size	Body Size	Polyeten PE-HD 300 Part #
¾" and 1"	56 mm	DDDC075
1½" and 2"	70 mm	DDDC150
3"	105 mm	DDDC300105
3"	119 mm	DDDC300
4"	164 mm	DDDC400
6"	238 mm	DDDC600 *

* 6" dust plug is aluminum

Size	Body Size	Rubber Part #
1"	56 mm	DGDC100
2"	71 mm	DGDC200



dust cap composite



dust cap rubber

Dry Aviation Couplings

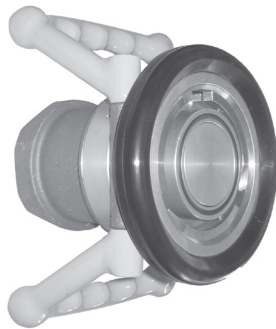
Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. **They are not configured for under-wing refueling.**

Technical Information:

- body: high strength aluminum
- coupling ring: gunmetal
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are in aluminum and stainless steel
- **150 PSI** working pressure
- Composite (Polyeten PE-HD 300) caps and plugs provide good protection against corrosion and withstand hot and cold environments.

Coupler - Hose Unit

- high strength aluminum body
- all wetted parts are aluminum and stainless steel
- electrically conductive, weather resistant rubber protective ring
- stainless steel ball bearings
- gunmetal coupling ring minimizes the risk of seizure
- stainless steel shaft journal embedded in PTFE (Teflon®) eliminate seizure
- PTFE (Teflon®) bearings between the driving plate and the piston guide eliminate the risk of seizure
- riveted piston pin minimizes the risk of failure under extreme pressure conditions



female thread x coupler

aviation couplers x female NPT with Viton® seals

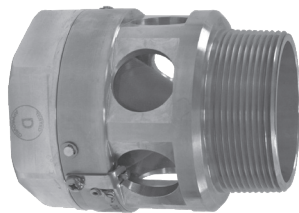
Female NPT	Body Size	Aluminum Part #
2½"	ISO 45	DAC250AL
3"	ISO 45	DAC300AL

aviation couplers x female BSP with Viton® seals

Female NPT	Body Size	Aluminum Part #
2½"	ISO 45	DAC250ALBSP
3"	ISO 45	DAC300ALBSP

Sight Flow Indicator with Filter / Screen

- filter / screen can be inspected through the sight glass
- filter / screen is easily removed if cleaning is required
- screen is 100 mesh



aviation sight flow indicator with filter / screen

Female Thread	Male Thread	Aluminum Part #
2½" NPT	2½" BSP	ASFI25T25B
3" NPT	3" BSP	ASFI30T30B
2½" NPT	2½" NPT	ASFI25T25T
3" NPT	3" NPT	ASFI30T30T

Dust Plugs for Couplers



Size	Body Size	Polyeten PE-HD 300 Part #
2½"	ISO 45	DADP250

Dry Aviation Couplings

Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. **They are not configured for under-wing refueling.**

Technical Information:

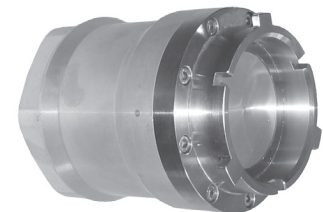
- body: high strength aluminum
- coupling ring: gunmetal
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are in aluminum and stainless steel
- 150 PSI** working pressure
- Composite (Polyeten PE-HD 300) caps and plugs provide good protection against corrosion and withstand hot and cold environments.

Adapter - Tank Unit

- high strength aluminum body
- inner parts are stainless steel
- PTFE (Teflon®) bearings between the piston shaft and the piston guide eliminate the risk of seizure
- conical valve seat eliminates the risk of "piston blow out" when extreme pressure is used

aviation couplers x female NPT with Viton® seals

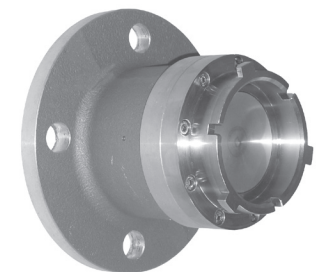
Female NPT	Body Size	Aluminum Part #
2½"	ISO 45	DAA250AL
3"	ISO 45	DAA300AL



female thread x adapter

aviation couplers x 150# ASA flange with Viton® seals

150# Flange	Body Size	Aluminum Part #
2½"	ISO 45	DAA250ALFL
3"	ISO 45	DAA300ALFL



150# flange x adapter

Dust Cap for Adapters

Size	Body Size	Polyeten PE-HD 300 Part #
2½"	ISO 45	DADC250



Dry Break Cam and Groove Dry Disconnect Couplings Couplers

- Dixon EZ Boss-Lock cam arms provide high security from accidental opening due to vibration or snagging
- heavy duty stainless steel crank and link provide long service life
- dry disconnect coupler has automatic closing poppet assembly
- stainless steel handle allows product exposure to corrosive chemicals or washdown service
- strong handle attachment prevents bending of crank assembly
- fully interchangeable with Kamvalok (OPW trademark) style fittings
- aluminum fittings have stainless steel¹ internals
- for pressure ratings at other temperatures, contact the factory

SAFETY

ALERT

Must be used with a DBA style adapter for coupler to operate. Adapter sold separately.

¹ stainless steel corrosion resistance is comparable to 304 stainless steel

² Chemraz[®] gasket, main seal O-ring and handle O-ring. Teflon[®] seals on cylinder assembly, stuffing box, and seal under poppet screw.

Coupler x Female NPT



1 1/2" and 2" coupler x female NPT



3" coupler x female NPT

Female NPT Size	Seal Material	Max. PSI at 70°	Aluminum Part #	Stainless Steel ¹ Part #
1 1/2"	Buna	210	DBC61-150	DBC71-150
2"	Buna	150	DBC61-200	DBC71-200
3"	Buna	120	DBC61-300	DBC71-300
1 1/2"	Viton [®]	210	DBC62-150	DBC72-150
2"	Viton [®]	150	DBC62-200	DBC72-200
3"	Viton [®]	120	DBC62-300	DBC72-300
1 1/2"	Teflon [®] Encapsulated Silicone & Kalrez [®]	210	DBC63-150	---
2"	Teflon [®] Encapsulated Silicone & Kalrez [®]	150	DBC63-200	---
3"	Teflon [®] Encapsulated Silicone & Kalrez [®]	120	DBC63-300	---
1 1/2"	Teflon [®] Encapsulated Silicone & Chemraz [®]	210	---	DBC73-150
2"	Teflon [®] Encapsulated Silicone & Chemraz [®]	150	---	DBC73-200
3"	Teflon [®] Encapsulated Silicone & Chemraz [®]	120	---	DBC73-300
1 1/2"	EPT	210	DBC64-150	DBC74-150
2"	EPT	150	DBC64-200	DBC74-200
3"	EPT	120	DBC64-300	DBC74-300
1 1/2"	Chemraz [®] and Teflon [®] ³	210	---	DBC76-150
2"	Chemraz [®] and Teflon [®] ³	150	DBC66-200	DBC76-200
3"	Chemraz [®] and Teflon [®] ³	120	---	DBC76-300
1 1/2"	Teflon [®] Encapsulated Viton [®] & Chemraz [®]	210	---	DBC77-150
2"	Teflon [®] Encapsulated Viton [®] & Chemraz [®]	150	---	DBC77-200
3"	Teflon [®] Encapsulated Viton [®] & Chemraz [®]	120	---	DBC77-300
3"	Viton [®] B	120	DBC69-300	DBC79-300

greaseless coupler x female NPT

Female NPT Size	Seal Material	Max. PSI at 70°	Stainless Steel ¹ Part #
1 1/2"	Teflon [®] Encapsulated Viton [®] & Chemraz [®]	210	DBC77-150-GL
2"	Teflon [®] Encapsulated Viton [®] & Chemraz [®]	150	DBC77-200-GL

coupler x 90° swivel female NPT



Female NPT Size	Seal Material	Max. PSI at 70°	Aluminum Part #
2"	Buna	150	DBS61-200
2"	Viton [®]	150	DBS62-200
2"	Teflon [®] Encapsulated Silicone & Kalrez [®]	150	DBS63-200

Locking Kit for Couplers



Description	Aluminum Part #
for use with 1 1/2" and 2" dry disconnect couplers	DBCL-200

Dry Break Cam and Groove Dry Disconnect Couplings

Compatible with most cam and groove style dry disconnects. The Bayco dry disconnect helps prevent spillage from normal or accidental disconnects. It has a spring loaded sealing device designed to "snap" closed should the valve become disconnected with the poppet open, significantly limiting liquid loss.

Our dry disconnect couplings are available in a wide range of sizes, metals, and seal materials. Contact the factory at 800-355-1991 for chemical compatibility, size, and material selection. Special configurations can be designed for your application.

Adapters

- two-piece adapter design for easy rebuilding of adapters
- fully interchangeable with Kamvalok (OPW trademark) style fittings
- aluminum fittings have aluminum nose piece and brass piston
- for pressure ratings at other temperatures, contact the factory

¹ stainless steel corrosion resistance is comparable to 304 stainless steel

adapter x female NPT

Female NPT Size	Seal Material	Max. PSI at 70°	Aluminum Part #	Stainless Steel ¹ Part #
1½"	Buna	210	DBA11-150	DBA71-150
2"	Buna	150	DBA11-200	DBA71-200
3"	Buna	120	DBA11-300	DBA71-300
1½"	Viton®	210	DBA12-150	DBA72-150
2"	Viton®	150	DBA12-200	DBA72-200
3"	Viton®	120	DBA12-300	DBA72-300
1½"	Teflon® Encapsulated Silicone	210	DBA63-150	DBA73-150
2"	Teflon® Encapsulated Silicone	150	DBA63-200	DBA73-200
3"	Teflon® Encapsulated Silicone	120	DBA63-300	DBA73-300
1½"	EPT	210	DBA64-150	DBA74-150
2"	EPT	150	DBA64-200	DBA74-200
3"	EPT	120	DBA64-300	DBA74-300
1½"	Chemraz®	210	DBA66-150	DBA76-150
2"	Chemraz®	150	DBA66-200	DBA76-200
3"	Chemraz®	120	DBA66-300	DBA76-300
1½"	Teflon® Encapsulated Viton®	210	---	DBA77-150
2"	Teflon® Encapsulated Viton®	150	---	DBA77-200
3"	Teflon® Encapsulated Viton®	120	DBA69-300	DBA77-300



1½" and 2" adapter



3" adapter

vapor adapter x female thread

Adapter Size	Female thread Size	Seal Material	Max. PSI at 70°	Stainless Steel ¹ Part #
2"	3"	Teflon®	150	DBAV73-2030



Dry Gas Couplings

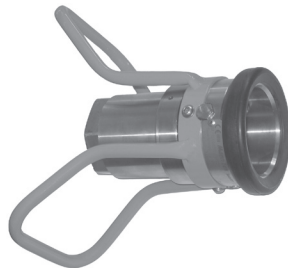
Dry gas couplings are designed for safe loading and discharge of bobtails or intermediate bulk delivery trucks. They are quick and easy to connect and can be connected to a tank unit with pressures up to **225 PSI**. If the pressure is higher you can equip the couplings with a pressure relief valve. The easy to connect pressure relief valve dissipates trapped fluid pressure into the hose coupler without spillage. The primary application of dry gas couplings is in the handling of LPG - Propane and Butane.

- safe handling of LPG
- easy to use and saves time
- reliable and easy to maintain
- can be coupled against higher pressure
- minimizes the risk of cold burns
- minimizes spillage and product loss
- minimizes health risks
- keeps the environment free of hazardous vapors and liquids
- compatible with existing dry disconnect couplings

Technical Information:

- stainless steel and brass / gunmetal
- NBR90 seals
- female NPT and ASA flanges
- **360 PSI** working pressure
- Composite (Polyeten PE-HD 300) caps and plugs provide good protection against corrosion and withstand hot and cold environments.

Coupler - Hose Unit



female NPT x coupler

dry gas couplers x female NPT with NBR90 seals

Female NPT	Body Size	Stainless Steel Part #
1"	56 mm	DGC100SS
2"	71 mm	DGC200SS
3"	119 mm	DGC300SS

Dust Plugs for Couplers



composite plugs for dry gas couplers

Size	Body Size	Polyeten PE-HD 300 Part #
1"	56 mm	DGDP100
2"	71 mm	DGDP200
3"	119 mm	DGDP300

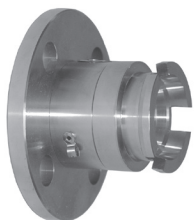
Adapter - Tank Unit



female NPT x adapter

dry gas adapters x female NPT with NBR90 seals

Female NPT	Body Size	Stainless Steel Part #
1"	56 mm	DGA100SS
2"	71 mm	DGA200SS
3"	119 mm	DGA300SS



150# flange x adapter

dry gas adapters x 150# ASA flange with NBR90 seals

150# Flange	Body Size	Stainless Steel Part #
1"	56 mm	DGA100SSFL
2"	71 mm	DGA200SSFL
3"	119 mm	DGA300SSFL

Dust Caps for Adapters

rubber caps for dry gas adapters



Size	Body Size	Rubber Part #
1"	56 mm	DGDC100
2"	71 mm	DGDC200
3"	119 mm	DGDC300

Tight Fill Couplers

Complete Units

- aluminum body
- brass handle and cam arms with buna gasket
- steel bolts on inlet end
- plexiglass sight flow insert with buna seals

Coupler Size	Inlet Size	Inlet Type	Aluminum Part #
3"	3"	male adapter	300300MAE
3"	4"	male adapter	3004030MAE
3"	3"	female coupler	300300FCE



Coupler body

plunger type handle

Size	Aluminum Part #
3"	300-TFG

Inlet Ends



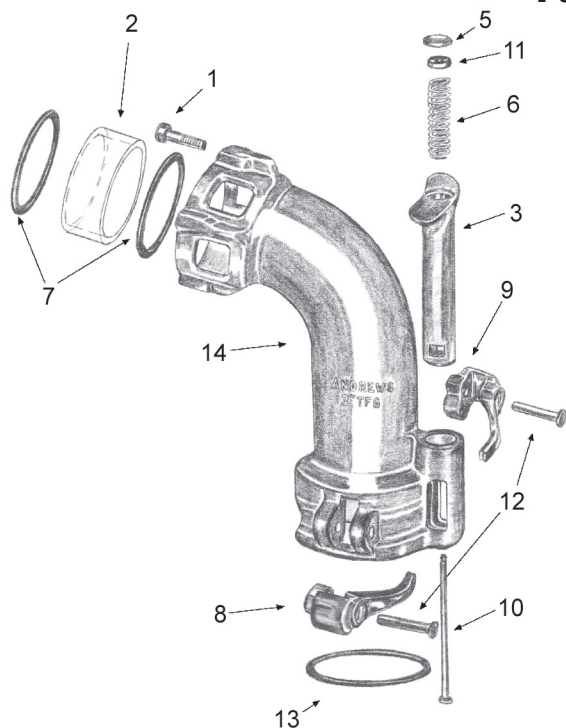
female coupler



male adapter

Inlet Size	Inlet Type	Aluminum Part #
3"	male adapter	300-MAE
4"	male adapter	4030-MAE
3"	female coupler	300-FCE

Parts List



Item #	Description	Part #
1	screw-inlet end	P3-TFG-1
2	plexiglass-shell only	P3-TFG-2
3	plunger	P3-TFG-3
4	full grip plunger	P3-TFG-4
5	plunger cap	P3-TFG-5
6	spring	P3-TFG-6
7	plexiglass gasket	P3-TFG-7
8	right cam arm	P3-TFG-8
9	left cam arm	P3-TFG-9
10	rod	P3-TFG-10
11	disc	P3-TFG-11
12	pin	300-P
13	coupler gasket	300-G-BU
14	body	P3-TFG-13

Drop Elbows

- modular cast aluminum construction
- stainless steel bolts on inlet end
- brass handle and cam arms with buna gasket
- acrylic sight glass with buna seals

'D' type handle

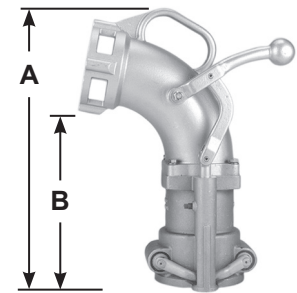
Size	Inlet Type	'A' Overall Height	'B' Ground Clearance	Aluminum Part #
4"	<i>no inlet</i>	17-3/4"	10-7/8"	6000
4"	male adapter inlet only	17-3/4"	10-7/8"	6000A
4"	anti-spill tube, <i>no inlet</i>	17-3/4"	10-7/8"	6000T
4"	female coupler inlet only	17-3/4"	10-7/8"	6000D
4"	anti-spill tube & female coupler inlet	17-3/4"	10-7/8"	6000DT



drop elbow with 'D' handle
no inlet

'Side Lever' type handle

Size	Inlet Type	'A' Overall Height	'B' Ground Clearance	Aluminum Part #
4"	<i>no inlet</i>	17-3/4"	10-7/8"	6200
4"	male adapter inlet only	17-3/4"	10-7/8"	6200A
4"	anti-spill tube, <i>no inlet</i>	17-3/4"	10-7/8"	6200T
4"	female coupler inlet only	17-3/4"	10-7/8"	6200D
4"	anti-spill tube & female coupler inlet	17-3/4"	10-7/8"	6200DT



drop elbow with side lever
no inlet

'Side Lever' type handle - extended body

Size	Inlet Type	'A' Overall Height	'B' Ground Clearance	Aluminum Part #
4"	<i>no inlet</i>	21"	13-3/4"	6200X
4"	male adapter inlet only	21"	13-3/4"	6200XA
4"	anti-spill tube, <i>no inlet</i>	21"	13-3/4"	6200XT
4"	female coupler inlet only	21"	13-3/4"	6200XD
4"	anti-spill tube & female coupler inlet	21"	13-3/4"	6200XDT



drop elbow with side lever
and female coupler inlet

Inlet Ends

Inlet Size	Inlet Type	Aluminum Part #
3"	male adapter	6000-16
4"	male adapter	6000-17
3"	female coupler	6000-15
4"	female coupler	6000-14



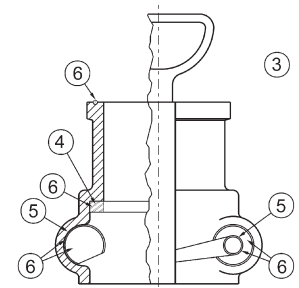
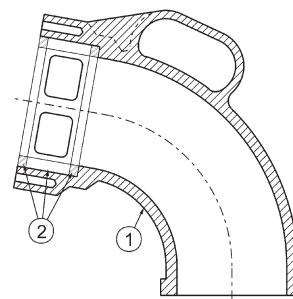
female coupler



male adapter

Parts List

Item #	Description	Part #
1	elbow (only)	6200-1
2	sight glass repair kit	6200SGK
3	bottom end assembly	6030
4	Buna-N gasket	6000-9
5	bushing repair kit	6200BK
6	arm and seal repair kit	6200ARK



Vapor Recovery Drop Elbows

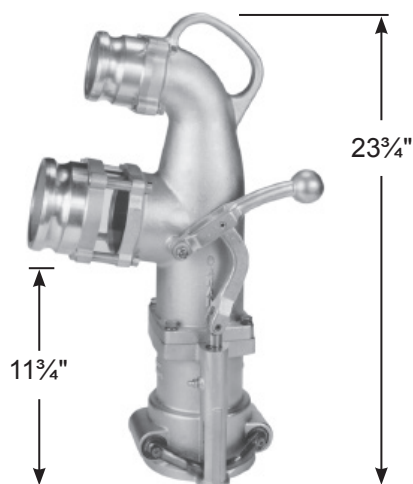


- for use in two point vapor recovery system
- one-piece bronze locking arms housed in polymer bushings
- advanced design side lever locking system
- Viton® main seal with buna poppet seal and stainless steel hardware
- bolt on 3" male outlet included (can rotate for extended life)
- lubrication fitting on locking stem

Note: See drop elbow below for single point vapor recovery co-axial elbow 6400.

Description	Aluminum Part #
3" male inlet adapter with no probe and poppet	VR6200NP
3" male inlet adapter & probe and poppet	VR6200

Co-axial Drop Elbows



- for single point vapor recovery only
- 3" male vapor outlet (top)
- comes assembled with 4" male inlet
- Note: Inlets made special for co-axials only.
- quality cast aluminum construction with solid bronze arms
- bolt-on inlets/outlets for easy, fast replacement
- acrylic sight glass with buna seals

Description	Aluminum Part #
4" male inlet	6400

Side Seal Drop Elbows



- for use with special 4" side seal style fill collars only
- modular, easy to repair, bolt together aluminum construction
- comes with acrylic sight glass with buna seals (2), bronze locking levers and buna main seal
- 4" male and lock ring installed

Description	Aluminum Part #
4" male inlet	6000ASAL

Side Seal Adapter



- allows conventional elbows to be used with special side seal style fill collars
- bottom connects to side seal fill collar
- top section with standard 4" top seal collar profile to accept clamping of standard 4" drop elbows

Description	Aluminum Part #
4" male inlet	6000-SSA

Fill Pipe Adapters TFA Series Adapters

- for use with 300-TFG

Adapter Size	Female Thread	Aluminum - hardcoat Part #	opt qty
3"	3" NPT	300-TFA	10



Fill Adapters

- for use with 6200 and 6000
- NPSM thread is supplied with gasket

Adapter Size	Female Thread	Height	Material	Part #	opt qty
4"	4" NPSM	2-3/8"	bronze	BZ4051S	5
4"	4" NPT	3-1/2"	bronze	BZ4051	5
4"	4" NPT	3-1/2"	ZN-AL alloy	BY4051 ¹	5



fill adapter with NPSM thread



fill adapter with NPT thread

¹ product will be discontinued as inventory is depleted

Vapor Recovery Adapters

- popped vapor collar at station vapor outlet
- can also be used as vapor valve on tanker but does not have air interlock mount
- for use with VR6200NP
- low profile design

Adapter Size	Female Thread	Height	Material	Part #	opt qty
4"	4" NPT	3-5/8"	bronze	VR4086	5
4"	4" NPT	3-5/8"	ZN-AL alloy	VR4086-BY	5



Fill Pipe Adapter Caps

- single action locking cap
- aluminum cap
- bronze cam arms

Size	Aluminum Part #	opt qty
4"	SA4050AL	10



- twin lever cap
- bronze cap
- bronze cam arms

Size	Bronze Part #	opt qty
4"	TL4070BZ	10



API Dust Cap



Size	Description	Aluminum Part #	Opt Qty
4" API	with flat gasket	41450-DCAL	5
	with O-ring seal	5000-24	10

Size	Description	Nylon Part #	Opt Qty
4" API	with flat gasket	5000-25	20

Gravity Drop Adapters

- for offloading through an API Adapter



Adapter Size	Coupler Size	Description	Aluminum Part #	Opt Qty
3"	4" API	with O-ring seal	4530	6
		with flat gasket	31440-225AL	10
4"	4" API	with O-ring seal	4540	6
		with flat gasket	41440-225AL	10

replacement gaskets

Description	Aluminum Part #
O-ring seal	4500-5
flat gasket	2143SEALBU

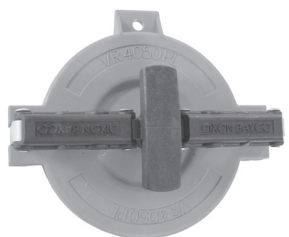
4" Vapor Caps



- special locking cap for underground tank vapor outlet VR4086 and tanker vapor valves
- bronze cam arms
- aluminum painted vapor recovery orange

Size	Aluminum Part #
4"	VR4050AL

Centered 'T' handle allows for one-handed use and provides a solid locking mechanism.

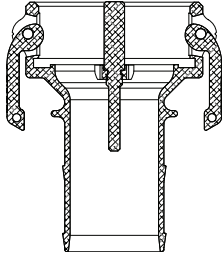


- strong and lightweight
- built-in locking feature
- corrosion resistant materials
- color coded vapor recovery orange

Size	Nylon Part #
4"	VR4050PL

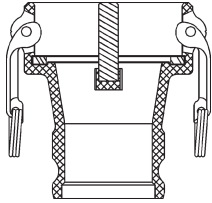
Dixon Vapor Recovery Couplers

- cast aluminum body
- bronze arms with stainless steel pins
- plated carbon steel finger rings
- Buna-N gasket



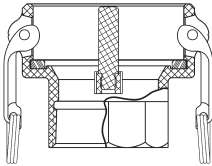
Coupler with Probe x Hose Shank

Coupler Size	Hose Shank Size	Aluminum Part #
4"	3"	4030-CVR-AL
4"	4"	400-CVR-AL



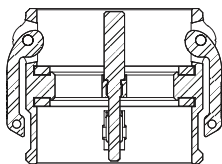
Coupler with Probe x Adapter

Coupler Size	Adapter Size	Aluminum Part #
4"	3"	4030-DAVR-AL



Coupler with Probe x Female NPT

Coupler Size	Female NPT Size	Aluminum Part #
4"	3"	4030-DVR-AL
4"	4"	400-DVR-AL



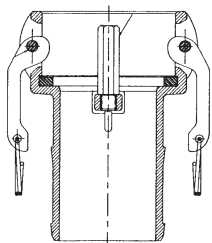
Coupler with Probe x Coupler with Probe

Coupler Size	Coupler Size	Aluminum Part #
4"	4"	400-DDVR-AL



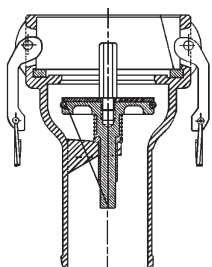
Dixon Bayco Vapor Recovery Couplers

- for use with 3" vapor hose
- cast aluminum body, bronze arms with stainless steel pins and finger rings
- Buna-N gasket
- the VR4030CS-AL has a Viton® O-ring poppet seal
- *The Dixon replacement handle assemblies will not work on these fittings.*



Coupler with Probe x Hose Shank

Coupler Size	Hose Shank Size	Aluminum Part #
3"	3"	VRC3000AL



Coupler with Poppet and Probe x Hose Shank

Coupler Size	Hose Shank Size	Aluminum Part #
4"	3"	VR4030CS-AL¹



¹ The VR4030CS-AL will interchange with all competitor vapor valves except Civacon #633LVH (special bulb design).

Tank Truck Flanged Sight Flow Indicators

SAFETY ALERT Note: Due to the proprietary blending of petroleum products, Dixon recommends that the thermoplastic tubing and the Viton® gaskets be immersion tested in the product to be handled to insure compatibility.

- For tank truck flange gaskets, see page 51.
- For dimensional information on tank truck flange drilling, see page 225.



- replaces the acrylic sight glass commonly found on tank trucks
- allows for visual identification of the fuel grade prior to opening the valve
- works with tank truck flanged butterfly valves found on gasoline trucks
- low cost sight glass tube can be replaced easily
- rugged cast aluminum housing is more durable than acrylic sight glass

TTMA pattern flanged short sight flow indicator

Size	Aluminum Part #
4"	5200-SFI
3"	5200-SFI-3



repair kits

Description	Part #
3" replacement sight glass, Baylast™ O-ring and retainer ring kit	5200-SFI-3-RK1
3" replacement sight glass, Viton® O-ring and retainer ring kit	5200-SFI-3V-RK1
4" replacement sight glass, Baylast™ O-ring and retainer ring kit	5200-SFI-RK1
4" replacement sight glass, Viton® O-ring and retainer ring kit	5200-SFIV-RK1

- allows for visual identification of the fuel grade prior to opening the valve
- works with tank truck flanged butterfly valves found on gasoline trucks
- larger ID (4-3/8") allows tank truck flanged butterfly valves to connect to either end of the 400-SFI-AL
- rated to **150 PSI**



sight flow indicator with 4-3/8" flow

Size	Aluminum Part #	Opt Qty
4"	400-SFI-AL	5

replacement parts

Description	Part #	Opt Qty
plexiglass insert	4SFIPSG	1
Buna-N gasket	O249BU	2
Viton® gasket	4SFI-G-VI	2

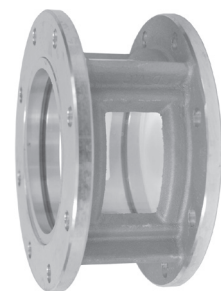
- allows for visual identification of the fuel grade prior to opening the valve
- 4" flow diameter

sight flow indicator with 4" flow

Size	Aluminum Part #	Opt Qty
4"	4-1460-AL	10

replacement parts

Description	Part #	Opt Qty
plexiglass insert	4PSG	10
Buna-N O-ring	O246BU	10



Tank Transport Equipment

* Teflon® gaskets are standard in stainless steel fittings.

Fusible Pipe Caps

female NPSM

Size	Stainless Steel * Part #	Opt Qty	Aluminum Part #	Opt Qty	Iron Part #	Opt Qty
3"	300-SFC-SS	10	300-SFC-AL	10	300-SFC-MI	10



Pipe Caps

female NPSM

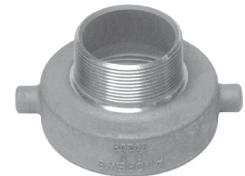
Size	Stainless Steel * Part #	Opt Qty	Aluminum Part #	Opt Qty	Iron Part #	Opt Qty
2"	200-PC-SS	--	---	--	200-PC-MI	--
3"	300-PC-SS	10	300-PC-AL	10	300-PC-MI	10
4"	400-PC-SS	--	---	--	---	--



Reducers

female NPSM x male NPT

Size	Stainless Steel * Part #	Opt Qty	Aluminum Part #	Opt Qty	Iron Part #	Opt Qty
3" x 2"	3020-RD-SS	10	3020-RD-AL	10	3020-RD-MI	10
4" x 3"	4030-RD-SS¹	--	4030-RD-AL	--	---	--

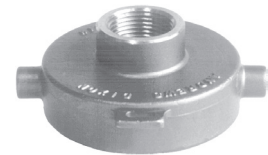


¹ welded fabrication

Reducing Caps

female NPSM x female NPT

Size	Stainless Steel * Part #	Opt Qty
3" x 1"	3010-RC-SS	10



Gaskets and Washers

Size	Buna-N Part #	Opt Qty	Teflon® Part #	Opt Qty	Neoprene Part #	Viton® Part #
1½"	---	--	150GPCTF	--	---	---
2"	200GPCBU	25	200GPCTF	10	KNW25	KVW25
3"	300GPCBU	25	300GPCTF	25	KNW35	KVW35
4"	---	--	400GPCTF	--	KNW40	---

Tank Transport Equipment - Intermodal

* Teflon® gaskets are standard in stainless steel fittings.

Pipe Caps

female NPSM x male NPT

Size	Aluminum Part #	Stainless Steel * Part #	Opt Qty
3"	300PCALAP	300PCSSAP	10



Thread Adapters

female BSPP x male NPT

Size	Stainless Steel * Part #
3" x 2"	3020RDSSAP
3" x 3"	3030RDSSAP



Cam and Groove Adapters

female BSPP

Size	Stainless Steel * Part #
3"	300ASSAP



Bayonet Style Dry Disconnect Couplings

Bayco brand BA and BS series bayonet dry disconnect fittings are designed for use in the fuel and lube oil service industry. These fittings are not designed to be interchangeable with other types of Dry Disconnects, however they are used with the Emco Wheaton™ Dry Break™ commonly found in these services. The maximum pressure rating for 2" fittings is **80 PSI @ 70° F**, for pressure ratings at other temperatures contact the factory.

Adapters

bayonet style adapter x female NPT



Size	Seal Material	Stainless Steel Part #	Brass Part #	Aluminum Part #
2"	Buna	BA31-200	---	---
2"	Viton®	BA32-200	---	---
3"	Buna	---	BA31-300	BA61-300
3"	Viton®	---	BA32-300	BA62-300

Dust Caps for Adapters



Size	Body Size	Polyeten PE-HD 300 Part #
1½" and 2"	70 mm	DDDC150
3"	105 mm	DDDC300105

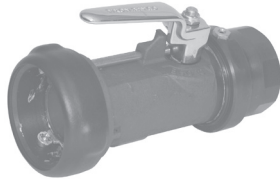
Couplers

bayonet style 90° swivel coupler x female NPT



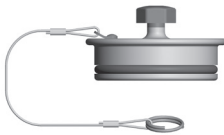
Size	Seal Material	Anodized Aluminum Part #
2"	Buna	BS61-200
2"	Viton®	BS62-200
3"	Buna	BS61-300
3"	Viton®	BS62-300

bayonet style straight swivel coupler x female NPT



Size	Seal Material	Anodized Aluminum Part #
2"	Buna	BSS61-200
2"	Viton®	BSS62-200
3"	Buna	BSS61-300
3"	Viton®	BSS62-300

Dust Plugs for Couplers



Size	Body Size	Polyeten PE-HD 300 Part #
2"	70 mm	DDDP150
3"	105 mm	DDDP300105

Ball Nozzles for Bulk Delivery

- rugged construction for rapid fuel oil transfer/delivery
- high flow through a 1" full port ball valve
- heavy duty roller ball swivel with low temperature seals freely rotates without leaking at **-40°F** and **100 PSI**
- 3 PSI check valve is included to prevent back flow, 5 PSI is optional

ball nozzle with swivel adapter outlet



Female NPT Inlet	Swivel Adapter Outlet	Anodized Aluminum Part #
1¼"	1¼"	BL062
1½"	1½"	BL064

ball nozzle with spout outlet



Female NPT Inlet	Spout Outlet	Anodized Aluminum Part #
1¼"	1¼"	BL066
1¼"	1½"	BL068
1½"	1½"	BL072

ball nozzle without spout outlet

Female NPT Inlet	Female NPT Outlet	Anodized Aluminum Part #
1¼"	1¼"	BL066NS
1¼"	1½"	BL068NS
1½"	1½"	BL072NS

Automatic Shut-Off Nozzles

- for card lock and truck refueling stations
- Venturi type automatic shut-off
- high pressure design for up to **80 GPM** flow (requires minimum 7.5 GPM for auto shut-off)
- detachable trigger ratchet
- aluminum construction with bronze trigger



pressure nozzle with spout

Female NPT Inlet	Spout Outlet	Aluminum Part #
1 1/4"	1-3/8'	1144D
1 1/2"	1-3/8'	1124D

- same features as above, plus a break away spout
- Underwriters Listed



Holedall

Sanitary

Fire Hose

Valves

Pipe & Welding

Maintenance & Repair

PTFE Hose & Fittings

Standard Utility Nozzles

- for use with 12 volt pumps and gravity flow fittings
- diecast metal body; choice of spouts
- for economy fuel dispensing, including construction, farm and small truck utility tanks
- Underwriters Listed
- working pressure to **25 PSI**



single piece

Female NPT Inlet	Spout Outlet	Aluminum Part #
1"	1" outlet *	900 *
1"	1" straight	900S
1"	1" bent	900B
1"	3/4" straight	900W34S
1"	3/4" bent	900W34B
3/4"	3/4" straight	900S34
3/4"	3/4" bent	900B34

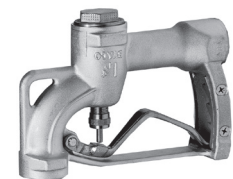


* nozzle body only (without spout)

Note: 3/4" nozzle inlet uses 1" x 3/4" reducer bushing, supplied

Pressure Nozzles for Bulk Delivery

- manual operation (non-automatic) for high pressures and fuel flow up to **80 GPM**
- easy opening dash pot design with shock-less closing
- detachable trigger ratchet, packing gland and seal
- aluminum construction with bronze trigger
- available with aluminum spout or without spout



pressure nozzle without spout

Female NPT Inlet	Female NPT Outlet	Aluminum Part #
1 1/4"	1 1/4"	114DNS
1 1/2"	1 1/2"	112DNS

pressure nozzle with spout

Female NPT Inlet	Spout Outlet	Aluminum Part #
1 1/4"	1 1/4"	114D
1 1/2"	1 1/2"	112D





Overwing Aircraft Nozzles

- manual operation (non-automatic) for high pressures and fuel flow up to 80 GPM
- easy opening dash pot design with shock-less closing
- detachable trigger ratchet, packing gland and seal
- aluminum construction with bronze trigger and plastic guard pad to protect wing
- aluminum spout has cap with spring cord and a fine mesh stainless steel screen filter in the spout
- screw attachment for grounding cable (cable not supplied)

overwing nozzle with spout

Female NPT Inlet	Spout Outlet	Aluminum Part #
1¼"	1"	114DAVR
1¼"	1¼"	114D-AV
1½"	1¼"	114D-AV-06ASM



Large Capacity Low Pressure / Gravity Nozzle

- rugged utility nozzle for low pressure/gravity applications
- rapid flow due to 1¼" oversize design
- aluminum body, spout and trigger
- **25 PSI** maximum pressure

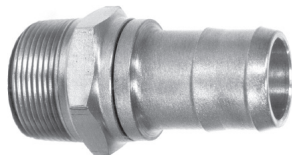
gravity nozzle with spout

Female NPT Inlet	Spout Outlet	Aluminum Part #
1¼"	1¼"	1250-94

Hose Swivels

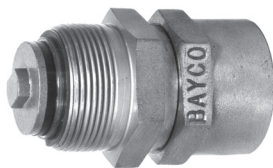
- for use with petroleum and home heating oil hose
- prevents twisting or kinking

Hose Shanks



Male NPT	Shank Size	Bronze Part #
1½"	1½"	1565U

Check Valves



Male NPT	Female NPT	Bronze Part #
1½"	1½"	1580U

Heavy Duty

- male NPT x female NPT threaded connections
- heavy duty internal thrust bearing and anti-friction seal design ensures swiveling at **-40°F**
- can be lubricated without disassembly by using the optional grease fitting kit



Male NPT	Female NPT	Bronze Part #
1¼"	1¼"	SWMF125
1½"	1½"	SWMF150

Optional grease fitting kit, **SWMF-RK1**, \$14.55

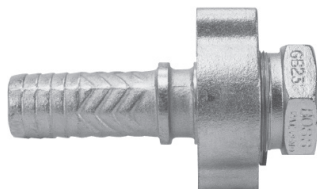
Products Recommended for Steam Service

Quick Disconnect Fittings



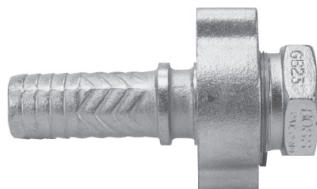
Quick disconnect fittings (socket and plug) are available in solid brass with stainless steel springs and locking balls in sizes 1/4" through 1 1/2". For further information see page 62.

Boss Female Ground Joint Fittings



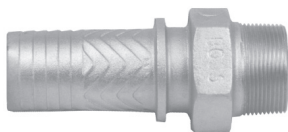
Boss female ground joint fittings are available in plated steel and/or iron in sizes 1/4" through 6". For further information see page 63.

Boss Female Washer Seal Fittings



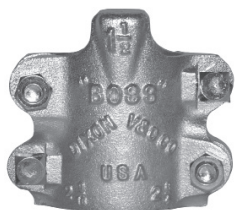
Boss female washer seal fittings are available in plated steel and/or iron in sizes 3/8" through 6". For further information please contact an Alfagomma representative.

Boss Male Stems



Boss male stems are available in steel bar stock in sizes 1/4" through 1"; iron in sizes 1 1/4" through 4"; 316 stainless steel in sizes 1/2" through 4" and brass in sizes 3/4" through 3". For further information see page 64.

Boss Clamps



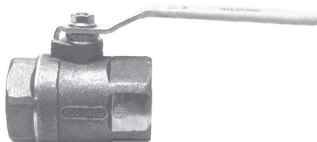
Boss clamps in the 2-bolt and 4-bolt style are available in plated iron in sizes 1/4" through 3"; stainless steel in sizes 1/2" through 3" and brass in sizes 1/2" through 2". Boss clamps in the three-piece style are available in plated iron in sizes 3" through 6". For further information see page 66.

180° Steam Gauge Siphon



180° steam gauge siphon is available in red brass pipe in 1/4". In order to prevent live steam from entering a pressure gauge bourdon tube a siphon filled with water should be installed between the gauge and the process line. For further information please contact an Alfagomma representative.

250 PSIG Steam Ball Valve



250 lb. steam ball valves are available with a threaded bronze valve, 316 stainless steel ball and stem in sizes 1/2" through 2". For further information see page 189-193.



Note: Pressurized steam is an extremely dangerous commodity. Only hose, fittings, clamps and accessory items that have been approved for steam service should ever be used! Never use an unapproved item for steam service. Always follow the manufacturer's product recommendations for pressurized steam handling.

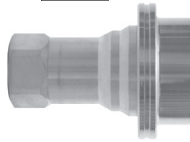
Steam Quick Disconnect Couplings

Designed exclusively for steam applications, the coupler and plug are solid brass with stainless steel springs and locking balls. The coupler has a large plated steel sleeve especially designed for easier gripping with gloves. Two ethylene propylene O-rings in the coupler and one ethylene propylene O-ring in the plug provide double protection against leaks. Rated to **100 PSI** gauge saturated steam (**338°F**).

SAFETY
ALERT

Warning: Do Not Disconnect Under Pressure!!

SAFETY
ALERT



poppet valve coupler



poppet valve plug

Body Size	Female NPT Size	Part #
1/4"	1/4"	B16-200S
3/8"	3/8"	B16-300S
1/2"	1/2"	B16-400S
3/4"	3/4"	B16-600S
1"	1"	B16-800S
1-1/2"	1-1/2"	B16-1200S

Body Size	Female NPT Size	Part #
1/4"	1/4"	B17-200S
3/8"	3/8"	B17-300S
1/2"	1/2"	B17-400S
3/4"	3/4"	B17-600S
1"	1"	B17-800S
1-1/2"	1-1/2"	B17-1200S

Boss Coupling System

Features: The spud part of the coupling serves as one half of the connection and is usually fixed to the equipment. The stem part that is clamped to the hose is the other half. The two halves are connected or disconnected by rotating the wing nut onto the spud. When connected they achieve a mechanical, as well as, a pressure seal.

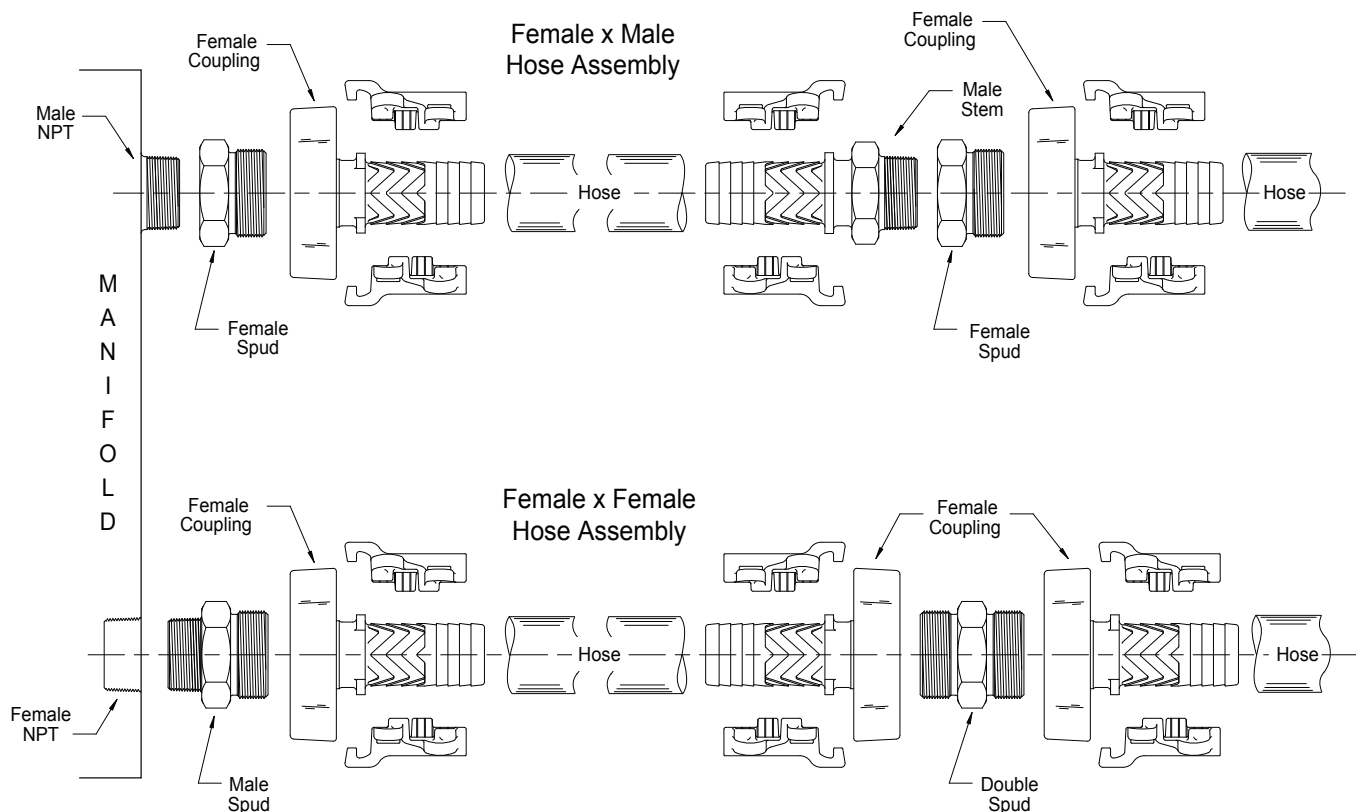
Services: Boss couplings are all-purpose hose couplings, universally recommended for steam hose connections. They are also widely used for air, water, fluid petroleum, chemicals and liquid petroleum gas up to 1" ID. Boss couplings can be applied to many types of rubber, synthetic, plastic, metallic or semi-metallic hose. Consult the factory for specific media capabilities.

Purpose: Boss couplings supply a convenient threaded fitting to connect two lengths of hose, or a single length to a male or female threaded (NPT) outlet.

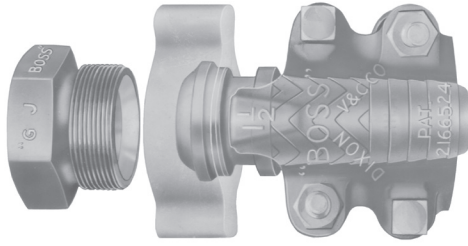
Material:

- stem: 1/4" - 1" plated steel, 1 1/4" - 4" plated iron, 6" tubular steel
- spud: 1/4" - 1" plated steel, 1 1/4" - 6" plated iron
- wing nut: 1/4" - 1" plated steel, 1 1/4" - 6" plated iron

SAFETY Hose couplings can be dangerous. They should be checked regularly and replaced when necessary. Each coupling user should review applications and add safety devices where indicated.



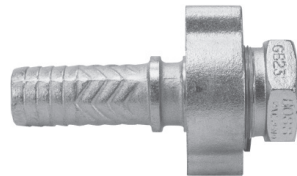
Boss Ground Joint Seal



Positive Metal-to-Polymer Seal

- A leakproof seal is formed when the metal head of the stem makes contact with the patented polymer seat in the spud.
- The non-metallic polymer seat resists most chemicals found in manufacturing facilities (reference corrosion resistance chart on pages 548-553).
- recommended for steam service up to **450°F**
- easy to seal
- works with existing ground joint fittings
- *plated steel and / or iron*
- use with Boss clamps found on page 66.

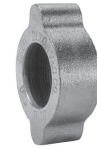
SAFETY
ALERT



complete female



stem



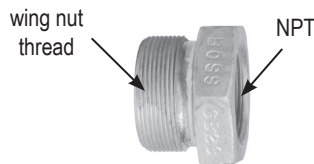
wing nut

Hose Shank x NPT	Part #	Part #	Opt Qty	Part #	Opt Qty
1/4"	GF1 ¹	GBA	100	BA2	100
3/8"	GF3 ¹	GCA	100	CB	100
1/2"	GF6	GB1	100	B2	100
3/4"	GF26	GB6	50	B12	25
1"	GF36	GB11	50	B12	25
1-1/4"	GF51	GB16	25	B17	25
1-1/2"	GF61	GB21	25	B17	25
2"	GF81 ²	GB26 ²	10	B27	10
2-1/2"	GF96	GB31	5	B32	5
3"	GF111	GB36	5	B37	5
4"	GF141	GB46	5	B47	5
6"	GF201 ¹	GB66	2	B67	2

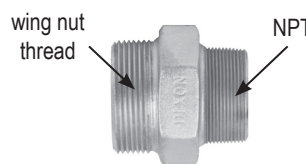
¹ 1/4", 3/8" and 6" come only with copper seat spuds

² not to be used with #250, #275 or #306 Boss clamps

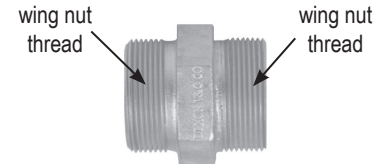
SAFETY
ALERT



female spud



male spud



double spud

Thread	Part #	Opt Qty	Part #	Part #
1/4"	GBC ¹	100	---	---
3/8"	GCC ¹	100	GMC ¹	---
1/2"	GB3	100	GM3	GDB3
3/4"	GB8	50	GM8	GDB13
1"	GB13	50	GM13	GDB13
1-1/4"	GB18	25	GM18	GDB23
1-1/2"	GB23	25	GM23	GDB23
2"	GB28	10	GM28	GDB28
2-1/2"	GB33	5	GM33	GDB33
3"	GB38	5	GM38	GDB38
4"	GB48	5	---	---
6"	GB68 ¹	2	---	---

¹ 1/4", 3/8" and 6" come only with copper seat spuds

SAFETY
ALERT

Boss couplings and the steam quick disconnects on page 62 are the only Dixon couplings recommended for steam service.

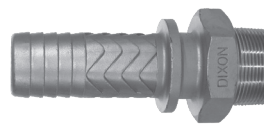
Boss Male Stems



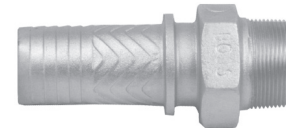
steel barstock



iron



316 stainless



brass

Hose x NPT Size	Steel Bar Stock Part #	Opt Qty	Size	Iron Part #	Opt Qty	Size	316 Stainless Part #	Size	Brass Part #
1/4" x 1/8"	MS4X2	25	---	---	---	1/2"	RMS1	---	---
1/4" x 1/4"	MSA	50	---	---	---	3/4"	RMS6	3/4"	BMS6
1/4" x 3/8"	MSB	25	---	---	---	1"	RMS11	1"	BMS11
3/8" x 1/4"	MS6X4	25	1 1/4"	MS16	20	1 1/4"	RMS16	1 1/4"	BMS16
3/8" x 3/8"	MSC	100	1 1/2"	MS21	20	1 1/2"	RMS21	1 1/2"	BMS21
3/8" x 1/2"	MS6X8	25	2"	MS26	10	2"	RMS26	2"	BMS26
1/2" x 1/4"	MS8X4	25	2 1/2"	MS31	5	2 1/2"	RMS31	---	---
1/2" x 3/8"	MS8X6	50	3"	MS36	5	3"	RLP36 ¹	3"	BMS36
1/2" x 1/2"	MS1	25	4"	MS46	2	4"	RLP46 ¹	---	---
1/2" x 3/4"	MS8X12	25	---	---	---	---	---	---	---
3/4" x 1/2"	MS12X8	25	---	---	---	---	---	---	---
3/4" x 3/4"	MS6	25	---	---	---	---	---	---	---
3/4" x 1"	MS12X16	25	---	---	---	---	---	---	---
1" x 3/4"	MS16X12	25	---	---	---	---	---	---	---
1" x 1"	MS11	25	---	---	---	---	---	---	---

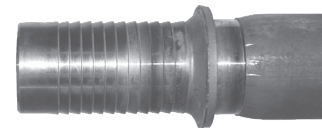
¹ tubular steel

• Use with Boss clamps on page 66. For safety tags and safety tape, call Alfagomma representative.

LP-Boss Male Stems



male NPT end



beveled end

Size	Plated Steel NPT Part #	316 Stainless NPT Part #	Plated Carbon Steel NPT Part #	Unplated Steel Beveled Part #
1 1/4"	LP16	---	LP16-80 ²	---
1 1/2"	LP21	---	LP21-80 ²	---
2"	LP26	---	LP26-80 ²	LPB26
2 1/2"	LP31	---	---	---
3"	LP36	RLP36 ¹	---	LPB36
4"	LP46	RLP46 ¹	---	---
6"	LP66	---	---	---

¹ tubular steel² schedule 80 stems meet NFPA 58

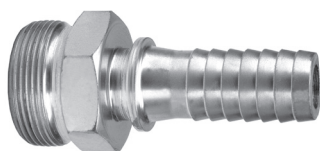
Boss Hose Menders

- collars engage grip fingers of Boss clamps
- 3/4" - 3" plated iron; 1/2" plated steel



Size	Part #	Size	Part #
1/2"	M1	1 1/2"	M21
3/4"	M6	2"	M26
1"	M11	2 1/2"	M31
1 1/4"	M16	3"	M36

Boss Spud x Hose



Size	Polymer Seat Part #
1"	GH1311
2"	GH2826

Boss Holedall Fittings

Boss Holedall fittings are designed for air and liquid applications where a permanent, low profile clamping system is desired. Both fittings are supplied with carbon steel ferrules. Consult the factory for swage and/or crimp specifications.

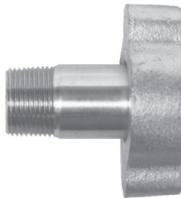
Not for steam service.



Size	Hose OD		Iron	Stainless Steel
	From:	To:	Part #	Part #
3/4"	1-10/64"	1-14/64"	GF26P1	---
	1-15/64"	1-18/64"	GF26P2	---
	1-19/64"	1-22/64"	GF26P3	---
1"	1-30/64"	1-34/64"	GF36P1	---
	1-35/64"	1-38/64"	GF36P2	---
	1-39/64"	1-42/64"	GF36P3	---
1 1/2"	1-15/16"	2"	GF61P1	RGF61P1
	2-1/64"	2-1/8"	GF61P2	RGF61P2
	2-9/64"	2-1/4"	GF61P3	---
2"	2-9/16"	2-5/8"	GF81P1	RGF81P1
	2-41/64"	2-3/4"	GF81P2	RGF81P2
	2-49/64"	2-7/8"	GF81P3	---
3"	3-9/16"	3-5/8"	GF111P1	---
	3-41/64"	3-3/4"	GF111P2	---
	3-49/64"	3-7/8"	GF111P3	---

Boss Adapters

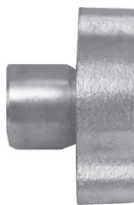
These fittings have male or female NPT threads and are designed to fit the standard ground joint spuds. Supplied with a wing nut, as shown. For safety tags and safety tape, call Alfagomma representative.



male NPT adapter

Size	Part #	Pkg Qty
3/4"	GMAS6	25
1"	GMAS11	25
1 1/2"	GMAS21	10
2"	GMAS26 ¹	10

¹ uses a special wing nut, part # B27-3.



female NPT adapter

Size	Part #
3/4"	GFAS6
1"	GFAS11

Boss Wing Nut Caps



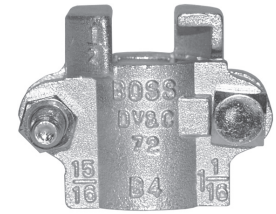
Size	Chain Length	Part #	Opt Qty
3/4" and 1"	12"	B12SC	25
1 1/4" and 1 1/2"	12"	B17SC	25
2"	12"	B27SC	10
3"	12"	B37SC	5

Note: Boss wing nut caps are not intended for pressure applications.

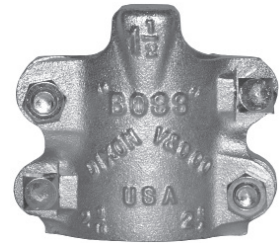


Boss Clamps

Hose ID	Hose OD		Plated Iron Part #	Opt Qty	Stainless Steel Part #	Torque ³	Brass	
	From:	To:					Part #	Torque
1/4"	36/64"	42/64"	BD ⁴	100	---	6	---	--
3/8"	44/64"	56/64"	CD ⁴	100	---	6	---	--
1/2"	52/64"	60/64"	DD ⁴	100	---	6	---	--
1/2"	60/64"	1-4/64"	B4 ⁴	25	RB4	12	BB4	10
1/2"	1-4/64"	1-12/64"	B5 ⁴	25	---	12	---	--
3/4"	1-10/64"	1-20/64"	BU9 ⁴	50	RBU9	21	BBU9	18
3/4"	1-20/64"	1-32/64"	B9	25	RB9	21	BB9	18
3/4"	1-32/64"	1-44/64"	B10 ⁴	25	---	21	BB10	--
1/2"	58/64"	1-2/64"	968	50	---	6	---	--
1"	1-26/64"	1-36/64"	156 ^{1,4}	20	---	21	---	--
1"	1-34/64"	1-46/64"	BU14	25	RBU14	21	BBU14	18
1"	1-44/64"	1-60/64"	B14 ⁴	25	RB14	21	BB14	18
1"	1-60/64"	2-8/64"	B15	20	---	21	---	--
	1-32/64"	1-50/64"	BU18	10	---	40	---	--
	1-44/64"	1-56/64"	187 ¹	10	---	21	---	--
	1-50/64"	2-6/64"	BU19	10	---	40	---	--
	1-56/64"	2-4/64"	206 ¹	20	---	21	---	--
	2-8/64"	2-24/64"	B19	10	RB19	40	BB19 ²	28
	1-52/64"	2"	BU22	10	---	40	---	--
	2"	2-14/64"	B22	10	---	40	---	--
	2"	2-8/64"	212 ¹	10	---	21	---	--
	2-4/64"	2-16/64"	225 ¹	10	---	40	---	--
	2-12/64"	2-24/64"	BU24	10	RBU24	40	BBU24 ²	28
	2-24/64"	2-36/64"	B24	10	RB24	40	---	--
	2-36/64"	2-48/64"	B25	10	---	40	---	--
	2-16/64"	2-32/64"	250 ^{1,5}	10	---	40	---	--
	2-22/64"	2-34/64"	BU28	10	---	60	---	--
	2-32/64"	2-48/64"	275 ^{1,5}	10	---	40	---	--
	2-32/64"	2-50/64"	BU29	10	RBU29	60	BBU29 ²	40
	2-48/64"	3-4/64"	B29	10	RB29	60	BB29 ²	40
	2-48/64"	3-4/64"	306 ^{1,5}	10	---	60	---	--
	3-6/64"	3-28/64"	B30	5	---	60	---	--
	3-4/64"	3-32/64"	350 ¹	5	---	60	---	--
	3-6/64"	3-28/64"	BU34	5	---	60	---	--
	3-32/64"	3-60/64"	B34	5	---	150	---	--
	3-32/64"	3-48/64"	375 ¹	5	---	60	---	--
	3-32/64"	3-60/64"	BU35	5	RBU35	150	---	--
	3-48/64"	4"	401 ¹	5	---	150	---	--
	3-52/64"	4-4/64"	B35	5	---	150	---	--
	4"	4-12/64"	418 ¹	4	---	200	---	--
	4-4/64"	4-28/64"	B39	5	---	200	---	--
	4-12/64"	4-32/64"	450 ¹	2	---	200	---	--



2-bolt type



4-bolt type
2 gripping fingers



4-bolt type
4 gripping fingers¹

¹ 4 gripping fingers

² will become obsolete as inventory is depleted

³ torque applies to plated iron and stainless steel clamps

⁴ investment cast carbon steel

⁵ not to be used with GF81, GB26, WF81, B26, RGF81, RGB26, BGF81, BGB26, RWF81, RB26

- Replacement nuts and bolts are available, contact the factory for more information.
- The bolts used in the Boss interlocking clamps are not standard bolts. They vary from standard bolts in their length, diameter, overall thread length and material hardness. These bolts can be retorqued, but it is **not** recommended that the bolts or clamps be reused, as they are designed for a single bend only. Dixon recommends using only factory supplied replacement bolts.
- Torque values for clamps are based on dry bolts. The use of lubricant on bolts will adversely effect clamp performance. *Do not lubricate nuts and bolts.*
- See page 217 for Fraction to Decimal conversion chart.
- recommended torque rating in ft. lbs.

SAFETY
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SAFETY
ALERT

SAFETY
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Sand Blast Couplings

Sand blast couplings are designed for use on sand blast hose.

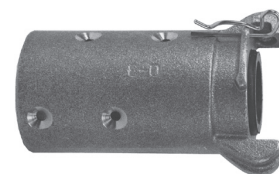
- supplied with screws
- nozzle holders have 1 1/4" NPSM thread
- rated to **110 PSI**
- *Abrasive blasting equipment must have hose safety cables (page 109) or hose coupling safety locks.*



- Installation:
 - 1) Ends of hose must be cut square to fit snug against metal end.
 - 2) Holding hose tight to end of fitting, insert screws and turn in full, putting screw 180° from first to ensure best centering.
 - 3) After all screws have been placed, check tube opposite screws to be sure screws have not penetrated completely through.
 - 4) On quick couplings, insert safety clips

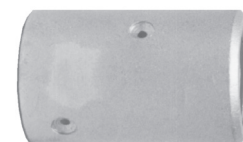
Quick Couplings

Hose Size	Hose OD	Brass	Aluminum
		Part #	Part #
3/4"	1-1/2"	BSB75	IPD075-SAND-AL
1"	1-7/8"	BSB100	IPD100-SAND-AL
1-1/4"	2-5/32"	BSB125	IPD125-SAND-AL
1-1/2"	2-3/8"	BSB150	IPD150-SAND-AL



Nozzle Holders

Hose Size	Hose OD	Brass	Aluminum
		Part #	Part #
3/4"	1-1/2"	BNH75	ANH75
1"	1-7/8"	BNH100	ANH100
1-1/4"	2-5/32"	BNH125	ANH125
1-1/2"	2-3/8"	BNH150	ANH150



Threaded Couplings

Size	Brass	Aluminum
	Part #	Part #
1-1/4"	BSC125	ASC125
1-1/2"	BSC150	ASC150

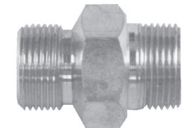
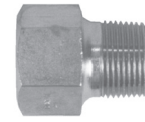
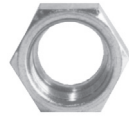
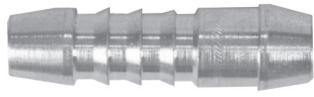


Replacement Parts

Part #	Description
SBG	black nitrile replacement gasket
USBG	urethane replacement gasket
SBCS	replacement screw

Dixon Mining Fittings

These lightweight fittings are designed for underground air and water service. Metal to metal taper seat, zinc-plated steel. Available with standard hex nut or iron wing nut.



Female NPT x Nut Thread

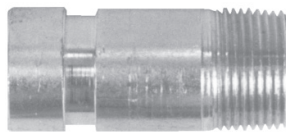
Male NPT x Nut Thread

	stem	hex nut	wing nut	female spud	male spud
Size	Part #	Part #	Part #	Part #	Part #
3/8"	---	---	---	MFFS06-16	MFMS06-16¹
1/2"	MFS08-16	MFN16	MFB2	---	---
3/4"	MFS12-16	MFN16	MFB2	MFFS12-16	---
1"	MFS16-16	MFN16	MFB2	MFFS16-16	---
1-1/4"	MFS20-20	MFN20	---	---	---
1-1/2"	MFS24-24	MFN24	---	---	---

Note: spuds ending with -16 for use with MFN16 or MFB2

Schedule 40 Pipe Nipples

All double reamed ends



victaulic groove x MNPT



male NPT

Size	Overall Length	Part #	Part #
1"	3"	MFVN16¹	MFTN16

¹ Item will be discontinued when stock is depleted.

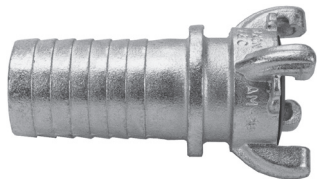
Air King 4 - Lug Quick-Acting Couplings

- rated to **150 PSI**
- Boss clamps recommended, see page 66.
- *Warning: Must use safety clips. Not to be used for steam service.*



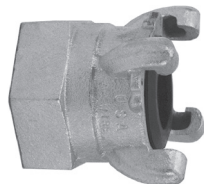
- *Safety clips are same size for both 2-lug and 4-lug Universal Couplings.*

Hose Ends



Size	Iron Part #	Brass Part #	Opt Qty
1 1/4"	AM16	AB16	25
1 1/2"	AM21	AB21	25
2"	AM26	AB26	10

Female NPT Ends



Size	Iron Part #	Brass Part #	Opt Qty
1 1/4"	AM18	AB18	25
1 1/2"	AM23	AB23	25
2"	AM28	AB28	20

Washer



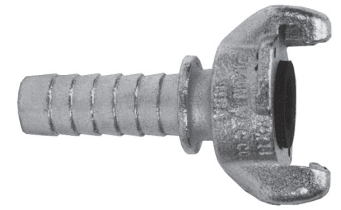
Rubber Washer Part #

AWR14

Universal Couplings

Hose Ends

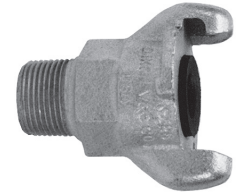
Size	Iron Part #	Opt Qty	Brass Part #	Opt Qty	316 Stainless Steel Part #
3/8"	AMH	25	ABH	25	RAMH
1/2"	AM1	50	AB1 ¹	50	RAM1
5/8"	AM5	50	AB5	50	---
3/4"	AM6	50	AB6 ¹	50	RAM6
1"	AM11	50	AB11 ¹	50	RAM11



¹ may use with Air King ferrules

Male NPT Ends

Size	Iron Part #	Opt Qty	Brass Part #	Opt Qty	316 Stainless Steel Part #
1/4"	AMB1	25	ABB1	25	---
3/8"	AMB	25	ABB	25	RAMB
1/2"	AM2	50	AB2	50	RAM2
3/4"	AM7	50	AB7	50	RAM7
1"	AM12	50	AB12	50	RAM12



Female NPT Ends

Size	Iron Part #	Opt Qty	Brass Part #	Opt Qty	316 Stainless Steel Part #
1/4"	AMC1	25	ABC1	25	---
3/8"	AMC	25	ABC	25	RAMC
1/2"	AM3	50	AB3	50	RAM3
3/4"	AM8	50	AB8	50	RAM8
1"	AM13	50	AB13	50	RAM13



Blank Ends

Iron Part #	Opt Qty	Brass Part #	Opt Qty	316 Stainless Steel Part #
AM0	25	AB0	25	RAM0



Triple Connections

Iron Part #	Opt Qty	Brass Part #	Opt Qty
AM10	25	AB10	25



* Prices for Universal couplings listed above include safety clip (not pictured).

- The use of a safety clip or wire type retainer is necessary to ensure the universal couplings will not become accidentally disconnected. This guarantees the fittings are properly connected as pin will not go through holes in mating flanges until couplings are locked in place. Only one safety clip or wire type retainer is required for each universal coupling.
- See page 2 for safety information.
- Is rated to **150 PSI** at ambient temperature (70°F).
- Standard fittings come with AWR4 washers.
- Available to meet pressure requirements as specified in A-A-59553 commercial item description superseding Mil Spec.WWC-633D.



These are for air and water service only Warning: Never use any these couplings for steam service!
None of the catalog information is to be interpreted to mean that this type of coupling is suitable for use on steam hose.



Accessories

The use of a safety clip or wire type retainer is necessary to ensure the universal couplings will not become accidentally disconnected. This guarantees the fittings are properly connected as the pin will not go through the holes in the mating flanges until couplings are locked in place. Only one safety clip or wire type retainer is required for each universal coupling.

Standard Safety Clip



- same size for all coupling sizes

Wire Diameter	Part #	Pkg Qty
.080	AC1	25

Safety Pins



- heavy duty
- oversized

Wire Diameter	Part #
.058	AKSP1
.091	AKSP25

Stainless Steel Clip



- same size for all coupling sizes

Wire Diameter	Part #
.072	AC7

Lanyards



- synthetic cord
- same size for all coupling sizes

Part #	Pkg Qty
ACL8	25



- stainless steel cable

Part #
LR7

Washers



- same size for all coupling sizes
- rubber temperature range: **-20°F to 160°F**
- neoprene temperature range: **-20°F to 190°F**
- neoprene is oil resistant

Black natural rubber		Pkg Qty	Neoprene		Pkg Qty
Part #	Price/E		Part #		
AWR4	\$.50	50	AWS6		50

Ferrules

Offers a low profile streamline appearance with maximum retention.

- lightweight
- can be crimped
- See page 238 for crimp recommendations and ferrule OD ranges.



Size	Ferrule ID	Investment Cast Steel Part #
1/2"	0.906	CCF0906
	1.120	CCF1120
	1.149	CCF1149
3/4"	1.190	CCF1190
	1.218	CCF1218
	1.246	CCF1246
	1.438	CCF1438
	1"	1.469
1"	1.500	CCF1500
	1.531	CCF1531

SAFETY
ALERT

These are for air and water service only Warning: Never use any these coupling for steam service!
None of this catalog information is to be interpreted to mean that this type of coupling is suitable for use on steam hose.

Air King with Ferrules

Universal design provides quick, easy and effective coupling of air hose. Exclusive interlocking ferrule can be crimped or swaged to achieve maximum coupling sealing and retention with a low profile streamline appearance. For crimp or swage diameter recommendations see page 237.



- iron and stainless steel Air King with carbon steel ferrules can be crimped or swaged
- rated to **150 PSI** working pressure.
- for air and water service only



Size	Hose OD		Iron	Stainless Steel
	From:	To:	Part #	Part #
1/2"	5/4/64"	1-2/64"	AM1WF	---
3/4"	1-4/64"	1-22/64"	AM6WF	RAM6WF
1"	1-18/64"	1-34/64"	AM11WF-1	---
1"	1-30/64"	1-46/64"	AM11WF	---

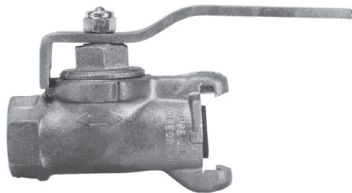
Air King with Gauge Port



- drilled to 1/4" NPT for mounting gauge
- gauge not included

Iron	Stainless Steel
Part #	Part #
AM7T	RAM7T

In-Line Ball Valve with Air King End

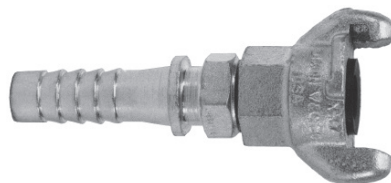


- easily maintained in line valve
- one piece ball and stem
- positive on/off

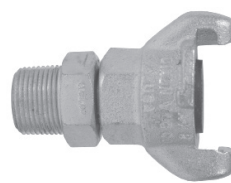
Size	Iron
	Part #
3/4"	VAM75

Air King Universal Swivels

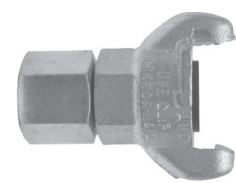
These universal swivel fittings interchange with other Air King fittings and include a heavy-duty, free-turning joint that swivels under pressure to prevent hose kinking. Working pressure: **150 PSI**. For air and water service only



hose end



male NPT



female NPT

Size	Iron	Iron	Iron
	Part #	Part #	Part #
1/2"	---	AM2SWIV	---
3/4"	AM6SWIV	AM7SWIV	AM8SWIV



Air King is for air and water service only Warning: Never use any Air King coupling for steam service!
None of Dixon's catalog information is to be interpreted to mean that this type of coupling is suitable for use on steam hose.

Surelock Quick Acting Couplings

The Surelock coupling is a multi-purpose coupling for water and air, commonly used in construction and mining. This coupling excels where ease, economy, safety and speed are paramount. They are stocked in sizes from 3/8" through 2". The pressure activated gasket allows easy coupling (less than 15 lbs. of force is required to connect the coupling) and gaskets seal upon introduction of line pressure. *Safety pins are required as a safety precaution.*

**SAFETY
ALERT**

Specifications:

- body: SG iron AS1831 400-250-12
- bellow seal: natural rubber (patent pending), other seal material available upon request
- working pressure: **500 PSI**

Hose Ends

Head	Size	Part #	Pkg Qty
small	3/8"	SL038H	50
	1/2"	SL050H	50
	3/4"	SL075H	50
	1"	SL100H	50
medium	1-1/2"	SL150H	15
	2"	SL200H	10



Male NPT Ends

Head	Size	Part #	Pkg Qty
small	3/8"	SL038M	50
	1/2"	SL050M	50
	3/4"	SL075M	50
	1"	SL100M	50
medium	1-1/2"	SL150M	15
	2"	SL200M	15



Female NPT Ends

Head	Size	Part #	Pkg Qty
small	3/8"	SL038F	50
	1/2"	SL050F	50
	3/4"	SL075F	50
	1"	SL100F	50
medium	1-1/2"	SL150F	15
	2"	SL200F	15



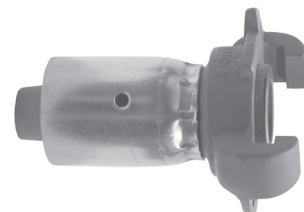
Surelock Quick Acting Couplings with Ferrules

Universal design provides quick, easy and effective coupling of air hose. Exclusive interlocking ferrule can be crimped or swaged to achieve maximum coupling sealing and retention with a low profile streamline appearance. See page 237 for crimp recommendations.

- Dixon recommends that all hose assemblies be tested in accordance with RMA testing procedures.
- rated to **500 PSI** working pressure
- *for air and water service only*


**SAFETY
ALERT**

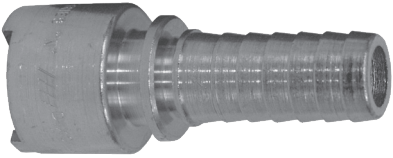
Head	Size	Hose OD		Part #
		From:	To:	
small	1/2"	5/4/64"	1-2/64"	SL050CR
	3/4"	1-4/64"	1-22/64"	SL075CR
	1"	1-30/64"	1-46/64"	SL100CR
medium	1-1/2"	2-1/64"	2-8/64"	SL150CR
	2"	2-41/64"	2-48/64"	SL200CR

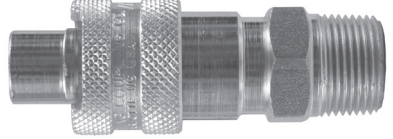


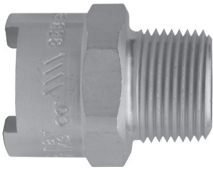
Dix-Lock Quick Acting Couplings

- it takes a minimum of 5 PSI to get a positive seal
- Dix-Lock is rated to 300 PSI

Body Size	Hose Shank Size	Material	Part #	Opt Qty	Male Head x Hose End
3/8"	1/2"	<i>plated steel</i>	QM1	25	
1/2"	3/8"	<i>plated steel</i>	QM2	25	
1/2"	1/2"	<i>plated steel</i>	QM3	25	
1/2"	3/4"	<i>plated steel</i>	QM4	25	
1/2"	1"	<i>plated steel</i>	QM5	25	
1/2"	3/8"	<i>brass</i>	QB2	--	
1/2"	1/2"	<i>brass</i>	QB3	--	
1/2"	3/4"	<i>brass</i>	QB4	--	
1/2"	1"	<i>brass</i>	QB5	25	
1/2"	3/4"	<i>stainless steel</i>	QSS4	--	

Body Size	Hose Shank Size	Material	Part #	Opt Qty	Female Head x Hose End
3/8"	1/2"	<i>plated steel</i>	QM20	25	
1/2"	3/8"	<i>plated steel</i>	QM21	25	
1/2"	1/2"	<i>plated steel</i>	QM22	25	
1/2"	3/4"	<i>plated steel</i>	QM23	25	
1/2"	1"	<i>plated steel</i>	QM25	25	
1/2"	3/8"	<i>brass</i>	QB21	--	
1/2"	1/2"	<i>brass</i>	QB22	--	
1/2"	3/4"	<i>brass</i>	QB23	--	
1/2"	1"	<i>brass</i>	QB25	25	
1/2"	3/4"	<i>stainless steel</i>	QSS23	--	

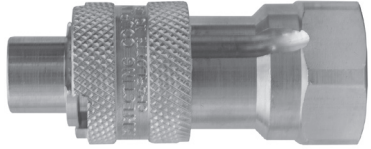
Body Size	NPT Thread Size	Material	Part #	Opt Qty	Male Head x Male NPT End
3/8"	1/2"	<i>plated steel</i>	QM40	25	
1/2"	3/8"	<i>plated steel</i>	QM41	25	
1/2"	1/2"	<i>plated steel</i>	QM42	25	
1/2"	3/4"	<i>plated steel</i>	QM43	25	
1/2"	1"	<i>plated steel</i>	QM45	25	
1/2"	3/8"	<i>brass</i>	QB41	--	
1/2"	1/2"	<i>brass</i>	QB42	--	
1/2"	3/4"	<i>brass</i>	QB43	--	
1/2"	1"	<i>brass</i>	QB45	--	
1/2"	3/4"	<i>stainless steel</i>	QSS43	--	
	1"	<i>brass</i>	QB47	--	
	1-1/4"	<i>brass</i>	QB49	--	


Body Size	NPT Thread Size	Material	Part #	Opt Qty	Female Head x Male NPT End
3/8"	1/2"	<i>plated steel</i>	QM60	25	
1/2"	3/8"	<i>plated steel</i>	QM61	25	
1/2"	1/2"	<i>plated steel</i>	QM62	25	
1/2"	3/4"	<i>plated steel</i>	QM63	25	
1/2"	3/4"	<i>plated steel</i>	QM63V *	25	
1/2"	1"	<i>plated steel</i>	QM65	25	
1/2"	3/8"	<i>brass</i>	QB61	--	
1/2"	1/2"	<i>brass</i>	QB62	--	
1/2"	3/4"	<i>brass</i>	QB63	--	
1/2"	1"	<i>brass</i>	QB65	25	
1/2"	3/4"	<i>stainless steel</i>	QSS63	--	
	1"	<i>brass</i>	QB67	10	
	1-1/4"	<i>brass</i>	QB69	10	

* valved coupler not shown

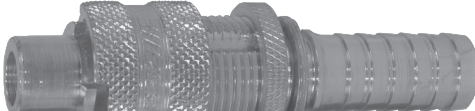
Dix-Lock Quick Acting Couplings

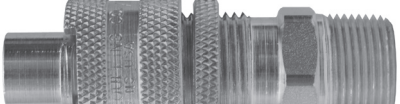
- it takes a minimum of 5 PSI to get a positive seal
- Dix-Lock is rated to **300 PSI**

Male Head x Female NPT End	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	QM81	25
	1/2"	1/2"	plated steel	QM82	25
	1/2"	3/4"	plated steel	QM83	25
	1/2"	1"	plated steel	QM85	25
	1/2"	3/8"	brass	QB81	--
	1/2"	1/2"	brass	QB82	--
	1/2"	3/4"	brass	QB83	
	1/2"	1"	brass	QB85	
	1/2"	3/4"	stainless steel	QSS83	
		1"	brass	QB87	
	1-1/4"	brass	QB89		

Female Head x Female NPT End	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	QM101	25
	1/2"	1/2"	plated steel	QM102	25
	1/2"	3/4"	plated steel	QM103	25
	1/2"	3/4"	plated steel	QM103V *	25
	1/2"	1"	plated steel	QM105	25
	1/2"	3/8"	brass	QB101	-
	1/2"	1/2"	brass	QB102	-
	1/2"	3/4"	brass	QB103	-
	1/2"	1"	brass	QB105	25
	1/2"	3/4"	stainless steel	QSS103	-
	1"	brass	QB107	10	
	1-1/4"	brass	QB109	10	

* valved coupler not shown

Male Locking Head x Hose Shank	Body Size	Hose Shank Size	Material	Part #
	1/2"	1/2"	plated steel	QM33
	1/2"	3/4"	plated steel	QM44
	1/2"	1/2"	brass	QB33
	1/2"	3/4"	brass	QB44

Male Locking Head x Male NPT	Body Size	NPT Thread Size	Material	Part #
	1/2"	1/2"	plated steel	QM66
	1/2"	3/4"	plated steel	QM88
	1/2"	1/2"	brass	QB66
	1/2"	3/4"	brass	QB88

Positive safety lock

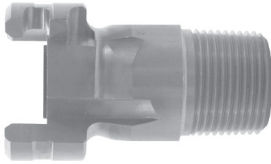
With locking nut in place sleeve cannot be moved to open coupling.

Dix-Lock Gaskets

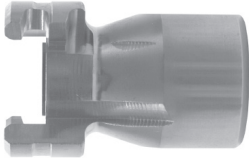
	Body Size	Buna-N Part #
	3/8"	QBM1
	1/2"	QBM2
	1-1/4"	QBM3

Dual Lock Quick-Acting Couplings


- interchanges with National A type, Dixon Quick Coupling P type and Thor PHC series couplings.
- PM and PF series must be used with mating locking sleeve fittings.
- trivalent chrome plated
- spring loaded interlocking engagement
- full opening permits full flow to tool
- optional locking key prevents sleeve retraction
- 300 PSI** working pressure

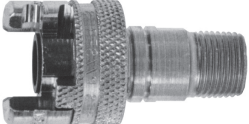
Male Pipe Thread	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	PM6	25
	1/2"	1/2"	plated steel	PM8	25
	1/2"	3/4"	plated steel	PM12	25
	1/2"	1"	plated steel	PM16	25
	1/2"	1/2"	brass	PMB8	25
	1/2"	3/4"	brass	PMB12	25
	1/2"	1"	brass	PMB16	25
	1/2"	3/4"	stainless steel	PM12SS	10

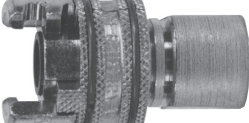
Must be used with locking sleeve fittings below.

Female Pipe Thread	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	PF6	25
	1/2"	1/2"	plated steel	PF8	25
	1/2"	3/4"	plated steel	PF12	25
	1/2"	1"	plated steel	PF16	25
	1/2"	1/2"	brass	PFB8	25
	1/2"	3/4"	brass	PFB12	25
	1/2"	1"	brass	PFB16	25
	1/2"	3/4"	stainless steel	PF12SS	10

Must be used with locking sleeve fittings below.

Hose End Barb with Locking Sleeve	Body Size	Hose ID Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	PHL6	25
	1/2"	1/2"	plated steel	PHL8	25
	1/2"	3/4"	plated steel	PHL12	25
	1/2"	1"	plated steel	PHL16	25
	1/2"	3/4"	brass	PHLB12	25
	1/2"	1"	brass	PHLB16	25
	1/2"	3/4"	stainless steel	PHL12SS	10

Male Pipe Thread with Locking Sleeve	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	3/8"	plated steel	PML6	25
	1/2"	1/2"	plated steel	PML8	25
	1/2"	3/4"	plated steel	PML12	25
	1/2"	3/4"	stainless steel	PML12SS	10

Female Pipe Thread with Locking Sleeve	Body Size	NPT Thread Size	Material	Part #	Opt Qty
	1/2"	1/2"	plated steel	PFL8	25
	1/2"	3/4"	plated steel	PFL12	25
	1/2"	3/4"	stainless steel	PFL12SS	10

Replacement Gaskets



Buna-N	Viton®
Part #	Part #
855206	452963

Locking Key



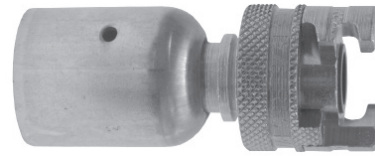
Body Size	Steel Part #
1/2"	855231

fits couplings with locking sleeve

Dual Lock Quick-Acting Couplings with Ferrule

- Dual Lock couplings with ferrules are rated to **300 PSI** working pressure.
- yellow zinc coated coupling with plated steel ferrule
- also available in brass and stainless steel
- for crimp recommendations see page 237.

Body Size	Hose ID	Hose OD		Part #
		From:	To:	
1/2"	1/2"	54/64"	1-2/64"	PHL8WF
1/2"	3/4"	1-10/64"	1-22/64"	PHL12WF



Dual Lock Quick-Acting Couplings with Knurled Flanged Sleeve

- large, raised collar sleeve permits easier handling when wearing gloves
- zinc coated

Body Size	Hose ID Size	Part #	Opt Qty	Hose End Barb with Knurled Flanged Sleeve
1/2"	3/8"	PHL6FS	25	
1/2"	1/2"	PHL8FS	25	
1/2"	3/4"	PHL12FS	25	

Body Size	NPT Thread Size	Part #	Opt Qty	Male Pipe Thread with Knurled Flanged Sleeve
1/2"	3/8"	PML6FS	25	
1/2"	1/2"	PML8FS	25	
1/2"	3/4"	PML12FS	25	

Body Size	NPT Thread Size	Part #	Opt Qty	Female Pipe Thread with Knurled Flanged Sleeve
1/2"	1/2"	PFL8FS	25	
1/2"	3/4"	PFL12FS	25	

Dual Y Valves

Dual action valve, ideal for compressor applications.

Non-Vented

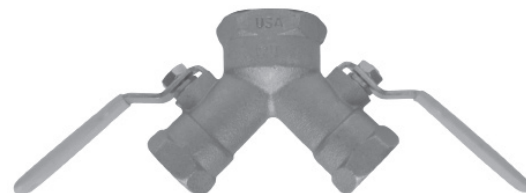
Female NPT Inlet (1)	Female NPT Outlet (2)	Brass Part #
1"	3/4"	BBV100DW
1 1/4"	3/4"	BBV125DW

maximum working pressure: **600 PSI** WOG (Water, Oil, Gas)

Vented

Female NPT Inlet (1)	Female NPT Outlet (2)	Brass Part #
1"	3/4"	BBV100DWV
1 1/4"	3/4"	BBV125DWV

maximum working pressure: **125 CWP** (Cold Working Pressure)



King Safety Cables

When hose, couplings or clamps fail, or there is an accidental separation of the assembly, King safety cables minimize damage to equipment and injuries to operators. King safety cable reaches across the hose fittings to provide standby safety for hose. Spring-loaded loops in the cable ends open easily to pass over the couplings for a firm grip on the hose. Thoroughly tested with years of service. A positive safeguard for air hose connections - helps you meet today's safety standards. *King safety cable must be installed in the extended position (no slack).*



Features:

- hose-to-hose or hose-to-rigid outlet
- King cable is the low cost answer to eliminate injuries caused by broken air hose connections
- highly resistant to rust and corrosion
- no tools needed - Easy to install and remove



Hose End

Tool End

Style WSR, for hose-to-tool service

Cable	Hose ID	Length	Max. Work. Press. PSI	Steel Part #	SS Part #
1/8"	1/2" - 1 1/4"	20 1/4"	200	WSR1	WSR1SS
3/16"	1/2" - 2"	28"	200	WSR3	---
1/4"	1 1/2" - 3"	38"	200	WSR2	WSR2SS
3/8"	4"	44"	200	WSR4	---



Hose End

Hose End

Style W, for hose-to-hose service

Cable	Hose ID	Length	Max. Work. Press. PSI	Steel Part #	SS Part #
1/8"	1/2" - 1 1/4"	20 1/4"	200	WB1	---
3/16"	1/2" - 2"	28"	200	WB3	---
1/4"	1 1/2" - 3"	38 1/4"	200	WB2	WA2SS
3/8"	4"	44"	200	WA4	---

Note: Cables are shipped with safety restraint labels attached. Labels are not pictured.

King Safety Cable Options



WSR1E

WSR1E with stainless steel marine eye



WB1C

WB1 with safety clip and lanyard

Cable	Part #	Description	Max. Working Pressure PSI
1/8"	WSR1C	WSR1 with safety clip and lanyard used to lock Air King couplings	200
1/8"	WB1C	WB1 with safety clip and lanyard used to lock Air King couplings	200
1/8"	WSR1E	WSR1 with stainless steel safety marine eye used to connect safety cable to a bolt on tool	200
1/4"	WA2B	WA2 with bronze/copper ferrule for special environmental conditions	200
1/8"	WB1SS	WB1 made with 304 stainless steel cable and springs with bronze/copper ferrules for special environmental conditions	200

Spring Guard

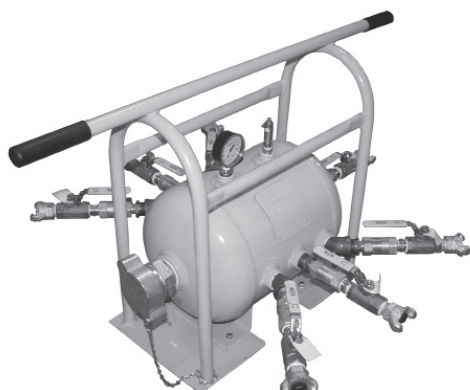
NEW



Protects hose against the effects of flexing at its most vulnerable point - immediately behind the coupling. End 'tang' allows end guard to be secured under a clamp or ferrule. Made of half-round galvanized steel wire to fit hose OD's from 7/8" to 3".

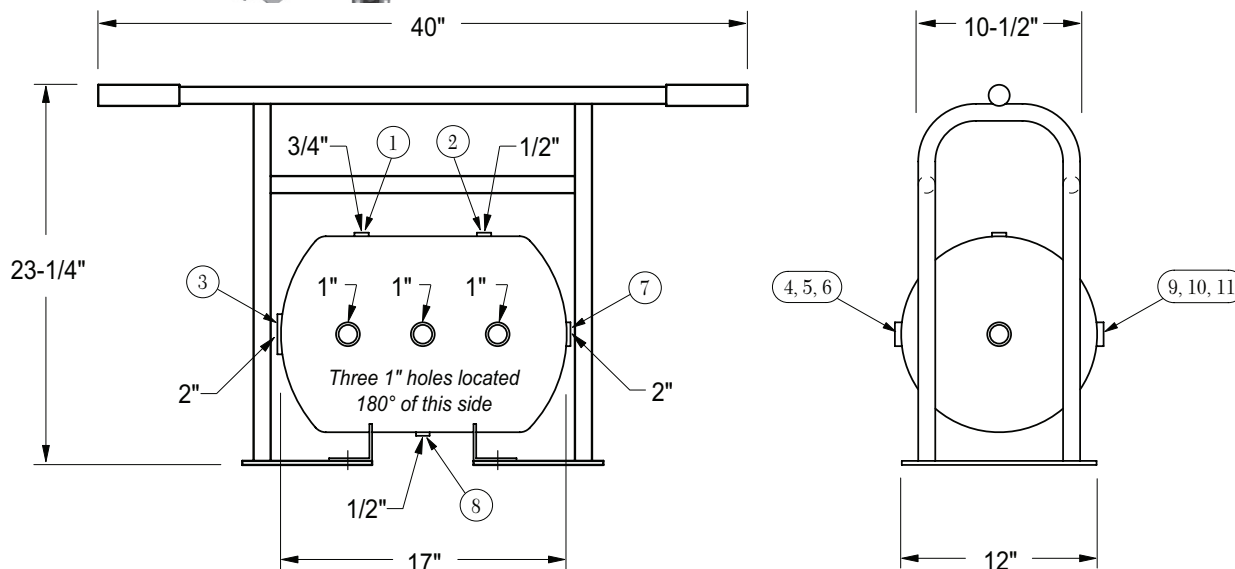
Guard ID	Hose OD		Wire Gauge	Over All Length	Tang Length	Approx. # of Coils	Galvanized Steel Part #
	From	To					
3/4"	7/8"	15/16"	0.175	12"	1"	33	SEGC1-0.75-12
1"	15/16"	1-1/4"	0.175	12"	1"	33	SEGC1-1.00-12
1 1/4"	1-1/4"	1-1/2"	0.175	14"	2"	39	SEGC1-1.25-14
1 1/2"	1-1/2"	1-3/4"	0.175	14"	2"	39	SEGC1-1.50-14
1 3/4"	1-3/4"	2"	0.175	16"	2"	44	SEGC1-1.75-16
2"	2"	2-1/2"	0.280	16"	2"	44	SEGC1-2.00-16
2 1/2"	2-1/2"	3"	0.280	18"	2"	50	SEGC1-2.50-18
3"	3"	3-1/4"	0.280	18"	2"	50	SEGC1-3.00-18

ASME Air Receiver Manifold



Compressor Air Receiver:

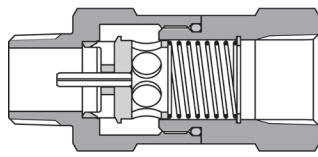
- built to ASME Code, National Board registered
- 7 gallon capacity
- **200 PSI** working pressure
- all openings are female NPT thread
- painted safety orange
- conforms to OSHA standards 1910.169 and 1926.306



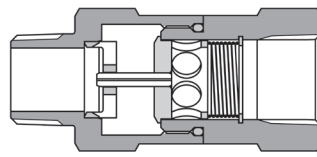
1217AR-4AK air receiver manifold assembly with matching outlet ports includes the following:

Part # / Locations	Description
1217AR-4	7 gallon ASME compressed air receiver
1217FRAME	1 protective frame
Location 1	1 <i>HB2F6M</i> 3/4" male x 1/4" female hex bushing 1 <i>GL345</i> 0-300 PSI gauge
Location 2	1 <i>HB2F4M</i> 1/2" male x 1/4" female hex bushing 1 <i>SV200</i> safety pop-off valve
Location 3	1 <i>GM28</i> 2" male spud 1 <i>B27SC</i> wing nut cap
Locations 4, 5, 6, 9, 10, 11	6 <i>HB6F8M</i> 1" male x 3/4" female bushings 6 <i>BCN75</i> 3/4" brass hex nipples 6 <i>BBLV75</i> ball valves 6 <i>SCVS6</i> safety shut-off valves 6 <i>AM7</i> universal couplings 4 <i>SE45100</i> 45° street elbow (1 each in locations 4, 6, 9 and 11 only)
Location 7	1 <i>HB2075</i> 2" male x 3/4" female bushing 1 <i>BCN75</i> 3/4" brass hex nipples 1 <i>BBLV75</i> ball valve 1 <i>SCVS6</i> safety shut-off valve 1 <i>AM7</i> universal coupling
Location 8	1 <i>HB2F4M</i> 1/2" male x 1/4" female hex bushing 1 <i>D04</i> 1/4" drain cock Labor cost for assembly of complete unit
1217AR-4AK	Receiver manifold complete assembly
Tank and frame only	
1217AR-4FR	7 gallon ASME compressed air receiver with frame

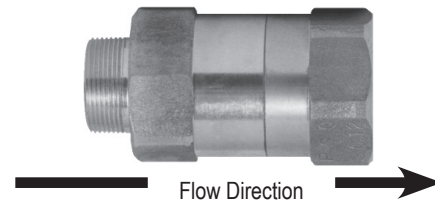
Safety Check Valves



Check Valve in
Open Position



Check Valve in
Closed Position



Features:

- does not prevent backflow
- high flow valve to provide optimum performance
- controls excess air flow (SCFM) in only one direction
- not for use in applications where 100% of the available air is required, i.e. sand blast, pile driving rigs, expansion joint blow down pipes, etc.
- automatically senses change in air flow and shuts off the flow in the event of a surge in excess of valve flow rating thus preventing hose whip
- conforms to OSHA regulation 1926.302 (b) (7) requiring a safety device at the source of the air supply and at branch air lines.
- applications include temporary plant/factory air, construction sites, shipyards or utilities

Construction:

- solid brass body and valve
- stainless steel spring and roll pin
- maximum working pressure: **250 PSI**
- maximum temperature: **250°F**

Use:

- Safety check valves operate by using the pressure differential across the valve to operate the valve and spring assembly. The pressure differential is directly related to the flow of air (SCFM) through the valve.
- When the pressure differential is within the operating limits - below the cutoff flow - of the unit, the force on the valve exerted by the spring is greater than that caused by the pressure differential (see "Open Position" graphic above). The valve remains open and normal operation continues.
- When the pressure differential is above the cutoff limit, the force on the valve exerted by the pressure differential is greater than the force exerted by the spring, and the valve closes (see the "Closed Position" graphic above).
- After the repair is made, normal operation is automatically enabled when pressure across the valve equalizes through the bleeder hole.
- The valve spring size can be specified by determining the air flow during normal operation and by estimating the air flow if a failure or rupture occurs.

NPT and Hose ID Size	Part #	Cut-off Flow Rate (SCFM at 90 PSI)	NPT and Hose ID Size	Part #	Cut-off Flow Rate (SCFM at 90 PSI)
1/4"	SCVL2	23-29	1-1/4"	SCVL10	260-290
3/8"	SCVM3	39-47		SCVM10	300-340
	SCVS3	52-65		SCVS10	440-500
1/2"	SCVM4	70-78	1-1/2"	SCVH10	570-630
3/4"	SCVS4	80-96		SCVL12	300-360
	SCVL6	72-88		SCVM12	470-530
	SCVM6	92-108	SCVS12	640-720	
	SCVR6	112-128	SCVH12	750-830	
1"	SCVJ6	132-148	2"	SCVL16	510-590
	SCVS6	160-180		SCVM16	725-825
	SCVH6	180-200	3"	SCVS16	900-1050
	SCVL8	165-195		SCVH16	1100-1200
1"	SCVM8	220-260	3"	SCVL24	1200-1400
	SCVS8	280-320		SCVS24	2400-2700
	SCVH8	310-340		SCVH24	2850-3050

Air Chief Safety Blow Gun

This basic safety blow gun is designed to conform to OSHA Standard 1910.242 (B) permitting a maximum of 30 PSI outlet pressure when dead ended based on a maximum of 150 PSI inlet pressure as well as OSHA Standard 1910.95 regulating occupational noise level exposure. *Safety glasses or shield must be worn when using any blow gun.*

**SAFETY
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- Blow gun body is designed to comfortably fit the contour of the hand, minimizing user fatigue.
- Chrome plated zinc die cast body, nickel plated steel lever, vinyl thumb grip, stainless steel spring, brass valve, Buna-N seals and nickel plated brass tip combine for superior corrosion resistance as well as a contemporary look.
- Large lever with black vinyl grip further adds to the ergonomic design and allows for easy air flow activation.
- 1/4" female NPT inlet
- Recessed internal slotted screw allows easy access to valve assembly for repairs or replacement.

Part #

D204-30



Note: The Air Chief safety blow gun has a safety tip which prevents buildup of tip pressure in the event the outlet is obstructed or "dead ended". It complies with the requirements for OSHA 1910.242 (B) and 1910.95 when used on air lines of 150 PSI or less.

**SAFETY
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Premium Safety Blow Gun

The premium safety blow gun features a distinctive black powder coat finish to give it a rich appearance as well as long term protection from corrosion and rough handling. Designed to conform to OSHA Standard 1910.242 (B) permitting a maximum of 30 PSI outlet pressure when dead ended based on a maximum of 150 PSI inlet pressure as well as OSHA Standard 1910.95 regulating occupational noise level exposure. *Safety glasses or shield must be worn when using any blow gun.*

**SAFETY
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- Blow gun body is designed to comfortably fit the contour of the hand, minimizing user fatigue.
- Large lever with vinyl grip further adds to the ergonomic design and allows for easy air flow activation.
- Zinc die cast body with a black powder coat finish, nickel plated steel lever, vinyl thumb grip, stainless steel spring, brass valve, Buna-N seals and nickel plated brass tip.
- 1/4" female NPT inlet

Part #

D204-30P



Note: The premium safety blow gun has a safety tip which prevents buildup of tip pressure in the event the outlet is obstructed or "dead ended". It complies with the requirements for OSHA 1910.242 (B) and 1910.95 when used on air lines of 150 PSI or less.

**SAFETY
ALERT**

Pistol Grip Safety Blow Gun



Part #
PG700

- Contoured pistol-grip for safe, comfortable handling, even with greasy hands.
- convenient hang-up hook
- conforms to U.S. Department of Labor, OSHA Standard 1910.242 (B) allowing a maximum of 30 PSI outlet pressure at the nozzle when dead-ended
- conforms to U.S. Department of Labor, OSHA Standard 1910.95 regulating noise level exposure
- conforms to Title 41, Walsh-Healy Rules and Regulations P50-204.8, Safety and Health Standards
- 1/4" female NPT inlet

Extended Nozzle Pistol Grip Safety Blow Gun



Part #
ENBG1

- conforms to U.S. Dept. of Labor, OSHA Standard 1910.242 (B) allowing a maximum of 30 PSI outlet pressure at the nozzle when dead-ended
- conforms to U.S. Dept. of Labor, OSHA Standard 1910.95 regulating noise level exposure
- conforms to Title 41, Walsh-Healy Rules and Regulations P50-204.8 Safety and Health Standards
- Slender 4" extended nozzle allows access to hard to reach places and holes as small as .200".
- pressure rating: **150 PSI**
- variable output trigger enables user to control air flow
- Hook design near trigger provides finger protection as well as easy storage.
- lightweight to help minimize user fatigue.
- Side holes allow air to escape if nozzle tip is dead-ended, thus preventing back pressure buildup.
- 1/4" female NPT inlet

Hydro-Blast Cleaning Tool and Siphon

Should not be used with mineral spirits



Part #
D230

- uses siphon to spray solvents or detergent solutions
- uses regular garden hose plus compressed air to blast off dirt and residue.
- can be used with hot or cold water, valve body stays cool even when used with hot water.
- Used in garages and factories to blast caked-on dirt from vehicles and equipment.
- complete, ready to use D230 includes: valve body, 2" and 15" extensions, six foot siphon tubing and adapter for garden hose.
- 1/4" female NPT inlet



The tubing supplied is vinyl and the internal seals in the valve body are Buna-N. Consult chemical resistance charts for compatibility of solvents before putting gun into solvent service. Use safety equipment when using this tool. Eye and skin protection are necessary.

Spring Driven Hose Reels

Reelcraft® 5000 Series

- maximum temperature is **150°F**
- reel inlet 3/8" NPTF
- all steel construction
- full shaft and swivel

- furnished standard with PVC hose
- Compressed air hose should not be converted to oxygen service. Compressed air hoses are often contaminated with an oil coating, which can react explosively when oxygen is introduced.

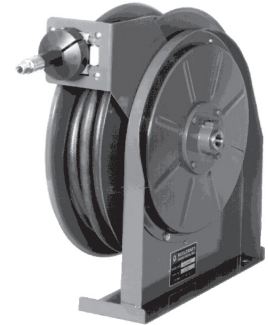
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with hose

Hose ID	Hose Length	Service	PSI	Weight lbs.	Part #
1/4"	50'	air / water	300	26	5450LP
3/8"	35'	air / water	300	25	5635LP
3/8"	50'	air / water	300	37	5650LP

without hose

Hose Capacity	Service	PSI	Weight lbs.	Part #
50' of 1/4" or 35' of 3/8"	air / water	500	21	5600LP
50' of 3/8"	air / water	500	31	5605LP



Reelcraft® 7000 Series

- all steel construction
- "LP" Low Pressure reels:
 - maximum temperature **150°F**
 - reel inlet 1/2" NPTF
 - PVC hose is standard

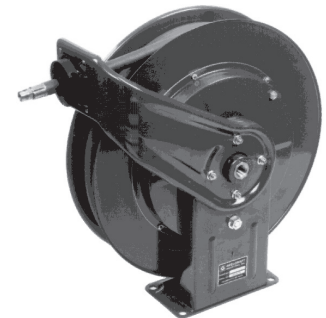
- "MP" Medium Pressure reels:
 - maximum temperature **210°F**
 - reel inlet 1/2" NPTF
 - SAE 100 R1T 1-wire braid hose standard
- "HP" High Pressure reels:
 - maximum temperature **210°F**
 - reel inlet 1/4" NPTF
 - SAE 100 R2T 2-wire braid hose standard

with hose

Hose ID	Hose Length	Service	PSI	Weight lbs.	Part #
3/8"	70'	air / water	300	50	7670LP
1/2"	50'	air / water	300	51	7850LP

without hose

Hose Capacity	Service	PSI	Weight lbs.	Part #
70' of 3/8", 50' of 1/2"	air / water	500	43	7800LP
50' of 3/8" or 50' of 1/2"	oil	3000	44	7800MP
50' of 1/4" or 50' of 3/8"	grease	5000	46	7600HP



Reelcraft® 8000 Series

- maximum temperature is **150°F** with hose
- maximum temperature is **210°F** without hose
- furnished standard with PVC hose
- reel inlet 3/4" NPTF

- Five-in-one heat treated aluminum casting incorporates main shaft, ratchet, spring arbor and inlet/outlet plumbing in one piece casting. High pressure cast steel.
- The most compact 3/4" x 50' hose reel of its capacity available.

with hose

Hose ID	Hose Length	Service	PSI	Weight lbs.	Part #
1/2"	75'	air / water	300	90	82075LP
1/2"	100'	air / water	300	99	82100LP
3/4"	50'	air / water	250	89	83050LP

without hose

Hose Capacity	Service	PSI	Weight lbs.	Part #
50' of 3/4" or 100' of 1/2"	air / water	500	74	83000LP



See next page for bumper stops.
Consult factory for uses
other than stated services.

Combination Nipples

- Combination nipples are recommended for low-pressure discharge and suction service for compatible liquids. **They are not for compressible products such as air or nitrogen on sizes 1¼" and above.**
- **Combination Nipples are not recommended for steam.**
- *The working pressure may vary with the construction of the hose, the type of clamping system used and the application. Consult the factory for recommendations.*
- In accordance with the R.M.A. bulletin for oil suction and discharge hose, a coupled length of hose in any size, should be tested to 1½ times the working pressure and held for fifteen minutes without leaking or coupling movement. For additional information and detailed instruction on testing procedures, see the Rubber Manufacturers Association (R.M.A.) handbook.



NPT threaded end no knurl

Size	Brass Part #	Aluminum Part #	Opt Qty	316 Stainless Steel Part #	Opt Qty	Hastelloy Part #
½"	---	---	--	CNS-50	50	---
¾"	---	---	--	CNS-75	50	---
1"	BST10	AST10	50	CNS-100	50	---
1¼"	BST15	AST15	50	CNS-125	50	---
1½"	BST20	AST20	50	CNS-150	50	---
2"	BST25	AST25	25	CNS-200	25	HST25
2½"		AST30	10	CNS-250		
3"		AST35	10	CNS-300		
4"		AST40	4	CNS-400		
5"		AST50	4	CNS-500		
6"		AST60	2	CNS-600		
8"		---	-	CNS-800		

* made from casting



Size	Unplated Steel Part #	Opt Qty	Plated Steel Part #	Opt Qty	Brass Part #
½"	CN50	50	CNP-050	---	---
¾"	CN75	50	CNP-75	---	---
1"	CN100	50	CNP-100	---	---
1¼"	CN125	50	CNP-125	---	---
1½"	CN150	50	CNP-150	---	---
2"	CN200	25	CNP-200	---	---
2½"	CN250	10	CNP-250	10	BST30
3"	CN300	10	CNP-300	10	BST35
4"	CN400	4	CNP-400	4	BST40
5"	CN500	4	CNP-500	4	---
6"	CN600	2	CNP-600	2	---
8"	CN800	2	CNP-800	2	---
10"	CN1000	1	CNP-1000	1	---
12"	CN1200	1	CNP-1200	1	---

Combination Nipples

Beveled end



Size	Plated Steel		316 Stainless Steel	
	Part #	Opt Qty	Part #	Opt Qty
1/2"	STB1	50	---	--
3/4"	STB5	50	RSTB5	50
1"	STB10	50	RSTB10	50
1 1/4"	STB15	50	RSTB15	50
1 1/2"	STB20	50	RSTB20	50
2"	STB25	25	RSTB25	25
2 1/2"	STB30	10	RSTB30	10
3"	STB35	10	RSTB35	10
4"	STB40	5	RSTB40	5
5"	STB50	4	---	--
6"	STB60	2	RSTB60	--
8"	STB80	2	RSTB80	--
10"	STB100	1	---	--
12"	STB120	1	---	--

Grooved end



Size	Unplated Steel		316 Stainless Steel	
	Part #	Opt Qty	Part #	Opt Qty
1"	CNV100	50	---	--
1 1/4"	CNV125	50	---	--
1 1/2"	CNV150	50	RSTV20	50
2"	CNV200	25	RSTV25	25
2 1/2"	CNV250	10	---	--
3"	CNV300	10	RSTV35	10
4"	CNV400	5	RSTV40	5
5"	CNV500	4	---	--
6"	CNV600	2	---	--
8"	CNV800	2	---	--
10"	CNV1000	1	---	--
12"	CNV1200	1	---	--

- Grooved and beveled ends (in brass and aluminum) available in select sizes. Also available: Unplated Steel ex: CNVU = Unplated

NPT end - for plastic pipe with knurled wrench grip



Size	Plated Steel	
	Part #	Opt Qty
1/2"	SAP1	50
3/4"	SAP6	50
1"	SAP11	50
1 1/4"	SAP16	50
1 1/2"	SAP21	50
2"	SAP26	25

External Swage Notched Stems and Ferrules

- When used with an appropriate notched ferrule, these fittings can be swaged or crimped onto hose, thereby providing improved shank retention.
For hose OD's of 2-4/64" and below, these couplings are to be crimped only.
For hose OD's of 2-5/64" and above, these couplings can be crimped or swaged.
- The stem can be removed from a damaged hose by cutting away the ferrule, without necessarily damaging the fitting. *After inspection to determine its suitability for reuse, it can be reinstalled into another hose by using a new ferrule.*
- Notched stems let you use the same ferrules used with the notched (NO) cam and groove and notched turned back nipples. This lets you *maximize your inventory usage and reduce costs.*

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STC200NOS



RST150NOS

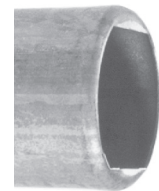
Stems

Size	PSI	Stainless Steel	Plated Carbon Steel
		Part #	Part #
1½"	250	RST150NOS	STC150NOS
2"	250	RST200NOS	STC200NOS
3"	250	RST300NOS	STC300NOS
4"	*	RST400NOS *	STC400NOS *

* Contact factory for pressure information

Ferrules

Size	Hose OD		304 Stainless Steel	Carbon Steel
	From:	To:	Part #	Part #
1½"	1-60/64"	2-12/64"	GAS2334NOS	CAS2334NOS
1½"	2-4/64"	2-22/64"	GAS2370NOS	CAS2370NOS
2"	2-30/64"	2-44/64"	GAS2709NOS	CAS2709NOS
2"	2-42/64"	2-54/64"	GAS2885NOS	CAS2885NOS
3"	3-30/64"	3-46/64"	GAS3760NOS	CAS3760NOS
3"	3-47/64"	3-54/64"	GAS3885NOS	CAS3885NOS
4"	4-40/64"	4-47/64"	GAS5010NOS	CAS5010NOS



Jump Size Combination Nipples

Hose Shank	Male NPT	316 Stainless Steel	Carbon Steel
		Part #	Part #
¾"	½"	RST0501	---
¾"	1"	RST0510	STC0510
1"	¾"	RST1005	STC1005
1"	1¼"	RST1015	STC1015
1¼"	1"	RST1510	STC1510
1¼"	1½"	RST1520	STC1520
1½"	1¼"	RST2015	STC2015
1½"	2"	RST2025	STC2025
1¾"	2"	---	STC175200
2"	1½"	RST2520	STC2520
2"	2½"	---	STC2530
2"	3"	RST2535	STC2535
2½"	2"	---	STC3025
2½"	3"	---	STC3035
3"	2"	RST3525	STC3525
3"	2½"	---	STC3530
3"	4"	---	STC3540
4"	3"	---	STC4035



reducer



increaser

PF Shank Combination Nipples

- PF shank Combination nipples have the same shank pattern as found on the PF style cam and groove fittings. This shank design was developed specifically for chemical transport hoses having Crosslinked Polyethylene (XLPE) or Ultra High Molecular Weight Polyethylene (UHMW) tubes, where shank retention can be a problem when using conventional band clamps.
- recommended for discharge and suction service
- **Not intended for compressed air**
- working pressure is given at 70°F maximum
- *The working pressure may vary with the construction of the hose, the type of clamping system used and the application. Consult the factory for recommendations.*

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NPT end

Size	Working PSI	Plated Steel	316 Stainless Steel
		Part #	Part #
2"	250	ST25PF	RST25PF
3"	125	ST35PF	RST35PF
4"	100	ST40PF	RST40PF
6"	75	ST60PF	RST60PF †

† Will be discontinued as inventory is depleted.

Note: Beveled ends for welding are also available. Contact the factory for further information.

Tuff-Lite Combination Nipples



PPN

NPT end

Size	Polypropylene	Opt Qty
	Part #	
1/2"	PPN44 *	50
3/4"	PPN66 *	50
1"	PPN88 *	25
1 1/2"	HB150	25
2"	HB200	24
3"	HB300	10
4"	HB400	---

* sold in package quantities only



HB

NPT end

Size	Nylon	Opt Qty
	Part #	
1 1/4"	THN15	25
1 1/2"	THN20	25
2"	THN25	25
3"	THN35	10



THN

Flanged King Combination Nipples

- all parts are 150# ASA flange drilling

Size	Steel	316 Stainless Steel
	Part #	Part #
1½"	FST20	RFST20
2"	FST25	RFST25
3"	FST35	RFST35
4"	FST40	RFST40
6"	FST60	RFST60
8"	FST80	RFST80
10"	FST100	RFST100
12"	FST120	RFST120



Notched Turned Back Nipples

- When used with an appropriate notched ferrule, these fittings can be swaged or crimped onto hose, thereby providing improved shank retention.
- The stem can be removed from a damaged hose by cutting away the ferrule, without necessarily damaging the fitting. *After inspection to determine its suitability for reuse,* it can be reinstalled into another hose by *using a new ferrule.*
- When used with double bolt or band clamps, notched turned back nipples will provide shank retention similar to that of the King turned back nipples.
- Notched turned back nipples let you use the same ferrules used with the notched (NO) cam and groove. This lets you *maximize your inventory usage and reduce costs.*

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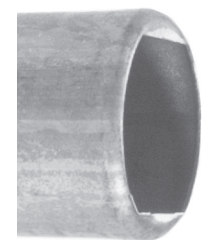
Stems

Size	316 Stainless Steel	Carbon Steel
	Part #	Part #
1½"	RN150NO	N150NO
2"	RN200NO	N200NO
3"	RN300NO	N300NO
4"	RN400NO	N400NO



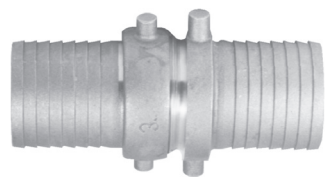
Ferrules

Size	Hose OD		304 Stainless Steel
	From:	To:	Part #
1½"	1-60/64"	2-12/64"	GAS2334NO
1½"	2-4/64"	2-22/64"	GAS2370NO
2"	2-30/64"	2-44/64"	GAS2709NO
2"	2-42/64"	2-54/64"	GAS2885NO
3"	3-30/64"	3-46/64"	GAS3760NO
3"	3-47/64"	3-54/64"	GAS3885NO
4"	4-40/64"	4-47/64"	GAS5010NO



Note: Stems are for use with lap joint flanges on page 195.

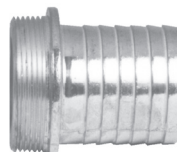
- * Special pushers required: 1½" stem - RN150NOPUSH
- 2" stem - RN200NOPUSH
- 3" stem - RN300NOPUSH
- 4" stem - RN400NOPUSH

Short Shank Suction Couplings, NPSM Thread

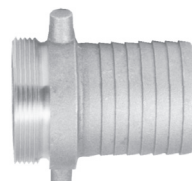
Complete Coupling



Female



1" - 2½"



3" - 6"

Size	Aluminum with Brass Nut Complete Part #	Pkg Qty	Aluminum with Brass Nut Female Part #	Aluminum Male Part #
1½"		60	IPD150SS-FEM-AL	IPD150SS-MALE-AL
2"		40	IPD200SS-FEM-AL	IPD200SS-MALE-AL
2½"		30	IPD250SS-FEM-AL	IPD250SS-MALE-AL
3"		18	IPD300SS-FEM-AL	IPD300SS-MALE-AL
4"		8	IPD400SS-FEM-AL	IPD400SS-MALE-AL
6"		6	IPD600SS-FEM-AL	IPD600SS-MALE-AL

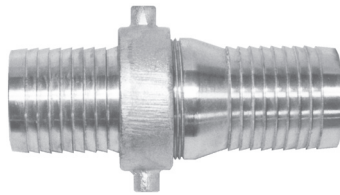
Size	Brass Complete Part #	Brass Female Part #	Brass Male Part #
1¼"		IPD125SS-FEM-BR	IPD125SS-MALE-BR
1½"		IPD150SS-FEM-BR	IPD150SS-MALE-BR
2"		IPD200SS-FEM-BR	IPD200SS-MALE-BR
2½"		IPD250SS-FEM-BR	IPD250SS-MALE-BR
3"		IPD300SS-FEM-BR	IPD300SS-MALE-BR
4"		IPD400SS-FEM-BR	IPD400SS-MALE-BR

Size	Plated Iron Complete Part #	Plated Iron Female Part #	Plated Iron Male Part #
1"	S33 ¹	S12 ¹	S10
1¼"	S48 ²	S17 ²	S15
1½"	S63 ²	S22 ²	S20
2"	S78 ²	S27 ²	S25
2½"	S93 ²	S32 ²	S30
3"	S111 ²	S38 ²	S36
4"	S123 ²	S42 ²	S40
5"	S168 ²	S57 ²	S55
6"	S183 ²	S62 ²	S60

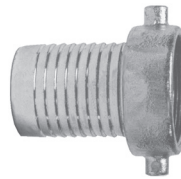
Size	Plated Iron with Brass Nut Complete Part #	Plated Iron with Brass Nut Female Part #	Plated Iron Male Part #
1"	SB33 ¹	SB12 ¹	S10
1¼"	SB48 ²	SB17 ²	S15
1½"	SB63 ²	SB22 ²	S20
2"	SB78 ²	SB27 ²	S25
2½"	SB93 ²	SB32 ²	S30
3"	SB111 ²	SB38 ²	S36
4"	SB123 ²	SB42 ²	S40
5"	SB168 ²	SB57 ²	S55
6"	SB183 ²	SB62 ²	S60

¹ 1" fittings have a hex nut² 1¼" - 6" have pin lugs

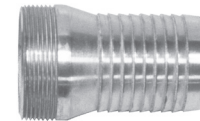
Steel Short Shank Suction Couplings, NPSM Thread



Complete Coupling



Female

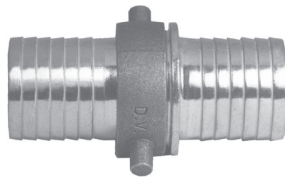


Male

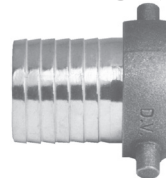
Size	Steel with Iron Nut	Steel with Iron Nut	Steel
	Complete Part #	Female Part #	Male Part #
1¼"	CSM125	FCSM125	MCS125
1½"	CSM150	FCSM150	MCS150
2"	CSM200	FCSM200	MCS200
2½"	CSM250	FCSM250	MCS250
3"	CSM300	FCSM300	MCS300
4"	CSM400	FCSM400	MCS400
6"	CSM600	FCSM600	MCS600

Size	Steel with Brass Nut	Steel with Brass Nut	Steel
	Complete Part #	Female Part #	Male Part #
1¼"	CSB125	FCSB125	MCS125
1½"	CSB150	FCSB150	MCS150
2"	CSB200	FCSB200	MCS200
2½"	CSB250	FCSB250	MCS250
3"	CSB300	FCSB300	MCS300
4"	CSB400	FCSB400	MCS400
6"	CSB600	FCSB600	MCS600

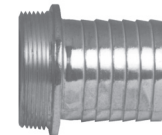
Short Shank Suction Couplings, NST (NH) Thread



Complete Coupling



Female



Male

Size	Steel with Iron Nut	Steel with Iron Nut	Steel
	Complete Part #	Female Part #	Male Part #
1½"	S63N	S22N	S201
2½"	S93N	S32N	S301

Size	Plated Iron with Brass Nut	Plated Iron with Brass Nut	Steel
	Complete Part #	Female Part #	Male Part #
1½"	SB63N	SB22N	S201
2½"	SB93N	SB32N	S301

Size	Brass	Brass	Brass
	Complete Part #	Female Part #	Male Part #
1½"	BS63N	BS22N	BS201
2½"	BS93N	BS32N	BS301

Size	Aluminum with Brass Nut	Aluminum with Brass Nut	Aluminum
	Complete Part #	Female Part #	Male Part #
1½"	CAB150N	FAB150N	MA150N
2½"	CAB250N	FAB250N	MA250N

NST (Common Fire Hose Thread) is also known as NH
Replacement washers (KRW standard) are available.

Pin Lug Spanner Wrenches

CAM & Groove
Tank Truck
Boss
Air
Shank
Brass
Clamp

Single End Wrench



Size	Plated Iron Part #
1½"	SW15
2"	SW20
2½"	SW25
3"	SW30
4"	SW40
6"	SW60

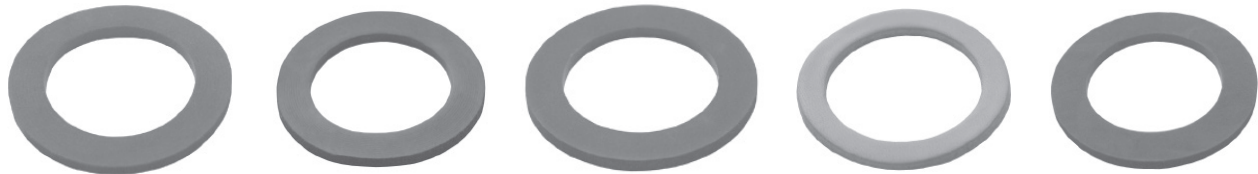


Double End Wrench

Size	Plated Iron Part #
1½", 2" x 2½", 3"	SW153

Additional spanner wrenches are also available on page 22.

Washers for Suction, Long and Short Shank Couplings

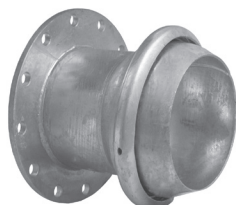


Size	Rubber Part #	Neoprene Part #	Viton® Part #	Leather Part #	NST Washers Part #
½"	SSW-05	---	---	KLW1	---
¾"	SSW-07	KNW5	---	KLW5	---
1"	SSW-10	KNW10	KVW10	KLW10	---
1¼"	SSW-13	KNW15	---	KLW15	---
1½"	SSW-15	KNW20	KVW20	KLW20	KRW2075
2"	SSW-20	KNW25	KVW25	KLW25	---
2½"	SSW-25	KNW30	---	KLW30	KRW3075
3"	SSW-30	KNW35	KVW35	KLW35	---
4"	SSW-40	KNW40	---	KLW40	---
5"	SSW-50	KNW50	---	---	---
6"	SSW-60	KNW60	---	---	---
8"	SSW-80	KNW80	---	---	---

Quick Connect Fittings

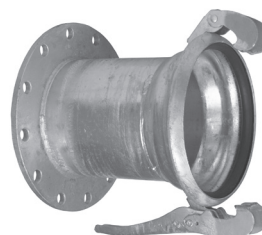
- The hot dipped, galvanized quick coupling has a double pin locking lever for smooth closing action. Type A (*Agri-Lock style*) locks on the female side. Type B (*Bauer style*) locks on the male side.
- Each coupler is equipped with a safety pin to prevent accidental openings.
- The primary applications for these fittings are irrigation and suction lines.
- These fittings are not recommended for chemicals or any hazardous type materials where the possibility of leakage would result in health or environmental concerns. Consult the factory for recommendations.

Type A (Agri-Lock style)



Male with 150 ASA Flange

Size		Galvanized
inches	mm	Part #
10"	250	MC22210
12"	300	MC22212



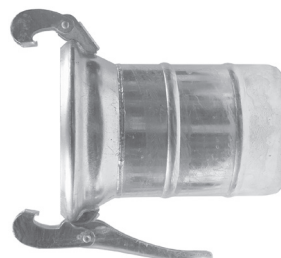
Female with 150 ASA Flange (10" pictured)

Size		Galvanized
inches	mm	Part #
10"	250	FC22310
12"	300	FC22312 *



Male with Hose Shank

Size		Galvanized
inches	mm	Part #
10"	250	MC21110
12"	300	MC21112



Female with Hose Shank (10" pictured)

Size		Galvanized
inches	mm	Part #
10"	250	FC21210
12"	300	FC21212 *



Male x Female 90° Elbow (12" pictured)

Size		Galvanized
inches	mm	Part #
10"	250	EL21510-90
12"	300	EL21512-90 *

* All 12" female fittings include ACB304 lever assist bar.

Quick Connect Fittings**Type A**
(Agri-Lock style)**Male Plug with Ring**

Size		Galvanized
inches	mm	Part #
10"	250	MP21010
12"	300	MP21012

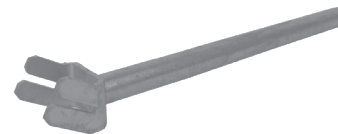
**Female Plug with Gasket (10" pictured)**

Size		Galvanized
inches	mm	Part #
10"	250	FP20910
12"	300	FP20912 *

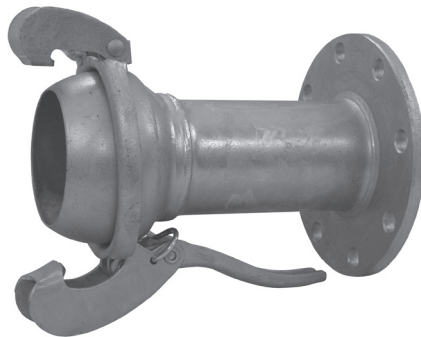
* All 12" female fittings include ACB304 lever assist bar

**Type A gaskets**

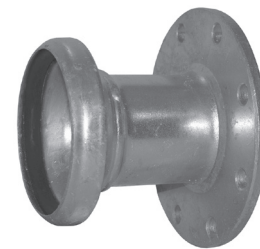
Size		Rubber	EPDM
inches	mm	Part #	Part #
10"	250	RG20510	RG20610
12"	300	RG20512	RG20612

**Type A accessories**

Size		Part #	Description
inches	mm		
12"	300	ACB304	lever assist bar for 12" Type A fittings
12"	300	SP390	safety pin for 12" Type A fittings

Type B
(Bauer style)**Male with 150 ASA Flange**

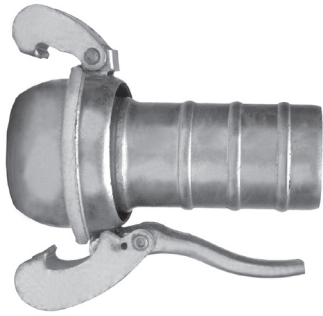
Size		Galvanized
inches	mm	Part #
4"	108	MC3134
6"	159	MC3136
8"	194	MC3138
10"	250	MC31310
12"	300	MC31312

**Female with 150 ASA Flange**

Size		Galvanized
inches	mm	Part #
4"	108	FC3144
6"	159	FC3146
8"	194	FC3148
10"	250	FC31410
12"	300	FC31412

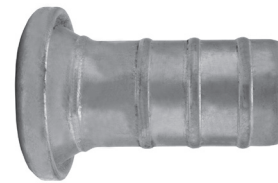
Quick Connect Fittings

Type B (Bauer style)



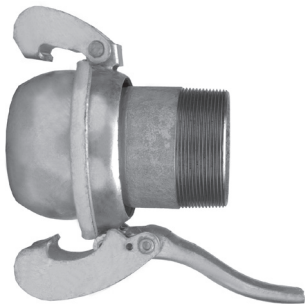
Male with Hose Shank

Size		Galvanized
inches	mm	Part #
2"	50	MC3092
3"	76	MC3093
4"	108	MC3094
6"	159	MC3096
8"	194	MC3098
10"	250	MC30910
12"	300	MC30912



Female with Hose Shank

Size		Galvanized
inches	mm	Part #
2"	50	FC3102
3"	76	FC3103
4"	108	FC3104
6"	159	FC3106
8"	194	FC3108
10"	250	FC31010
12"	300	FC31012



Male with Male NPT

Size		Galvanized
inches	mm	Part #
2"	50	MCM3112
3"	76	MCM3113
4"	108	MCM3114
6"	159	MCM3116
8"	194	MCM3118



Female with Male NPT

Size		Galvanized
inches	mm	Part #
2"	50	FCM3122
3"	76	FCM3123
4"	108	FCM3124
6"	159	FCM3126
8"	194	FCM3128

Quick Connect Fittings

Type B (Bauer style)



Male x Female 90° Elbow

Size		Galvanized
inches	mm	Part #
4"	108	EL3154-90
6"	159	EL3156-90
8"	194	EL3158-90
10"	250	EL31510-90
12"	300	EL31512-90



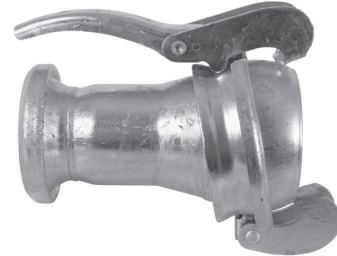
Male x Female 45° Elbow

Size		Galvanized
inches	mm	Part #
4"	108	EL3154-45
6"	159	EL3156-45
8"	194	EL3158-45
10"	250	EL31510-45
12"	300	EL31512-45



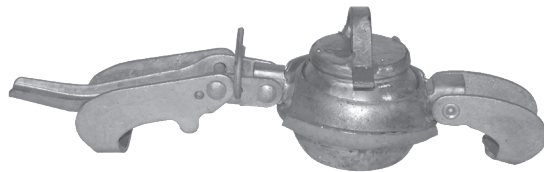
Female x Male Reducer

Female Size		Male Size		Galvanized
inches	mm	inches	mm	Part #
6"	159	4"	108	FMR31864
8"	194	6"	159	FMR31886
10"	250	8"	194	FMR318108
12"	300	10"	250	FMR3181210



Female x Male Increaser

Female Size		Male Size		Galvanized
inches	mm	inches	mm	Part #
4"	108	6"	159	FMI31946
6"	159	8"	194	FMI31968
8"	194	10"	250	FMI319810
10"	250	12"	300	FMI3191012



Male Plug

Size		Galvanized
inches	mm	Part #
2"	50	MP3232
3"	76	MP3233
4"	108	MP3234
6"	159	MP3236
8"	194	MP3238
10"	250	MP32310
12"	300	MP32312



Female Plug with Gasket

Size		Galvanized
inches	mm	Part #
2"	50	FP3082
3"	76	FP3083
4"	108	FP3084
6"	159	FP3086
8"	194	FP3088
10"	250	FP30810
12"	300	FP30812

Quick Connect Fittings

Type B (Bauer style)



Female with Gasket

Size		Unplated Part #
inches	mm	
2"	50	3022
3"	76	3023
4"	108	3024
6"	159	3026
8"	194	3028
10"	250	30210
12"	300	30212



Male

Size		Unplated Part #
inches	mm	
2"	50	3032
3"	76	3033
4"	108	3034
6"	159	3036
8"	194	3038
10"	250	30310
12"	300	30312

- Female and male fittings are commonly used for butt-welding to pipe.



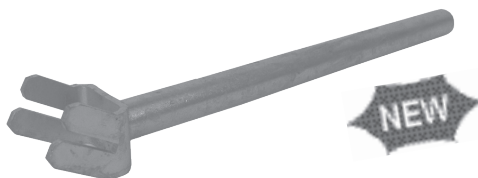
Safety Pins

Size		Galvanized Part #
inches	mm	
2"	50	SP59
3"	76	SP76
4"	108	SP89
6"	159	SP159
8"	194	SP159
10"	250	SP390
12"	300	SP390



Lever Ring

Size		Galvanized Part #
inches	mm	
2"	50	LR3042
3"	76	LR3043
4"	108	LR3044
6"	159	LR3046
8"	194	LR3048
10"	250	LR30410
12"	300	LR30412



Type B accessories

Size		Part #	Description
inches	mm		
10"	250	ACB304	lever assist bar for 10" and 12" Type B fittings
12"	300		



Type B gaskets

Size		Rubber Part #	EPDM Part #
inches	mm		
2"	50	RG3052	RG3062
3"	76	RG3053	RG3063
4"	108	RG3054	RG3064
6"	159	RG3056	RG3066
8"	194	RG3058	RG3068
10"	250	RG30510	RG30610
12"	300	RG30512	RG30612

CAM & Groove

Art. P0309C - 1 (USA)

	Ø - O.D.	SDR
• Maschio con portagomma POLYRON	108x114	11
• Mâle avec portetuyau POLYRON	108x114	17
• Male with spigot POLYRON V-Teil mit	159x168	11
• Schlauchtülle POLYRON Rotula para	159x168	17
• manguera POLYRON	194x219	17
* Maniglia non inclusa (vedi art. M304C)	* 300x324	17
* Lever not included (see art. M304C)	* 300x324	26



Tank Truck

Art. P0309C - 2 (USA)

	Ø - O.D.	SDR
• Maschio con portagomma POLYRON senza bilanciere		
• Mâle avec portetuyau POLYRON sans balancier	P0309C1085025	108x114 11
• Male with spigot POLYRON without lever ring	P0309C1085005	108x114 17
• V-Teil mit Schlauchtülle POLYRON ohne Verschlussring	P0309C1595025	159x168 11
• Rotula para manguera POLYRON sin abrazadera	P0309C1595005	159x168 17
	P0309C1945005	194x219 17
	P0309C3005015	300x324 17
	P0309C3005005	300x324 26



Boss

Art. 0304C

	Ø
• Bilanciere zincato	
• Balancier zingué	0304C1085005
• Galvanized lever ring	0304C1595005
• Verzinkter Hebelverschlussring	0304C1945005
• Abrazadera galvanizada	0304C3005505
* Maniglia non inclusa (vedi art. M304C)	* 300
* Lever not included (see art. M304C)	



Air

Shank

Art. M304C

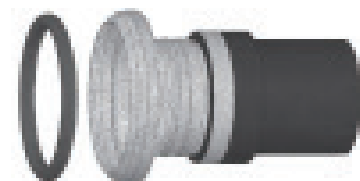
	Ø
• Maniglia zincata	
• Levier zingué	M304C3005005
• Galvanized lever	
• Verzinkter Hebel	
• Palanca galvanizada	250-300



Brass

Art. P0310C - 1 (USA)

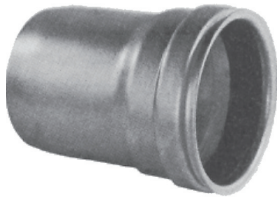
	Ø - O.D.	SDR
• Femmina con portagomma POLYRON		
• Femelle avec portetuyau POLYRON	P0310C108K025	108x114 11
• Female with spigot POLYRON	P0310C108K005	108x114 17
• M-Teil mit Schlauchtülle POLYRON	P0310C159K025	159x168 11
• Hembra con tubo para manguera POLYRON	P0310C159K005	159x168 17
	P0310C194K005	194x219 17
	P0310C300K015	300x324 17
	P0310C300K005	300x324 26



Clamp

Female Coupler

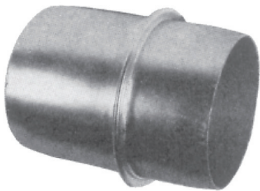
Raccord femelle



Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.
3	WSRLF300	2.00
4	WSRLF400	2.50
5	WSRLF500	3.50
6	WSRLF600	4.00
7	WSRLF700	5.50
8	WSRLF800	8.00
10	WSRLF1000	10.50
12	WSRLF1200	15.00

Male Coupler

Raccord male



Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.
3	WSRLM300	2.00
4	WSRLM400	2.50
5	WSRLM500	3.00
6	WSRLM600	4.00
7	WSRLM700	5.00
8	WSRLM800	7.00
10	WSRLM1000	11.00
12	WSRLM1200	14.00

Clamp

Colier d'attache



Fits steel only

Fits steel only

Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.
3	WHPRLC300	1.40
4	WHPRLC400	1.60
5	WHPRLC500	1.80
6	WHPRLC600	2.00
7	WHPRLC700	2.25
8	WHPRLC800	2.50
10	WHPRLC1000	3.50
10	WHPRLC1000S	3.50
12	WHPRLC1200	5.25
12	WHPRLC1200S	5.25

Ring Lock Field T



Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.
3	WSRLFT300	8.00
4	WSRLFT400	9.00
5	WSRLFT500	12.00
6	WSRLFT600	13.00
7	WSRLFT700	15.00
8	WSRLFT800	20.00
10	WSRLFT1000	33.00
12	WSRLFT1200	44.00

Ring Lock End T



Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.
3	WSRLET300	8.00
4	WSRLET400	9.00
5	WSRLET500	12.00
6	WSRLET600	13.00
7	WSRLET700	15.00
8	WSRLET800	21.00
10	WSRLET1000	34.00
12	WSRLET1200	44.00

**Steel Ring Lock
Fittings 45° Elbow**

Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.	\$\$\$ CAD
3	WSRLE300-45	6.00	
4	WSRLE400-45	7.00	
5	WSRLE500-45	8.00	
6	WSRLE600-45	11.00	
7	WSRLE700-45	16.00	
8	WSRLE800-45	18.00	
10	WSRLE1000-45	22.00	
12	WSRLE1200-45	30.00	

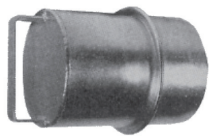
**Steel Ring Lock
Fittings 90° Elbow**

Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.	\$\$\$ CAD
3	WSRLE300	6.00	
4	WSRLE400	7.00	
5	WSRLE500	8.00	
6	WSRLE600	11.00	
7	WSRLE700	16.00	
8	WSRLE800	18.00	
10	WSRLE1000	22.00	
12	WSRLE1200	30.00	

R Lock Reducer

INCREASERS ALSO AVAILABLE.
CONTACT FACTORY.

Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.	\$\$\$ CAD
4x3	WSRLR304	4.00	
5x4	WSRLR405	5.00	
5x6	WSRLR506	6.00	
4x6	WSRLR406	7.00	
6x7	WSRLR607	8.00	
6x8	WSRLR608	10.00	
6x10	WSRLR610	14.00	
7x8	WSRLR708	12.00	
8x10	WSRLR810	15.00	
10X12	WSRLR1012	19.00	

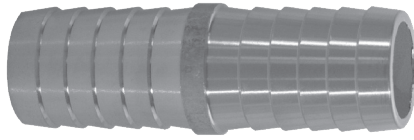
R Lock End Plug

Grandeur/Size Inch/Pouce	# de Piece Part #	Weight/Poids Lbs.	\$\$\$ CAD
3	WSRLEP300	3.00	
4	WSRLEP400	3.75	
5	WSRLEP500	4.50	
6	WSRLEP600	5.00	
7	WSRLEP700	6.00	
8	WSRLEP800	7.00	
10	WSRLEP1000	13.00	
12	WSRLEP1012	17.00	

**Western Square
Back Gaskets**

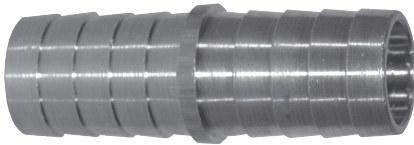
Grandeur/Size Inch/Pouce	# de Piece Part #	Approx. Box Qty.	\$\$\$ CAD
2	G28	700	
3	G38	400	
4	G48	250	
5	G58	200	
6	G68	150	
7	G78	125	
8	G88	100	
10	G108	100	
12	G128	75	
3	G39	400	
4	G49	250	

Dixon 316 Stainless Steel Menders



Size	Length	Stainless Steel	
		Part #	
1/4"	2-1/32"	RM2	
3/8"	2-1/16"	RM3	
1/2"	2-1/16"	RM4	
3/4"	2-1/2"	RM6	

Dixon Brass Hose Menders



Size	Brass	
	Part #	
1/8"	BM1	
3/16"	BM15	
1/4"	BM2	
5/16"	BM25	
3/8"	BM3	
1/2"	BM4	
5/8"	BM5	
3/4"	BM6	
1"	BM8	

Tuff-Lite Nylon Menders

- maximum working temperature **150°F**



1/4" - 2" menders



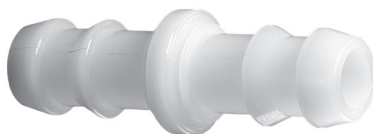
3" - 6" menders

Size	Nylon Part #	Pkg Qty
1/4"	TM2 *	50
5/16"	TM25 *	50
3/8"	TM3 *	50
1/2"	TM4 *	50
5/8"	TM5 *	50
3/4"	TM6 *	50
1"	TM8 *	25
1-1/4"	TM16	50
1-1/2"	TM21	100
2"	TM26	50
3"	TM36	--
4"	TM46	--
6"	TM66	--

* TM2 through TM8 sold in package quantity only.

Tuff-Lite Nylon Push-On Menders

- no clamps needed when used with push-on hose
- sold in package quantity only



Size	Nylon Part #	Pkg Qty
1/4"	TPM2	50
3/8"	TPM3	50
1/2"	TPM4	50

Steel Hose Menders

- They are not for compressible products such as **air, nitrogen or steam.** SAFETY ALERT
- The working pressure may vary with the construction of the hose, the type of clamping system used and the application. Consult the factory for recommendations.
- In accordance with the R.M.A. bulletin for oil suction and discharge hose, a coupled length of hose in any size,

should be tested to 1½ times the working pressure and held for fifteen minutes without leaking or coupling movement. For additional information and detailed instruction on testing procedures, see the Rubber Manufacturers Association (R.M.A.) handbook.



Size	Zinc Plated Steel Part #	Opt Qty
1/4"	DMA	200
3/8"	MEN-37	100
1/2"	MEN-50	50
5/8"	DM5	50
3/4"	MEN-75	50
1"	MEN-100	50
1-1/4"	MEN-125	50
1-3/8"	DM18	50
1-1/2"	MEN-150	50
1-1/2"	DMXL21 *	25
2"	MEN-200	50
2"	DMXL26 *	25
2-1/2"	MEN-250	25
3"	MEN-300	20
4"	MEN-400	10
5"	MEN-500	5
6"	MEN-600	4
8"	MEN-800	1
10"	MEN-1000	1
12"	MEN-1200	1

Size	Stainless Steel Part #	Opt Qty
1/4"	RDMA	100
3/8"	RDMB	100
1/2"	MENSS-050	50
3/4"	MENSS-075	50
1"	MENSS-100	50
1-1/4"	MENSS-125	5
1-1/2"	MENSS-150	50
2"	MENSS-200	10
3"	MENSS-300	5
4"	MENSS-400	5

* XL series is extra long

Steel Hose Menders

- They are not for compressible products such as **air, nitrogen or steam.** SAFETY ALERT
- The working pressure may vary with the construction of the hose, the type of clamping system used and the application. Consult the factory for recommendations.

- In accordance with the R.M.A. bulletin for oil suction and discharge hose, a coupled length of hose in any size, should be tested to 1½ times the working pressure and held for fifteen minutes without leaking or coupling movement. For additional information and detailed instruction on testing procedures, see the Rubber Manufacturers Association (R.M.A.) handbook.

Size	for 1 clamp each end	for 2 clamps each end
	Steel Part #	Steel Part #
1/4"	KM21	---
5/16"	KM251	---
1/2"	KM41	KM42
5/8"	KM51	KM52
3/4"	KM61	KM62
1"	KM81	KM82
1-1/4"	KM101	KM102
1-1/2"	KM121	KM122
2"	---	KM162



for 1 clamp each end



for 2 clamps each end

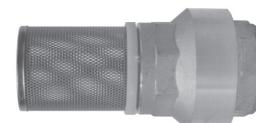
Strainer with Spring Loaded Check Valves

- brass with NBR seat, stainless steel strainer
- soft seat for bubble tight shutoff, spring loaded for fast seating action

- flow profile designed to minimize head loss
- temperature range: **10°F to 210°F** (-10°C to 100°C)
- cracking pressure: **0.50 PSI**
- pressure rating: 1½" - 2" **400 PSI WOG**, 3" - 4" **175 PSI WOG**

Size	Part #
1½"	BVFS20 *
2"	BVFS25 *
3"	BVFS35
4"	BVFS40

* NSF61 approved



Cast Iron Threaded Foot Valves

Must be installed in the vertical position



Complete Threaded Assembly (painted)



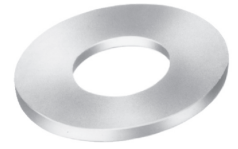
Strainer Only (painted)



Flapper Valve Assembly



Valve Rubber



Seat Plate

NPT Size	Part #	Part #	Part #	Part #	Part #
1½"	IPD150FVS	FVS20	FVFA20	FVL20	FVSP20
2"	IPD200FVS	FVS25	FVFA25	FVL25	FVSP25
2½"	IPD250FVS	FVS30	FVFA30	FVL30	FVSP30
3"	IPD300FVS	FVS35	FVFA35	FVL35	FVSP35
4"	IPD400FVS	FVS40	FVFA40	FVL40	FVSP40
6"	IPD600FVS	FVS60	FVFA60	FVL60	FVSP60
8"	IPD800FVS	FVS80	FVFA80	FVL80	FVSP80

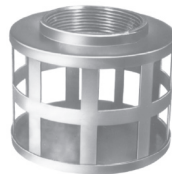
Strainers and Skimmers



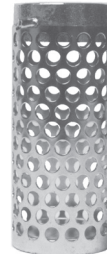
Standard Threaded Round Hole Type *



304 Stain. Steel Round Hole Type



Standard Threaded Square Hole Type *



Long Thin Round Hole Type *



Skimmer Bottom Round Hole Type *



Skimmer Top Round Hole Type *

NPT Size	Part #	Part #	Part #	Part #	Part #	Part #
1½"	RHS20	RRHS20	SHS20	RSS20	DSB20	DST20
2"	RHS25	RRHS25	SHS25	RSS25	DSB25	DST25
2½"	RHS30	---	SHS30	RSS30	---	---
3"	RHS35	RRHS35	SHS35	RSS35	DSB35	DST35
4"	RHS40	RRHS40	SHS40	RSS40	---	---
5"	RHS50	---	---	---	---	---
6"	RHS60	RRHS60	SHS60	---	---	---
8"	RHS80	---	SHS80	---	---	---
10"	RHS100	---	---	---	---	---
12"	RHS120	---	---	---	---	---

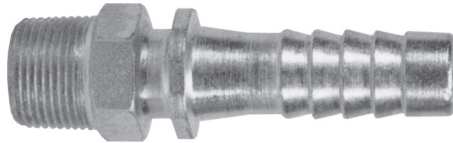
* zinc plated steel

Polyethylene Strainers



NPT Size	Black Polyethylene Part #
1½"	TSS20
2"	TSS25
3"	TSS35

3500 Steel Nipples



Male Nipple

(hose shank x male NPT)

Hose Size	NPT Size	Zinc Plated Steel Part #	Opt Qty
1/4"	1/8"	3501	100
1/4"	1/4"	3502	100
1/4"	3/8"	3504	100
3/8"	1/4"	3505	100
3/8"	3/8"	3506	100
3/8"	1/2"	3508	100
1/2"	1/4"	3509	100
1/2"	3/8"	3510	100
1/2"	1/2"	3512	100
1/2"	3/4"	3511	50
3/4"	1/2"	3513	50
3/4"	3/4"	3514	50
3/4"	1"	3515	25
1"	3/4"	3516	25
1"	1"	3518	25



Female Nipple

(hose shank x female NPT)

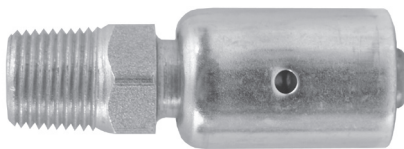
Hose Size	NPT Size	Zinc Plated Steel Part #	Opt Qty
1/4"	1/4"	3542	100
3/8"	1/4"	3545	50
3/8"	3/8"	3546	50
1/2"	3/8"	3550	100
1/2"	1/2"	3552	50
3/4"	3/4"	3554	50

3500 Steel Nipples with Ferrules

Exclusive interlocking ferrule can be crimped or swaged to achieve maximum coupling sealing and retention. The 3500 steel nipples with ferrules have a low profile, streamline appearance. For crimp dimensions see page 237.

- Zinc plated steel 3500 nipples with carbon steel ferrules can be crimped or swaged-on.
- rated to **600 PSI** working pressure
- *for air and water service only*

**SAFETY
ALERT**



Size	Hose OD		Steel Part #
	From:	To:	
1/2"	54/64"	58/64"	3512WF
3/4"	1-10/64"	1-14/64"	3514WF
1"	1-30/64"	1-34/64"	3518WF

The Importance of Whip Hose

**SAFETY
ALERT**

The constant vibration created by air tools, like air drills and pavement breakers, is destructive to air hose couplings, especially the quick-acting type. To provide protection against coupling breakage and related hazards, Dixon recommends the use of a whip hose. To construct a whip hose, connect one end of a short (3' to 10') air hose to the air tool using a 3500 type steel nipple. Connect the other end of the hose to the air supply using the standard quick-acting coupling. The heat-treated 3500 nipple will withstand vibration far better than the standard coupling and provide a safer connection. The whip hose should remain permanently connected to the tool.

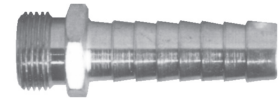
Long Shank Couplings



Complete Coupling



Female



Male

Hose ID	NPSM Thread	Plated Steel Complete Part #	Plated Steel Female Part #	Plated Steel Male Part #
1/2"	1/2"	SLS404	SLS444	SLS414
3/4"	3/4"	SLS606	SLS646	SLS616
1"	1"	SLS808	SLS848	SLS818

Hose ID	GHT Thread	Plated Steel Complete Part #	Plated Steel Female Part #	Plated Steel Male Part #
3/8"	3/4"	SLS307	SLS347	SLS317
1/2"	3/4"	SLS407	SLS447	SLS417
5/8"	3/4"	SLS507	SLS547	SLS517
3/4"	3/4"	SLS607	SLS647	SLS617

Hose ID	NPSM Thread	Plated Iron Complete Part #	Plated Iron Female Part #	Plated Iron Male Part #
1-1/4"	1-1/4"	MLS48	MLS33	MLS15
1-1/2"	1-1/2"	MLS63	MLS43	MLS20
2"	2"	MLS78	MLS53	MLS25

MLS and SLS couplings take KRW washers, located on page 90.

Super King Long Shank Couplings for Bulk Handling

Female Coupling (NPSM Thread)



KLW washers standard

Teflon® gaskets standard

Size	Shank Length	Plated Steel Shank with Brass Nut Part #	Plated Steel Shank with Iron Nut Part #	316 Stainless Shank with Iron Nut Part #	316 Stainless Shank with Stain. Nut Part #
1-1/4"	4-1/8"	SD15	SDMP15	---	---
1-1/2"	4-1/8"	SD20	SDMP20	---	RSHR20 *
2"	5"	SD25	SDMP25	RSDM25	RSDR25
2-1/2"	5"	SD30	SDMP30	---	---
3"	5"	SD35	SDMP35	RSDM35	RSDR35
4"	5"	SD40	SDMP40	---	---

* **RSHR20** has a hex nut

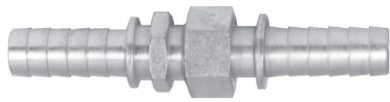
Male Coupling (NPT Thread)



Size	Shank Length	Plated Steel Part #	316 Stainless Part #
1-1/4"	4-3/8"	SK16	---
1-1/2"	4-5/32"	SK21	---
2"	5-5/16"	SK26	RSK26
2-1/2"	5-5/16"	SK31	---
3"	5-1/2"	SK36	RSK36
4"	5-1/2"	SK46	---

All above couplings will accept 3 band clamps.

Replacement Vitor® (KVW) gaskets are available. Teflon® gaskets are available.

Spray Hose Couplings

Complete Coupling



Female



Male



Leather Washer

Hose ID	NPSM Thread	Plated Steel Complete Part #	Plated Steel Female Part #	Plated Steel Male Part #	Leather Part #
3/8"	3/4"	SS306	SS346	SS316	KLW5
1/2"	1/2"	SS404	SS444	SS414	KLW1
1/2"	3/4"	SS406	SS446	SS416	KLW5
3/4"	3/4"	SS606	SS646	SS616	KLW5
1"	1"	SS808	SS848	SS818	KLW10

Hose ID	GHT Thread	Plated Steel Complete Part #	Plated Steel Female Part #	Plated Steel Male Part #	Leather Part #
3/8"	3/4"	SS307	SS347	SS317	KLW5
1/2"	3/4"	SS407	SS447	SS417	KLW5
5/8"	3/4"	SS507	SS547	SS517	KLW5
3/4"	3/4"	SS607	SS647	SS617	KLW5

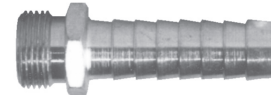
Note: Use with Boss clamps on page 66.

Long Shank Fittings

Complete Coupling



Female with Swivel Nut



Male

Hose ID	NPSM Thread	Brass Complete Part #	Brass Female Part #	Brass Male Part #
1/2"	1/2"	BLS404	BLS444	BLS414
1/2"	3/4"	BLS406	BLS446	BLS416
5/8"	3/4"	BLS506	BLS546	BLS516
3/4"	3/4"	BLS606	BLS646	BLS616
1"	1"	BLS808	BLS848	BLS818
1-1/4"	1-1/4"	BLS48	BLS33	BLS15
1-1/2"	1-1/2"	BLS63	BLS43	BLS20
2"	2"	BLS78	BLS53	BLS25

sizes 1/2" to 1" machined; 1 1/4" to 2" cast

Hose ID	GHT Thread	Brass Complete Part #	Brass Female Part #	Pkg Qty	Brass Male Part #	Pkg Qty
1/2"	3/4"	BLS407	BLS447	150	BLS417	150
5/8"	3/4"	BLS507	BLS547	150	BLS517	150
3/4"	3/4"	BLS607	BLS647	150	BLS617	150

Hose ID	NST Thread	Brass Complete Part #	Brass Female Part #	Brass Male Part #
1-1/2"	1-1/2"	BLS63NST	BLS150NST	BLS20NST
2-1/2"	2-1/2"	BLS93NST	BLS250NST	BLS30NST

KRW Washers standard, available.

316 Stainless Steel Inserts

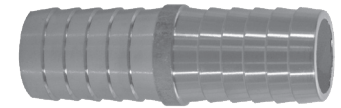
- brass inserts available
- stainless steel ferrules available

Hose Size	NPT Size	Part #	Hose Size	NPT Size	Part #
1/8"	1/8"	RN11	1/2"	1/4"	RN42
3/16"	1/8"	RN151	1/2"	3/8"	RN43
3/16"	1/4"	RN152	1/2"	1/2"	RN44
1/4"	1/8"	RN21	1/2"	3/4"	RN46
1/4"	1/4"	RN22	5/8"	3/8"	RN53
1/4"	3/8"	RN23	5/8"	1/2"	RN54
5/16"	1/8"	RN251	5/8"	3/4"	RN56
5/16"	1/4"	RN252	3/4"	1/2"	RN64
5/16"	3/8"	RN253	3/4"	3/4"	RN66
3/8"	1/8"	RN31	1"	3/4"	RN86
3/8"	1/4"	RN32	1"	1"	RKHN881 *
3/8"	3/8"	RN33			
3/8"	1/2"	RN34			

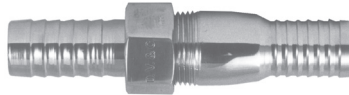


Dixon 316 Stainless Steel Hose Menders

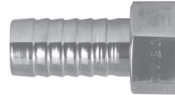
Size	Length	Part #	Size	Length	Part #
1/4"	2-1/32"	RM2	1/2"	2-1/16"	RM4
3/8"	2-1/16"	RM3	3/4"	2-1/2"	RM6



316 Stainless Short Shank Couplings



Complete Coupling



Female with Nut
NPSM Thread



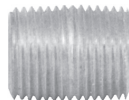
Male
NPT Thread

Size	316 Stainless Steel Complete Part #	316 Stainless Steel Female Part #	316 Stainless Steel Male Part #	Opt Qty
1/2"	RES404	RES444	RST1 *	50
3/4"	RES606	RES646	RST5 *	50
1"	RES808	RES848	RST10	50
1-1/4"	RES48	RES33	RST15	50
1-1/2"	RES63	RES43	RST20	50
2"	RES78	RES53	RST25	25

Standard gasket is rubber (KRW); for Viton® gaskets (KVW) available.
* made from casting

316 Stainless Steel Pipe Nipples

Close Nipples



schedule 40 welded pipe
male NPT x male NPT

NPT Size	Overall Length	Part #	Opt Qty
1/8"	3/4"	CN012SS	--
1/4"	7/8"	CN025SS	--
3/8"	1"	CN037SS	--
1/2"	1-1/8"	CN050SS	--
3/4"	1-3/8"	CN075SS	10
1"	1-1/2"	CN100SS	10
1-1/2"	1-3/4"	CN150SS	10
2"	2"	CN200SS	--
3"	2-5/8"	CN300SS	--
4"	2-7/8"	CN400SS	--

- see brass nipples as reference
- see carbon steel and galvanized nipples as reference

Threaded Both End Nipples



schedule 40 welded pipe
male NPT x male NPT

NPT Size	Overall Length	Part #
1/4"	6"	TN025X6SS
1/2"	6"	TN050X6SS
3/4"	6"	TN075X6SS
1"	6"	TN100X6SS
1-1/2"	6"	TN150X6SS
2"	6"	TN200X6SS
3"	6"	TN300X6SS
4"	6"	TN400X6SS

- see brass nipples as reference
- see carbon steel and stainless nipples as reference

SAFETY
ALERT

Do not use pipe nipples
as hose inserts.

CAM & Groove

Tank Truck

Boss

Air

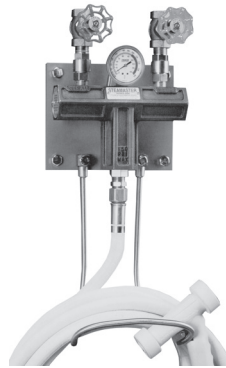
Shank

Brass

Clamp

Water-Steam Washdown Station

Fail-safe mixing station, bronze, wall mounted, safely blends steam and cold water for hot water on demand. Should cold water fail, the steam is instantly shut-off. **150 PSI** maximum, **200°F** maximum.



station is not supplied with hose and nozzle

All units are furnished with the following:

- control valves
- dial thermometer
- in-line check valves
- 3/4" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware

Part #
SWDS

Pressure Requirements

Steam Pressure		Water Pressure	
Minimum	Maximum	Minimum	Maximum
80 PSI	150 PSI	50 PSI	80 PSI

Hot and Cold Water Mixing Station

Style 1 hot and cold water mixing station, bronze, wall mounted. **150 PSI** maximum, **200°F** maximum.



All units are furnished with the following:

- control valves
- dial thermometer
- in-line check valves
- 3/4" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware

Part #
WDS1

Rack for Mixing Station

Designed to hold 50' of 3/4" heavy duty industrial grade hose.

- heavy duty stainless steel construction
- stainless steel lag screws
- heavy duty solid brass mounting crowns
- supplied with mounting hardware



Part #
WDSR

Hot Water Washdown Hose

- working pressure: **250 PSI**
- temperature to: **200°F**
- 3/4" male, both ends
- white, wrapped Neoprene cover (.075" thick), braided textile reinforcement
- smooth extruded Chlorobutyl tube
- furnished with internal stainless steel spring guards at both ends



Size	Part #
5/8" x 25'	SWDSHOSE25
5/8" x 50'	SWDSHOSE50

Hot Water Washdown Spray Nozzles

For low pressure cleaning and sanitation applications, such as food and dairy processing, tank and drum cleaning, pharmaceutical and chemical manufacturing and meat and poultry packing.

- efficient design for operator comfort
- variable spray pattern from solid stream to 50° hollow cone
- hose connects at base of gun for easy maneuvering
- 1/2" female NPT inlet
- rubber coated handle protects hands from water temperatures to **150°F**
- **12.5 GPM** flow capacity at **150 PSI**
- *Do not use with steam lines.*

Cover color	Brass Part #	Aluminum Part #
black	BWSG	AWSG
white	BWSG-W	AWSG-W



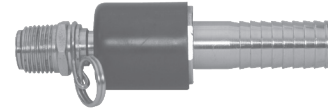
Swivel Connectors for Washdown Spray Guns

- 300 series stainless steel swivel connector for stainless spray nozzles
- 360° ball type swivel adapter helps prevent hose kinking

Ball Type Swivel Adapters



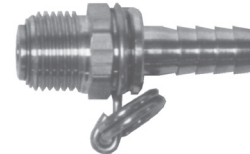
Description	Part #
1/2" NPT x 1/2" hose barb	SSA44
1/2" NPT x 5/8" hose barb	SSA54
1/2" NPT x 3/4" hose barb	SSA64



- brass swivel body
- stainless steel hose shank
- brass connecting nut
- EPDM gasket connecting nut

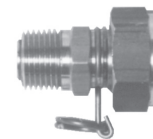
Hose Shank

NPT	Hose ID	Part #
1/2"	1/2"	BNS44
1/2"	3/4"	BNS64



GHT Thread

NPT	Female GHT	Part #
1/2"	3/4"	BMAS974



Thermal-Gard™ Elevated Temperature Spray Nozzle

The Thermal-Gard™ elevated temperature spray nozzle protects the operator from extreme hot water temperatures that exceed the comfort zone of standard hot water nozzles. 3/8" female NPT inlet. Black cover.

- Assembly includes required special rigid, stainless steel adapter, (3/8" male NPT x 1/2" female NPT).
- Thermal insulating sleeve reduces overall heat during elevated temperature conditions.
- Stainless steel lever handle is coated for additional thermal protection, and operator comfort.
- Lightweight aluminum alloy body reduces overall weight.
- Corrosion resistant body is anodized for additional corrosion protection.
- Recommended for water temperatures above **140°F** to a maximum temperature of **200°F**.
- **14 GPM** flow capacity
- working pressure: **150 PSI**

Aluminum Part #
AWSG-TG



Pressure Spray Guns

- 3/8" female inlet
- 1/4" female outlet
- **8 GPM**
- operating pressure: **4500 PSI**
- temperatures to **300°F**
- anti-fatigue pressure compensating design
- W = weeping, for the car wash industry, allows a small stream of water / leak

Part #

**HPSG
HPSGW**

- 3/8" female inlet
- 1/4" female outlet
- **6.6 GPM**
- operating pressure: **3625 PSI**
- temperatures to **140°F**

Part #

HPSGC

- 3/8" female inlet
- 1/4" female outlet
- **8 GPM**
- operating pressure: **5000 PSI**
- temperatures to **300°F**
- heavy duty anti-fatigue design
- stainless inner tube

Part #

HPSGHD

- 3/8" female inlet
- 22 mm x 14 mm female outlet
- **8 GPM**
- operating pressure: **3200 PSI**
- temperatures to **104°F**
- extension length: 14"

Part #

AL9

Kit includes:

- gun: 22 mm male inlet, operating pressure **2,500 PSI**
- lance: 18" with vari-spray nozzle 1.25 mm
- hose: 25', 1/4"
- nozzle: 4.0 variable nozzle 0° to 80°

Part #

BIT-KIT**NEW**

Spray Lances and Extensions for Pressure Gun

- for use with **AL9** spray gun *only*
- operating pressure: **4000 PSI** maximum
- temperatures to **300°F**



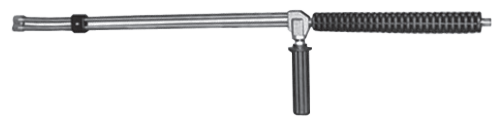
Part #	Description	Length
AL248	zinc, 22 mm x 14 mm male inlet x 1/4" male outlet	24"

Dual Lance

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- for soap and water
- temperatures to **300°F**
- **GPM: 10.5**
- requires 1 high pressure nozzle and 1 soap nozzle (pg. 107)
- Allows quick adjustment from high to low pressure with a twist of the handle; low pressure setting allows for use of soap.



AL344

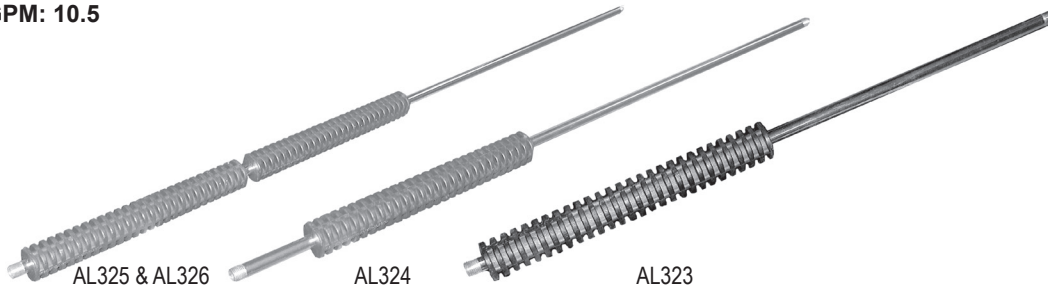


AL333

Part #	Description	Length	Max. Operating PSI
AL333	zinc, 1/4" male inlet 2 each 1/4" female outlets	40"	3,650
AL344	stainless steel, 1/4" male inlet, 2 each 1/4" female outlets	40"	4,000

Molded Grip Extensions

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- operating pressure: **5000 PSI** maximum
- temperatures to **300°F**
- maximum **GPM: 10.5**



AL325 & AL326

AL324

AL323

Part #	Description	Length
AL323XX	zinc, 1/4" male inlet x 1/4" male outlet	24"
AL324XX	zinc, 1/4" male inlet x 1/4" male outlet, 4" space from the end	36"
AL325XX	zinc, 1/4" male inlet x 1/4" male outlet, 2 grips	48"
AL326XX	zinc, 1/4" male inlet x 1/4" male outlet, 2 grips	59"

Vented Grip Lance

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- for hot water
- operating pressure: **5000 PSI** maximum
- temperatures to **300°F**
- maximum **GPM: 10.5**



AL361



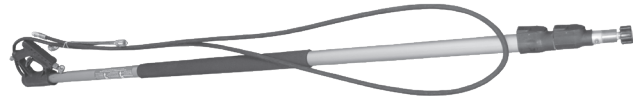
AL362

Part #	Description	Length
AL361	zinc, 1/4" male inlet x 1/4" female outlet, straight	36"
AL362	zinc, 1/4" male inlet x 1/4" female outlet, bent	48"

BRASS FITTINGS**Telescoping Lance and Belt for Pressure Gun****NEW**

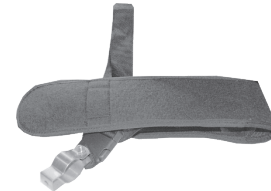
- 3/8" female (pipe thread) inlet
- 1/4" female (quick connect) outlet
- operating pressure: **4,000 PSI** maximum
- 1/4" steel braided hose
- **GPM: 7**
- length is in three sections
- temperature up to **300°F**

Part #	Description	Length
ARTEL18A	aluminum telescoping lance	6' - 18'

**Telescoping Lance Belt**

- made of nylon
- adjusts from a minimum of 33" waist to a maximum of 58"

Part #	Description
ARTEL-BELT	telescoping lance belt

**Quick Couplings and Plugs
Swiveling Couplings and Plugs**

1/4" female x 22 mm x 15 mm swivel

Part #	Description
AL450	swiveling quick coupling

**NEW**

1/4" male x 22 mm x 15 mm swivel

Part #	Description
AL451	swiveling quick coupling

**NEW**

3/8" female x 22 mm x 14 mm swivel

Part #	Description
AL453	swiveling quick coupling

for use with **AL456** only

3/8" female x female swivel

Part #	Description
AL462	swiveling quick coupling

for use with **AL464** only**Fixed Couplings and Plugs**

1/4" female x 22 mm x 15 mm male

Part #	Description
AL454	fixed quick coupling plug

**NEW**

1/4" male x 22 mm x 15 mm male

Part #	Description
AL455F	fixed quick coupling plug

**NEW**

3/8" female x 22 mm x 14 mm male

Part #	Description
AL456	fixed quick coupling plug

for use with **AL453** and **AL9**

3/8" female x male plug

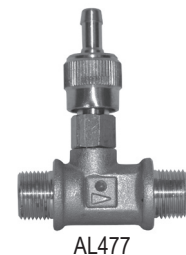
Part #	Description
AL464	fixed quick coupling plug

for use with **AL462** only**Injector Nozzles**

For injection of cleaning solutions into high pressure discharge lines

- 3/8" male inlet and outlet
- operating pressure: **4,000 PSI**

Part #	Description	Orifice	GPM
AL472	adjustable, green	1.8 mm	2 - 3
AL477	adjustable, red	2.1 mm	3 - 4
AL478	adjustable, blue	2.3 mm	4 - 5.5



AL477

Line Strainer**NEW**

- operating pressure: **100 PSI**
- 1/2" female inlet, 1/2" male outlet
- .60 mesh cuffed filter
- 2 each 1/4" side ports
- maximum **GPM 8**

Part #	Description
AR3000-A2	aluminum line strainer



Garden Hose Nozzles

Brass / Rubber Power Flow Water Nozzles

- heavy duty construction won't break or leak
- adjustable spray (cone, sharp stream, full action)
- for hot or cold water use
- use with 5/8" or larger hose for best performance
- hot water up to 140°F



Inlet Thread	Part #
GHT	PNB75GHT

Insulated Water Nozzles

- heavy duty brass valve and adjusting nut
- clip locks any spray pattern
- chrome plated all zinc body
- industrial strength nylon handle
- rubber handle guard
- GHT thread on head
- hot water up to 180°F



Inlet Thread	Part #
GHT	SN75
NPT	SN75NPT

Pistol-Grip Water Nozzles

- heavy duty all zinc metallized body
- clip locks any spray pattern
- easy squeeze on/off lever
- brass valve and adjusting nut
- stainless steel spring with lifetime packing
- rubber handle guard



Part #
CSN75

Brass Twist Nozzles

- brass
- for use up to 150 PSI (water only)
- 500-AN4 and 500-AN7 are imported

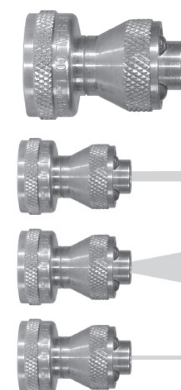
Thread Size	Length	Part #
3/4" GHT	4"	BTN75
3/4" GHT	4"	500AN4
3/4" GHT	7"	500-AN7



Adjust-a-Power Nozzle

- ideal for patio, auto and boat, driveway and garden
- produces 50% more power than twist nozzles
- does not require a washer
- leave nozzle in the open position when not in use
- brass construction with stainless steel bearings
- for use up to 100 PSI (water only)

Thread Size	Part #
3/4" GHT	AAPN75GHT



Nozzles & Accessories

Forest Green Constant Flow Nozzle



- shatterproof and UV resistant GE Lexan® is able to withstand tough environmental conditions
- easy twist spray pattern adjustment
- sold in case quantity only, with display
- 25 nozzles per case

Thread Size	45° Spray GPM @ 100 PSI	Part #
3/4" GHT	25.1	FNB75GHT-GD

Green Constant Flow Nozzle with Bumper



- green plastic
- steel stem
- can be used as a replacement for nozzles in the case listed above

Thread Size	45° Spray GPM @ 100 PSI	Part #
3/4" GHT	25.1	GNB75GHT

Fire Hose Nozzle with Bumper



- red polycarbonate with brass stem
- adjusts from Straight Stream to Fog
- for use up to **100 PSI** (water only)

Thread Size	45° Spray GPM @ 100 PSI	Part #
3/4" GHT	25.1	FNB75GHT

Brass Sweeper Nozzle



Thread Size	Discharge	Length	Part #
3/4" GHT	3/16"	2"	PSN76

Brass Plain Hose Nozzle



- brass with satin finish
- for use up to **100 PSI** (water only)

Thread Size	Discharge	Length	Part #
3/4" GHT	1/4"	6"	BN6

Hydrant Adapter



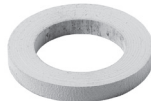
- cast brass

Female NST	Male GHT	Part #
2 1/2"	3/4"	HA2576

Washers and Gaskets



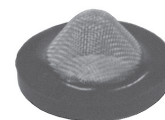
red vinyl



white rubber

GHT Washers

Material	Part #	Opt Qty
red vinyl	TVW7	100
white rubber	TRW7	100



Garden Hose Screen Gasket

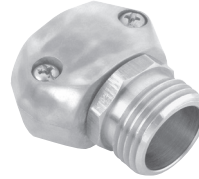
Material	Mesh Size	Part #
FDA approved black vinyl	6050 mesh, 304 SS	TVS7-30

GHT Zinc Hose Fittings

- premium brass and zinc construction for maximum strength and durability
- patented impact resistant clamp design
- non-corroding high grade 410 stainless steel screws will not strip when tightened
- manufactured using the highest level of quality control
- leakproof, reusable
- for rubber or plastic hose
- fits all 5/8" and 3/4" hose



Female



Male



Mender

Size	Opt Qty	Female Part #	Male Part #	Mender Part #
5/8"	48	M5834F	M5834M	M5834HM
3/4"	48	M5834F	M5834M	M5834HM

GHT Brass Clincher Repair Fittings



Female with Swivel Nut



Male

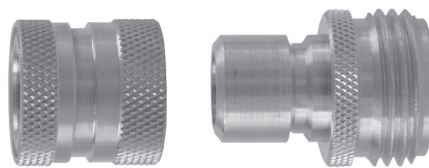


Mender

Size	Opt Qty	Female Part #	Male Part #	Mender Part #
1/2"	10	C12F	C12M	C12HM
5/8"	10	C58F	C58M	C58HM
3/4"	10	C34F	C34M	C34HM

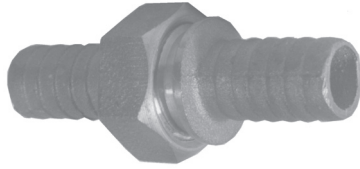
Brass Garden Hose Quick Couplers

Precision machined from solid brass with easy push-pull ring for long lasting and quick hose attachments. Maximum operating pressure: **200 PSI**.



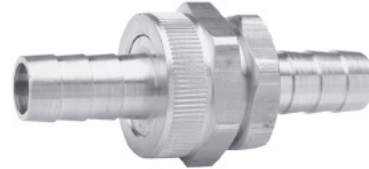
Description	Part #	Opt Qty
complete	DGH7	25
plug	DGH7P	25
coupler	DGH7C	25
seal	DGHW7	25
valved coupler - water shutoff	DGH7CV	25
complete assembly - valved	DGH7V	25

Brass Short Shank Fittings - GHT Thread



Complete Coupling
Cast (sets only)

Size	Part #
1/2"	CBC74
5/8"	CBC75
3/4"	CBC76
1" *	CBC88 *



Complete Coupling
Machined

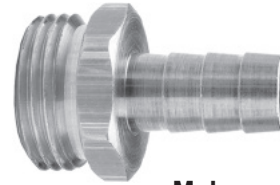
Size	Part #
3/8"	BC73
1/2"	BC74
5/8"	BC75
3/4"	BC76

* 1" cast has NPSM threads



Female with Swivel Nut
Machined

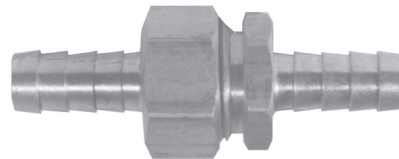
Size	Part #	Pkg Qty
1/2"	BCF73	50
5/8"	BCF74	25
3/4"	BCF75	25
1" *	BCF76	25



Male
Machined

Size	Part #	Pkg Qty
3/8"	BCM73	50
1/2"	BCM74	50
5/8"	BCM75	25
3/4"	BCM76	25

Brass Short Shank Fittings - NPSM Thread



Complete Coupling
Machined

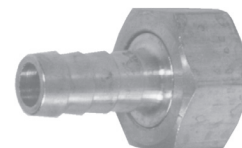
Hose ID	Thread	Part #
1/2"	3/4"	BS406
3/4"	3/4"	BS606
1"	1"	BS808

KRW washers standard, located on page 90.



Male
Machined

Hose ID	Thread	Part #
1/2"	3/4"	BS416
---	---	---
3/4"	3/4"	BS616
1"	1"	BS818



Female with Swivel Nut
Machined

Hose ID	Thread	Part #
1/2"	3/4"	BS446
5/8"	3/4"	BS546
3/4"	3/4"	BS646
1"	1"	BS848

Brass GHT Adapters



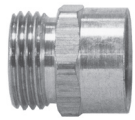
female swivel

Female x Female	Part #	Opt Qty
GHT x GHT	BA977	100



female swivels

Female x Female	Part #	Opt Qty
GHT x 1/2" NPTF	BAS974	25
GHT x 3/4" NPTF	BAS976	100



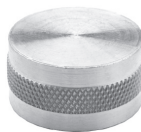
male GHT x female NPTF

Male x Female	Part #	Opt Qty
GHT x 1/4" NPTF	507-1204	25
GHT x 3/8" NPTF	507-1206	25
GHT x 1/2" NPTF	BA794	50
GHT x 3/4" NPTF	BA796	100



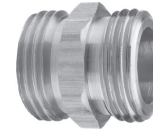
rigid female GHT x female NPTF

Female x Female	Part #	Opt Qty
GHT x 1/8" NPTF	BA971	25
GHT x 1/4" NPTF	BA972	25
GHT x 3/8" NPTF	BA973	25
GHT x 1/2" NPTF	BA974	25
GHT x 3/4" NPTF	BA976	25



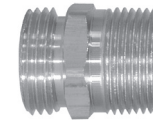
garden hose cap

Female	Part #	Opt Qty
GHT	GHC7	50



threaded male

Male x Male	Part #	Opt Qty
GHT x GHT	BA777	100
1" NPSH x GHT	509-1612	100



male GHT x NPTF adapter

Male x Male	Part #	Opt Qty
GHT x 3/8" NPTF	BA73	25
GHT x 1/2" NPTF	BA74	25
GHT x 3/4" NPTF	BA776 *	25

* BA776 also has 1/2" female NPT on I.D. of 3/4" male NPT side



female GHT x male NPTF

Female x Male	Part #	Opt Qty
GHT x 3/8" NPTF	BMA973	25
GHT x 1/2" NPTF	BMA974	25
GHT x 3/4" NPTF	BMA976	25



female GHT swivels x male NPTF

Female x Male	Part #	Opt Qty
GHT x 1/4" NPTF	504-1204	25
GHT x 3/8" NPTF	504-1206	25
GHT x 1/2" NPTF	504-1208	25
GHT x 3/4" NPTF	504-1212	25

Pipe Nipples

long pipe nipples

NPT Thread	Length	Part #	Opt Qty
1/8"	1-1/2"	166-0215	25
1/8"	2"	166-0220	25
1/8"	2-1/2"	166-0225	25
1/8"	3"	166-0230	25
1/8"	3-1/2"	166-0235	10
1/8"	4"	166-0240	10
1/4"	1-1/2"	166-0415	25
1/4"	2"	166-0420	25
1/4"	2-1/2"	166-0425	25
1/4"	3"	166-0430	25
1/4"	3-1/2"	166-0435	10
1/4"	4"	166-0440	10
1/4"	5"	166-0450	5
3/8"	1-1/2"	166-0615	25
3/8"	2"	166-0620	25
3/8"	2-1/2"	166-0625	10
3/8"	3"	166-0630	10
3/8"	3-1/2"	166-0635	10
3/8"	4"	166-0640	5
1/2"	1-1/2"	166-0815	10
1/2"	2"	166-0820	10
1/2"	2-1/2"	166-0825	10
1/2"	3"	166-0830	10
1/2"	3-1/2"	166-0835	10
1/2"	4"	166-0840	5
3/4"	2"	166-1220	25
3/4"	2-1/2"	166-1225	25
3/4"	3"	166-1230	25
3/4"	3-1/2"	166-1235	25
1"	2"	TN100X2B	---
1"	3"	TN100X3B	---
1"	4"	TN100X4B	---
1 1/2"	2"	TN150X2B	---
1 1/2"	3"	TN150X3B	---
2"	3"	TN200X3B	---
2"	4"	TN200X4B	---
2"	6"	TN200X6B	---



close pipe nipples

NPT Thread	Part #	Opt Qty
1/8"	165-0202	50
1/4"	165-0404	50
3/8"	165-0606	25
1/2"	165-0808	25
3/4"	165-1212	10
1"	165-1616	10
1 1/2"	CN150B	5
2"	CN200B	5
3"	CN300B	5



Pipe Crosses

Female NPTF Size	Part #	Opt Qty
1/8" - 27	228-0202	20
1/4" - 18	228-0404	25
3/8" - 18	228-0606	25
1/2" - 14	228-0808	20



Push-On Fittings

Dixon push-on fittings are intended for use with Lok-On (push-on style) hose only. No hose clamps or ferrules are needed. Lok-On fittings will properly grip Lok-On hose only when pushed all the way in, with the cut end of the hose completely concealed by the plastic cap.

NPTF Hose Barb Fittings



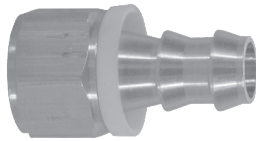
NPTF - male swivel hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #	Opt Qty
1/4"	1/4"	271-0404	50
3/8"	1/4"	271-0604	50
3/8"	3/8"	271-0606	25
1/2"	3/8"	271-0806	25
1/2"	1/2"	271-0808	25
3/4"	3/4"	271-1212	25



NPTF - male hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #	Opt Qty
1/4"	1/8"	BPN21	100
1/4"	1/4"	BPN22	100
1/4"	3/8"	BPN23	50
5/16"	1/8"	BPN251	100
5/16"	1/4"	BPN252	50
3/8"	1/8"	BPN31	100
3/8"	1/4"	BPN32	50
3/8"	3/8"	BPN33	50
3/8"	1/2"	BPN34	25
3/8"	3/4"	BPN36	25
1/2"	1/4"	BPN42	25
1/2"	3/8"	BPN43	25
1/2"	1/2"	BPN44	50
1/2"	3/4"	BPN46	50
5/8"	3/8"	BPN53	25
5/8"	1/2"	BPN54	25
5/8"	3/4"	BPN56	25
3/4"	1/2"	BPN64	25
3/4"	3/4"	BPN66	25
1"	3/4"	BPN86	10
1"	1"	BPN88	10



NPTF - female hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #	Opt Qty
1/4"	1/8"	BPF21	100
1/4"	1/4"	BPF22	100
1/4"	3/8"	BPF23	50
3/8"	1/8"	BPF31	50
3/8"	1/4"	BPF32	50
3/8"	3/8"	BPF33	50
3/8"	1/2"	BPF34	50
1/2"	1/4"	BPF42	50
1/2"	3/8"	BPF43	50
1/2"	1/2"	BPF44	25
1/2"	3/4"	BPF46	25
5/8"	1/2"	BPF54	25
3/4"	3/4"	BPF66	25

NPSM Swivel Hose Barb Fittings



female swivel hose barbs
gasket seat type

Hose ID	NPSM	Part #	Opt Qty
1/4"	1/8"	280-0402	100
1/4"	1/4"	280-0404	100
3/8"	1/4"	280-0604	50
3/8"	3/8"	280-0606	50
3/8"	1/2"	280-0608	50
1/2"	1/2"	280-0808	25
3/4"	3/4"	280-1212	25



female swivel hose barbs
ball seat type

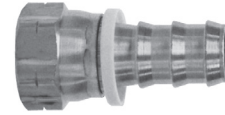
Hose ID	NPSM	Part #	Opt Qty
1/4"	1/8"	BPFS21	100
1/4"	1/4"	BPFS22	50
1/4"	3/8"	BPFS23	25
3/8"	1/4"	BPFS32	50
3/8"	3/8"	BPFS33	50
1/2"	1/2"	BPFS44	50
1/2"	3/4"	BPFS46	25
3/4"	3/4"	BPFS66	25

Push-On Fittings

45° SAE Hose Barb Fittings



male hose barbs
45° SAE



female swivel hose barbs
45° SAE

Hose ID	UNF Thread	Part #	Opt Qty
1/4"	7/16"-20	282-0407	100
1/4"	1/2"-20	282-0408	100
3/8"	5/8"-18 *	282-0610	100
1/2"	3/4"-16	282-0812	50
3/4"	1-1/16"-14 *	282-1217	25

Hose ID	UNF Thread	Part #	Opt Qty
1/4"	5/8" - 18 *	284-0410	50
5/16"	5/8" - 18 *	284-0510	50
3/8"	5/8" - 18 *	284-0610	100
3/4"	1-1/16" - 14 *	284-1217	25

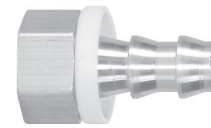
* notch in hex for SAE identification

SAE Inverted Flare Fittings



male swivel hose barbs

Hose ID	UN Thread	Part #	Opt Qty
1/4"	3/8" - 24	290-0406	100
1/4"	7/16" - 24	290-0407	100
1/4"	1/2" - 20	290-0408	100
5/16"	1/2" - 20	290-0508	50
5/16"	5/8" - 18	290-0510	50
3/8"	1/2" - 20	290-0608	50
3/8"	5/8" - 18	290-0610	100
1/2"	3/4" - 18	290-0812	50
5/8"	7/8" - 18	290-1014	25



rigid female hose barbs

Hose ID	UN Thread	Part #	Opt Qty
1/4"	3/8" - 24	292-0406	100
1/4"	7/16" - 24	292-0407	100
1/4"	1/2" - 20	292-0408	100
3/8"	1/2" - 20	292-0608	50
3/8"	5/8" - 18	292-0610	50
1/2"	3/4" - 18	292-0812	25

37° JIC Hose Barb Fittings



male hose barbs
37° JIC



female swivel hose barbs
37° JIC

Hose ID	UNF Thread	Part #	Opt Qty
1/4"	7/16"-20	286-0407	100
1/4"	9/16"-18	286-0409	100
3/8"	9/16"-18	286-0609	50
1/2"	3/4"-16	286-0812	50
3/4"	1-1/16"-12	286-1217	25

Hose ID	UNF Thread	Part #	Opt Qty
1/4"	9/16"-18	288-0409	50
3/8"	9/16"-18	288-0609	50
3/4"	1-1/16"-12	288-1217	25



female swivel hose barbs
45° SAE / 37° JIC (dual angle seat)

Hose ID	UNF Thread	Part #	Opt Qty
1/4"	7/16"-20	287-0407	100
1/4"	1/2"-20	287-0408	100
3/8"	3/4"-16	287-0612	25
1/2"	3/4"-16	287-0812	25
1/2"	7/8"-14	287-0814	25
5/8"	7/8"-14	287-1014	100

Push-On Fittings Rigid Tube Hose Barbs

Hose ID	Tube OD	Part #	Opt Qty
1/4"	3/16"	294-0403	100
1/4"	1/4"	294-0404	100
1/4"	5/16"	294-0405	100
3/8"	3/8"	294-0606	50
1/2"	1/2"	294-0808	50
5/8"	5/8"	294-1010	25
3/4"	3/4"	294-1212	25



Hose Menders

Hose ID	Part #	Opt Qty
1/4"	BPM2	100
5/16"	BPM25	100
3/8"	BPM3	50
1/2"	BPM4	50
5/8"	BPM5	25
3/4"	BPM6	25



90° Hose to Male NPTF Elbows

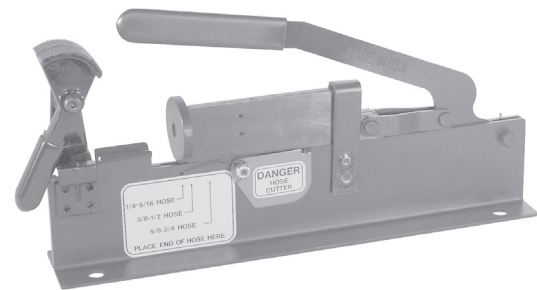
Hose ID	NPTF Thread	Part #	Opt Qty
1/4"	1/8"-27	273-0402	100
1/4"	1/4"-18	273-0404	50
3/8"	1/4"-18	273-0604	50
3/8"	3/8"-18	273-0606	25
1/2"	3/8"-18	273-0806	25
1/2"	1/2"-14	273-0808	25
3/4"	3/4"-14	273-1212	25



Tools for Push-On Fittings

- cuts push-on style hose and inserts the fitting
- Built-in cutter slices through 1/4" - 3/4" ID reinforced push-on hose without fraying.
- Clamp hose into tool's vice and apply light pressure on handle to drive in the fitting.
- tool has four 7/16" diameter mounting holes for bench mounting
- overall size is 13-1/2" long x 2-3/8" wide x 7" height

Size	Part #
all	270AT



Assembly Instructions:

1. Trim hose end with smooth square cut
2. Lubricate either push-on fitting, hose or both.
3. Insert push-on fitting into hose until first barb is in hose.
4. Place end of fitting against a flat object (bench, wall, etc.) and grip the hose one inch from end. Push with a steady force until end of hose is covered by yellow plastic cap.

Disassembly Instructions:

1. Leaving push-on fitting in place, make a 1" cut in the hose along the barbed end of the fitting. Note: Be careful not to nick barbs when cutting the hose.
2. With firm grip on hose, give a sharp downward pull to release the fitting from the hose.

Caution: Push-on fittings will properly grip push-on hose only when pushed all the way in, with the cut end of the hose completely concealed by the plastic cap.



Brass Barbed Hose Fittings

Male Inserts



Hose ID	NPTF Thread	Part #	Opt Qty	Hose ID	Tube OD	Part #	Opt Qty
1/8"	1/8"	BN11	100	1/2"	1/4"	BN42	50
1/8"	1/4"	BN122	100	1/2"	3/8"	BN43	50
3/16"	1/8"	BN151	100	1/2"	1/2"	BN44	50
3/16"	1/4"	BN152	100	1/2"	3/4"	BN46	25
1/4"	1/8"	BN21	100	5/8"	3/8"	BN53	50
1/4"	1/4"	BN22	100	5/8"	1/2"	BN54	25
1/4"	3/8"	BN23	100	5/8"	3/4"	BN56	50
1/4"	1/2"	BN24	50	3/4"	1/2"	BN64	50
5/16"	1/8"	BN251	100	3/4"	3/4"	BN66	25
5/16"	1/4"	BN252	50	1"	3/4"	BN86	25
5/16"	3/8"	BN253	50	1"	1"	BN88	10
3/8"	1/8"	BN31	100	1-1/4"	3/4"	BN106	10
3/8"	1/4"	BN32	100	1-1/4"	1"	BN108	10
3/8"	3/8"	BN33	50				
3/8"	1/2"	BN34	25				
3/8"	3/4"	BN36	25				

Solid Female Inserts



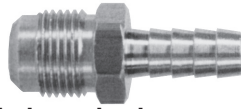
Hose ID	NPTF Thread	Part #	Opt Qty	Hose ID	Tube OD	Part #	Opt Qty
1/8"	1/8"	BF11	100	3/8"	1/8"	BF31	100
1/8"	1/4"	BF12	100	3/8"	1/4"	BF32	50
3/16"	1/8"	BF151	100	3/8"	3/8"	BF33	50
3/16"	1/4"	BF152	100	3/8"	1/2"	BF34	50
1/4"	1/8"	BF21	100	1/2"	1/4"	BF42	50
1/4"	1/4"	BF22	50	1/2"	3/8"	BF43	50
1/4"	3/8"	BF23	50	1/2"	1/2"	BF44	50
5/16"	1/8"	BF251	100	3/4"	3/4"	BF66	25
5/16"	1/4"	BF252	100	1"	3/4"	BF86	25
5/16"	3/8"	BF253	100	1"	1"	BF88	10

Hose Menders



Hose Size	Part #	Opt Qty
1/8"	BM1	100
3/16"	BM15	100
1/4"	BM2	100
5/16"	BM25	100
3/8"	BM3	100
1/2"	BM4	50
5/8"	BM5	50
3/4"	BM6	50
1"	BM8	10

Brass Barbed Hose Fittings



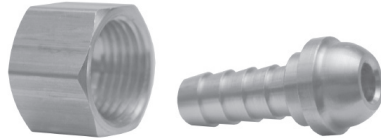
male hose barbs
45° SAE

Hose ID	UNF Thread	Part #	Opt Qty
3/16"	7/16"-20	142-0307	100
1/4"	7/16" - 20	142-0407	100
1/4"	5/8" - 18	142-0410	100
5/16"	1/2" - 20	142-0508	100
3/8"	5/8" - 18	142-0610	50
3/8"	3/4" - 16	142-0612	50
1/2"	3/4" - 16	142-0812	25



male swivel inserts

Hose ID	NPTF Size	Part #
1/4"	1/4"	103-0404
3/8"	1/4"	103-0604
3/8"	3/8"	103-0606
1/2"	3/8"	103-0806
1/2"	1/2"	103-0808
3/4"	3/4"	103-1212



female swivel hose barbs
ball seat type

Hose ID	NPSM Thread	Part #	Opt Qty
1/8"	1/8"	BFS11	100
3/16"	1/8"	BFS151	100
3/16"	1/4"	BFS152	100
1/4"	1/8"	BFS21	100
1/4"	1/4"	BFS22	100
1/4"	3/8"	BFS23	100
5/16"	1/4"	BFS252	100
5/16"	3/8"	BFS253	50
3/8"	1/4"	BFS32	100
3/8"	3/8"	BFS33	100
3/8"	1/2"	BFS34	100
1/2"	3/8"	BFS43	100
1/2"	1/2"	BFS44	100
3/4"	3/4"	BFS66	25



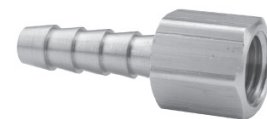
female swivel hose barbs
gasket seat type

Hose ID	NPSM Thread	Part #	Opt Qty
1/8"	1/8"	126-0202	100
3/16"	1/8"	126-0302	100
3/16"	1/4"	126-0304	100
1/4"	1/8"	126-0402	100
1/4"	1/4"	126-0404	100
1/4"	3/8"	126-0406	50
5/16"	1/4"	126-0504	100
3/8"	1/4"	126-0604	100
3/8"	3/8"	126-0606	50
3/8"	1/2"	126-0608	50
1/2"	3/8"	126-0806	50
1/2"	1/2"	126-0808	50
3/4"	3/4"	126-1212	25



female swivel hose barbs
45° SAE

Hose ID	UNF Thread	Part #	Opt Qty
3/16"	3/8" - 24	144-0306	100
1/4"	5/8" - 18	144-0410	100
5/16"	5/8" - 18	144-0510	100
3/8"	5/8" - 18	144-0610	100
1/2"	3/4" - 16	144-0812	100



female swivel hose barbs
45° SAE / 37° JIC (dual angle seat)

Hose ID	UNF Thread	Part #	Opt Qty
3/16"	7/16" - 20	143-0307	100
1/4"	7/16" - 20	143-0407	100
1/4"	1/2" - 20	143-0408	100
5/16"	1/2" - 20	143-0508	100
3/8"	3/4" - 16	143-0612	100
1/2"	3/4" - 16	143-0812	100
1/2"	7/8" - 14	143-0814	50



female swivel hose barb
37° JIC

Hose ID	UNF Thread	Part #	Opt Qty
3/8"	9/16"-18	145-0609	100

Grease Whip Hose Assemblies

- one piece brass crimp couplings
- 1/8"-27 male NPT thread, solid base
- US manufactured 3/16" I.D. hose - exceeds SAE 100R1-AT
- for use with hand grease guns only

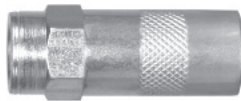


Part #	Assembly Length	Retail Pack
GWH-0800	8"	n/a
GWH-1200	12"	Add "R" suffix to part number
GWH-1800	18"	Add "R" suffix to part number
GWH-2400	24"	n/a
GWH-3600	36"	n/a
GWH-4800	48"	n/a
GWH-6000	60"	n/a

Grease Whip Hose Coupler and Fittings

Male and female fittings are designed to be crimped on.

grease hose coupler



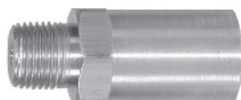
Part #	Description	Pkg Qty
GWH-C	grease hose coupler	25

male NPT thread - chamfered base



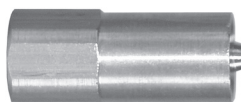
Part #	Description	Pkg Qty
001-0055	1/8"-27 male NPT thread, drilled and chamfered base	100

male NPT thread - solid base



Part #	Description	Pkg Qty
001-0260	1/8"-27 male NPT thread, solid base	100

female NPT thread



Part #	Description	Pkg Qty
001-0860	1/8"-27 male NPT thread	100

Q-Series Guages
1 1/2" Guage, 1/4" NPT BTM Glycerin filled
Cadran 1 1/2", Bain de glycérine NPT BTM 1/4"



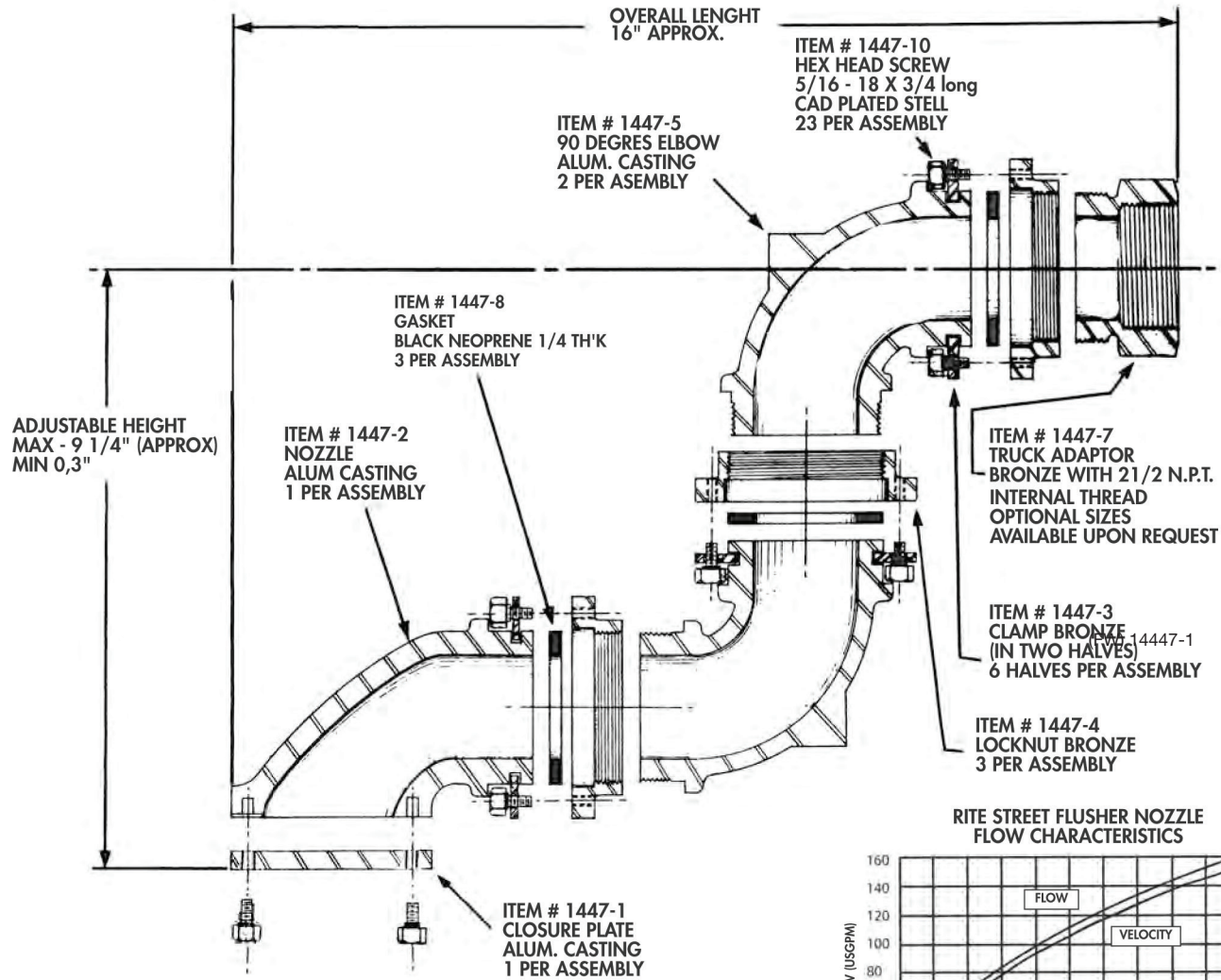
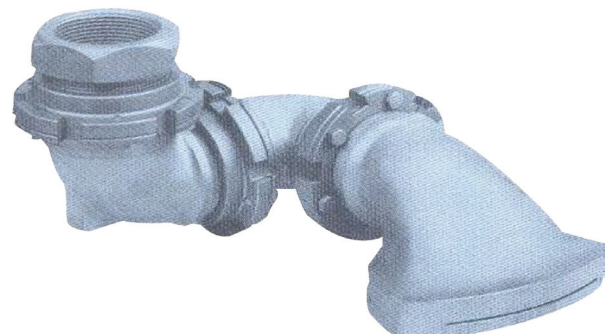
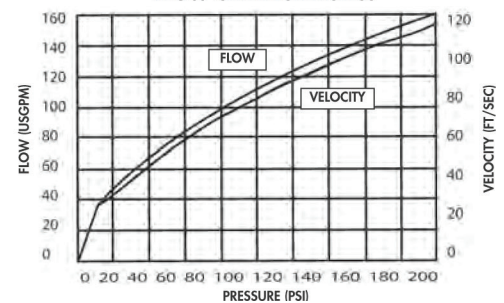
Comment commander: Mentionner le code du produit.
 How to order: Mention the product code.

- 15FF = 1.5" Bride avant/Front Flange
- 25FF = 2.5" Bride avant/Front Flange
- 4FF = 4" Bride avant/Front Flange
- 4BF = 4" Bride arrière/Back Flange

SEC = Ajouter "DRY" au numéro des manomètres ci-dessus pour les obtenir sans glycérine.
 DRY = Add "DRY" to the Guage # for non glycerin-filled gauges.

Cadran/Guage	1 1/2"		2 1/2"		4"	
	Bas Bottom Mount	Arrière Back Mount	Bas Bottom Mount	Arrière Back Mount	Bas Bottom Mount	Arrière Back Mount
Raccord NPT	1/8"	1/8"	1/4"	1/4"	1/4"	1/2"
Movement Douille & Bague	Laiton/Brass	Laiton/Brass	Laiton/Brass	Laiton/Brass	Laiton/Brass	Laiton/Brass
Bain de glycérine Glycerine-filled	Plein/Full	Plein/Full	Plein/Full	Plein/Full	Plein/Full	Plein/Full
30" Hg Vacuum/kpa	Q1100	Q1120	Q801	Q900	Q700	*
30" 0-15 psi/kpa	*	*	Q790	Q890	*	*
30" 0-30 psi/kpa	*	*	Q798	Q898	*	*
30" 0-60 psi/kpa	*	*	Q799	Q899	*	*
30" 0-100 psi/kpa	*	*	Q791	Q891	*	*
30" 0-150 psi/kpa	*	*	Q792	Q892	*	*
30" 0-200 psi/kpa	*	*	Q794	Q894	*	*
30" 0-300 psi/kpa	*	*	Q795	Q895	*	*
0-15 psi/kpa	Q1101	Q1121	Q800	Q901	Q708	*
0-30 psi/kpa	Q1102	Q1122	Q802	Q902	Q719	*
0-60 psi/kpa	Q1103	Q1123	Q803	Q903	Q710	*
0-100 psi/kpa	Q1104	Q1124	Q804	Q904	Q711	*
0-160 psi/kpa	Q1105	Q1125	Q805	Q905	Q712	*
0-200 psi/kpa	Q1106	Q1126	Q806	Q906	Q713	*
0-300 psi/kpa	Q1107	Q1127	Q807	Q907	Q714	*
0-400 psi/kpa	*	*	Q817	Q917	Q715	*
0-600 psi/kpa	Q1108	Q1128	Q808	Q908	Q716	*
0-1000 psi/kpa	Q1109	Q1129	Q809	Q909	*	Q717
0-1500 psi/kpa	Q1110	Q1130	Q816	Q914	*	Q718
0-2000 psi/kpa	Q1111	Q1111	Q810	Q910	*	Q719
0-3000 psi/kpa	Q1112	Q1112	Q811	Q911	*	Q720
0-5000 psi/kpa	Q1113	Q1113	Q812	Q912	*	Q721
0-10000 psi/kpa	-	-	Q813	Q913	*	Q722
0-15000 psi/kpa	-	-	-	-	*	Q723
0-20000 psi/kpa	-	-	-	-	-	-

Dig Out Nozzle

RITE STREET FLUSHER NOZZLE
FLOW CHARACTERISTICS

CODE	Description
(FW) 1447-1	Closure plate aluminum
(FW) 1447-2	2 1/2" Nozzle aluminum
(FW) 1447-3	2 1/2" Clamp bronze (3 per Ass'y)
(FW) 1447-4	2 1/2" Lock nut bronze (3 per Ass'y)
(FW) 1447-5	2 1/2" Elbow aluminum
(FW) 1447-7	Truck adapter brass
(FW) 1447-8	Rubber gasket (3 per Ass'y)
(FW) 1447-10	Screw steel (23 per Ass'y)

Brass Ferrules

ferrules for air

BFM
for
medium weight hose



Part #	Pkg Qty	Ferrule ID	Ferrule Length	End Hole Size	Metal Gauge	Std Ind Part #	Ribbed Die*	Plain Die*
BFM478	50	.478"	11/16"	21/64"	.024"	4750	R41	P41/P42
BFM500	50	.500"	1"	11/32"	.024"	7322	R40	P40
BFM525	50	.525"	1"	3/8"	.024"	7323	R39	P39
BFM531	50	.531"	1"	7/16"	.024"	7324	R39	P39
BFM562	50	.561"	1"	7/16"	.024"	7325	R37	P38
BFM593	50	.593"	1"	7/16"	.024"	7326	R36	P37
BFM625	50	.625"	1"	7/16"	.024"	7327	R35	P36
BFM656	50	.656"	1"	7/16"	.024"	7328	R34	P35
BFM687	50	.687"	1"	1/2"	.024"	7329	R33	P34
BFM718	50	.718"	1"	5/8"	.024"	7330	R31	P32
BFM718B	50	.718"	1"	1/2"	.024"	7330B	R31	P32
BFM750	50	.750"	1"	5/8"	.024"	7331	R30	P31
BFM750B	50	.750"	1"	1/2"	.024"	7331B	R30	P31
BFM781	50	.781"	1"	5/8"	.024"	7332	R29	P30
BFM781B	50	.781"	1"	1/2"	.024"	7332B	R29	P30
BFM812	50	.812"	1"	5/8"	.024"	7333	R28	P29

BFL
for
light weight hose



BFL380	50	.380"	1/2"	17/64"	.016"	622	R44	P45
BFL400	50	.400"	15/32"	17/64"	.020"	619	R44	P44
BFL410	50	.410"	1/2"	17/64"	.016"	620	R43	P44
BFL450	50	.450"	9/16"	11/32"	.016"	769	R41	P42
BFL500	50	.500"	1/2"	11/32"	.016"	624	R40	P41
BFL525	50	.525"	1/2"	11/32"	.016"	625	R39	P40
BFL548	50	.548"	31/64"	3/8"	.015"	626	R38	P39
BFL564	50	.564"	3/4"	3/8"	.019"	3588	R37	P38
BFL575	50	.575"	31/64"	15/32"	.019"	KK	R37	P38
BFL600	50	.600"	1/2"	1/2"	.019"	JJ	R36	P37
BFL625	50	.625"	1/2"	1/2"	.019"	II	R35	P36
BFL650	50	.650"	1/2"	1/2"	.019"	HH	R34	P35
BFL675	50	.675"	33/64"	1/2"	.019"	GG	R34	P34
BFL725	50	.725"	17/32"	1/2"	.019"	EE	R31	P32
BFL750	50	.750"	17/32"	1/2"	.019"	DD	R30	P32
BFL775	50	.775"	17/32"	1/2"	.016"	CC	R31	P31

* These dies for use with 5111A and 1765A ferrule machine. Other sizes are available.
Ribbed Dies per set: **\$190.00**; Plain Dies per set: **\$190.00**

ferrules for fluid

BFMW
for medium
weight water hose



Part #	Pkg Qty	Ferrule ID	Ferrule Length	End Hole Size	Metal Gauge	Std Ind Part #	Ribbed Die*	Plain Die*
BF800	25	.800"	.844"	.688"	.024"	---	R28	P29
BF825	25	.825"	.844"	.688"	.024"	---	R27	P28
BF850	25	.850"	.568"	.688"	.019"	Z	R26	P27
BFW875	25	.875"	.844"	.688"	.024"	7244A	R25	P26
BFW900	25	.900"	.844"	.688"	.024"	5029A	R24	P25
BFW925	25	.925"	.840"	.690"	.025"	7113	R23	P24
BFW975	25	.975"	.844"	.688"	.024"	5028A	R21	P22
BFW1025	25	1.025"	.844"	.693"	.024"	7114A	R19	P20
BFW1175	25	1.175"	.844"	.875"	.024"	7088A	R13	P14
BFMW1050	25	1.050"	.625"	.750"	.025"	3605	R18	P19
BFMW1100	25	1.100"	.843"	.812"	.023"	5027	R16	P17
BFMW1150	25	1.150"	.844"	.880"	.024"	7104A	R15	P15
BFMW1225	25	1.225"	.875"	.875"	.025"	875-K	R11	P12
BFMW1275	25	1.275"	.875"	1.000"	.025"	875-1	R9	P10
BFMW1400	25	1.400"	.687"	1.120"	.020"	D	R4	P5
BFMW1500	25	1.500"	.875"	1.120"	.025"	1500	---	P1

* These dies for use with 5111A and 1765A ferrule machine. Other sizes are available.
Ribbed Dies per set: **\$190.00**; Plain Dies per set: **\$190.00**

sold in package quantities only

Stainless Steel Ferrules

Part #	Pkg Qty	Ferrule ID	Ferrule Length	End Hole Size	Metal Gauge	Std Ind Part #	Ribbed Die*	Plain Die*
SFL450	50	.450"	9/16"	11/32"	.016"	769	R41	P42
SFM525	50	.525"	1"	.435"	.024"	7323	R39	P39
SFM562	25	.561"	1"	7/16"	.024"	7325	R37	P38
SFM625	25	.625"	1"	7/16"	.024"	7327	R35	P36
SFM656	25	.656"	1"	7/16"	.024"	7328	R34	P35
SFM687	25	.687"	1"	1/2"	.024"	7329	R33	P34
SFM718	50	.718"	1"	5/8"	.024"	7330	R31	P32
SFM718B	50	.718"	1"	1/2"	.024"	7330B	R31	P32
SFM750	25	.750"	1"	5/8"	.024"	7331	R30	P31
SFM781	50	.781"	1"	5/8"	.024"	7332	R29	P30
SFW875	25	.875"	.844"	.688"	.024"	7224A	R25	P26
SFW1175	25	1.175"	.844"	.875"	.024"	7088A	R13	P14



* These dies for use with 5111A and 1765A ferrule machine. Other sizes are available.
 Ribbed Dies per set: **\$190.00**; Plain Dies per set: **\$190.00**

sold in package quantities only

Manually - Operated Brass Ferrule Crimper

- crimps all brass ferrules shown on previous page
- Dies for ferrule machines are available in standard sets for all ferrules as tabulated (4 segments to a set).
- Dies are supplied with plain or ribbed crimping surface.
- does not include dies
- height: with handle upright 27"
- base: 8" x 3"
- body: 7-3/8"
- weight: 25 lbs.

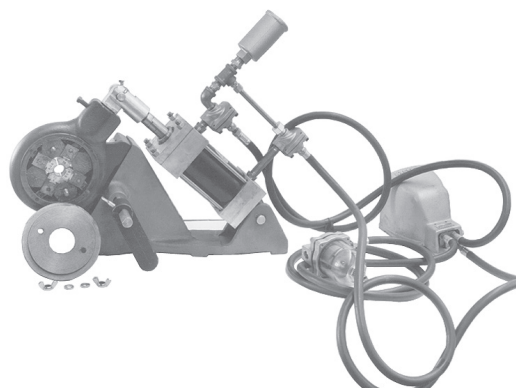


Part #

5111A

Air - Operated Brass Ferrule Crimper

- The mass production assembly of hose, ferrules and fittings is efficiently handled with this air-operated unit.
- The foot pedal permits the use of both hands, reduces fatigue and speeds production.
- complete with air cylinder, ferrule machine (less dies), fitted hose lengths and necessary control valves
- ready for work bench installation
- crimps all brass ferrules shown on page 125
- weight: 91 lbs.



Part #

1765A

Die sizes for ferrules and machine numbers 1765A and 5111A on page 290 and above.

Pinch-On Single Ear Clamps

- band width: 1/4"
- band thickness: .030"

Nominal Size	Range		Zinc Plated Steel	304 Stainless Steel	Pkg Qty
	closed	open	Part #	Part #	
3/8"	.350	.413	105	105R	100
7/16"	.382	.445	113	113R	100
15/32"	.409	.484	123	123R	100
1/2"	.449	.524	133	133R	100
35/64"	.469	.551	140	140R	100
9/16"	.496	.571	145	145R	100
5/8"	.543	.618	157	157R	100
11/16"	.595	.669	170	170R	100
23/32"	.618	.728	185	185R	100
3/4"	.669	.780	198	198R	100
13/16"	.717	.827	210	210R	100
7/8"	.780	.890	226	226R	100
15/16"	.839	.949	241	241R	100
1"	.898	1.008	256	256R	100
1-1/16"	.945	1.067	271	271R	100
1-1/8"	1.004	1.126	286	286R	100
1-3/16"	1.063	1.185	301	301R	100
1-5/16"	1.181	1.303	331	331R	100
1-3/8"	1.240	1.362	346	346R	100
1-15/32"	1.358	1.480	376	376R	100
1-9/16"	1.437	1.559	396	396R	100
1-5/8"	1.492	1.614	410	410R	100
1-11/16"	1.551	1.673	425	425R	100
1-23/32"	1.610	1.732	440	440R	100
1-3/4"	1.669	1.791	455	455R	100
1-13/16"	1.728	1.850	470	470R	100
1-7/8"	1.787	1.909	485	485R	100
1-15/16"	1.847	1.969	500	500R	100
2"	1.906	2.028	515	515R	100



Pinch-On Double Ear Clamps

- When ordering double ear clamps, select nominal clamp size nearest to, but always larger than, the OD of material to be clamped after insert has been fitted.

Nominal Size	Range		Zinc Plated Steel	304 Stainless Steel	Pkg Qty
	closed	open	Part #	Part #	
3/16"	.134	.197	0305	0305R	100
1/4"	.197	.276	0507	0507R	100
5/16"	.276	.354	0709	0709R	100
3/8"	.319	.433	0811	0811R	100
1/2"	.425	.512	1113	1113R	100
9/16"	.492	.591	1315	1315R	100
19/32"	.551	.669	1517	1517R	100
5/8"	.591	.709	1518	1518R	100
3/4"	.638	.787	1720	1720R	100
13/16"	.709	.866	1922	1922R	100
7/8"	.748	.906	2023	2023R	100
15/16"	.827	.984	2225	2225R	100
1"	.886	1.063	2327	2327R	100
1-1/8"	1.035	1.221	2731	2731R	100
1-7/16"	1.260	1.457	3437	3437R	100
1-1/2"	1.378	1.575	3740	3740R	100



Stepless® Ear Clamps

Technical Information:

Stepless® ear clamps hold against pressure and vibration or material shrinkage due to temperature changes or aging. A built-in spring action permits the clamp to breathe without loosening. When installing Stepless® ear type clamps over an object, please note that each ear must be crimped closed to obtain a proper seal.

- once installed and clamped, any tampering is easily visible
- *Clamps are not reusable*; they should not be pried open, doing so renders the clamps nonfunctional.
- When ordering Stepless® ear clamps, select the nominal size nearest to, but always larger than, the outside diameter of the material to be clamped. The outside diameter should be determined with connection fully assembled.
- sold in quantities of 100 per bag

Features:

- 304 stainless steel
- ensured clamping seal
- for low durometer and/or thin-walled hose/tubing
- for silicon, vinyl, polyurethane or other high-tech materials
- Smooth inner band prevents damage to the hose while the tongue-in-groove design provides a 360° seal.
- no steps or gaps inside the clamp
- Install clamps using 1098 or 1099 clamp tools below.

SAFETY
ALERT

Nominal Size	Range (inches)		304 Stainless Steel Part #
	closed	open	
9/32"	.228	.275	0983
3/8"	.307	.374	0986
7/16"	.378	.445	0989
1/2"	.425	.524	0993
35/64"	.453	.551	0997
9/16"	.472	.571	0999
5/8"	.520	.618	1005
11/16"	.571	.669	1009
3/4"	.654	.779	1021
13/16"	.701	.827	1029

Clamp Service Kit



Plastic kit box contains zinc plated 2-ear clamps:

- 15 of part #0709
- 15 of part #0811
- 15 of part #1113
- 15 of part #1315
- 15 of part #1518
- 12 of part #1720
- 12 of part #2023
- 12 of part #2225
- 12 of part #2327
- 1 pair of standard jaw pincers, part # 1098

Part #

SK1098

Clamp Construction Kit



Plastic construction clamp kit box contains the following:

- 50 of part #2225 (zinc plated, 2-ear clamps)
- 40 of part #2731 (zinc plated, 2-ear clamps)
- 6 hose menders (1/2", plastic)
- 1 pair of long handle pincers

Part #

18500116

Oetiker® Clamp Tools for Pinch-On Clamps



straight jaw

Part #

9901

standard jaw

Part #

1098

side jaw

Part #

1099

Dixon Worm Gear Clamps

- four-piece construction
- clamp meets SAEJ1508 which supercedes Mil Spec WW-C-440B
- screw design: 5/16" slotted hex head
- maximum recommended torque 50 in. lbs.
- *all clamps sold 10 per box*

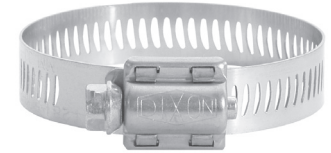
Style HS material:

- band and housing: SAE 201/301 series stainless
- screw: SAE 1018 case-hardened steel, zinc plated and chromate dipped

Style HSS material:

- band and housing: SAE 201/301 series stainless
- screw: SAE 300 series stainless

Band Width	Hose OD		style HS Part #	Case Qty	style HSS Part #	Case Qty
	from	to				
1/2"	28/64"	50/64"	HS6	200	HSS6	200
	32/64"	58/64"	HS8	200	HSS8	200
	36/64"	1-4/64"	HS10	500	HSS10	500
	44/64"	1-16/64"	HS12	500	HSS12	500
	52/64"	1-32/64"	HS16	500	HSS16	500
	52/64"	1-48/64"	HS20	500	HSS20	500
	1-4/64"	2"	HS24	500	HSS24	500
	1-20/64"	2-16/64"	HS28	500	HSS28	500
	1-36/64"	2-32/64"	HS32	500	HSS32	500
	1-52/64"	2-48/64"	HS36	500	HSS36	500
	2-4/64"	3"	HS40	200	HSS40	200
	2-20/64"	3-16/64"	HS44	200	HSS44	200
	2-36/64"	3-32/64"	HS48	200	HSS48	200
	2-52/64"	3-48/64"	HS52	200	HSS52	200
	3-4/64"	4"	HS56	200	HSS56	200
	3-20/64"	4-16/64"	HS60	200	HSS60	200
9/16"	3-36/64"	4-32/64"	HS64	200	HSS64	200
	1-56/64"	5"	HS72	100	HSS72	100
	2-32/64"	5-32/64"	HS80	100	HSS80	100
	3-8/64"	6"	HS88	100	HSS88	100
	3-40/64"	6-32/64"	HS96	100	HSS96	100
	4-8/64"	7"	HS104	100	HSS104	100
	5-40/64"	8-32/64"	HS128	100	HSS128	100
	7-8/64"	10"	HS152	100	HSS152	100
	9-24/64"	12-16/64"	HS188	100	HSS188	100
	10-8/64"	13"	HS200	100	HSS200	100
	10-56/64"	13-48/64"	HS212	100	HSS212	100
	11-40/64"	14-32/64"	HS224	100	HSS224	100
	12-24/64"	15-16/64"	HS236	100	HSS236	100
	13-8/64"	16"	HS248	100	HSS248	100
	17-8/64"	20"	HS312	100	HSS312	100



style HS



style HSS

Miniature Worm Gear Clamps

- screw design: 1/4" slotted hex head
- maximum recommended torque 15 in. lbs.
- *all clamps sold 10 per box*

Style MH material:

- band and housing: SAE 201/301 series stainless
- screw: SAE 1018 case-hardened steel, zinc plated and chromate dipped

Style MAH material:

- band and housing: SAE 300 series stainless
- screw: SAE 300 series stainless

Band Width	Hose OD		style MH Part #	Case Qty	style MAH Part #	Case Qty
	from	to				
5/16"	14/64"	40/64"	MH4	500	MAH4	500
	28/64"	50/64"	MH6	500	MAH6	500
	32/64"	58/64"	MH8	200	MAH8	200
	36/64"	1-4/64"	MH10	200	MAH10	200
	44/64"	1-16/64"	MH12	200	MAH12	200
	60/64"	1-32/64"	MH16	200	MAH16	200
	1-12/64"	1-48/64"	MH20	200	MAH20	200



style MH



style MAH

Torque ratings given on this page correspond to the torque rating of the screw of the clamp and are not an indication of the working pressure of any hose assembly installed with this clamp.



Quick Release Clamps

- maximum recommended torque 30 in. lbs.

Style LS material:

- band and housing: 301 series stainless
- screw: plated hardened carbon steel

Style LSS material:

- band and housing: 301 series stainless
- screw: SAE 410 series stainless



style LS



style LSS

Band Width	Hose OD		style LS Part #	Pkg Qty	style LSS Part #	Pkg Qty
	from	to				
1/2"	1-32/64"	3-32/64"	LS48	10	LSS48	10
	1"	4"	LS56	10	---	--
	2"	5"	LS72	10	LSS72	10
	2-4/64"	6"	LS88	10	LSS88	10
	3-32/64"	6-36/64"	LS96	--	---	--
	1-48/64"	7"	LS104	10	LSS104	10
	1-48/64"	8-36/64"	LS128	--	LSS128	--
	2"	10"	LS152	--	---	--
	2-4/64"	12-20/64"	LS188	--	LSS188	--
	10-12/64"	14"	---	--	LSS216	--
	10-48/64"	16"	---	--	LSS248	--

Euro-Seal® Embossed Worm Gear Clamps

- internally embossed perforations eliminate hose damage to soft cover hoses and extrusion through band slots
- rounded band edge protects hose surface
- smooth housing underside ensures greater concentricity
- can be used in place of liner clamps
- screw design: 7mm slotted hex head; can fasten with 9/32 socket
- maximum recommended torque 50 in. lbs.

Style ES material:

- band and housing: 300 series stainless
- screw: carbon steel

Style ESS material:

- band and housing: 300 series stainless
- screw: 316 stainless steel



style ES

Band Width	Hose OD		style ES Part #	style ESS Part #	Pkg Qty
	from	to			
1/2"	28/64"	50/64"	ES6	ESS6	10
	32/64"	58/64"	ES8	ESS8	10
	36/64"	1-4/64"	ES10	ESS10	10
	44/64"	1-16/64"	ES12	ESS12	10
	52/64"	1-32/64"	ES16	ESS16	10
	52/64"	1-48/64"	ES20	ESS20	10
	1-4/64"	2"	ES24	ESS24	10
	1-20/64"	2-16/64"	ES28	ESS28	10
	1-36/64"	2-32/64"	ES32	ESS32	10
	1-52/64"	2-48/64"	ES36	ESS36	10
	2-4/64"	3"	ES40	ESS40	10
	2-20/64"	3-16/64"	ES44	ESS44	10
	2-36/64"	3-32/64"	ES48	ESS48	10



Torque ratings given on this page correspond to the torque rating of the screw of the clamp and are not an indication of the working pressure of any hose assembly installed with this clamp.

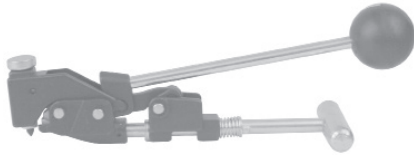
Band Clamp Hand Tools



Description	Part #
Locking tool. Portable hand tool used to apply punch type 3/8" and 5/8" band clamps. For use with F series only.	T38



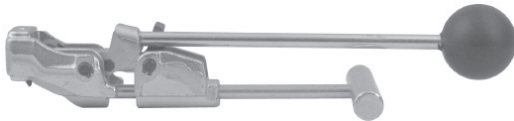
Description	Part #
Hand tool. Intermediate hand tool for 3/8" and 5/8" band clamps.	F40



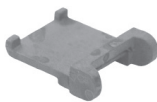
Description	Part #
Hand held tool for application of 5/8" band clamps. Imported tool	T300



Description	Part #
Hand held tool for application of 3/8" and 5/8" band clamps	P1



Description	Part #
Hand held tool for application of 3/4" K clamps	F175



Description	Part #
3/8" clamp adapter for P1 tool only	D229

Band Clamp Tool Accessories



Description	Part #
Mallet for punching band clamps	F225



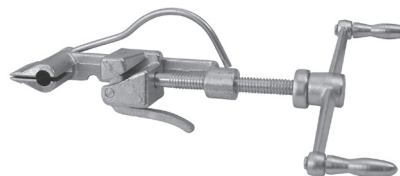
Description	Part #
Clamp cutter	F550

Band Clamp Tools

Description	Part #
Clamping tool for band and buckles	C2



Description	Part #
Clamping tool for band and buckles	TBT1

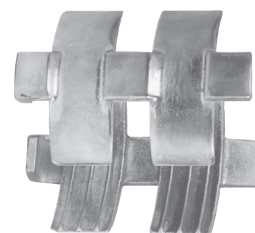
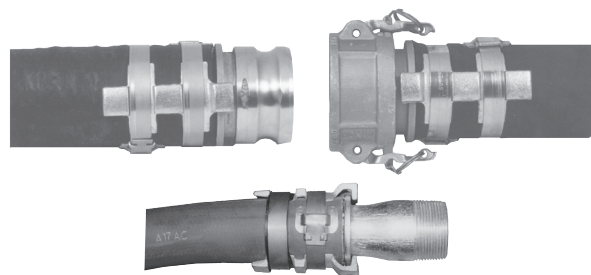


Description	Part #
51960 adapter for installing preformed clamps	51970



Strap-Grip Saddles and Male Stems

Strap-Grip saddles are designed to provide greater resistance to end pull than conventional band clamps alone. Only the fittings shown below are designed for use with Strap-Grip saddles. Saddles are designed for use with 3/4" or 5/8" wide bands. A band clamp should first be applied to OD to seal the hose in sizes 3" and over. Then Strap-Grip saddles should be banded on top of initial clamps to anchor the fitting in the hose.



saddles

Size	Hose OD		Plated Iron Part #
	from	to	
1½"	1-13/16"	2-1/8"	SGS150
2"	2-5/8"	3"	SGS200
3"	3-1/2"	3-7/8"	SGS300
4"	4-9/16"	5-1/8"	SGS400
6"	6-1/2"	7-1/16"	SGS600
8"	8-5/8"	9-3/8"	SGS800

schedule 40

Size	Plated Carbon Steel		Stainless Steel Part #
	Part #	Price/E	
1½"	LP21	\$57.45	---
2"	LP26	49.40	---
3"	LP36	121.30	RLP36¹
4"	LP46	154.00	RLP46¹
6"	LP66	329.45	---

schedule 80²

Size	Plated Carbon Steel Part #
1½"	LP21-80
2"	LP26-80



male NPT x hose shank

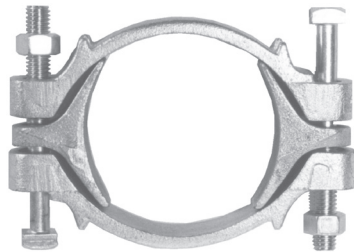
¹ made from tubular steel² schedule 80 stems meet NFPA 58

Double Bolt Clamps

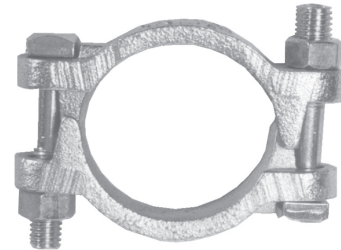
A rugged, plated iron two-bolt clamp with machine bolts and hex nuts.

- inner surface has dual gripping ridges
- bolt lugs are reinforced to prevent bending out of alignment

- measure hose OD accurately before ordering clamps
- Torque values for clamps are based on dry bolts. The use of lubricant on bolts will adversely effect clamp performance.
- Consult Alfagomma when using double bolt clamps on helical wire hose.



with saddles



Hose OD		Plated Iron Part #	Opt Qty	Torque in ft. lbs.
from	to			
3-32/64"	3-52/64"	400	25	40
3-50/64"	4-4/64"	431	20	40
4-2/64"	4-18/64"	463	20	40
4-16/64"	4-60/64"	525	10	60
4-32/64"	5-16/64"	550	10	60
5-8/64"	5-44/64"	600	10	60
5-44/64"	5-60/64"	639	10	60
5-60/64"	6-32/64"	675	10	60
6-32/64"	7-36/64"	769	10	60
7-44/64"	8-12/64"	818	5	125
8-16/64"	8-56/64"	875	5	125
8-60/64"	9-56/64"	988	5	125
9-60/64"	11-24/64"	1125	5	125
11-12/64"	13"	1275	3	125
12-12/64"	14"	1360	2	200
13-12/64"	15"	1450	2	200
15-4/64"	17-32/64"	1700	2	260

Hose OD		Plated Iron Part #	Opt Qty	Torque in ft. lbs.
from	to			
1-8/64"	1-12/64"	J48	100	15
1-12/64"	1-24/64"	J49	50	21
1-28/64"	1-34/64"	JX49	25	21
1-40/64"	1-52/64"	DL14	25	40
1-48/64"	2-3/64"	DL20	25	27
2-7/64"	2-19/64"	DL24¹	25	27
2-20/64"	2-40/64"	DL32¹	25	40
2-32/64"	2-48/64"	DL275	25	40
2-48/64"	3-4/64"	DL306	20	60
3-4/64"	3-24/64"	DL328	20	60
3-16/64"	3-32/64"	DL350	20	60

¹ investment carbon steel

Single Bolt Clamps



- measure hose OD accurately before ordering clamps
- Torque values for clamps are based on dry bolts. The use of lubricant on bolts will adversely effect clamp performance.



Hose OD		Plated Iron Part #	Torque in ft. lbs.
from	to		
56/64"	1"	2	6
62/64"	1-8/64"	3	6
1-4/64"	1-12/64"	4	6
1-10/64"	1-16/64"	5	6
1-16/64"	1-24/64"	6	6
1-22/64"	1-28/64"	7	6
1-28/64"	1-36/64"	8	6
1-34/64"	1-44/64"	9	6
1-42/64"	1-48/64"	10	6
1-48/64"	1-56/64"	11	6
1-56/64"	2-2/64"	12	6
2"	2-8/64"	13	12
2-8/64"	2-18/64"	14	12
2-16/64"	2-26/64"	15	12

Hose OD		Plated Iron Part #	Torque in ft. lbs.
from	to		
2-24/64"	2-32/64"	16	12
2-32/64"	2-40/64"	17	12
2-40/64"	2-56/64"	18	12
2-56/64"	3-4/64"	19	12
3-4/64"	3-16/64"	20	12
3-16/64"	3-28/64"	21	12
3-28/64"	3-40/64"	22	21
3-40/64"	3-52/64"	23	21
3-52/64"	4-8/64"	24	21
4-8/64"	4-20/64"	25	21
4-16/64"	4-32/64"	26	21
4-28/64"	4-40/64"	27	21
4-40/64"	4-56/64"	X27	21
4-56/64"	5-16/64"	28	21

Spring Hose Clamps

- Single wire clamps have the most effective holding force and clamping strength. The single wire concentrates the clamping force in one specific area around the hose.
- *Safety glasses should be worn when installing parts.*
- sold in box quantity only

SAFETY
ALERT

Size	Hose OD		Carbon Steel Part #	Pkg Qty
	from	to		
5/16"	.309"	.315"	SHC0312	100
3/8"	.370"	.380"	SHC0375	100
1/2"	.490"	.510"	SHC0500	100
9/16"	.551"	.573"	SHC0562	100
5/8"	.610"	.640"	SHC0625	100
3/4"	.730"	.770"	SHC0750	100
13/16"	.792"	.832"	SHC0812	100
1"	.969"	1.031"	SHC1000	100
1-1/8"	1.100"	1.150"	SHC1125	50
1-1/4"	1.219"	1.280"	SHC1250	50
1-1/2"	1.469"	1.531"	SHC1500	50
1-5/8"	1.578"	1.672"	SHC1625	50



Spring Hose Clamp Pliers

NEW

Install single wire spring hose clamps quickly and easily using this simple hand tool.

- rugged construction
- ease of use, designed for efficiency

Part #
SHCP



Spiral Clamps

For use on convoluted cover hose. To determine which style clamp is needed for your hose look at the end of the hose; if the helix spirals in a clockwise direction away from you (along the hose), a clockwise clamp is needed. If the helix spirals in a counterclockwise direction away from you, a counterclockwise clamp is needed. Examples include, but are not limited to: Kuriyama convoluted hose uses counter clockwise clamps; Pacific Echo and Kana Flex use clockwise clamps; Goodyear uses both counter clockwise and clockwise. More than one clamp may be needed per size, contact the hose manufacturer for more information.

- due to fluctuations in the OD of hose each individual installation should be checked

SAFETY
ALERT

Hose ID	Hose OD		Plated Steel, Right Hand Part #	Plated Steel, Left Hand Part #
	from	to		
1½"	1-34/64"	1-52/64"	SDBC150R	SDBC150L
2"	2-18/64"	2-32/64"	SDBC200R	SDBC200L
2½"	2-46/64"	3-8/64"	SDBC250R	SDBC250L
3"	3"	3-32/64"	SDBC300R	SDBC300L
4"	4"	4-32/64"	SDBC400R	SDBC400L
5"	5-6/64"	5-32/64"	SDBC500R	SDBC500L
6"	6-16/64"	7"	SDBC600R	SDBC600L
8"	8-32/64"	9-16/64"	SDBC800R	SDBC800L
10"	10-40/64"	11-16/64"	SDBC1000R	SDBC1000L

clockwise wound
right hand spiralcounter clockwise wound
left hand spiral

C50 External Crimp System

C50

CRIMP FERRULE

Made in the U.S.A.



For best results these Ferrules should only be used with C50 bodies (external crimp).

Custom design supplied upon request.

Also available in Anodized Aluminum in assorted colors and private label by quote.

Aluminum					Aluminum				
Size	Ferrule ID	Part Name	Item #	List Price	Size	Ferrule ID	Part Name	Item #	List Price
1/2"	0.875	05028C50AL		☎	2"	2.875	20228C50AL		☎
1/2"	0.938	05030C50AL		☎	2"	2.938	20230C50AL		☎
1/2"	1.000	05100C50AL		☎	2"	3.000	20300C50AL		☎
1/2"	1.063	05102C50AL		☎	2"	3.063	20302C50AL		☎
3/4"	1.063	07102C50AL		☎	2"	3.125	20304C50AL		☎
3/4"	1.125	07104C50AL		☎	2-1/2"	2.875	25228C50AL		☎
3/4"	1.188	07106C50AL		☎	2-1/2"	2.938	25230C50AL		☎
3/4"	1.250	07108C50AL		☎	2-1/2"	3.000	25300C50AL		☎
3/4"	1.313	07110C50AL		☎	2-1/2"	3.063	25302C50AL		☎
3/4"	1.375	07112C50AL		☎	2-1/2"	3.125	25304C50AL		☎
1"	1.438	10114C50AL		☎	2-1/2"	3.188	25306C50AL		☎
1"	1.500	10116C50AL		☎	2-1/2"	3.250	25308C50AL		☎
1"	1.563	10118C50AL		☎	2-1/2"	3.313	25310C50AL		☎
1"	1.625	10120C50AL		☎	2-1/2"	3.375	25312C50AL		☎
1"	1.688	10122C50AL		☎	2-1/2"	3.500	25316C50AL		☎
1"	1.750	10124C50AL		☎	2-1/2"	3.563	25318C50AL		☎
1"	1.813	10126C50AL		☎	2-1/2"	3.750	25324C50AL		☎
1"	1.875	10128C50AL		☎	3"	3.500	30316C50AL		☎
1-1/4"	1.563	12118C50AL		☎	3"	3.563	30318C50AL		☎
1-1/4"	1.625	12120C50AL		☎	3"	3.625	30320C50AL	56030320	☎
1-1/4"	1.688	12122C50AL		☎	3"	3.688	30322C50AL		☎
1-1/4"	1.750	12124C50AL		☎	3"	3.750	30324C50AL		☎
1-1/4"	1.813	12126C50AL		☎	3"	3.813	30326C50AL		☎
1-1/4"	1.875	12128C50AL		☎	3"	3.875	30328C50AL	56030328	☎
1-1/4"	1.938	12130C50AL		☎	3"	3.938	30330C50AL	56030330	☎
1-1/4"	2.000	12200C50AL		☎	3"	4.000	30400C50AL		☎
1-1/2"	1.875	15128C50AL		☎	3"	4.063	30402C50AL		☎
1-1/2"	1.938	15130C50AL		☎	3"	4.125	30404C50AL		☎
1-1/2"	2.000	15200C50AL		☎	4"	4.375	40412C50AL		☎
1-1/2"	2.063	15202C50AL		☎	4"	4.500	40416C50AL		☎
1-1/2"	2.125	15204C50AL		☎	4"	4.563	40418C50AL		☎
1-1/2"	2.188	15206C50AL		☎	4"	4.625	40420C50AL		☎
1-1/2"	2.250	15208C50AL		☎	4"	4.688	40422C50AL	56040422	☎
1-1/2"	2.313	15210C50AL		☎	4"	4.750	40424C50AL		☎
1-1/2"	2.375	15212C50AL		☎	4"	4.813	40426C50AL		☎
1-1/2"	2.438	15214C50AL		☎	4"	4.875	40428C50AL	56040428	☎
2"	2.375	20212C50AL		☎	4"	4.938	40430C50AL	56040430	☎
2"	2.438	20214C50AL		☎	4"	5.000	40500C50AL		☎
2"	2.500	20216C50AL		☎	4"	5.063	40502C50AL		☎
2"	2.563	20218C50AL		☎	4"	5.250	40508C50AL		☎
2"	2.625	20220C50AL	56020220	☎	4"	5.938	50530C50AL		☎
2"	2.688	20222C50AL		☎	6"	6.875	60628C50AL		☎
2"	2.750	20224C50AL		☎	6"	6.938	60630C50AL		☎
				☎	6"	7.063	60702C50AL		☎

C50 External Crimp System

CAM & Groove

Tank Truck

Boss

Air

Shank

Brass

Clamp

Stainless Steel					Stainless Steel				
Size	Ferrule ID	Part Name	Item #	List Price	Size	Ferrule ID	Part Name	Item #	List Price
1/2"	0.875	05028C50SS	54105028	\$5.32	2"	2.875	20228C50SS	54120228	\$13.97
1/2"	0.938	05030C50SS	54105030	\$5.03	2"	2.938	20230C50SS	54120230	\$13.97
1/2"	1.000	05100C50SS	54105100	\$5.03	2"	3.000	20300C50SS	54120300	\$13.97
1/2"	1.063	05102C50SS	54105102		2"	3.063	20302C50SS	54120302	\$13.97
3/4"	1.063	07102C50SS	54107102	\$5.51	2"	3.125	20304C50SS	54120304	
3/4"	1.125	07104C50SS	54107104	\$5.51	2-1/2"	2.875	25228C50SS	54125228	
3/4"	1.188	07106C50SS	54107106	\$5.51	2-1/2"	2.938	25230C50SS	54125230	
3/4"	1.250	07108C50SS	54107108	\$5.51	2-1/2"	3.000	25300C50SS	54125300	\$20.35
3/4"	1.313	07110C50SS	54107110	\$5.51	2-1/2"	3.063	25302C50SS	54125302	\$20.35
3/4"	1.375	07112C50SS	54107112	\$5.51	2-1/2"	3.125	25304C50SS	54125304	\$20.35
1"	1.438	10114C50SS	54110114	\$7.38	2-1/2"	3.188	25306C50SS	54125306	\$20.35
1"	1.500	10116C50SS	54110116	\$7.38	2-1/2"	3.250	25308C50SS	54125308	\$20.35
1"	1.563	10118C50SS	54110118	\$7.38	2-1/2"	3.313	25310C50SS	54125310	
1"	1.625	10120C50SS	54110120	\$7.38	2-1/2"	3.375	25312C50SS	54125312	\$20.35
1"	1.688	10122C50SS	54110122	\$7.38	2-1/2"	3.500	25316C50SS	54125316	\$20.35
1"	1.750	10124C50SS	54110124	\$7.38	2-1/2"	3.563	25318C50SS	54125318	
1"	1.813	10126C50SS	54110126		2-1/2"	3.750	25324C50SS	54125324	
1"	1.875	10128C50SS	54110128		3"	3.500	30316C50SS	54130316	\$23.14
1-1/4"	1.563	12118C50SS	54112118		3"	3.563	30318C50SS	54130318	\$23.14
1-1/4"	1.625	12120C50SS	54112120		3"	3.625	30320C50SS	54130320	\$23.14
1-1/4"	1.688	12122C50SS	54112122	\$8.43	3"	3.688	30322C50SS	54130322	\$23.14
1-1/4"	1.750	12124C50SS	54112124	\$8.43	3"	3.750	30324C50SS	54130324	\$23.14
1-1/4"	1.813	12126C50SS	54112126	\$8.43	3"	3.813	30326C50SS	54130326	\$23.14
1-1/4"	1.875	12128C50SS	54112128	\$8.43	3"	3.875	30328C50SS	54130328	\$23.14
1-1/4"	1.938	12130C50SS	54112130	\$8.43	3"	3.938	30330C50SS	54130330	\$23.14
1-1/4"	2.000	12200C50SS	54112200		3"	4.000	30400C50SS	54130400	\$23.14
1-1/2"	1.875	15128C50SS	54115128	\$11.42	3"	4.063	30402C50SS	54130402	
1-1/2"	1.938	15130C50SS	54115130	\$11.42	3"	4.125	30404C50SS	54130404	\$23.14
1-1/2"	2.000	15200C50SS	54115200	\$11.42	4"	4.375	40412C50SS	54140412	
1-1/2"	2.063	15202C50SS	54115202	\$11.42	4"	4.500	40416C50SS	54140416	
1-1/2"	2.125	15204C50SS	54115204	\$11.42	4"	4.563	40418C50SS	54140418	\$53.79
1-1/2"	2.188	15206C50SS	54115206	\$11.42	4"	4.625	40420C50SS	54140420	\$53.79
1-1/2"	2.250	15208C50SS	54115208	\$11.42	4"	4.688	40422C50SS	54140422	\$53.79
1-1/2"	2.313	15210C50SS	54115210	\$11.42	4"	4.750	40424C50SS	54140424	\$53.79
1-1/2"	2.375	15212C50SS	54115212	\$11.42	4"	4.813	40426C50SS	54140426	\$53.79
1-1/2"	2.438	15214C50SS	54115214		4"	4.875	40428C50SS	54140428	\$53.79
2"	2.375	20212C50SS		☎	4"	4.938	40430C50SS	54140430	\$53.79
2"	2.438	20214C50SS	54120214	\$13.97	4"	5.000	40500C50SS	54140500	\$53.79
2"	2.500	20216C50SS	54120216	\$13.97	4"	5.063	40502C50SS	54140502	
2"	2.563	20218C50SS	54120218	\$13.97	4"	5.250	40508C50SS	54140508	
2"	2.625	20220C50SS	54120220	\$13.97	4"	5.938	50530C50SS		☎
2"	2.688	20222C50SS	54120222	\$13.97	6"	6.875	60628C50SS	54160628	
2"	2.750	20224C50SS	54120224	\$13.97	6"	6.938	60630C50SS	54160630	
2"	2.813	20226C50SS	54120226	\$13.97	6"	7.063	60702C50SS	54160702	

C50
CRIMP FERRULE
Made in the U.S.A.



Designed to use with PT shanked fittings and ProGrip™ C50 bodies.

Custom design supplied upon request.

304 Stainless Steel is the standard material.

Please call for special quote in 316 Stainless Steel.

C50 External Crimp System

C50

CRIMP FERRULE

Made in the U.S.A.



Designed to use with PT shanked fittings and ProGrip™ C50 bodies.

Custom design supplied upon request.

Also available in 316 Stainless, Aluminum, Anodized Aluminum & private label by quote.

Size	Fer- rule ID	Plated Carbon Steel			List Price	Size	Fer- rule ID	Plated Carbon Steel			List Price
		Part Name	Item #					Part Name	Item #		
1/2"	0.875	05028C50CS	54005028	\$5.32	2"	2.875	20228C50CS	54020228	\$10.73		
1/2"	0.938	05030C50CS		☎	2"	2.938	20230C50CS	54020230	\$10.73		
1/2"	1.000	05100C50CS		☎	2"	3.000	20300C50CS	54020300		☎	
1/2"	1.063	05102C50CS		☎	2"	3.063	20302C50CS			☎	
3/4"	1.063	07102C50CS	54007102		2"	3.125	20304C50CS			☎	
3/4"	1.125	07104C50CS	54007104	\$5.32	2-1/2"	2.875	25228C50CS	54025228			
3/4"	1.188	07106C50CS	54007106	\$5.32	2-1/2"	2.938	25230C50CS			☎	
3/4"	1.250	07108C50CS	54007108	\$5.32	2-1/2"	3.000	25300C50CS	54025300	\$14.84		
3/4"	1.313	07110C50CS	54007110		2-1/2"	3.063	25302C50CS	54025302	\$14.84		
3/4"	1.375	07112C50CS		☎	2-1/2"	3.125	25304C50CS	54025304	\$14.84		
1"	1.438	10114C50CS	54010114	\$7.53	2-1/2"	3.188	25306C50CS	54025306	\$14.84		
1"	1.500	10116C50CS	54010116	\$7.53	2-1/2"	3.250	25308C50CS	54025308	\$14.84		
1"	1.563	10118C50CS	54010118	\$7.53	2-1/2"	3.313	25310C50CS	54025310			
1"	1.625	10120C50CS	54010120	\$7.53	2-1/2"	3.375	25312C50CS			☎	
1"	1.688	10122C50CS	54010122	\$7.53	2-1/2"	3.500	25316C50CS			☎	
1"	1.750	10124C50CS	54010124		2-1/2"	3.563	25318C50CS	54025318			
1"	1.813	10126C50CS	54010126		2-1/2"	3.750	25324C50CS	54025324			
1"	1.875	10128C50CS		☎	3"	3.500	30316C50CS	54030316	\$15.20		
1-1/4"	1.563	12118C50CS		☎	3"	3.563	30318C50CS	54030318			
1-1/4"	1.625	12120C50CS		☎	3"	3.625	30320C50CS	54030320	\$15.20		
1-1/4"	1.688	12122C50CS	54012122		3"	3.688	30322C50CS	54030322	\$15.20		
1-1/4"	1.750	12124C50CS		☎	3"	3.750	30324C50CS	54030324	\$15.20		
1-1/4"	1.813	12126C50CS	54012126	\$7.84	3"	3.813	30326C50CS	54030326	\$15.20		
1-1/4"	1.875	12128C50CS	54012128		3"	3.875	30328C50CS	54030328	\$15.20		
1-1/4"	1.938	12130C50CS	54012130		3"	3.938	30330C50CS	54030330	\$15.20		
1-1/4"	2.000	12200C50CS		☎	3"	4.000	30400C50CS	54030400	\$15.20		
1-1/2"	1.875	15128C50CS	54015128		3"	4.063	30402C50CS			☎	
1-1/2"	1.938	15130C50CS	54015130		3"	4.125	30404C50CS	54030404			
1-1/2"	2.000	15200C50CS	54015200	\$8.60	4"	4.375	40412C50CS	54040412			
1-1/2"	2.063	15202C50CS	54015202	\$8.60	4"	4.500	40416C50CS	54040416			
1-1/2"	2.125	15204C50CS	54015204	\$8.60	4"	4.563	40418C50CS	54040418	\$20.39		
1-1/2"	2.188	15206C50CS	54015206	\$8.60	4"	4.625	40420C50CS	54040420	\$20.39		
1-1/2"	2.250	15208C50CS	54015208	\$8.60	4"	4.688	40422C50CS	54040422	\$20.39		
1-1/2"	2.313	15210C50CS		☎	4"	4.750	40424C50CS	54040424	\$20.39		
1-1/2"	2.375	15212C50CS	54015212	\$8.60	4"	4.813	40426C50CS	54040426	\$20.39		
1-1/2"	2.438	15214C50CS	54015214	\$8.60	4"	4.875	40428C50CS	54040428	\$20.39		
2"	2.375	20212C50CS	54020212		4"	4.938	40430C50CS	54040430	\$20.39		
2"	2.438	20214C50CS	54020214		4"	5.000	40500C50CS	54040500	\$20.39		
2"	2.500	20216C50CS	54020216	\$10.73	4"	5.063	40502C50CS	54040502	\$20.39		
2"	2.563	20218C50CS	54020218	\$10.73	4"	5.250	40508C50CS			☎	
2"	2.625	20220C50CS	54020220	\$10.73	4"	5.938	50530C50CS	54050530			
2"	2.688	20222C50CS	54020222	\$10.73	6"	6.875	60628C50CS			☎	
2"	2.750	20224C50CS	54020224	\$10.73	6"	6.938	60630C50CS			☎	

C50 External Crimp System

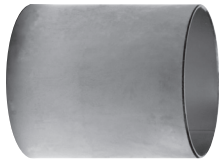
CS
CRIMP SLEEVE
Made in the U.S.A.



			Aluminum				Aluminum					
Size (mm)	Size (in.)	Sleeve ID (mm)	Length (mm)	Part #	Item #	Size (mm)	Size (in.)	Sleeve ID (mm)	Length (mm)	Part #	Item #	
12.70	1/2"	17.48	33.02	05022CSAL	☎	63.50	2-1/2	85.73	78.74	25312CSAL	☎	
12.70	1/2"	20.65	33.02	05026CSAL	☎	76.20	3	84.15	88.90	30310CSAL	☎	
12.70	1/2"	22.22	33.02	05028CSAL	☎	76.20	3	85.73	88.90	30312CSAL	☎	
12.70	1/2"	23.83	33.02	05030CSAL	☎	76.20	3	87.33	88.90	30314CSAL	☎	
12.70	1/2"	25.4	33.02	05100CSAL	☎	76.20	3	88.90	88.90	30316CSAL	542303161	
19.05	3/4"	27.00	40.64	07102CSAL	☎	76.20	3	90.50	88.90	30318CSAL	54930318	
19.05	3/4"	28.58	40.64	07104CSAL	☎	76.20	3	92.07	88.90	30320CSAL	54230321	
19.05	3/4"	30.18	40.64	07106CSAL	☎	76.20	3	93.68	88.90	30322CSAL	☎	
19.05	3/4"	31.75	40.64	07108CSAL	☎	76.20	3	95.35	88.90	30324CSAL	54930324	
19.05	3/4"	33.35	40.64	07110CSAL	☎	76.20	3	96.85	88.90	30326CSAL	542303261	
25.40	1"	33.35	53.34	10110CSAL	☎	76.20	3	98.43	88.90	30328CSAL	542303281	
25.40	1"	34.93	53.34	10112CSAL	☎	76.20	3	100.03	88.90	30330CSAL	☎	
25.40	1"	36.53	53.34	10114CSAL	☎	76.20	3	101.60	88.90	30400CSAL	☎	
25.40	1"	38.10	53.34	10116CSAL	☎	76.20	3	103.20	88.90	30402CSAL	☎	
25.40	1"	39.70	53.34	10118CSAL	54910118	76.20	3	104.77	88.90	30404CSAL	☎	
25.40	1"	41.28	53.34	10120CSAL	☎	76.20	3	106.38	88.90	30406CSAL	☎	
25.40	1"	42.88	53.34	10122CSAL	☎	101.60	4	109.55	114.30	40410CSAL	☎	
31.75	1-1/4"	44.45	53.34	12124CSAL	☎	101.60	4	111.13	114.30	40412CSAL	☎	
31.75	1-1/4"	46.05	53.34	12126CSAL	☎	101.60	4	112.73	114.30	40414CSAL	☎	
31.75	1-1/4"	47.63	53.34	12128CSAL	☎	101.60	4	114.30	114.30	40416CSAL	☎	
31.75	1-1/4"	49.23	53.34	12130CSAL	☎	101.60	4	115.90	114.30	40418CSAL	542404191	
38.10	1-1/2"	50.80	53.34	15200CSAL	☎	101.60	4	117.48	114.30	40420CSAL	☎	
38.10	1-1/2"	52.40	53.34	15202CSAL	☎	101.60	4	119.08	114.30	40422CSAL	☎	
38.10	1-1/2"	53.97	53.34	15204CSAL	☎	101.60	4	120.65	114.30	40424CSAL	54940424	
38.10	1-1/2"	55.58	53.34	15206CSAL	☎	101.60	4	122.25	114.30	40426CSAL	☎	
38.10	1-1/2"	57.15	53.34	15208CSAL	☎	101.60	4	123.82	114.30	40428CSAL	54940440	
38.10	1-1/2"	58.75	53.34	15210CSAL	☎	101.60	4	125.43	114.30	40430CSAL	54940430	
50.80	2"	57.15	78.74	20208CSAL	☎	101.60	4	127.00	114.30	40500CSAL	54940500	
50.80	2"	58.75	78.74	20210CSAL	☎	101.60	4	128.60	114.30	40502CSAL	☎	
50.80	2"	60.32	78.74	20212CSAL	☎	101.60	4	130.17	114.30	40504CSAL	☎	
50.80	2"	61.93	78.74	20214CSAL	☎	101.60	4	131.78	114.30	40506CSAL	☎	
50.80	2"	63.50	78.74	20216CSAL	54920216	101.60	4	137.88	114.30	50520CSAL	☎	
50.80	2"	65.10	78.74	20218CSAL	54920218	127.00	5	142.88	139.70	50520CSAL	☎	
50.80	2"	66.68	78.74	20220CSAL	☎	152.40	6	160.35	154.99	60610CSAL	☎	
50.80	2"	68.28	78.74	20222CSAL	☎	152.40	6	161.92	154.99	60612CSAL	☎	
50.80	2"	69.85	78.74	20224CSAL	☎	152.40	6	165.10	154.99	60616CSAL	☎	
50.80	2"	71.45	78.74	20226CSAL	☎	152.40	6	166.70	154.99	60618CSAL	☎	
50.80	2"	73.02	78.74	20228CSAL	☎	152.40	6	168.27	154.99	60620CSAL	☎	
50.80	2"	74.63	78.74	20230CSAL	☎	152.40	6	174.63	154.99	60628CSAL	☎	
63.50	2-1/2"	76.20	78.74	25300CSAL	☎	152.40	6	176.23	154.99	60630CSAL	☎	
63.50	2-1/2"	77.80	78.74	25302CSAL	☎	152.40	6	180.98	154.99	60704CSAL	☎	
63.50	2-1/2"	79.38	78.74	25304CSAL	☎	203.20	8	215.90	205.74	80816CSAL	☎	
63.50	2-1/2"	80.98	78.74	25306CSAL	☎	203.20	8	219.08	205.74	80820CSAL	☎	
63.50	2-1/2"	82.55	78.74	25308CSAL	☎	203.20	8	231.78	205.74	80904CSAL	☎	
63.50	2-1/2"	84.15	78.74	25310CSAL	☎	203.20	8	241.30	205.74	80916CSAL	☎	

C50 External Crimp System

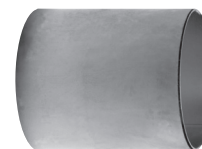
CS
CRIMP SLEEVE
Made in the U.S.A.



Stainless Steel						Stainless Steel					
Size (mm)	Size (in.)	Sleeve ID (mm)	Length (mm)	Part #	Item #	Size (mm)	Size (in.)	Sleeve ID (mm)	Length (mm)	Part #	Item #
12.7	1/2	17.48	33.02	05022CSSS	54305022	63.5	2-1/2	85.73	78.74	25312CSSS	54325312
12.7	1/2	20.65	33.02	05026CSSS	54305026	76.20	3	84.15	88.90	30310CSSS	54330310
12.7	1/2	22.22	33.02	05028CSSS	54305028	76.20	3	85.73	88.90	30312CSSS	54330312
12.7	1/2	23.83	33.02	05030CSSS	54305030	76.20	3	87.33	88.90	30314CSSS	54330314
12.7	1/2	25.4	33.02	05100CSSS	54305100	76.20	3	88.90	88.90	30316CSSS	54330316
19.05	3/4	27	40.64	07102CSSS	54307102	76.20	3	90.50	88.90	30318CSSS	54330318
19.05	3/4	28.58	40.64	07104CSSS	54307104	76.20	3	92.07	88.90	30320CSSS	54330320
19.05	3/4	30.18	40.64	07106CSSS	54307106	76.20	3	93.68	88.90	30322CSSS	54330322
19.05	3/4	31.75	40.64	07108CSSS	54307108	76.20	3	95.35	88.90	30324CSSS	54330324
19.05	3/4	33.35	40.64	07110CSSS	54307110	76.20	3	96.85	88.90	30326CSSS	54330326
25.4	1	33.35	53.34	10110CSSS	☎	76.20	3	98.43	88.90	30328CSSS	54330328
25.4	1	34.93	53.34	10112CSSS	54310112	76.20	3	100.03	88.90	30330CSSS	54330330
25.4	1	36.53	53.34	10114CSSS	54310114	76.20	3	101.60	88.90	30400CSSS	54330400
25.4	1	38.10	53.34	10116CSSS	54310116	76.20	3	103.20	88.90	30402CSSS	54330402
25.4	1	39.70	53.34	10118CSSS	54310118	76.20	3	104.77	88.90	30404CSSS	54330404
25.4	1	41.28	53.34	10120CSSS	54310120	101.6	4	106.38	88.90	30406CSSS	54330406
25.4	1	42.88	53.34	10122CSSS	54310122	101.6	4	109.55	114.30	40410CSSS	☎
31.75	1-1/4	44.45	53.34	12124CSSS	54312124	101.6	4	111.13	114.30	40412CSSS	54340412
31.75	1-1/4	46.05	53.34	12126CSSS	54312126	101.6	4	112.73	114.30	40414CSSS	54340414
31.75	1-1/4	47.63	53.34	12128CSSS	54312128	101.6	4	114.30	114.30	40416CSSS	☎
31.75	1-1/4	49.23	53.34	12130CSSS	54312130	101.6	4	115.90	114.30	40418CSSS	54340418
31.75	1-1/4	49.23	53.34	12130CSSS	54312130	101.6	4	117.48	114.30	40420CSSS	54340420
38.1	1-1/2	50.80	53.34	15200CSSS	54315200	101.6	4	119.08	114.30	40422CSSS	54340422
38.1	1-1/2	52.40	53.34	15202CSSS	54315202	101.6	4	120.65	114.30	40424CSSS	54340424
38.1	1-1/2	53.97	53.34	15204CSSS	54315204	101.6	4	122.25	114.30	40426CSSS	54340426
38.1	1-1/2	55.58	53.34	15206CSSS	54315206	101.6	4	123.82	114.30	40428CSSS	54340428
38.1	1-1/2	57.15	53.34	15208CSSS	54315208	101.6	4	125.43	114.30	40430CSSS	54340430
38.1	1-1/2	58.75	53.34	15210CSSS	54315210	101.6	4	127.00	114.30	40500CSSS	54340500
50.8	2	57.15	78.74	20208CSSS	54320208	101.6	4	128.60	114.30	40502CSSS	54340502
50.8	2	58.75	78.74	20210CSSS	54320210	101.6	4	130.17	114.30	40504CSSS	54340504
50.8	2	60.32	78.74	20212CSSS	54320212	101.6	4	131.78	114.30	40506CSSS	54340506
50.8	2	61.93	78.74	20214CSSS	54320214	127	5	142.88	139.7	50520CSSS	☎
50.8	2	63.50	78.74	20216CSSS	54320216	152.40	6	160.35	154.99	60610CSSS	☎
50.8	2	65.10	78.74	20218CSSS	54320218	152.40	6	161.92	154.99	60612CSSS	☎
50.8	2	66.68	78.74	20220CSSS	54320220	152.40	6	165.10	154.99	60616CSSS	54360616
50.8	2	68.28	78.74	20222CSSS	54320222	152.40	6	166.70	154.99	60618CSSS	☎
50.8	2	69.85	78.74	20224CSSS	54320224	152.40	6	168.27	154.99	60620CSSS	☎
50.8	2	71.45	78.74	20226CSSS	54320226	152.40	6	174.63	154.99	60628CSSS	54360628
50.8	2	73.02	78.74	20228CSSS	54320228	152.40	6	176.23	154.99	60630CSSS	54360630
50.8	2	74.63	78.74	20230CSSS	54320230	203.2	8	180.98	154.99	60704CSSS	☎
63.5	2-1/2	76.20	78.74	25300CSSS	54325300	203.2	8	215.90	205.74	80816CSSS	☎
63.5	2-1/2	77.80	78.74	25302CSSS	54325302	203.2	8	8.625	205.74	80820CSSS	☎
63.5	2-1/2	79.38	78.74	25304CSSS	54325304	203.2	8	9.125	205.74	80904CSSS	☎
63.5	2-1/2	80.98	78.74	25306CSSS	54325306	203.2	8	9.500	205.74	80916CSSS	☎
63.5	2-1/2	80.98	78.74	25306CSSS	54325306	203.2	8	9.625	205.74	80920CSSS	☎

C50 External Crimp System

CS
CRIMP SLEEVE
Made in the U.S.A.



Plated Carbon Steel						Plated Carbon Steel					
Size (mm)	Size (.in)	Sleeve ID (mm)	Length (mm)	Part #	Item #	Size (mm)	Size (.in)	Sleeve ID (mm)	Length (mm)	Part #	Item #
12.70	1/2	17.48	33.02	05022CSCS	☎	63.50	2-1/2	85.73	78.74	25312CSCS	☎
12.70	1/2	20.65	33.02	05026CSCS	☎	76.20	3	84.15	88.90	30310CSCS	54230310
12.70	1/2	22.22	33.02	05028CSCS	54205028	76.20	3	85.73	88.90	30312CSCS	54230312
12.70	1/2	23.83	33.02	05030CSCS	54205030	76.20	3	87.33	88.90	30314CSCS	54230314
12.70	1/2	25.4	33.02	05100CSCS	☎	76.20	3	88.90	88.90	30316CSCS	54230316
19.05	3/4	27.00	40.64	07102CSCS	54207102	76.20	3	90.50	88.90	30318CSCS	54230318
19.05	3/4	28.58	40.64	07104CSCS	54207104	76.20	3	92.07	88.90	30320CSCS	54230320
19.05	3/4	30.18	40.64	07106CSCS	54207106	76.20	3	93.68	88.90	30322CSCS	54230322
19.05	3/4	31.75	40.64	07108CSCS	54207108	76.20	3	95.35	88.90	30324CSCS	54230324
19.05	3/4	33.35	40.64	07110CSCS	54207110	76.20	3	96.85	88.90	30326CSCS	54230326
25.40	1	33.35	53.34	10110CSCS	54210110	76.20	3	98.43	88.90	30328CSCS	54230328
25.40	1	34.93	53.34	10112CSCS	54210112	76.20	3	100.03	88.90	30330CSCS	54230330
25.40	1	36.53	53.34	10114CSCS	54210114	76.20	3	101.60	88.90	30400CSCS	54230400
25.40	1	38.10	53.34	10116CSCS	54210116	76.20	3	103.20	88.90	30402CSCS	54230402
25.40	1	39.70	53.34	10118CSCS	54210118	76.20	3	104.77	88.90	30404CSCS	54230404
25.40	1	41.28	53.34	10120CSCS	54210120	76.20	3	106.38	88.90	30406CSCS	☎
25.40	1	42.88	53.34	10122CSCS	54210122	101.60	4	109.55	114.30	40410CSCS	54240410
31.75	1-1/4	44.45	53.34	12124CSCS	☎	101.60	4	111.13	114.30	40412CSCS	54240412
31.75	1-1/4	46.05	53.34	12126CSCS	54212126	101.60	4	112.73	114.30	40414CSCS	54240414
31.75	1-1/4	47.63	53.34	12128CSCS	54212128	101.60	4	114.30	114.30	40416CSCS	54240416
31.75	1-1/4	49.23	53.34	12130CSCS	54212130	101.60	4	115.90	114.30	40418CSCS	54240418
38.10	1-1/2	50.80	53.34	15200CSCS	54215200	101.60	4	117.48	114.30	40420CSCS	54240420
38.10	1-1/2	52.40	53.34	15202CSCS	54215202	101.60	4	119.08	114.30	40422CSCS	54240422
38.10	1-1/2	53.97	53.34	15204CSCS	54215204	101.60	4	120.65	114.30	40424CSCS	54240424
38.10	1-1/2	55.58	53.34	15206CSCS	54215206	101.60	4	122.25	114.30	40426CSCS	54240426
38.10	1-1/2	57.15	53.34	15208CSCS	54215208	101.60	4	123.82	114.30	40428CSCS	54240428
38.10	1-1/2	58.75	53.34	15210CSCS	54215210	101.60	4	125.43	114.30	40430CSCS	54240430
50.80	2	57.15	78.74	20208CSCS	☎	101.60	4	127.00	114.30	40500CSCS	54240500
50.80	2	58.75	78.74	20210CSCS	☎	101.60	4	128.60	114.30	40502CSCS	54240502
50.80	2	60.32	78.74	20212CSCS	54220212	101.60	4	130.17	114.30	40504CSCS	☎
50.80	2	61.93	78.74	20214CSCS	54220214	101.60	4	131.78	114.30	40506CSCS	☎
50.80	2	63.50	78.74	20216CSCS	54220216	127.00	5	142.88	139.70	50520CSCS	54250520
50.80	2	65.10	78.74	20218CSCS	54220218	152.40	6	160.35	154.99	60610CSCS	54260610
50.80	2	66.68	78.74	20220CSCS	54220220	152.40	6	161.92	154.99	60612CSCS	54260612
50.80	2	68.28	78.74	20222CSCS	54220222	152.40	6	165.10	154.99	60616CSCS	54260616
50.80	2	69.85	78.74	20224CSCS	54220224	152.40	6	166.70	154.99	60618CSCS	54260618
50.80	2	71.45	78.74	20226CSCS	54220226	152.40	6	168.27	154.99	60620CSCS	54260620
50.80	2	73.02	78.74	20228CSCS	54220228	152.40	6	174.63	154.99	60628CSCS	54260628
50.80	2	74.63	78.74	20230CSCS	54220230	152.40	6	176.23	154.99	60630CSCS	54260630
63.50	2-1/2	76.20	78.74	25300CSCS	54225300	152.40	6	180.98	154.99	60704CSCS	54260704
63.50	2-1/2	77.80	78.74	25302CSCS	54225302	203.20	8	215.90	205.74	80816CSCS	54280816
63.50	2-1/2	79.38	78.74	25304CSCS	54225304	203.20	8	219.08	205.74	80820CSCS	54280820
63.50	2-1/2	80.98	78.74	25306CSCS	54225306	203.20	8	231.78	205.74	80904CSCS	54280904
63.50	2-1/2	82.55	78.74	25308CSCS	54225308	203.20	8				
63.50	2-1/2	84.15	78.74	25310CSCS	☎	203.20	8				

Punch Type Clamps - ORIGINAL PRE-FORMED

PUNCH TYPE CLAMPS

DOUBLE-WRAPPED AND FORMED TO A GIVEN DIAMETER. CLAMPS COME READY FOR APPLICATION.

Made in the U.S.A.



To Order: Measure the Outside Diameter of the hose with its fitting inserted.

Then select the next larger Inside Diameter clamp by catalog number. Using the hose size in inches is not sufficient information, because different thickness of hose will result in varying outside diameters.

201 Stainless Steel (Std. Pack)

Clamp ID	Band Width	Part Name	Item #	List Price	Qty/Ctn
13/16"	3/8"	P3S	P110300	\$88.50	100
1"	3/8"	P310S	P110310	\$97.82	100
1-3/8"	3/8"	P311S	P110311	\$99.36	100
2"	3/8"	P316S	P110316	\$133.54	100
1"	5/8"	P4S	P110400	\$141.28	100
1-1/4"	5/8"	P5S	P110500	\$152.15	100
1-1/2"	5/8"	P6S	P110600	\$161.47	100
1-3/4"	5/8"	P7S	P110700	\$169.24	100
2"	5/8"	P8S	P110800	\$186.32	100
2-1/4"	5/8"	P9S	P110900	\$197.17	100
2-1/2"	5/8"	P10S	P111000	\$103.24	50
2-3/4"	5/8"	P11S	P111100	\$107.91	50
3"	5/8"	P12S	P111200	\$113.35	50
3-1/2"	5/8"	P14S	P111400	\$126.55	50
4"	5/8"	P16S	P111600	\$71.05	25
4-1/2"	5/8"	P18S	P111800	\$75.31	25
5"	5/8"	P20S	P112000	\$81.52	25
6"	5/8"	P24S	P112400	\$93.16	25
6-1/2"	5/8"	P26S	P112600	\$203.39	50

Galv. Carbon Steel (Std. Pack)

Clamp ID	Band Width	Part Name	Item #	List Price	Qty/Ctn
13/16"	3/8"	P3	P100300	\$48.28	100
1"	3/8"	P310	P100310	\$49.74	100
1-3/8"	3/8"	P311	P100311	\$51.19	100
2"	3/8"	P316	P100316	\$54.12	100
1"	5/8"	P4	P100400	\$57.04	100
1-1/4"	5/8"	P5	P100500	\$59.98	100
1-1/2"	5/8"	P6	P100600	\$61.44	100
1-3/4"	5/8"	P7	P100700	\$65.82	100
2"	5/8"	P8	P100800	\$70.22	100
2-1/4"	5/8"	P9	P100900	\$71.68	100
2-1/2"	5/8"	P10	P101000	\$41.35	50
2-3/4"	5/8"	P11	P101100	\$44.31	50
3"	5/8"	P12	P101200	\$46.52	50
3-1/2"	5/8"	P14	P101400	\$49.49	50
4"	5/8"	P16	P101600	\$28.43	25
4-1/2"	5/8"	P18	P101800	\$29.90	25
5"	5/8"	P20	P102000	\$31.39	25
6"	5/8"	P24	P102400	\$34.34	25
6-1/2"	5/8"	P26	P102600	\$84.18	50

Special Order "non-stock" Clamps

**PUNCH-LOK™
SPECIAL ORDER
OPEN-END
CLAMPS**

NON-SPRING
COILED TO A GIVEN
DIAMETER BUT
NOT LACED UP
THROUGH THE LOK.

Made in the U.S.A.



This page consists of clamps that are made to order and generally not stocked at any factory warehouse. Orders placed for these clamps are non-cancelable and not returnable.

Stainless Steel

Clamp ID	Band Width	Part Name	Item #	List Price	Qty./Ctn
1-5/8"	3/8"	PO-313-S	P140313	\$375.44	100
2-1/2"	3/8"	PO-320-S	P140320	\$419.14	100
3-1/2"	3/8"	PO-328-S	P140328	\$462.79	100
4"	3/8"	PO-332-S	P140332	\$498.87	100
4-1/2"	3/8"	PO-336-S	P140336	\$534.86	100
5"	3/8"	PO-340-S	P140340	\$570.87	100
5-1/2"	3/8"	PO-344-S	P140344	\$640.29	100
6"	3/8"	PO-348-S	P140348	\$699.44	100
6-1/2"	3/8"	PO-352-S	P140352	\$753.41	100
7"	3/8"	PO-356-S	P140356	\$809.98	100
7-1/4"	3/8"	PO-358-S	P140358	\$920.56	100
14"	5/8"	PO-56-S	P145600	\$148.78	10
16"	5/8"	PO-64-S	P146400	\$169.16	10
18"	5/8"	PO-72-S	P147200	\$191.21	10
20"	5/8"	PO-80-S	P148000	\$216.95	10
24"	5/8"	PO-96-S	P149600	\$330.66	10
30"	5/8"	PO-120-S	P149920	\$374.77	10
36"	5/8"	PO-144-S	P149944	\$404.21	10
42"	5/8"	PO-168-S	P149968	\$437.30	10
48"	5/8"	PO-192-S	P149992	\$466.71	10

High-Strength Galvanized Carbon Steel

Clamp ID	Band Width	Part Name	Item #	List Price	Qty./Ctn
1-5/8"	3/8"	PO-313	P130313	\$172.46	100
2-1/2"	3/8"	PO-320	P130320	\$185.93	100
3-1/2"	3/8"	PO-328	P130328	\$206.06	100
4"	3/8"	PO-332	P130332	\$219.50	100
4-1/2"	3/8"	PO-336	P130336	\$232.96	100
5"	3/8"	PO-340	P130340	\$255.33	100
5-1/2"	3/8"	PO-344	P130344	\$279.99	100
6"	3/8"	PO-348	P130348	\$309.10	100
6-1/2"	3/8"	PO-352	P130352	\$331.50	100
7"	3/8"	PO-356	P130356	\$362.85	100
7-1/4"	3/8"	PO-358	P130358	\$405.40	100
14"	5/8"	PO-56	P135600	\$57.66	10
16"	5/8"	PO-64	P136400	\$67.76	10
18"	5/8"	PO-72	P137200	\$79.34	10
20"	5/8"	PO-80	P138000	\$95.37	10
24"	5/8"	PO-96	P139600	\$103.98	10
30"	5/8"	PO-120	P139920	\$119.01	10
36"	5/8"	PO-144	P139944	\$140.93	10
42"	5/8"	PO-168	P139968	\$165.82	10
48"	5/8"	PO-192	P139992	\$182.57	10

Preformed J-Lok Clamps

Stainless Steel					
Clamp ID	Band Width	Part Name	Item #	List Price	Qty/Ctn
13/16"	3/8"	PJ-201	P470201	\$136.03	100
1"	1/4"	PJ-242	P470242	\$166.98	100
1"	3/8"	PJ-243	P470243	\$166.21	100
1-3/8"	3/8"	PJ-202	P470202	\$171.24	100
1"	1/2"	PJ-203	P470203	\$211.54	100
1-1/4"	1/2"	PJ-204	P470204	\$226.67	100
1-3/8"	1/4"	PJ-241	P470241	\$177.34	100
1-1/2"	5/8"	PJ-205	P470205	\$277.02	100
1-3/4"	1/2"	PJ-236	P470236	\$302.20	100
1-3/4"	5/8"	PJ-206	P470206	\$312.30	100
2"	3/8"	PJ-245	P470245	\$186.36	100
2"	5/8"	PJ-207	P470207	\$337.48	100
2-1/4"	5/8"	PJ-208	P470208	\$357.58	100
2-1/2"	5/8"	PJ-209	P470209	\$377.78	100
2-3/4"	1/2"	PJ-230	P470230	\$352.57	100
2-3/4"	3/4"	PJ-210	P470210	\$226.81	50
3"	3/4"	PJ-211	P470211	\$251.85	50
3-1/2"	3/4"	PJ-212	P470212	\$251.85	50
4"	3/4"	PJ-213	P470213	\$141.07	25
4-1/2"	3/4"	PJ-214	P470214	\$156.15	25
5"	3/4"	PJ-215	P470215	\$166.21	25
6"	3/4"	PJ-216	P470216	\$191.42	25
7"	3/4"	PJ-218	P470218	\$236.72	25
8"	3/4"	PJ-219	P470219	\$274.92	25

High-Strength Galvanized Carbon Steel					
Clamp ID	Band Width	Part Name	Item #	List Price	Qty/Ctn
13/16"	3/8"	PJ-301	P460301	\$61.72	100
1"	3/8"	PJ-343	P460343	\$65.86	100
1-3/8"	3/8"	PJ-302	P460302	\$69.96	100
1"	1/2"	PJ-303	P460303	\$90.75	100
1-3/4"	5/8"	PJ-306	P460306	\$131.73	100
2"	3/8"	PJ-345	P460345	\$86.42	100
2"	5/8"	PJ-307	P460307	\$135.82	100
2-1/4"	5/8"	PJ-308	P460308	\$148.19	100
2-1/2"	5/8"	PJ-309	P460309	\$164.65	100
2-3/4"	3/4"	PJ-310	P460310	\$94.66	50
3"	3/4"	PJ-311	P460311	\$115.59	50
3-1/2"	3/4"	PJ-312	P460312	\$107.03	50
4"	3/4"	PJ-313	P460313	\$66.66	25
4-1/2"	3/4"	PJ-314	P460314	\$70.58	25
5"	3/4"	PJ-315	P460315	\$74.09	25
7"	3/4"	PJ-318	P460318		25

PUNCH-LOK™
PRE-FORMED
J-LOK CLAMPS
DOUBLE-WRAPPED,
DOUBLE LOCKED
J-LOK CLAMPS
PROVIDE VERSATILE
CLAMPING IN MANY
SITUATIONS
Made in the U.S.A.



New design on J-Lok clamp has a smooth ID

Punch-Lok™ J-Lok clamps have stainless steel buckles for added strength and corrosion resistance - with your choice of stainless steel or high-strength galvanized carbon steel bands.

Totally different than punch-type clamps, these J-Lok clamps are not for use with punch-type tools. They are designed exclusively for applications with non-punch type mechanical and air tools.

Banding/Strapping & Safety Boxes

STEEL BANDING & STRAPPING

100 FEET PER ROLL

STANDARD LENGTH

Made in the U.S.A.



Width (mm)	Width (in.)	Thickness (mm)	Part #	Item #	Description
9.53	3/8	0.635	SC6A/PB203	P811203	Standard-Duty Type 201 Stainless
12.70	1/2	0.762	SC8/PB204	P811204	Standard-Duty Type 201 Stainless
15.88	5/8	0.762	SC10/PB205	P811205	Standard-Duty Type 201 Stainless
19.05	3/4	0.762	SC12/PB206	P811206	Standard-Duty Type 201 Stainless
19.05	3/4	1.016/1.1176	PG430	P811430	Heavy-Duty Type 201 Stainless
25.40	1	1.016/1.1176	PG431	P811431	Heavy-Duty Type 201 Stainless
31.75	1-1/4	1.016/1.1176	PG432	P811432	Heavy-Duty Type 201 Stainless
9.53	3/8	0.635	PC403	P811403	Standard-Duty Type 316 Stainless
12.70	1/2	0.762	PC404	P811404	Standard-Duty Type 316 Stainless
15.88	5/8	0.762	PC405	P811405	Standard-Duty Type 316 Stainless
19.05	3/4	0.762	PC406	P811406	Standard-Duty Type 316 Stainless

Thread band through buckle twice for greatest strength. To apply, use Punch-Lok™ banding tool model PB-001, PB-001-H or equivalent. Call for quote on any length, mill coils, or type of steel.

PLASTIC SAFETY BOXES

Made in the U.S.A.



Width (mm)	Width (in.)	Thickness (mm)	Part #	Item #	Description
9.53	3/8	0.635	PB-803	P811803	Standard-Duty Stainless Safety Yellow
12.70	1/2	0.762	PB-804	P811804	Standard-Duty Stainless Safety Yellow
15.88	5/8	0.762	PB-805	P811805	Standard-Duty Stainless Safety Yellow
19.05	3/4	0.762	PB-806	P811806	Standard-Duty Stainless Safety Yellow
25.40	1	1.0668/1.1176	PG-831	P811831	Heavy Duty Stainless Safety Orange
31.75	1-1/4	1.0668/1.1176	PG-832	P811832	Heavy Duty Stainless Safety Orange

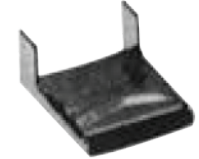
Reusable corrugated plastic weather resistant packaging, ideal for rain, humidity, or moisture in order to prevent the natural deterioration of cardboard.

Buckles, Clips, Strapping Loks & Brackets

Size (mm)	Size (in.)	Part #	Item #	Description	Qty/Box
9.53	3/8	SB6/PC-153	P831153	Light-Duty Clip	100
12.70	1/2	SB8/PC-154	P831154	Light-Duty Clip	100
15.88	5/8	SB10/PC-155	P831155	Light-Duty Clip	100
19.05	3/4	SB12/PC-156	P831156	Light-Duty Clip	100
9.53	3/8	PB-253	P831253	Standard-Duty Buckle	100
12.70	1/2	PB-254	P831254	Standard-Duty Buckle	100
15.88	5/8	PB-255	P831255	Standard-Duty Buckle	100
19.05	3/4	PB-256	P831256	Standard-Duty Buckle	100
19.05	3/4	PG-440	P831440	Heavy-Duty Buckle	25
25.40	1	PG-441	P831441	Heavy-Duty Buckle	25
31.75	1-1/4	PG-442	P831442	Heavy-Duty Buckle	25

PUNCK-LOK™ BUCKLES/CLIPS

LIGHT DUTY BUCKLE



STANDARD DUTY BUCKLE



HEAVY DUTY BUCKLE



Width (mm)	Width (in.)	Part #	Item #	Description (100 pcs per box)
9.53	3/8	PL3S	P820103	Stainless Steel Strapping Lok
15.88	5/8	PL5S	P820105	Stainless Steel Strapping Lok

STRAPPING LOKS

STRAPPING LOKS FOR USE WITH LIGHT AND STANDARD DUTY BANDING



Part #	Item #	Description (50 pcs per box)
Straight Leg		
PD-001	P900001	S.S. with S.S. Bolt & Washer
PD-004	P900004	S.S. with No Bolt
PD-011	P900011	Galv. w/ Galv. Bolt & Washer
PD-014	P900014	Galvanized with No Bolt
Flared Leg		
PD-021	P900021	S.S. with S.S. Bolt & Washer
PD-022	P900022	S.S. with No Bolt
PD-031	P900031	Galv. w/ Galv. Bolt & Washer
PD-032	P900032	Galvanized with No Bolt
Bolts & Washers Replacement Parts		
PD-002	P900002	S.S. Bolts 19.05mm x 7.9375mm or 3/4" x 5/16" - 18NC
PD-012	P900012	Galvanized Bolt 19.05mm x 7.9375mm or 3/4" x 5/16" - 18NC
PD-003	P900003	Washer 9.525mm or 3/8" i.d. 22.225mm or 7/8" o.d. - 1.5875mm or 1/16" thick

BRACKETS

STRAIGHT LEG BRACKETS



FLARED LEG BRACKETS



SUPERCLAMP

Single bolt superclamp

MIKALOR



Code	Hose OD Min mm	Hose OD Max in	Clamp Width mm	Material
P-901	17	19	18	PLATED STEEL
P-902	19	21	18	PLATED STEEL
P-903	21	23	18	PLATED STEEL
P-904	23	25	18	PLATED STEEL
P-905	25	27	21	PLATED STEEL
P-906	27	29	21	PLATED STEEL
P-907	29	31	21	PLATED STEEL
P-908	31	34	21	PLATED STEEL
P-909	34	37	21	PLATED STEEL
P-910	37	40	21	PLATED STEEL
P-911	40	43	21	PLATED STEEL
P-912	43	47	21	PLATED STEEL
P-913	47	51	21	PLATED STEEL
P-914	51	55	24	PLATED STEEL
P-915	55	59	24	PLATED STEEL
P-916	59	63	24	PLATED STEEL
P-917	63	68	24	PLATED STEEL
P-918	68	73	24	PLATED STEEL
P-919	73	79	24	PLATED STEEL
P-920	79	85	24	PLATED STEEL
P-921	85	91	24	PLATED STEEL
P-922	91	97	26	PLATED STEEL
P-923	97	104	26	PLATED STEEL
P-924	104	112	26	PLATED STEEL
P-925	112	121	26	PLATED STEEL
P-926	121	130	26	PLATED STEEL
P-816	130	140		PLATED STEEL
P-817	140	150		PLATED STEEL
P-818	150	162		PLATED STEEL
P-819	162	174		PLATED STEEL
P-820	174	187		PLATED STEEL
P-821	187	200		PLATED STEEL
P-822	200	213		PLATED STEEL
P-823	213	226		PLATED STEEL
P-824	226	239		PLATED STEEL
P-825	240	252		PLATED STEEL

Code	Hose OD Min mm	Hose OD Max in	Clamp Width mm	Material
P-301	17	19	18	S/S 304
P-302	19	21	18	S/S 304
P-303	21	23	18	S/S 304
P-304	23	25	18	S/S 304
P-305	25	27	21	S/S 304
P-306	27	29	21	S/S 304
P-307	29	31	21	S/S 304
P-308	31	34	21	S/S 304
P-309	34	37	21	S/S 304
P-310	37	40	21	S/S 304
P-311	40	43	21	S/S 304
P-312	43	47	21	S/S 304
P-313	47	51	21	S/S 304
P-314	51	55	21	S/S 304
P-315	55	59	24	S/S 304
P-316	59	63	24	S/S 304
P-317	63	68	24	S/S 304
P-318	68	73	24	S/S 304
P-319	73	79	24	S/S 304
P-320	79	85	24	S/S 304
P-321	85	91	24	S/S 304
P-322	91	97	24	S/S 304
P-323	97	104	26	S/S 304
P-324	104	112	26	S/S 304
P-325	112	121	26	S/S 304
P-326	121	130	26	S/S 304

IDENTIFICATION SYSTEM

Print your own tags on 304 or 316 stainless steel and apply with Tie-Lok® Ties. Tag imprinter is available with choice of character sizes. Imprinter with character wheel weighs 20.5lbs. (13,4kg)

ID TAG IMPRINTER TOOL

Code	Tool Supplies With:
ID2026	1/16" Character Wheel
ID2006	3/32" Character Wheel
ID2036	1/8" Character Wheel
ID2046	3/16" Character Wheel
ID2056	1/4" Character Wheel

OPTIONAL LETTER DIAL KITS

Code	Tool Supplies With:
ID2816	1/16" Character Wheel
ID2906	3/32" Character Wheel
ID2826	1/8" Character Wheel
ID2836	3/16" Character Wheel
ID2846	1/4" Character Wheel



ID Tag Imprinter Tool

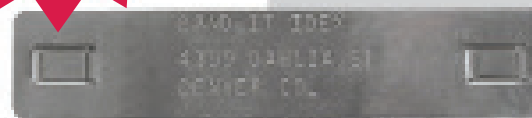
Coming Soon!
New ID tags with
COLOR-IT™ colors and
an expanded range of
sizes and styles

ID2859 ID GUIDE ACCESSORY

Fixture that enables imprinting on Stainless Steel Bands up to 3/4inch x 0.030". Weight: 0.5 Lbs. (.02kg)

ID TAGS

Code	Material*	Height	Length	Thickness in	Thickness mm	Package QTY	Package Lb	Package Weight Kg
ID1009	304 SS	0.75	2.0	0.015	0.38	100/BOX	0.5	0.2
ID1029	304 SS	0.75	3.5	0.015	0.38	100/BOX	0.8	0.4
ID1019	304 SS	1.50	2.5	0.015	0.38	100/BOX	1.2	0.6
ID4409	316 SS	0.75	2.0	0.015	0.38	100/BOX	0.5	0.2
ID4429	316 SS	0.75	3.5	0.015	0.38	100/BOX	0.8	0.4
ID4419	316 SS	1.50	2.5	0.015	0.38	100/BOX	1.2	0.6



ID1029

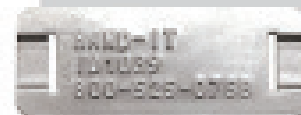
CUSTOM EMBOSSED TAGS

Code	Material*	Height	Length	Thickness in	Thickness mm	Package QTY	Package Lb	Package Weight Kg
ID1039	304 SS	0.75	2.0	0.015	0.38	Each	0.1	0.1
ID1059	304 SS	0.75	3.5	0.015	0.38	Each	0.1	0.1
ID1049	304 SS	1.50	2.5	0.015	0.38	Each	0.2	0.1
ID4609	316 SS	0.75	2.0	0.015	0.38	Each	0.1	0.1
ID4629	316 SS	0.75	3.5	0.015	0.38	Each	0.1	0.1
ID4619	316 SS	1.50	2.5	0.015	0.38	Each	0.2	0.1

Customized Embossing Tags available with 1/8" lettering only.



ID1049



ID1039

STAINLESS STEEL TAPE EMBOSSEING SYSTEM

Code	Description	Package QTY	Package Lb	Package Weight Kg
ID4002	Stainless Steel Tape Embossing Tool includes 2 rolls of SS tape	Each	2.6	1.2
ID4059	304 SS Tape Roll for Embossing Tool, 1/2" x 21' x 0.005"	Each	0.1	0.1

With the portable tape embossing tool and a roll of stainless steel tape, you can quickly and easily produce I.D. tags with 3/16" letter size which can be attached with your choice of BAND-IT® ties.

ID KIT ID3009

An assortment of blank ID tags to use with the ID Tagging System. Also, includes various Tie-Lok® ties and Tie-Lok® tool for tag fastening.

- Package Weight: 22.7 Lbs (10.3 Kg)
- Kit Contains: 1-A92079, 2-ID1029, 1-ID1019, 1-ID1009, 1-AS2119, 2-AS2129, 1-AS2139.

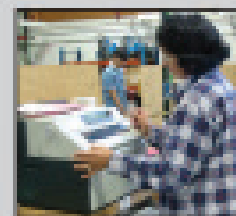
*BAND-IT reserves the right to substitute material with equal or better corrosion resistance and/or mechanical specifications.



ID4002



ID KIT ID3009



Custom Embossing Factory Service



Ultra-Lok® Preformed Clamp

Code	Material*	Height	Length	Thickness		ID		Package QTY	Package Weight	
				in	mm	in	mm		Lb	Kg
UL2799**	201 SS 1/4 HARD	0.50	12.7	0.030	0.76	1.5	38	100/BOX	9.1	4.1
UL2839**	201 SS 1/4 HARD	0.50	12.7	0.030	0.76	2	50	100/BOX	10.6	4.8
UL2869**	201 SS 1/4 HARD	0.50	12.7	0.030	0.76	2.75	69	100/BOX	12.7	5.8
UL2919**	201 SS 1/4 HARD	0.50	12.7	0.030	0.76	4	101	100/BOX	16.7	7.6
UL2279	201 SS 1/4 HARD	0.50	12.7	0.030	0.76	2	50	50/BOX	14.9	6.8
UL2109	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	2.75	69	50/BOX	9.2	4.2
UL2119	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	3	76	50/BOX	10.4	4.7
UL2129	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	3.5	88	25/BOX	10.8	4.9
UL2139	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	4	101	25/BOX	6.4	2.9
UL2149	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	4.5	114	25/BOX	7.0	3.2
UL2159	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	5	127	25/BOX	7.5	3.4
UL2709	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	5.25	139	25/BOX	7.3	3.3
UL2169	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	6	152	25/BOX	8.4	3.8
UL2179	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	6.5	165	25/BOX	10.2	4.6
UL2189	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	7	177	25/BOX	9.8	4.4
UL2199	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	8	203	25/BOX	11	5.0
UL2289	201 SS 1/4 HARD	0.75	19.1	0.030	0.76	9	228	10/BOX	5.1	2.31

**1/2" bands require M09387 for UL4000 or UL9010 tools. Also available in Ultra-Lok® Band



Ultra-Lok® Preformed Clamp

Ultra-Lok® Tools

Code	Description	Package QTY	Package Weight	
			Lb	Kg
UL4000	Ultra-Lok® 18-volt Rechargeable, Portable Tool	Each	17.8	6.7
UL9010	Ultra-Lok® 110-volt AC; Corded Electrical Tool	Each	18.3	8.4
ULK249	Kit; Used to upgrade the tension body of the UL9000 & the UL9010, includes 3/4" and 1/2" shear plates	Each	0.4	0.2
M09387	1/2" Shear plate for UL4000, upgraded UL9000 & UL9010 to convert from 3/4" Ultra-Lok® to 1/2" Ultra-Lok® Clamp System	Each	0.1	0.1

UL9010 Ultra-Lok® Electric Tool

- Ultra-Lok® clamps 1/2" † & 3/4" either preformed or Band & Buckle can be applied
- Locks under full tension
- Adjustable speed and torque
- Consistant, repeatable tensioning
- Ideal for hose clamping



Ultra-Lok® UL9010 Electric Tool

UL4000 Rechargeable or Cordless Ultra-Lok® Tool

- Ultra-Lok® clamps 1/2" † & 3/4" either preformed or Band & Buckle can be applied
- Designed for portable requirements
- Consistant, repeatable tensioning
- Locks under full tension
- Ultra-Lok® clamps can be applied four times faster than conventional clamps
- Supplied with spare battery and charger with Automatic Tune-up feature.



Ultra-Lok® UL4000 Rechargeable Electric Tool

†For 1/2" applications must use M09387 1/2" sear plate

*BAND-IT reserves the right to substitute material with equal or better corrosion resistance and/or mechanical specifications.

Recommended Working Pressures

Holedall couplings, regardless of coupling style, are never to be used for steam service at any pressure. Holedall fittings listed below are not to be used with cable reinforced high-pressure hose, 4 or 6 braided wire hydraulic hose or any other service not listed in recommendations. Consult factory for recommendations on usage.

Holedall couplings, to perform satisfactorily, must be applied properly in accordance with Dixon's assembly procedures, using correct die and ferrule for that particular hose end OD. Dixon's Die and Ferrule Recommendation Guide is to be used to select correct dies and ferrules. If you do not have the updated Die and Ferrule Recommendation Guide, consult the factory.

Note: Hose service working pressure (including surges and spikes) is never to exceed the maximum recommended working pressure for the fitting (reference chart below)*. King safety cables are recommended. Media being transported through the hose should be compatible with the stem material and ferrule material.

Size	Externally Swaged				Internally Expanded			
	Standard Fittings	Long Style Fittings	Light Duty Fittings		Holedall II Fittings	Cam and Groove	Internally Expanded	Flow Chief / Crimp Sanitary Fittings
			NO Notched Fittings	NOS Notched Short Fittings				
TM, TP, TG	TML, TPL, TGL	TM, TP, TG, RN***NO	RST***NOS, STC***NOS, GAS***NOS	FW		IXM, IXV, IXH	IXSE, IXFS, IXMS, CSSR	
3/4"	---	---	---	---	---	---	---	---
1"	---	---	---	---	---	250	---	---
1-1/4"	600	1,000	350	---	---	---	800	---
1-3/8"	---	---	---	---	---	---	---	---
1-1/2"	600	1,000	350	250	300	250	800	250
2"	600	1,000	350	250	300	250	800	250
2-1/2"	600	1,000	250	---	250	150	600	250
3"	600	1,000	250	250	200	125	600	250
4"	500	850	250	***	200	100	500	200
5"	450	750	---	---	---	---	---	---
6"	400	700	---	---	---	---	400	---
8"	350	600	---	---	---	---	---	---
10"	300	550	---	---	---	---	---	---

- maximum recommended working pressures, in PSI, at 70°F ambient temperature
- for applications other than the ones listed, please consult Dixon factory

* The assembly's (hose + coupling) maximum working pressure is the lesser of:

- 1) The hose rated working pressure, or
- 2) The coupling rated working pressure

** For hoses which use IXF48-3 to IXF48-5 and IXF64-2 to IXF64-5, consult the factory for working pressures. See notes below for specific recommendations.

Standard Fittings

Recommended for use on most one and two wire braided reinforced hoses, fiber braided and helical wire reinforced hose, such as: oil suction and discharge hose, barge and dock loading and unloading hose, L.P. gas hose, anhydrous ammonia hose, aircraft fueling hose and acid chemical hose.

Long Style Fittings

Recommended for use on hose as listed under standard fittings where additional retention is required due to higher working pressures or end pull. Consult maximum working pressure chart or call factory.

Holedall II Fittings

Recommended for Royalflex P1193 and P1196 hose or hoses with similar construction, having helical wire for a given O.D. range.

Light Duty Fittings

Recommended for use in the same applications as standard fittings above except that hose rated working pressure is never to exceed the maximum recommended working pressure listed in chart above.

Holedall External Swage Coupling System

The Holedall coupling system provides outstanding strength, durability and safety.

The Holedall system is a method of attaching couplings to hose utilizing a progressive swage. The patented Holedall couplings include a Holedall stem and a specially engineered ferrule. The hydraulic swaging of the coupling to the hose is accomplished by pushing the ferrule through a die which reduces the ferrule OD. The ferrule penetrates the hose wall, providing a 360° uninterrupted compression band around the hose.

A hydraulic ram is the only piece of machinery necessary to accomplish the coupling. Available in five different sizes - 15, 25, 50, 100 and 350 ton - these rams will accommodate dies and pushers of various sizes so that hoses up to 10" in diameter may be coupled.

This multi-purpose, high pressure coupling system requires no bolts and results in a clean coupling with no protrusions. The swaging operation is fast and hose of various lengths and different styles can be coupled. Ease of operation, flexibility and economy make the Holedall method an unequalled assembly system.

The Holedall coupling - the most adaptable coupling available.

For almost half a century, Holedall couplings have provided long-lasting efficiency and safety unmatched by any other industrial hose fitting.

Couplings are available in stainless steel and carbon steel.

Couplings are furnished with pipe thread, plain end, victaulic grooved or flanged ends.

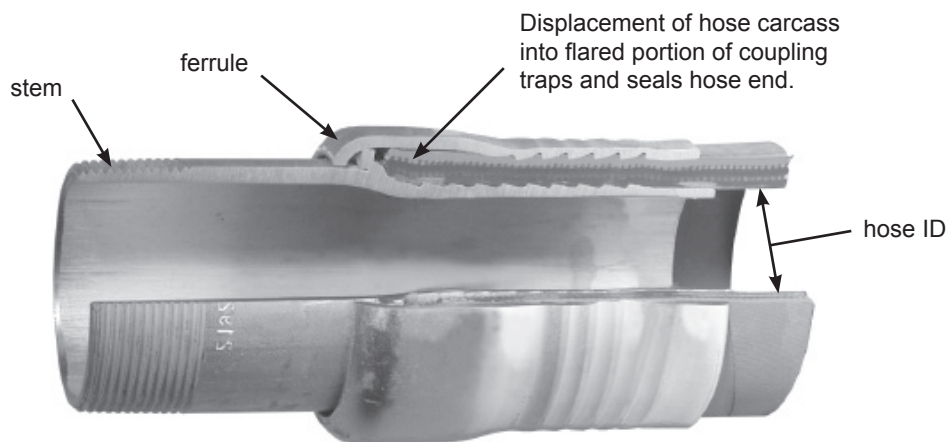
Dixon Holedall stems and ferrules are specifically designed to be used together as a coupling system.

SAFETY
ALERT

Due to differences in dimensions and tolerances, for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT

Streamlined, lightweight coupling consisting of ferrule and stem.
No protrusions to snag on equipment.

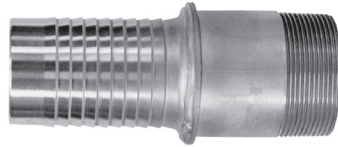


Cross-section of holedall externally swaged assembly

External Swage Stems

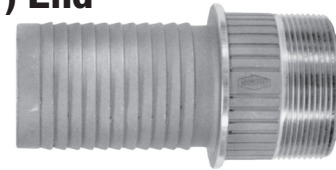
- designed and machined for hydraulic suction line applications using SAE100R4 hydraulic hose
- Barbs provide easy assembly and maximum gripping action.
- for higher working pressure applications use long style stems and ferrules

Male Pipe Threaded (NPT) End



tubular type

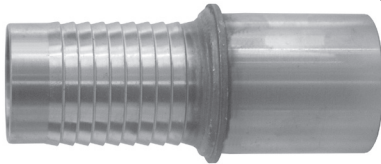
Hose ID	Carbon Steel	Long Style Carbon Steel	Stainless Steel
	Part #	Part #	Part #
1¼"	TM20	TML20	TMR20
1½"	TM24	TML24	TMR24
2"	TM32	TML32	TMR32
2½"	TM40	TML40	TMR40
3"	TM48	TML48	TMR48
4"	TM64	TML64	TMR64
5"	TM80	TML80	---
6"	TM96	TML96	TMR96
8"	TM128	TML128	---
10"	TM160	TML160	---



investment cast design

Hose ID	Stainless Steel
	Part #
1½"	TMR24C
2"	TMR32C
3"	TMR48C

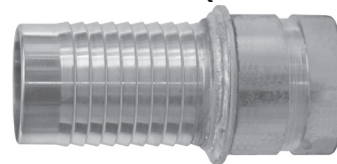
Beveled End for Welding



tubular type

Hose ID	Carbon Steel	Long Style Carbon Steel	Stainless Steel
	Part #	Part #	Part #
1¼"	TP20	TPL20	---
1½"	TP24	TPL24	---
2"	TP32	TPL32	TPR32
2½"	TP40	TPL40	---
3"	TP48	TPL48	TPR48
4"	TP64	TPL64	TPR64
5"	TP80	TPL80	---
6"	TP96	TPL96	---
8"	TP128	TPL128	---
10"	TP160	TPL160	---

Grooved End (Victaulic)

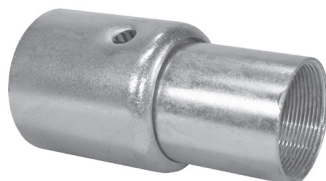


tubular type

Hose ID	Carbon Steel	Long Style Carbon Steel
	Part #	Part #
1¼"	TG20	TGL20
1½"	TG24	TGL24
2"	TG32	TGL32
2½"	TG40	TGL40
3"	TG48	TGL48
4"	TG64	TGL64
5"	TG80	TGL80
6"	TG96	TGL96
8"	TG128	TGL128
10"	TG160	TGL160

Female End

tubular type



stem & ferrule - two piece design
1" sizes



stem & ferrule - one piece design
1¼" - 2" sizes

Hose ID	Hose OD		Carbon Steel
	from	to	Part #
1"	1-30/64"	1-34/64"	TF16WF1-80
	1-34/64"	1-38/64"	TF16WF2-80
	1-35/64"	1-42/64"	TF16WF3-80
1¼"	1-44/64"	1-48/64"	TF20WF1-80¹
	1-49/64"	1-56/64"	TF20WF2-80¹
	1-57/64"	2"	TF20WF3-80¹
2"	2-36/64"	2-40/64"	TF32WF1-80¹
	2-41/64"	2-48/64"	TF32WF2-80¹
	2-49/64"	2-56/64"	TF32WF3-80¹

¹ Special pushers required for 1¼" and 2" sizes:

1¼" **25PUSH125-MOD**

2" **25PUSH200-MOD**

External Swage Ferrules

The selection of ferrules is very important to achieve the proper coupling-to-hose assembly.

- ferrules are plated carbon steel
- style F ferrules are used with all standard length male stems
- style FL ferrules are extra long and are used with all long style stems



6-hole design

Hose ID	Hose OD		Plated Carbon Steel Part #	Long Style Plated Carbon Stl. Part #
	from	to		
1¼"	1-44/64"	1-48/64"	F20-1	FL20-1
	1-49/64"	1-56/64"	F20-2	FL20-2
	1-57/64"	2"	F20-3	FL20-3
	2-1/64"	2-8/64"	F20-4	FL20-4
1½"	1-58/64"	2"	F24-1	FL24-1
	2-1/64"	2-8/64"	F24-2	FL24-2
	2-9/64"	2-16/64"	F24-3	FL24-3
	2-17/64"	2-24/64"	F24-4	FL24-4
2"	2-25/64"	2-32/64"	F24-5	FL24-5
	2-28/64"	2-40/64"	F32-1	FL32-1
	2-41/64"	2-48/64"	F32-2	FL32-2
	2-49/64"	2-56/64"	F32-3	FL32-3
2½"	2-57/64"	3-2/64"	F32-4	FL32-4
	2-62/64"	3-8/64"	F40-1	FL40-1
	3-9/64"	3-16/64"	F40-2	FL40-2
	3-17/64"	3-24/64"	F40-3	FL40-3
3"	3-25/64"	3-32/64"	F40-4	FL40-4
	3-33/64"	3-40/64"	F40-5	FL40-5
	3-30/64"	3-40/64"	F48-1	FL48-1
	3-41/64"	3-48/64"	F48-2	FL48-2
4"	3-49/64"	3-56/64"	F48-3	FL48-3
	3-57/64"	4"	F48-4	FL48-4
	4-1/64"	4-8/64"	F48-5	FL48-5
	4-30/64"	4-39/64"	F64-Z ¹	FL64-Z ²
5"	4-40/64"	4-44/64"	F64-1	FL64-1
	4-45/64"	4-52/64"	F64-2	FL64-2
	4-53/64"	4-60/64"	F64-3	FL64-3
	4-61/64"	5-4/64"	F64-4	FL64-4
	5-5/64"	5-12/64"	F64-5	FL64-5
	5-13/64"	5-20/64"	F64-6	FL64-6
	5-21/64"	5-28/64"	F64-7	FL64-7
	5-29/64"	5-36/64"	F64-8	FL64-8
6"	5-56/64"	5-60/64"	F80-1	FL80-1
	5-61/64"	6-4/64"	F80-2	FL80-2
	6-5/64"	6-12/64"	F80-3	FL80-3
	6-13/64"	6-20/64"	F80-4	FL80-4
	6-21/64"	6-28/64"	F80-5	FL80-5
	6-29/64"	6-38/64"	F80-6	FL80-6
	6-37/64"	6-44/64"	F80-7	FL80-7

2-hole design

Hose ID	Hose OD		Plated Carbon Steel Part #	Long Style Plated Carbon Stl. Part #
	from	to		
6"	6-44/64"	6-63/64"	F96-Z	FL96-Z
	7"	7-4/64"	F96-1	FL96-1
	7-5/64"	7-12/64"	F96-2	FL96-2
	7-13/64"	7-20/64"	F96-3	FL96-3
	7-21/64"	7-28/64"	F96-4	FL96-4
	7-29/64"	7-36/64"	F96-5	FL96-5
	7-37/64"	7-44/64"	F96-6	FL96-6
	7-45/64"	7-52/64"	F96-7	FL96-7
	7-53/64"	7-60/64"	F96-8	FL96-8
8"	7-61/64"	8"	F96-9	FL96-9
	9"	9-9/64"	F128-Y	FL128-Y
	9-20/64"	9-24/64"	F128-1	FL128-1
	9-25/64"	9-32/64"	F128-2	FL128-2
	9-33/64"	9-40/64"	F128-3	FL128-3
	9-41/64"	9-48/64"	F128-4	FL128-4
	9-49/64"	9-56/64"	F128-5	FL128-5
10"	9-57/64"	10"	F128-6	FL128-6
	10-1/64"	10-4/64"	F128-7	FL128-7
	11-32/64"	11-44/64"	F160-1	FL160-1
	11-45/64"	11-60/64"	F160-2	FL160-2
	11-61/64"	12-12/64"	F160-3	FL160-3
	12-13/64"	12-28/64"	F160-4	FL160-4
12"	12-29/64"	12-44/64"	F160-5	FL160-5
	12-45/64"	12-60/64"	F160-6	FL160-6

For applications with hose OD ranges not listed, call the factory.

¹ requires special stem: **TM64-42 \$97.75**

² requires special stem: **TML64-42 \$115.00**

Holedall II External Swage Ferrules

For use with Royal-Flex™ thin wall hose. These specially designed carbon steel ferrules have serrations on the outside and should be used with stem styles TM, TP and TG stems on page 151.



Hose ID	Hose OD		Carbon Steel Part #
	from	to	
1½"	1-58/64"	2-2/64"	FW24
2"	2-28/64"	2-34/64"	FW32
3"	3-30/64"	3-38/64"	FW48
4"	4-30/64"	4-42/64"	FW64¹

¹ 4" takes special stem; **TM64-42**, \$97.75

Stainless External Swage Ferrules

Light duty 304 stainless ferrules for use with standard length stems such as the TMR series. Consult Dixon for die recommendations. See page 4-7 for specific pressure recommendations.



Hose ID	Hose OD		304 Stainless Steel Part #
	from	to	
1½"	1-60/64"	2-12/64"	GAS2334TO
	2-4/64"	2-22/64"	GAS2370TO
2"	2-30-64"	2-44/64"	GAS2709TO
	2-42/64"	2-54/64"	GAS2885TO
3"	3-30/64"	3-46/64"	GAS3760TO
	3-47/64"	3-54/64"	GAS3885TO
4"	4-40/64"	4-47/64"	GAS5010TO

External Swage Notched NOS Stems and Ferrules

- The largest advantage of the notched design is that the coupling can be removed from a damaged hose by cutting away the ferrule, without necessarily damaging the fitting. *After inspection of the fitting to determine its suitability for reuse*, it can be reinstalled into another hose by using a *new ferrule*.
- The notched system allows you to better manage your inventories. You can stock one stem and two ferrules, and cover the same hose range with less inventory. *You must purchase a stem and the matching ferrule to create an assembly.*
- For hose outside diameters of 2-4/64" and below, *the couplings are crimp only.*
- For hose outside diameters of 2-5/64" and above, the couplings can be crimped or swaged.
- Cam and groove style notched NOS fittings.

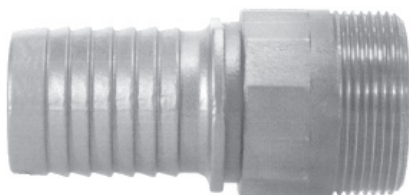
SAFETY
ALERT

SAFETY
ALERT

SAFETY
ALERT

Only use the NOS shank with the NOS ferrules.
Due to differences in dimensions and tolerances for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT



with wrench flats

male NPT stems

Hose ID	316 Stainless Steel Part #	
	1½"	RST150NOS
2"	RST200NOS	
3"	RST300NOS	
4"	RST400NOS	

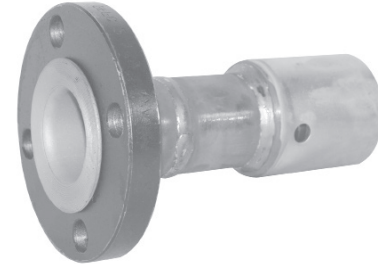
ferrules

Hose ID	Hose OD		304 Stainless Steel Part #
	from	to	
1½"	1-60/64"	2-12/64"	GAS2334NOS
	2-4/64"	2-22/64"	GAS2370NOS
2"	2-30-64"	2-44/64"	GAS2709NOS
	2-42/64"	2-54/64"	GAS2885NOS
3"	3-30/64"	3-46/64"	GAS3760NOS
	3-47/64"	3-54/64"	GAS3885NOS
4"	4-40/64"	4-47/64"	GAS5010NOS



External Swage Flanged Assemblies

- 150# ASA flange drilling available with carbon steel stem, ferrule and flange, or 316 stainless steel stem, flange and carbon steel ferrule
- available in other sizes, consult the factory for pricing



fixed flange

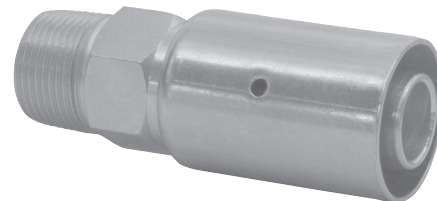
floating flange

Hose ID	Hose OD		Carbon Steel	Stainless Steel	Carbon Steel	Stainless Steel
	from	to	Part #	Part #	Part #	Part #
2"	2-36/64"	2-40/64"	32P1SO15	R32P1SOR15	32P1LJ15	R32P1LJR15
	2-41/64"	2-48/64"	32P2SO15	R32P2SOR15	32P2LJ15	R32P2LJR15
	2-49/64"	2-56/64"	32P3SO15	R32P3SOR15	32P3LJ15	R32P3LJR15
3"	3-36/64"	3-40/64"	48P1SO15	R48P1SOR15	48P1LJ15	R48P1LJR15
	3-41/64"	3-48/64"	48P2SO15	R48P2SOR15	48P2LJ15	R48P2LJR15
	3-49/64"	3-56/64"	48P3SO15	R48P3SOR15	48P3LJ15	R48P3LJR15
4"	4-40/64"	4-44/64"	64P1SO15	R64P1SOR15	64P1LJ15	R64P1LJR15
	4-45/64"	4-52/64"	64P2SO15	R64P2SOR15	64P2LJ15	R64P2LJR15
	4-53/64"	4-60/64"	64P3SO15	R64P3SOR15	64P3LJ15	R64P3LJR15
6"	7"	7-4/64"	96P1SO15	R96P1SOR15	96P1LJ15	R96P1LJR15
	7-5/64"	7-12/64"	96P2SO15	R96P2SOR15	96P2LJ15	R96P2LJR15
	7-13/64"	7-20/64"	96P3SO15	R96P3SOR15	96P3LJ15	R96P3LJR15
8"	9-20/64"	9-24/64"	128P1SO15	---	128P1LJ15	---
	9-25/64"	9-32/64"	128P2SO15	---	128P2LJ15	---
	9-33/64"	9-40/64"	128P3SO15	---	128P3LJ15	---

External Swage Uni-Range Male Couplings

Designed for smaller hose systems, these couplings may be used for hose ID's of 1/4" - 1" and come complete with factory assembled stem and ferrule combination.

- can be swaged or crimped
- other hose OD's available, consult the factory
- stainless steel stems are investment cast



- plated carbon steel stem and ferrule

Hose ID	Hose OD		Plated Carbon Steel
	from	to	Part #
1/4"	34/64"	38/64"	4P1
	38/64"	42/64"	4P2
	42/64"	46/64"	4P3
3/8"	46/64"	50/64"	6P1
	50/64"	54/64"	6P2
	54/64"	58/64"	6P3
1/2"	54/64"	58/64"	8P1
	58/64"	62/64"	8P2
	62/64"	1-2/64"	8P3
3/4"	1-10/64"	1-14/64"	12P1
	1-14/64"	1-18/64"	12P2
	1-18/64"	1-22/64"	12P3
1"	1-30/64"	1-34/64"	16P1
	1-34/64"	1-38/64"	16P2
	1-38/64"	1-42/64"	16P3
	1-42/64"	1-46/64"	16P4

- 316 stainless steel stem, plated carbon steel ferrule

Hose ID	Hose OD		Stainless/Carbon Steel
	from	to	Part #
3/4"	1-10/64"	1-14/64"	R12P1
	1-14/64"	1-18/64"	R12P2
	1-18/64"	1-22/64"	R12P3
1"	1-30/64"	1-34/64"	R16P1
	1-34/64"	1-38/64"	R16P2
	1-38/64"	1-42/64"	R16P3
	1-42/64"	1-46/64"	R16P4

- 316 stainless steel stem, 304 stainless steel ferrule

Hose ID	Hose OD		Stainless Steel
	from	to	Part #
1/2"	58/64"	58/64"	R8P2SS
3/4"	1-6/64"	1-6/64"	R12P1250
	1-13/64"	1-13/64"	R12P1370
1"	1-30/64"	1-30/64"	R16P1620
	1-38/64"	1-38/64"	R16P1770

External Swage High Pressure Couplings

These couplings are for services requiring a fitting which will withstand extremely high pressures (up to **3,000 PSI**) and severe operating conditions, such as on small and medium size drilling rigs, used for slim hole, core drill, workover, seismograph, water well, blast or shot holes, etc. These long, rugged fittings are machined from seamless pipe and tubing with specially designed serrations. The mating ferrules are machined from heavy wall material incorporating matching serrations. These couplings are shipped with matching ferrules. Please provide hose OD when ordering for properly sized ferrule. Make sure both ends of the hose are measured for OD. Must be swaged with 50 Ton or 100 Ton Ram.

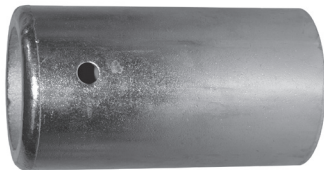
- An accurate hose OD must be provided to complete the part # and to ensure proper retention.
- The LM fittings are sold as a complete coupling, including stem and ferrule.
- API and NPT sizes are interchangeable

Stem and Ferrule Complete Assemblies



NPT Male Threaded Couplings

Hose ID	NPT Size	Zinc Plated Steel Part #
2"	2"	LM32-*
2½"	2½"	LM40-*
3"	3"	LM48-*



API Male Threaded Couplings

Hose ID	API Size	Zinc Plated Steel Part #
2"	2½"	LM3240-*
2½"	3"	LM4048-*
3"	4"	LM4864-*

Holedall Internal Expansion Couplings

The Dixon Internally Expanded Couplings are essential when maximum flow is important. Only one expansion tool is needed for each hose ID. Some recommended applications of these fittings are: concrete pump hose, plaster and grout hose, oil suction and discharge hose, multi-purpose heavy duty air hose, jetting hose, barge loading hose and bottom loading hose.

Benefits of Internal Expansion Fittings:

- maximum flow of media
- reduction of turbulence through hose
- excellent sealing and retention characteristics
- outperforms band clamps
- easy and consistent installation

End Configurations Available:

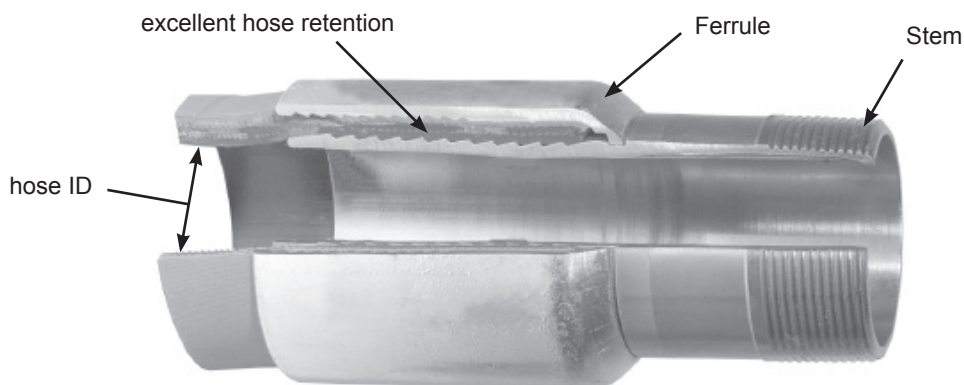
- male NPT
- raised California
- victaulic
- others available on request

Dixon Holedall stems and ferrules are specifically designed to be used together as a coupling system.

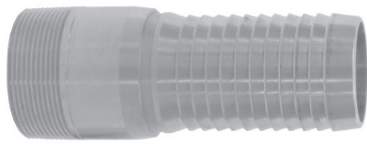
SAFETY
ALERT

Due to differences in dimensions and tolerances, for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

SAFETY
ALERT



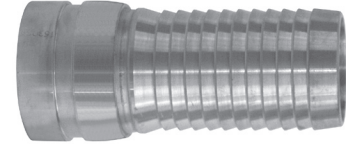
Cross-section of Holedall internally expanded assembly

Internal Expansion Stems**male pipe end**

Size	Carbon Steel Part #
1"	IXM16
1¼"	IXM20
1½"	IXM24
2"	IXM32
2½"	IXM40
3"	IXM48
4"	IXM64
6"	IXM96

**heavy duty raised end**

Size	Carbon Steel Part #
1½"	IXH24
2"	IXH32
2½"	IXH40
3"	IXH48
4"	IXH64

**grooved end**

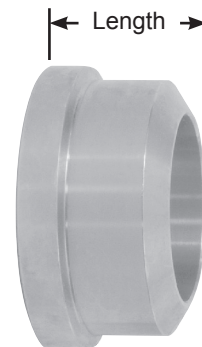
Size	Carbon Steel Part #
1¼"	IXV20
1½"	IXV24
2"	IXV32
2½"	IXV40
3"	IXV48
4"	IXV64

Butt Weld x Heavy Duty Raised End (California Style)

Beveled design for welding to Schedule 40 pipe allows connection to a heavy duty raised end (California style) hose fitting or similar style end.

California style end

Size	Length	Carbon Steel Part #
1½"	1½"	HDE24
2"	1½"	HDE32
2½"	1½"	HDE40
3"	1½"	HDE48
4"	1½"	HDE64
5"	1½"	HDE80

**Clamps for IXH Raised End (California Style) Stems**

Drop-forged steel clamps for fast assembly when connecting heavy-duty raised end fittings used for concrete. These clamps can be used to connect the ends of pipes or hoses which use the Raised End or California style fittings listed above. Shipped with double lipped gasket and safety pin. 1½" through 3" are galvanized; 4" and 5" are painted green. Clamp should only be used with safety pin in place.

Hose ID	Forged Steel Clamps Part #	Buna-N Gaskets Part #
1½"	IXHC150	IXHCG150
2"	IXHC200	IXHCG200
2½"	IXHC250	IXHCG250
3"	IXHC300	IXHCG300
4"	IXHC400	IXHCG400
5"	IXHC500	IXHCG500

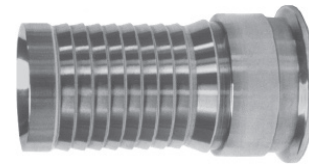


CIP Internal Expansion (IX) Sanitary Style Hose Couplings

- Clean-In-Place (CIP) compliant
- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules.
- Flow Chief Sanitary fittings are used in the food, dairy and beverage industries.

Sanitary Clamp End Stems

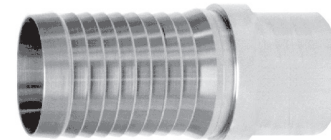
- see pages 364-367 for sanitary style gaskets
- see pages 368-370 for sanitary style clamps
- special plug is required to expand CIP compliant fittings
- special adapter plate is required to expand 1½" CIP compliant fittings
- 3A compliant when assembled by 3A authorized hose shop



Size	304 Stainless Steel Part #
1½"	IXSE24-3A
2"	IXSE32-3A
3"	IXSE48-3A

Tube Weld End Stem

- special plug is required to expand CIP compliant fittings



Size	304 Stainless Steel Part #
2"	IXPE32-3A

Special Expansion Plug for CIP Compliant IX Fittings

Hose Size	Part #
1½"	IXFDPLG137
2"	IXFDPLG187
3"	IXFDPLG287



Flow Chief Ferrules

- the ferrule ID's are designed in increments of 1/16"

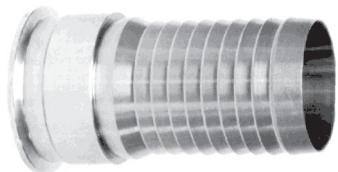
Hose ID	Hose OD		304 stainless steel
	from	to	Part #
1½" ¹	1-56/64"	1-59/64"	24PFX1.937
	1-60/64"	1-63/64"	24PFX2.000
	2"	2-3/64"	24PFX2.062
	2-4/64"	2-7/64"	24PFX2.125
	2-8/64"	2-11/64"	24PFX2.187
	2-12/64"	2-15/64"	24PFX2.250
2" ¹	2-16/64"	2-19/64"	24PFX2.312 ²
	2-28/64"	2-31/64"	32PFX2.500
	2-32/64"	2-35/64"	32PFX2.562
	2-36/64"	2-39/64"	32PFX2.625
	2-40/64"	2-43/64"	32PFX2.687
	2-44/64"	2-47/64"	32PFX2.750
	2-48/64"	2-51/64"	32PFX2.812
	2-52/64"	2-55/64"	32PFX2.875
	2-56/64"	2-59/64"	32PFX2.937
	2½"	3"	3-3/64"
3-4/64"		3-7/64"	40PFX3.125
3-8/64"		3-11/64"	40PFX3.187
3-12/64"		3-15/64"	40PFX3.250
3-16/64"		3-19/64"	40PFX3.312
3-20/64"		3-23/64"	40PFX3.375
3-28/64"		3-31/64"	40PFX3.500



Hose ID	Hose OD		304 stainless steel
	from	to	Part #
3"	3-32/64"	3-35/64"	48PFX3.562
	3-36/64"	3-39/64"	48PFX3.625
	3-40/64"	3-43/64"	48PFX3.687
	3-44/64"	3-47/64"	48PFX3.750
	3-48/64"	3-51/64"	48PFX3.812
	3-52/64"	3-55/64"	48PFX3.875
	3-56/64"	3-59/64"	48PFX3.937
	3-60/64"	3-63/64"	48PFX4.000
	4"	4-3/64"	48PFX4.062
	4-4/64"	4-7/64"	48PFX4.125
4"	4-36/64"	4-39/64"	64PFX4.625
	4-40/64"	4-43/64"	64PFX4.687
	4-44/64"	4-47/64"	64PFX4.750
	4-48/64"	4-51/64"	64PFX4.812
	4-52/64"	4-55/64"	64PFX4.875
	4-56/64"	4-59/64"	64PFX4.937

¹ 1½" and 2" ferrules are not serrated

² consult the factory for working pressure

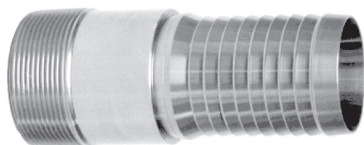
Internal Expansion (IX) Sanitary Style Hose Couplings

- sanitary style end
- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules.
- see pages 160 for sanitary style gaskets
- see pages 163 for sanitary style clamps

Size	304 Stainless Steel Part #
1½"	IXSE24
2"	IXSE32
2½"	IXSE40
3"	IXSE48
4"	IXSE64

Internal Expansion (IX) Male NPT Stems

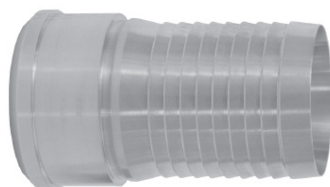
- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules



Size	304 Stainless Steel Part #
1½"	IXMS24
2"	IXMS32
2½"	IXMS40
3"	IXMS48
4"	IXMS64

Internal Expansion (IX) Bevel Seat Hose Couplings

- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules

Female Shank

- only use with the IXAN nuts shown below

Size	304 Stainless Steel Part #
1½"	IXFS24
2"	IXFS32
2½"	IXFS40
3"	IXFS48
4"	IXFS64

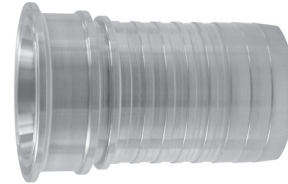
Threaded Hex Nuts**series 13H (modified)**

Size	304 Stainless Steel Part #
1½"	IXAN24
2"	IXAN32
2½"	IXAN40
3"	IXAN48
4"	IXAN64

Dixon Sanitary Style Crimp Stems Sanitary End x Hose Shank

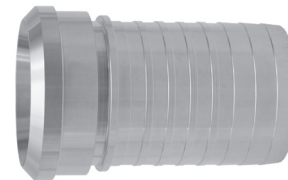
- sanitary style end
- sanitary crimp stems are only to be used with stainless steel crimp ferrules

Size	316 Stainless Steel Part #
1½"	CSSR100
2"	CSSR150
2½"	CSSR200
3"	CSSR300
4"	CSSR400



Female Bevel Seat End x Hose Shank

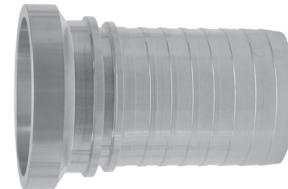
Size	316 Stainless Steel Part #
1½"	CBSR100 ¹
2"	CBSR150 ¹
2½"	CBSR200 ¹
3"	CBSR300 ²
4"	CBSR400 ¹



- ¹ only use with IXAN nut
² only use with IXAN300 nut

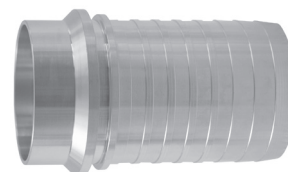
Female I-Line End x Hose Shank

Size	316 Stainless Steel Part #
1½"	CILR150
2"	CILR200
3"	CILR300
4"	CILR400



Tube Weld End x Hose Shank

Size	316 Stainless Steel Part #
1½"	CTER150
2"	CTER200
3"	CTER300
4"	CTER400



Dixon Sanitary Crimp Ferrules


- manufactured in AISI 304 stainless steel
- ferrules have a surface finish of 158 or better

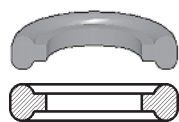


Hose ID	Hose OD		304 stainless steel Part #
	from	to	
1"	1-26/64"	1-28/64"	F16G-1453
	1-29/64"	1-31/64"	F16G-1500
	1-32/64"	1-34/64"	F16G-1547
	1-35/64"	1-37/64"	F16G-1594
	1-38/64"	1-40/64"	F16G-1641
1½"	1-58/64"	1-61/64"	F24G-1969
	1-62/64"	2-1/64"	F24G-2031
	2-2/64"	2-5/64"	F24G-2094
	2-6/64"	2-9/64"	F24G-2156
2"	2-30/64"	2-33/64"	F32G-2531
	2-34/64"	2-37/64"	F32G-2594
	2-38/64"	2-41/64"	F32G-2656
	2-42/64"	2-45/64"	F32G-2719

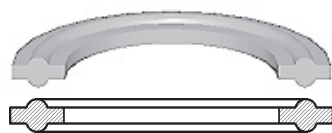
Hose ID	Hose OD		304 stainless steel Part #
	from	to	
3"	3-39/64"	3-42/64"	F48G-3625
	3-40/64"	3-43/64"	F48G-3688
	3-44/64"	3-47/64"	F48G-3750
	3-48/64"	3-51/64"	F48G-3813
	3-52/64"	3-55/64"	F48G-3875
	3-56/64"	3-59/64"	F48G-3938
4"	4-40/64"	4-43/64"	F64G-4688
	4-44/64"	4-47/64"	F64G-4750
	4-48/64"	4-51/64"	F64G-4813
	4-52/64"	4-55/64"	F64G-4875
	4-56/64"	4-59/64"	F64G-4938

Clamp Gaskets

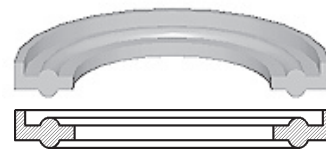
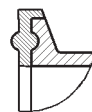
Gasket material approved by  (3A), USDA and complies with FDA's Code of Federal Register (CFR) title 21, Part 177 and meets 21CFR177.2600 and 1550. PSI Service Ratings for the sanitary clamps *DO NOT APPLY* to connections (1" and above) using any PTFE gaskets, due to the potential for cold flow under normal operating conditions. PTFE gaskets, when used with any clamp, are likely to leak at pressures far below the published service ratings. This restriction *does not apply* to the fractionally sized 1/2" and 3/4" connections, due to their recessed, fully contained design.



Mini



Standard - type 1



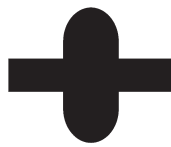
Flanged - type 2

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" - 8"

- color code: red dot
- meets 21CFR 177.2600

Buna-N Gaskets - Black

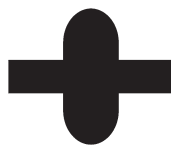
Size	Part #
1/2"	42MP-U50
3/4"	42MP-U75
1"	40MP-U100
1 1/2"	40MP-U150
2"	40MP-U200
2 1/2"	40MP-U250
3"	40MP-U300
4"	40MP-U400
6"	40MP-U600
8"	40MP-U800

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" - 6"

- color code: red dot
- meets 21CFR 177.2600

Buna-N Gaskets - White

Size	Part #
1/2"	42MP-UW50
3/4"	42MP-UW75
1"	40MP-UW100
1 1/2"	40MP-UW150
2"	40MP-UW200
2 1/2"	40MP-UW250
3"	40MP-UW300
4"	40MP-UW400
6"	40MP-UW600

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" - 6"

- color code: pink dot
- peroxide cured
- meets 21CFR 177.2600
- pharmaceutical class VI approved

Silicone Gaskets - White

Size	Part #
1/2"	42MP-XW50
3/4"	42MP-XW75
1"	40MP-XW100
1 1/2"	40MP-XW150
2"	40MP-XW200
2 1/2"	40MP-XW250
3"	40MP-XW300
4"	40MP-XW400
6"	40MP-XW600

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" - 4"

- color code: pink dot
- platinum cured
- meets 21CFR 177.2600
- pharmaceutical class VI approved

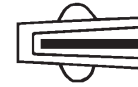
Silicone Gaskets - Clear

Size	Part #
1/2"	42MP-XC50
3/4"	42MP-XC75
1"	40MP-XC100
1 1/2"	40MP-XC150
2"	40MP-XC200
2 1/2"	40MP-XC250
3"	40MP-XC300
4"	40MP-XC400

Clamp Gaskets

Teflon® Envelope with Viton®

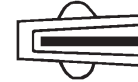
Size	Part #
1½"	40MP-GR150
2"	40MP-GR200



- color code: Viton® usually not marked
- meets 21CFR 177.1550
- pharmaceutical class VI approved

Teflon® Envelope with EPDM

Size	Part #
½"	42MP-GRE50
1"	40MP-GRE100
2"	40MP-GRE200
3"	40MP-GRE300
4"	40MP-GRE400



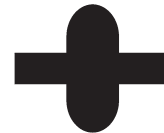
- color code: usually not marked
- peroxide cured
- meets 21CFR 177.1550
- pharmaceutical class VI approved

PTFE Gaskets - Solid, white

Size	Part #
½"	42MP-G50
¾"	42MP-G75
1"	40MP-G100
1½"	40MP-G150
2"	40MP-G200
2½"	40MP-G250
3"	40MP-G300
4"	40MP-G400
6"	40MP-G600
8"	40MP-G800
10"	40MP-G1000
12"	40MP-G1200



Type 1 - Standard
½" - ¾"



Type 1 - Standard
1" - 12"

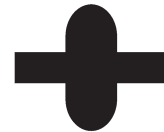
- color code: no dot
- meets 21CFR 177.1550
- pharmaceutical class VI approved
- not recommended for use with bolted clamps

EPDM Gaskets - Black

Size	Part #
½"	42MP-E50
¾"	42MP-E75
1"	40MP-E100
1½"	40MP-E150
2"	40MP-E200
2½"	40MP-E250
3"	40MP-E300
4"	40MP-E400
6"	40MP-E600



Type 1 - Standard
½" - ¾"

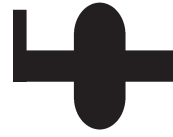


Type 1 - Standard
1" - 6"

- color code: three green dots
- meets 21CFR 177.2600
- peroxide cured
- pharmaceutical class VI approved

Clamp Gaskets
Viton® Flanged Gaskets

Size	Part #
1"	40MPF-SFY100
1½"	40MPF-SFY150
2"	40MPF-SFY200
2½"	40MPF-SFY250
3"	40MPF-SFY300
4"	40MPF-SFY400
6"	40MPF-SFY600
8"	40MPF-SFY800
10"	40MPF-SFY1000
12"	40MPF-SFY1200

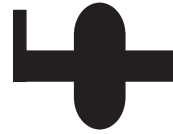


Type 2 - Flanged
1" - 12"

- color code: one white dot, one yellow dot
- meets 21CFR 177.2600
- pharmaceutical class VI approved
- not recommended for use with bolted clamps

Silicone Flanged Gaskets - White

Size	Part #
1"	40MPF-XW100
1½"	40MPF-XW150
2"	40MPF-XW200
2½"	40MPF-XW250
3"	40MPF-XW300
4"	40MPF-XW400
6"	40MPF-XW600
8"	40MPF-XW800
10"	40MPF-XW1000
12"	40MPF-XW1200

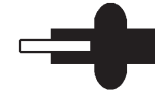


Type 2 - Flanged
1" - 12"

- color code: no dot
- peroxide cured
- meets 21CFR 177.2600
- pharmaceutical class VI approved
- not recommended for use with bolted clamps

Buna Mesh Screen Gaskets, 316

Size	Part #
1"	40MPS-U100
1½"	40MPS-U150
2"	40MPS-U200
2½"	40MPS-U250
3"	40MPS-U300
4"	40MPS-U400



Type 3 Mesh
1" - 4"

- color code: red dot
- 10 mesh standard, other mesh available-call for details
- meets 21CFR 177.2600

Transition Fittings

Stainless Steel Cam and Groove Adapter x End Clamp

Hose Size	Part #
1½"	RE150SE
2"	RE200SE
3"	RE300SE



- coupling does not have sanitary polish

Stainless Steel Cam and Groove Coupler x Clamp End

Hose Size	Part #
1½"	RC150SE
2"	RC200SE
3"	RC300SE

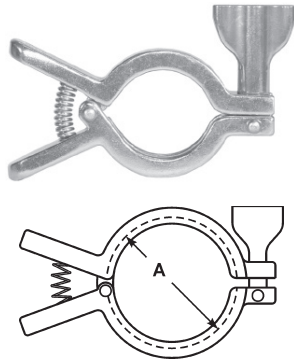


- coupling does not have sanitary polish

Clamps

Service ratings are based on hydrostatic tests using standard-molded Buna-N material gaskets (page 177), with proper installation of ferrules, assembly of joints and absence of shock pressure. Contact Alfagomma for service of other type and material gaskets, and for ratings at higher temperatures. All ratings shown are dependent upon related components within the systems and proper installation. **For temperatures above 250°F, we recommend using only #13MHP clamps.** This information is only valid if Bradford™ clamps, ferrules and gaskets are used.

Single Pin Squeeze Clamps - 13MHHM-Q

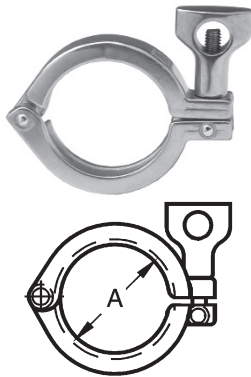


Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel Part #
1/2" - 3/4"	1500 PSI	1200 PSI	1.062	13MHHM-Q75
1" - 1 1/2"	500 PSI	300 PSI	2.122	13MHHM-Q100150
2"	450 PSI	250 PSI	2.654	13MHHM-Q200
2 1/2"	400 PSI	200 PSI	3.185	13MHHM-Q250
3"	350 PSI	175 PSI	3.717	13MHHM-Q300
4"	300 PSI	150 PSI	4.820	13MHHM-Q400

- * wing nut tightened to 25 in. lbs. torque
- patented design

Single Pin Heavy Duty Clamps - 13MHHM

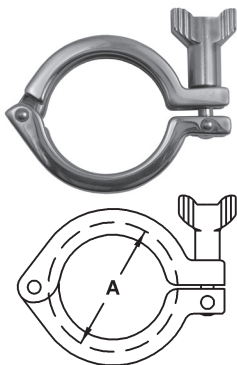
with cross hole wing nut



Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel Part #
1/2" - 3/4"	1500 PSI	1200 PSI	1.062	13MHHM50-75
1" - 1 1/2"	500 PSI	300 PSI	2.122	13MHHM100-150
2"	450 PSI	250 PSI	2.654	13MHHM200
2 1/2"	400 PSI	200 PSI	3.185	13MHHM250
3"	350 PSI	175 PSI	3.717	13MHHM300
4"	300 PSI	150 PSI	4.820	13MHHM400
5"	225 PSI	100 PSI	5.820	13MHHM500
6"	150 PSI	75 PSI	6.695	13MHHM600
8"	100 PSI	50 PSI	8.695	13MHHM800

- * wing nut tightened to 25 in. lbs. torque

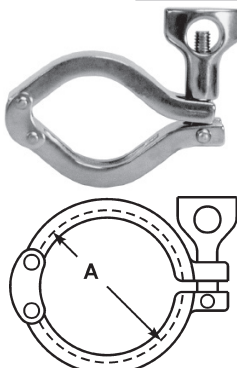
with serrated wing nut



Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel Part #
1/2" - 3/4"	1500 PSI	1200 PSI	1.062	13MHHM50-75SN
1" - 1 1/2"	500 PSI	300 PSI	2.122	13MHHM100-150SN
2"	450 PSI	250 PSI	2.654	13MHHM200SN
2 1/2"	400 PSI	200 PSI	3.185	13MHHM250SN
3"	350 PSI	175 PSI	3.717	13MHHM300SN
4"	300 PSI	150 PSI	4.820	13MHHM400SN
6"	150 PSI	75 PSI	6.695	13MHHM600SN
8"	100 PSI	50 PSI	8.695	13MHHM800SN

- * wing nut tightened to 25 in. lbs. torque

Double Pin Heavy Duty Clamps - 13MHHM-DP



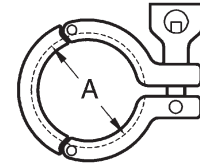
Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel Part #
1" - 1 1/2"	500 PSI	300 PSI	2.122	13MHHM-DP100150
2"	450 PSI	250 PSI	2.654	13MHHM-DP200
2 1/2"	400 PSI	200 PSI	3.185	13MHHM-DP250
3"	350 PSI	175 PSI	3.717	13MHHM-DP300
4"	300 PSI	150 PSI	4.820	13MHHM-DP400
10"	100 PSI	50 PSI	10.740	13MHHM-DP1000

- * wing nut tightened to 25 in. lbs. torque

Clamps

3 Segment Clamps - 13MHHM-3P

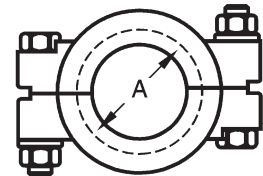
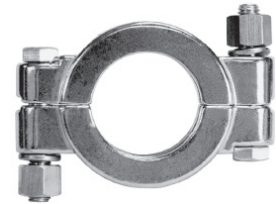
Tube OD	Service Pressure Rating @ 70°F *	Dimension A	304 Stainless Steel Part #
1" - 1½"	600 PSI	2.122	13MHHM-3P100150
2"	550 PSI	2.654	13MHHM-3P200
2½"	450 PSI	3.185	13MHHM-3P250
3"	350 PSI	3.717	13MHHM-3P300
4"	300 PSI	4.820	13MHHM-3P400
12"	75 PSI	12.740	13MHHM-3P1200



* wing nut tightened to 25 in. lbs. torque

Bolted Clamps - 13MHP

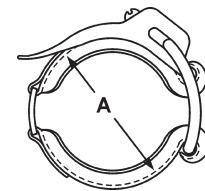
Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel Part #
½" - ¾"	1500 PSI	1200 PSI	1.062	13MHP75
1" - 1½"	1500 PSI	1200 PSI	2.046	13MHP100-150
2"	1000 PSI	800 PSI	2.578	13MHP200
2½"	1000 PSI	800 PSI	3.110	13MHP250
3"	1000 PSI	800 PSI	3.640	13MHP300
4"	800 PSI	600 PSI	4.744	13MHP400
6"	300 PSI	200 PSI	6.632	13MHP600
8"	250 PSI	150 PSI	8.638	13MHP800
10"	200 PSI	125 PSI	10.740	13MHP1000
12"	150 PSI	100 PSI	12.740	13MHP1200



* bronze nuts tightened to 20 ft. lbs. torque

Toggle Clamps - 13MHLA

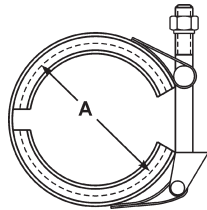
Tube OD	Service Pressure Rating @ 70°F *	Dimension A	304 Stainless Steel Part #
1" - 1½"	150 PSI	2.122	13MHLA100-150
2"	150 PSI	2.654	13MHLA200
2½"	150 PSI	3.185	13MHLA250
3"	150 PSI	3.717	13MHLA300
4"	100 PSI	4.820	13MHLA400



* screw tightened to maximum

Clamps

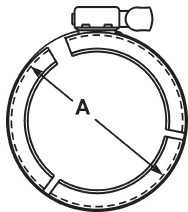
T-bolt Clamps - 13MO



Tube OD	Service Pressure Rating @ 70°F *	Dimension A	Part #
1" - 1½"	500	2.080	13MO100-150
2"	350	2.610	13MO200
2½"	300	3.140	13MO250
3"	200	3.670	13MO300
4"	100	4.780	13MO400
6"	75	6.690	13MO600
8" *	50	8.690	13MO800
10" *	40	10.690	13MO1000
12" *	30	12.690	13MO1200




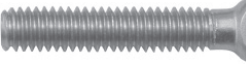
- * 2 bolt configuration
- 1" - 3" nuts tightened to 20 in. lb. of torque
- 4" nuts tightened to 30 in. lb. of torque
- 6" nuts tightened to 40 in. lb. of torque
- 8" - 10" nuts tightened to 50 in. lb. of torque

Dairy Clamps - 13WGC



Tube OD	Dimension A	304 Stainless Steel Part #
1" - 1½"	2.080	13WGC100-150
2"	2.610	13WGC200
2½"	3.140	13WGC250
3"	3.670	13WGC300
4"	4.780	13WGC400

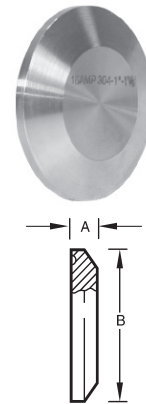
Accessories

	Description	Part #
 cross hole wing nut  serrated wing nut	cross hole wing nut serrated wing nut	13WNX 13WNS
 rivet pin for single pin clamp	rivet pin for ½" - 5" single pin clamps rivet pin for 6", 8", 10" and 12" single pin clamps	13RP 13RP6
 threaded eye bolt	5/16"-18 x 2" threaded eye bolt for ½" - 5" clamps 5/16"-18 x 2½" threaded eye bolt for 6", 8", 10" and 12" clamps	13IB 13IB6

Clamp Caps

End Caps - 16AMP

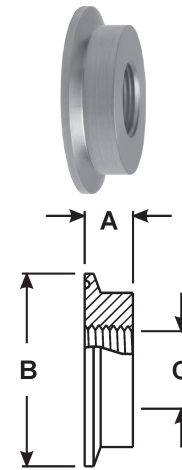
Tube OD	Dimensions		304 Stainless Steel	316L Stainless Steel
	A	B	Part #	Part #
½" - ¾"	.187	.992	16AMP-G50-75	16AMP-R50-75
1" - 1½"	.250	1.984	16AMP-G100-150	16AMP-R100-150
2"	.250	2.516	16AMP-G200	16AMP-R200
2½"	.250	3.047	16AMP-G250	16AMP-R250
3"	.250	3.579	16AMP-G300	16AMP-R300
4"	.312	4.682	16AMP-G400	16AMP-R400
6"	.437	6.570	16AMP-G600	16AMP-R600
8"	.437	8.570	16AMP-G800	16AMP-R800
10"	.437	10.570	16AMP-G1000	---



- Specify if you are using a piping system or a tubing system when ordering.

Thermometer Caps - B23BMP

Tube OD	Dimensions			304 Stainless Steel	316L Stainless Steel
	A	B	C	Part #	Part #
½"	.500	.993	1/8 NPT	---	B23BMP-R5014
¾"	.500	.993	¼ NPT	---	B23BMP-R7514
1"	.625	1.984	½ NPT	B23BMP-G100	B23BMP-R100
1½"	.625	1.984	¾ NPT	B23BMP-G150	B23BMP-R150
2"	.625	2.516	¾ NPT	B23BMP-G200	B23BMP-R200
2½"	.625	3.047	¾ NPT	B23BMP-G250	B23BMP-R250
3"	.625	3.579	¾ NPT	B23BMP-G300	B23BMP-R300
4"	.625	4.682	¾ NPT	B23BMP-G400	B23BMP-R400

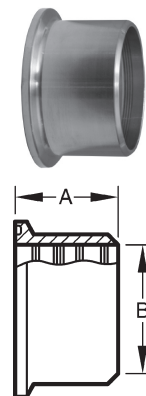


Clamp Ferrules

Roll-on Expanding Ferrules - 14RMP

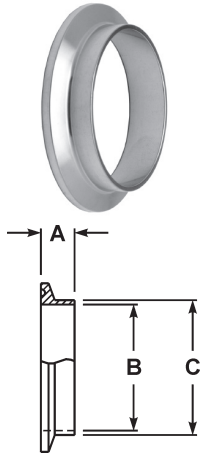
For use when modifying or repairing existing on-site farm milk handling systems.

Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1"	.750	1.005	14RMP-G100
1½"	1.125	1.505	14RMP-G150
2"	1.312	2.005	14RMP-G200
2½"	1.375	2.505	14RMP-G250
3"	1.437	3.005	14RMP-G300
4"	1.500	4.005	14RMP-G400



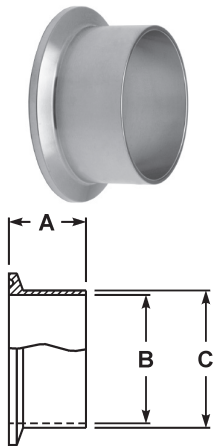
Clamp Ferrules

3 Short Weld Ferrules - 14WMP



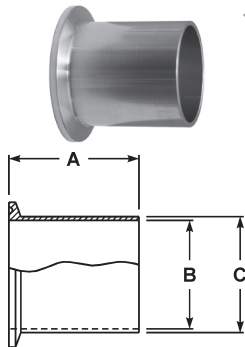
Tube OD	Dimensions			304 Stainless Steel	316L Stainless Steel
	A	B	C	Part #	Part #
1/2"	.500	.370	.500	14WMP-G50	14WMP-R50
3/4"	.500	.620	.750	14WMP-G75	14WMP-R75
1"	.500	.870	1.000	14WMP-G100	14WMP-R100
1 1/2"	.500	1.370	1.500	14WMP-G150	14WMP-R150
2"	.500	1.870	2.000	14WMP-G200	14WMP-R200
2 1/2"	.500	2.370	2.500	14WMP-G250	14WMP-R250
3"	.500	2.870	3.000	14WMP-G300	14WMP-R300
4"	.625	3.834	4.000	14WMP-G400	14WMP-R400
5"	.750	4.782	5.000	14WMP-G500	14WMP-R500
6"	.875	5.782	6.000	14WMP-G600	14WMP-R600
8"	.875	7.782	8.000	14WMP-G800	14WMP-R800
10"	.875	9.782	10.000	14WMP-G1000	14WMP-R1000
12"	.875	11.760	12.000	14WMP-G1200	14WMP-R1200

3 Butt Weld Ferrules - L14AM7



Tube OD	Dimensions			304 Stainless Steel	316L Stainless Steel
	A	B	C	Part #	Part #
1/2"	1.125	.370	.500	L14AM7-G50	L14AM7-R50
3/4"	1.125	.620	.750	L14AM7-G75	L14AM7-R75
1"	1.125	.870	1.000	L14AM7-G100	L14AM7-R100
1 1/2"	1.125	1.370	1.500	L14AM7-G150	L14AM7-R150
2"	1.125	1.870	2.000	L14AM7-G200	L14AM7-R200
2 1/2"	1.125	2.370	2.500	L14AM7-G250	L14AM7-R250
3"	1.125	2.870	3.000	L14AM7-G300	L14AM7-R300
4"	1.125	3.834	4.000	L14AM7-G400	L14AM7-R400
6"	1.500	5.782	6.000	L14AM7-G600	L14AM7-R600
8"	1.500	7.782	8.000	L14AM7-G800	L14AM7-R800
10"	1.750	9.782	10.000	L14AM7-G1000	L14AM7-R1000
12"	1.750	11.760	12.000	L14AM7-G1200	L14AM7-R1200

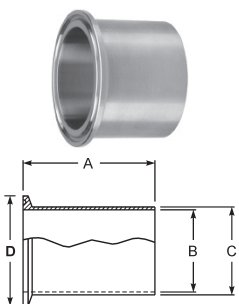
3 Automatic Welding Ferrules - TL14AM7



Tube OD	Dimensions			316L Stainless Steel
	A	B	C	Part #
1/2"	1.750	.370	.500	TL14AM7-R50
3/4"	1.750	.620	.750	TL14AM7-R75
1"	1.750	.870	1.000	TL14AM7-R100
1 1/2"	1.750	1.370	1.500	TL14AM7-R150
2"	2.250	1.870	2.000	TL14AM7-R200
3"	2.250	2.870	3.000	TL14AM7-R300

• meets ASME BPE-2002 specifications

3 Tank Weld Ferrules (light duty) - 14WLMP

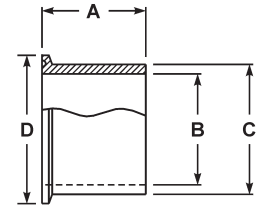


Tube OD	Dimensions				304 Stainless Steel	316L Stainless Steel
	A	B	C	D	Part #	Part #
1"	3.000	.870	1.000	1.984	14WLMP-G100	14WLMP-R100
1 1/2"	3.000	1.370	1.500	1.984	14WLMP-G150	14WLMP-R150
2"	3.000	1.870	2.000	2.516	14WLMP-G200	14WLMP-R200
2 1/2"	3.000	2.370	2.500	3.047	14WLMP-G250	14WLMP-R250
3"	4.000	2.870	3.000	3.579	14WLMP-G300	14WLMP-R300
4"	4.000	3.834	4.000	4.682	14WLMP-G400	14WLMP-R400
6"	6.000	5.782	6.000	6.562	14WLMP-G600	14WLMP-R600

Clamp Ferrules

Tank Weld Ferrules (heavy wall) - 14MPW 

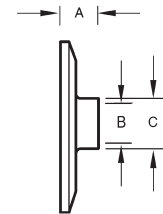
Tube OD	Dimensions				316L Stainless Steel
	A	B	C	D	Part #
½"	1.625	.321	.502	.984	14MPW-R50
¾"	1.625	.574	.750	.984	14MPW-R75
1"	1.625	.870	1.160	1.984	14MPW-R100
1½"	1.625	1.370	1.676	1.984	14MPW-R150
2"	1.750	1.870	2.192	2.516	14MPW-R200
2½"	1.750	2.370	2.708	3.047	14MPW-R250
3"	1.813	2.870	3.224	3.579	14MPW-R300
4"	2.125	3.834	4.256	4.682	14MPW-R400
6"	2.500	5.758	6.192	6.562	14MPW-R600



• ½" - 4" certified to ASME SA479; 6" certified to ASME SA312

Reducing Ferrules - B31WMP 

Tube OD	Dimensions			304 Stainless Steel	316L Stainless Steel
	A	B	C	Part #	Part #
2" x 1"	.500	.870	1.000	B31WMP-G200100	B31WMP-R200100
2½" x 1½"	.500	1.370	1.500	B31WMP-G250150	---
2½" x 2"	.500	1.870	2.000	B31WMP-G250200	---
3" x 2"	.500	1.870	2.000	B31WMP-G300200	---
4" x 2"	.625	1.870	2.000	B31WMP-G400200	---
4" x 3"	.625	2.870	3.000	B31WMP-G400300	---

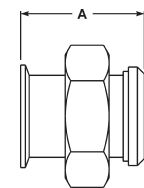
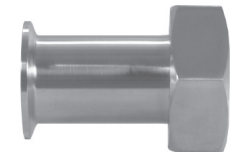


Air

Clamp Adapters

Clamp x Plain Bevel Seat Adapters with Hex Nut - 17MP-14 

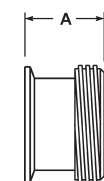
Tube OD	Dimension A	304 Stainless Steel
		Part #
1"	3.000	17MP-14-G100
1½"	3.000	17MP-14-G150
2"	3.000	17MP-14-G200
2½"	3.500	17MP-14-G250
3"	3.750	17MP-14-G300
4"	4.000	17MP-14-G400



• hex nut is CF8 (304 stainless)

Clamp x Threaded Bevel Seat Adapters - 17MP-15 

Size	Dimension A	304 Stainless Steel
		Part #
1"	1.843	17MP-15-G100
1½"	1.843	17MP-15-G150
2"	1.875	17MP-15-G200
2½"	2.000	17MP-15-G250
3"	2.031	17MP-15-G300
4"	2.151	17MP-15-G400



CAM & Groove

Tank Truck

Boss

Air

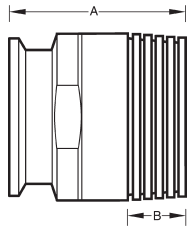
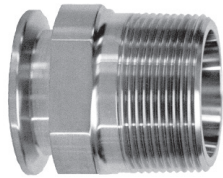
Shank

Brass

Clamp

Clamp Adapters

Clamp x Male NPT Adapters - 21MP



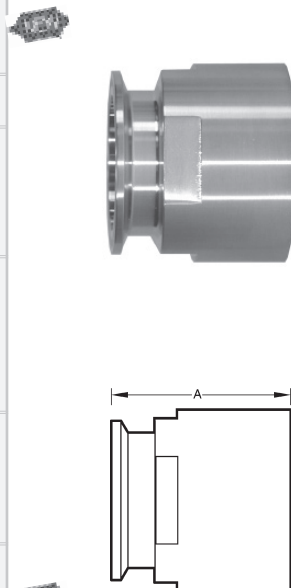
Tube OD	Thread Size	Dimensions		304 Stainless Steel		316L Stainless Steel	
		A	B	Part #	Part #		
1/2"	1/4"	2.000	.595	---		21MP-R5025 ¹	
1/2"	3/8"	2.000	.600	---		21MP-R50375 ¹	
1/2"	1/2"	1.625	.782	---		21MP-R50 ¹	
1/2"	3/4"	2.000	.794	---		21MP-R5075 ¹	
3/4"	1/4"	2.000	.595	---		21MP-R7525 ¹	
3/4"	3/8"	2.000	.600	---		21MP-R75375 ¹	
3/4"	1/2"	2.000	.782	---		21MP-R7550 ¹	
3/4"	3/4"	1.787	.794	---		21MP-R75	
3/4"	1"	2.250	.985	---		21MP-R75100	
1"	1/4"	2.161	.595	---		21MP-R10025	
1"	3/8"	2.187	.600	---		21MP-R100375	
1"	1/2"	2.187	.782	---		21MP-R10050	
1"	3/4"	2.187	.794		21MP-G10075	21MP-R10075	
1"	1"	2.250	.985		21MP-G100	21MP-R100	
1"	1 1/4"	2.438	1.009		21MP-G100125	21MP-R100125	
1"	1 1/2"	2.438	1.025		21MP-G100150	21MP-R100150	
1"	2"	2.625	1.058		21MP-G100200	21MP-R100200	
1 1/2"	3/8"	2.187	.600		21MP-G150375	21MP-R150375	
1 1/2"	1/2"	2.187	.782		21MP-G15050	21MP-R15050	
1 1/2"	3/4"	2.187	.794		21MP-G15075	21MP-R15075	
1 1/2"	1"	2.437	.985		21MP-G150100	21MP-R150100	
1 1/2"	1 1/4"	2.438	1.009		21MP-G150125	21MP-R150125	
1 1/2"	1 1/2"	2.250	1.025		21MP-G150	21MP-R150	
1 1/2"	2"	2.625	1.058		21MP-G150200	21MP-R150200	
1 1/2"	2 1/2"	3.281	1.571		21MP-G150250	21MP-R150250	
2"	1/2"	2.187	.782		21MP-G20050	21MP-R20050	
2"	3/4"	2.188	.794		21MP-G20075	21MP-R20075	
2"	1"	2.469	.985		21MP-G200100	21MP-R200100	
2"	1 1/4"	2.469	1.009		21MP-G200125	21MP-R200125	
2"	1 1/2"	2.625	1.009		21MP-G200150	21MP-R200150	
2"	2"	2.638	1.058		21MP-G200	21MP-R200	
2"	2 1/2"	3.125	1.571		21MP-G200250	21MP-R200250	
2"	4"	3.500	1.734		21MP-G200400	21MP-R200400	
2 1/2"	1/2"	2.781	.782		---	21MP-R25050	
2 1/2"	1"	2.781	.782		21MP-G250100	21MP-R250100	
2 1/2"	1 1/2"	2.781	1.025		21MP-G250150	21MP-R250150	
2 1/2"	2"	2.781	1.058		21MP-G250200	21MP-R250200	
2 1/2"	2 1/2"	2.875	1.571		21MP-G250	21MP-R250	
2 1/2"	3"	3.690	1.634		21MP-G250300	---	
3"	1"	3.000	.985		21MP-G300100	21MP-R300100	
3"	1 1/2"	3.000	1.009		21MP-G300150	---	
3"	2"	3.000	1.058		21MP-G300200	---	
3"	2 1/2"	3.000	1.571		21MP-G300250	---	
3"	3"	3.070	1.634		21MP-G300	21MP-R300	
4"	3"	3.813	1.634		21MP-G400300	21MP-R400300	
4"	4"	3.155	1.734		21MP-G400	21MP-R400	
6"	6"	4.500	1.946		21MP-G600	21MP-R600	

¹ no wrench flats

Clamp Adapters

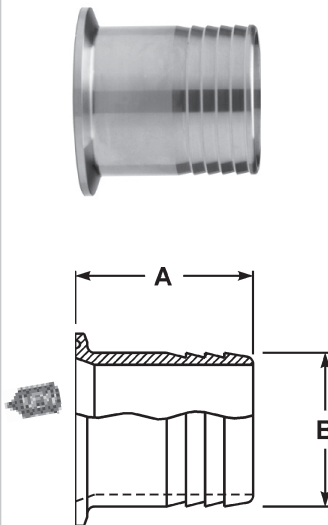
Clamp x Female NPT Adapters - 22MP

Tube OD	Thread Size	Dimension A	304 Stainless Steel	316L Stainless Steel
			Part #	Part #
1/2"	1/8"	1.250	---	22MP-R50-125 ¹
1/2"	1/4"	1.500	---	22MP-R5025 ¹
1/2"	3/8"	1.500	---	22MP-R50375 ¹
1/2"	1/2"	1.500	---	22MP-R50 ¹
1/2"	3/4"	1.625	---	22MP-R5075 ¹
3/4"	1/4"	1.500	---	22MP-R7525 ¹
3/4"	1/2"	1.500	---	22MP-R7550 ¹
1"	1/4"	1.625	---	22MP-R10025
1"	1/2"	1.625	22MP-G10050	---
1"	3/4"	1.625	22MP-G10075	22MP-R10075
1"	1"	1.625	22MP-G100	22MP-R100
1"	1 1/4"	1.625	22MP-G100125	---
1 1/2"	3/8"	1.625	---	22MP-R150375
1 1/2"	1/2"	1.625	22MP-G15050	---
1 1/2"	3/4"	1.625	22MP-G15075	22MP-R15075
1 1/2"	1"	1.625	22MP-G150100	22MP-R150100
1 1/2"	1 1/2"	2.250	22MP-G150	22MP-R150
1 1/2"	2"	2.250	22MP-G150200	22MP-R150200
2"	1/2"	1.687	22MP-G20050	---
2"	1"	1.687	22MP-G200100	---
2"	1 1/2"	1.656	22MP-G200150	---
2"	2"	2.344	22MP-G200	22MP-R200
2"	2 1/2"	2.406	22MP-G200250	---
2 1/2"	2"	1.719	22MP-G250200	---
2 1/2"	2 1/2"	2.093	22MP-G250	22MP-R250
2 1/2"	3"	2.187	22MP-G250300	---
3"	2"	2.187	22MP-G300200	---
3"	2 1/2"	2.187	---	22MP-R300250
3"	3"	2.187	22MP-G300	22MP-R300
4"	4"	3.652	22MP-G400	---

¹ no wrench flats

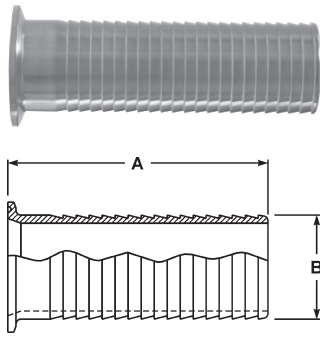
Rubber Hose Adapters - 14MPHR

Tube OD	Hose Size	Dimensions		304 Stainless Steel	316L Stainless Steel
		A	B	Part #	Part #
1/2"	1/8"	1.250	.125	---	14MPHR-R50125
1/2"	1/4"	1.500	.250	---	14MPHR-R5025
1/2"	3/8"	1.500	.375	---	14MPHR-R50375
1/2"	1/2"	1.500	.500	---	14MPHR-R50
1/2"	3/4"	1.500	.750	---	14MPHR-R5075
3/4"	1/8"	1.500	.125	---	14MPHR-R75125
3/4"	1/4"	1.500	.250	---	14MPHR-R7525
3/4"	3/8"	1.500	.375	---	14MPHR-R75375
3/4"	1/2"	1.500	.500	---	14MPHR-R7550
3/4"	3/4"	1.500	.750	---	14MPHR-R75
1"	1"	1.688	1.000	14MPHR-G100	14MPHR-R100
1"	3/8"	1.500	.375	---	14MPHR-R100375
1"	1/2"	1.500	.500	14MPHR-G10050	14MPHR-R10050
1"	3/4"	1.688	.750	14MPHR-G10075	14MPHR-R10075
1 1/2"	1 1/2"	1.689	1.500	14MPHR-G150	14MPHR-R150
1 1/2"	1/4"	1.500	.250	---	14MPHR-R15025
1 1/2"	1/2"	1.500	.500	14MPHR-G15050	14MPHR-R15050
1 1/2"	5/8"	1.500	.625	14MPHR-G150625	14MPHR-R150625
1 1/2"	3/4"	1.500	.750	14MPHR-G15075	14MPHR-R15075
1 1/2"	1"	1.687	1.000	---	14MPHR-R150100
2"	2"	2.313	2.000	14MPHR-G200	14MPHR-R200
2"	1 1/2"	2.312	1.500	14MPHR-G200150	14MPHR-R200150
2 1/2"	2 1/2"	2.344	2.500	14MPHR-G250	14MPHR-R250
3"	3"	3.094	3.000	14MPHR-G300	14MPHR-R300
4"	4"	3.406	4.000	14MPHR-G400	14MPHR-R400
6"	6"	3.406	6.000	14MPHR-G600	---



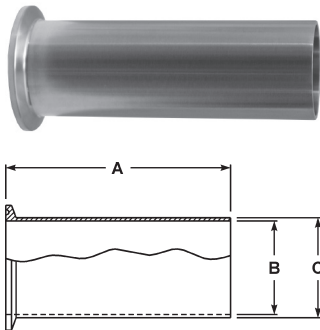
Clamp Adapters

304 Brewery Hose Barb Adapters - 14MPHRL



Tube OD	Hose Size	Dimensions		304 Stainless Steel	
		A	B	Part #	
1"	1"	3.500	1.000	14MPHRL100	
1½"	1½"	5.000	1.500	14MPHRL150	
2"	2"	5.000	2.000	14MPHRL200	
2½"	2½"	5.500	2.500	14MPHRL250	
3"	3"	5.500	3.000	14MPHRL300	
4"	4"	5.500	4.000	14MPHRL400	

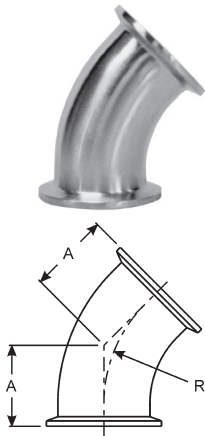
Tygon Hose Adapters - 14MPHT



Tube OD	Dimensions			316L Stainless Steel	
	A	B	C	Part #	
¾"	4.000	.620	.750	14MPHT-R75	
1"	4.500	.870	1.000	14MPHT-R100	
1½"	4.500	1.370	1.500	14MPHT-R150	
2"	4.500	1.870	2.000	14MPHT-R200	
2½"	4.500	2.370	2.500	14MPHT-R250	
3"	4.500	2.870	3.000	14MPHT-R300	
4"	4.625	3.834	4.000	14MPHT-R400	

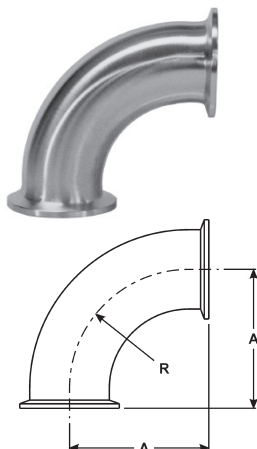
Clamp Elbows

45° Clamp Elbows - B2KMP



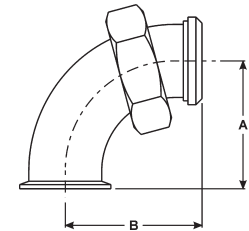
Tube OD	Dimensions		304 Stainless Steel	316L Stainless Steel
	A	R	Part #	Part #
½"	1.018	1.125	---	B2KMP-R50
¾"	.966	1.125	---	B2KMP-R75
1"	1.125	1.500	B2KMP-G100	B2KMP-R100
1½"	1.437	2.250	B2KMP-G150	B2KMP-R150
2"	1.750	3.000	B2KMP-G200	B2KMP-R200
2½"	2.062	3.750	B2KMP-G250	B2KMP-R250
3"	2.375	4.500	B2KMP-G300	B2KMP-R300
4"	3.125	6.000	B2KMP-G400	B2KMP-R400
6"	4.625	9.000	B2KMP-G600	---

90° Clamp Elbows - B2CMP



Tube OD	Dimensions		304 Stainless Steel	316L Stainless Steel
	A	R	Part #	Part #
½"	1.625	1.125	---	B2CMP-R50
¾"	1.625	1.125	---	B2CMP-R75
1"	2.000	1.500	B2CMP-G100	B2CMP-R100
1½"	2.750	2.250	B2CMP-G150	B2CMP-R150
2"	3.500	3.000	B2CMP-G200	B2CMP-R200
2½"	4.250	3.750	B2CMP-G250	B2CMP-R250
3"	5.000	4.500	B2CMP-G300	B2CMP-R300
4"	6.625	6.000	B2CMP-G400	B2CMP-R400
6"	9.875	9.000	B2CMP-G600	---

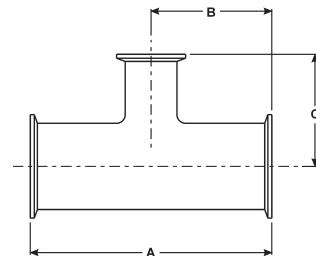
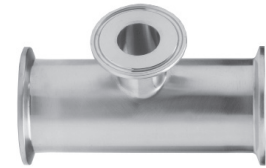
Clamp Elbows

90° Clamp by Plain Bevel Seat with Hex Nut Elbows - B2FMP-14 

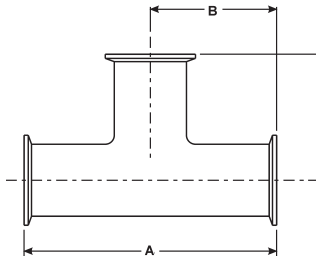
Tube OD	Dimensions		304 Stainless Steel Part #
	A	B	
2"	3.500	3.750	B2FMP-14-G200
2½"	4.250	5.375	B2FMP-14-G250
3"	5.000	5.406	B2FMP-14-G300

Clamp Tees
Clamp Reducing Tees - B7RMP 

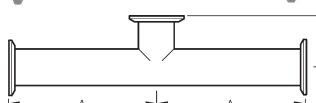
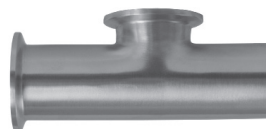
Tube OD	Dimensions			304 Stainless Steel Part #	316L Stainless Steel Part #
	A	B	C		
1½" x 1"	5.125	2.562	1.875	---	B7RMP-R150100
2" x 1"	5.125	2.562	2.125	B7RMP-G200100	B7RMP-R200100
2" x 1½"	5.688	2.844	2.406	B7RMP-G200150	B7RMP-R200150
2½" x 1½"	5.688	2.844	2.656	B7RMP-G250150	B7RMP-R250150
2½" x 2"	6.188	3.093	2.812	B7RMP-G250200	---
3" x 1½"	6.188	3.093	2.906	B7RMP-G300150	B7RMP-R300150
3" x 2"	6.188	3.093	3.063	B7RMP-G300200	B7RMP-R300200

Clamp Tees - B7MP 

Tube OD	Dimensions		304 Stainless Steel Part #	316L Stainless Steel Part #
	A	B		
½"	4.750	2.375	---	B7MP-R50
¾"	5.000	2.500	---	B7MP-R75
1"	4.750	2.375	B7MP-G100	B7MP-R100
1½"	5.500	2.750	B7MP-G150	B7MP-R150
2"	7.000	3.500	B7MP-G200	B7MP-R200
2½"	7.000	3.500	---	B7MP-R250
3"	7.500	3.750	B7MP-G300	B7MP-R300
4"	9.000	4.500	B7MP-G400	B7MP-R400
6"	13.000	6.500	B7MP-G600	---
8"	15.750	7.875	B7MP-G800	---

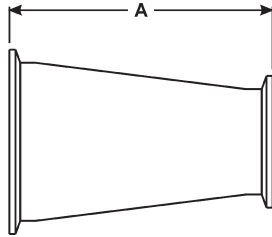
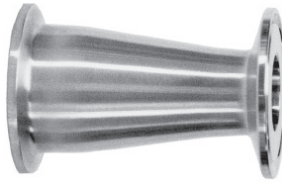
Short Outlet Clamp Tee - B7MPS 

Tube OD	Dimensions		316L Stainless Steel Part #
	A	B	
1½"	2.750	1.375	B7MPS-R150
2"	3.500	1.625	B7MPS-R200
2½"	3.500	1.875	B7MPS-R250



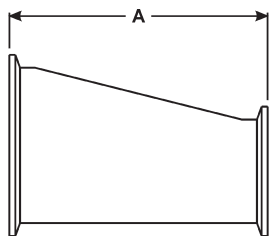
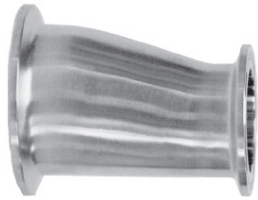
Clamp Reducers

3 Clamp Concentric Reducers - B3114MP



Tube OD	Dimension A	304 Stainless Steel		316L Stainless Steel	
		Part #		Part #	
1" x 1/2"	3.000	---		B3114MP-R10050	
1" x 3/4"	2.000	---		B3114MP-R10075	
1 1/2" x 3/4"	4.000	---		B3114MP-R15075	
1 1/2" x 1"	3.000	B3114MP-G150100		B3114MP-R150100	
2" x 3/4"	6.000	---		B3114MP-R20075	
2" x 1"	5.000	B3114MP-G200100		B3114MP-R200100	
2" x 1 1/2"	3.000	B3114MP-G200150		B3114MP-R200150	
2 1/2" x 1 1/2"	5.000	B3114MP-G250150		B3114MP-R250150	
2 1/2" x 2"	3.000	B3114MP-G250200		B3114MP-R250200	
3" x 1 1/2"	7.000	B3114MP-G300150		B3114MP-R300150	
3" x 2"	5.000	B3114MP-G300200		B3114MP-R300200	
3" x 2 1/2"	3.000	B3114MP-G300250		B3114MP-R300250	
4" x 2"	9.125	B3114MP-G400200		---	
4" x 2 1/2"	7.125	B3114MP-G400250		B3114MP-R400250	
4" x 3"	5.125	B3114MP-G400300		B3114MP-R400300	
6" x 4"	7.000	B3114MP-G600400		---	

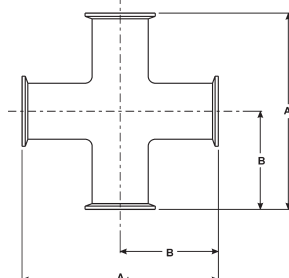
3 Clamp Eccentric Reducers - B3214MP



Tube OD	Dimension A	304 Stainless Steel	
		Part #	
2" x 1"	5.000	B3214MP-G200100	
2" x 1 1/2"	3.000	B3214MP-G200150	
2 1/2" x 1 1/2"	5.000	B3214MP-G250150	
2 1/2" x 2"	3.000	B3214MP-G250200	
3" x 1 1/2"	7.000	B3214MP-G300150	
3" x 2"	5.000	B3214MP-G300200	
3" x 2 1/2"	3.000	B3214MP-G300250	
4" x 2"	9.125	B3214MP-G400200	
4" x 2 1/2"	7.125	B3214MP-G400250	
4" x 3"	5.125	B3214MP-G400300	
6" x 3"	6.875	B3214MP-G600300	
6" x 4"	7.000	B3214MP-G600400	

Clamp Crosses

3 Clamp Cross - B9MP



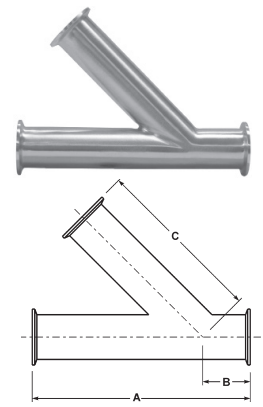
Tube OD	Dimensions		316L Stainless Steel	
	A	B	Part #	
1"	4.750	2.375	B9MP-R100	
1 1/2"	5.500	2.750	B9MP-R150	
2"	7.000	3.500	B9MP-R200	

Miscellaneous Configurations

Clamp Lateral - B28AMP



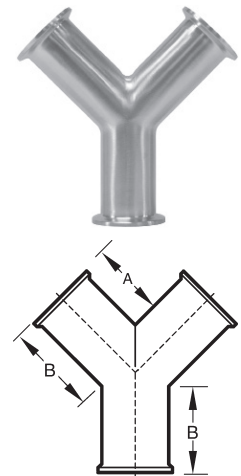
Tube OD	Dimensions			316L Stainless Steel
	A	B	C	Part #
1½"	8.375	2.430	7.430	B28AMP-R150
2"	9.750	2.125	7.625	B28AMP-R200
3"	11.750	2.375	9.375	B28AMP-R300
4"	14.062	2.640	11.312	B28AMP-R400



Clamp True Y - B28BMP



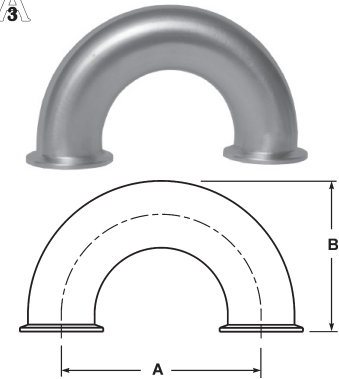
Tube OD	Dimensions		316L Stainless Steel
	A	B	Part #
1½"	2.500	2.938	B28BMP-R150
2"	3.125	3.750	B28BMP-R200
3"	4.500	5.375	B28BMP-R300



Clamp 180° Return Bends - B2WUMP



Tube OD	Dimensions		316L Stainless Steel
	A	B	Part #
1"	3.000	2.500	B2WUMP-R100
1½"	4.500	3.500	B2WUMP-R150
2"	6.000	4.500	B2WUMP-R200
3"	9.000	6.500	B2WUMP-R300

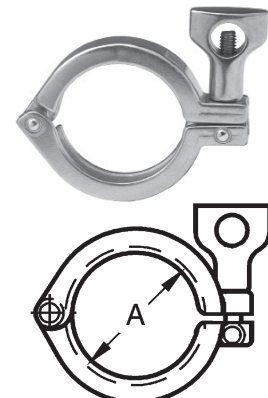


Bends are the standard 1.5 x tube diameter.

Pipe Clamps

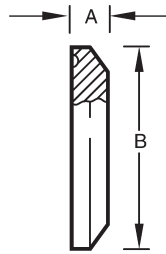
Single Pin Heavy Duty Clamps - 13MHHV

Pipe Size	Dimension A	304 Stainless Steel
	A	Part #
1"	2.122	13MHHV100
1½"	2.654	13MHHV150
2"	3.185	13MHHV200
2½"	3.717	13MHHV250
3"	4.263	13MHHV300
4"	5.263	13MHHV400



Pipe End Caps

3 Solid End Caps - 16AMV

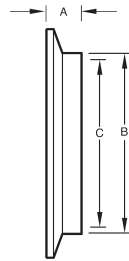


Pipe Size	Dimensions		304 Stainless Steel
	A	B	Part #
1"	.250	1.984	16AMV-G100
1½"	.250	2.516	16AMV-G150
2"	.250	3.047	16AMV-G200
2½"	.250	3.579	16AMV-G250
3"	.312	4.125	16AMV-G300
4"	.312	5.125	16AMV-G400

• Specify if you are using a piping system or a tubing system when ordering.

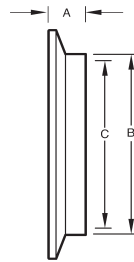
Pipe Ferrules

3 Schedule 5 Short-weld Ferrules - 14WMV



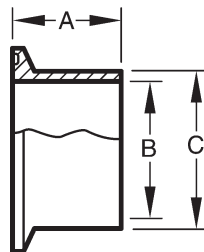
Pipe Size	Dimensions			304 Stainless Steel
	A	B	C	Part #
1"	.500	1.315	1.185	14WMV-G100
1½"	.500	1.900	1.770	14WMV-G150
2"	.500	2.375	2.245	14WMV-G200
2½"	.500	2.875	2.709	14WMV-G250
3"	.500	3.500	3.334	14WMV-G300
4"	.625	4.500	4.334	14WMV-G400

3 Schedule 10 Short-weld Ferrules - 14WMX



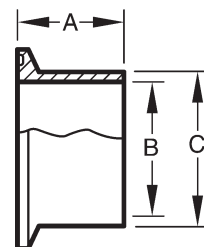
Pipe Size	Dimensions			304 Stainless Steel
	A	B	C	Part #
1"	.500	1.315	1.097	14WMX-G100
1½"	.500	1.900	1.682	14WMX-G150
2"	.500	2.375	2.157	14WMX-G200
2½"	.500	2.875	2.635	14WMX-G250
3"	.500	3.500	3.260	14WMX-G300
4"	.625	4.500	4.260	14WMX-G400

3 Schedule 5 Long-weld Ferrules - L14AM7V



Pipe Size	Dimensions			304 Stainless Steel
	A	B	C	Part #
1½"	1.125	1.770	1.900	L14AM7V-G150
2"	1.125	2.245	2.375	L14AM7V-G200
2½"	1.125	2.709	2.875	L14AM7V-G250
3"	1.125	3.334	3.500	L14AM7V-G300
4"	1.125	4.334	4.500	L14AM7V-G400

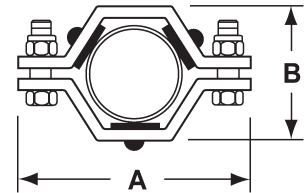
3 Schedule 10 Long-weld Ferrules - L14AM7X



Pipe Size	Dimensions			304 Stainless Steel
	A	B	C	Part #
1"	1.125	1.097	1.315	L14AM7X-G100
2"	1.125	2.157	2.375	L14AM7X-G200
3"	1.125	3.260	3.500	L14AM7X-G300
4"	1.125	4.260	4.500	L14AM7X-G400

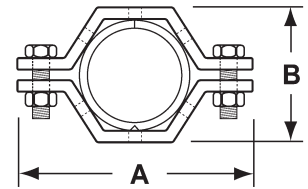
Pipe Hangers

Hex Pipe Hangers with Grommets - B24RV



Tube OD	Dimensions		304 Stainless Steel Part #
	A	B	
1"	3.63	2.13	B24RV-G100
1½"	4.31	2.81	B24RV-G150
2"	4.88	3.25	B24RV-G200
2½"	5.38	3.88	B24RV-G250
3"	6.06	4.31	B24RV-G300
4"	7.44	5.12	B24RV-G400
6"	9.88	7.13	B24RV-G600

Hex Pipe Hangers with Polypropylene Sleeves - B24PV



Tube OD	Dimensions		304 Stainless Steel Part #
	A	B	
1"	3.63	2.13	B24PV-G100
1½"	4.31	2.63	B24PV-G150
2"	4.88	3.13	B24PV-G200
2½"	4.81	3.13	B24PV-G250
3"	6.00	4.25	B24PV-G300
4"	7.50	5.63	B24PV-G400
6"	9.75	7.38	B24PV-G600

Polypropylene Sleeves - 13PV



Size	Part #
1"	13PV-100
1½"	13PV-150
2"	13PV-200
2½"	13PV-250
3"	13PV-300
4"	13PV-400
6"	13PV-600

CAM & Groove

Tank Truck

Boss

Air

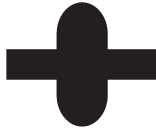
Shank

Brass

Clamp

Schedule 5 and 10 Pipe Gaskets

Buna-N - 40MPV-U



Type 1 - Standard
1" - 8"

- color code: red dot
- meets 21CFR 177.2600

Size	Part #
1"	40MPV-U100
1½"	40MPV-U150
2"	40MPV-U200
2½"	40MPV-U250
3"	40MPV-U300
4"	40MPV-U400

PTFE - 40MPV-G



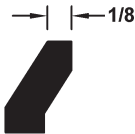
Type 1 - Standard
1" - 8"

- color code: no dot
- meets 21CFR 177.1550
- pharmaceutical class VI approved
- not recommended for use with bolted clamps

Size	Part #
1"	40MPV-G100
1½"	40MPV-G150
2"	40MPV-G200
2½"	40MPV-G250
3"	40MPV-G300
4"	40MPV-G400

Bevel Seat Gaskets

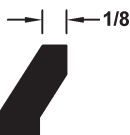
PTFE Gaskets - White



- color code: no dot
- meets 21CFR 177.1550
- pharmaceutical class VI approved

Size	Part #
1"	40BS-S100
1½"	40BS-S150
2"	40BS-S200
2½"	40BS-S250
3"	40BS-S300
4"	40BS-S400

Buna-N Gaskets - Black



- color code: red dot
- meets 21CFR 177.2600

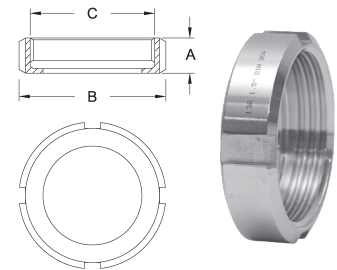
Size	Part #
1"	40BS-O100
1½"	40BS-O150
2"	40BS-O200
2½"	40BS-O250
3"	40BS-O300
4"	40BS-O400

DIN 11851

Round Nut DIN 11857 - 13R

NEW

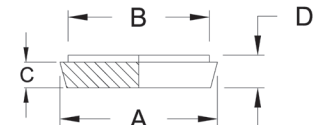
Tube OD	Dimensions			304 Stainless Steel
	A	B	C	Part #
1"	.83	2.48	2.05	13R-G100DIN
1½"	.83	3.07	2.56	13R-G150DIN
2"	.87	3.62	3.07	13R-G200DIN
2½"	.98	4.41	3.74	13R-G250DIN
3"	1.14	5.00	4.33	13R-G300DIN
4"	1.22	5.83	5.12	13R-G400DIN



Blank Cap DIN - 16AMP

NEW

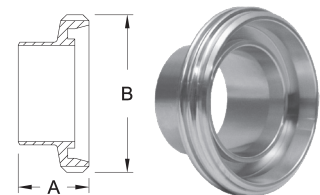
Tube OD	Dimensions				316L Stainless Steel
	A	B	C	D	Part #
1"	1.73	1.38	.39	.51	16AMP-R100DIN
1½"	2.20	1.89	.39	.51	16AMP-R150DIN
2"	2.68	2.40	.43	.55	16AMP-R200DIN
2½"	3.39	3.11	.47	.63	16AMP-R250DIN
3"	3.60	3.39	.47	.63	16AMP-R300DIN
4"	4.76	4.49	.59	.79	16AMP-R400DIN



Welding Male DIN - 15A

NEW

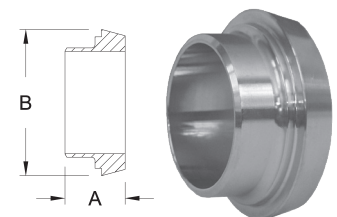
Tube OD	Dimensions		316L Stainless Steel
	A	B	Part #
1"	1.14	2.04	15A-R100DIN
1½"	1.30	2.55	15A-R150DIN
2"	1.38	3.07	15A-R200DIN
2½"	1.57	3.74	15A-R250DIN
3"	1.57	4.09	15A-R300DIN
4"	2.13	5.12	15A-R400DIN



Welding Liner DIN - 14A

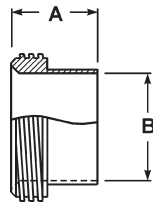
NEW

Tube OD	Dimensions		316L Stainless Steel
	A	B	Part #
1"	.87	1.73	14A-R100DIN
1½"	1.02	2.20	14A-R150DIN
2"	1.10	2.68	14A-R200DIN
2½"	1.26	3.39	14A-R250DIN
3"	1.26	3.66	14A-R300DIN
4"	1.73	4.76	14A-R400DIN



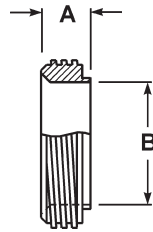
Bevel Seat Ferrules

3 Long Threaded Bevel Seat Ferrules - 15A



Tube OD	Dimensions		304 Stainless Steel	316L Stainless Steel
	A	B	Part #	Part #
1½"	1.500	1.370	15A-G150	15A-R150
2"	1.500	1.870	15A-G200	15A-R200
2½"	1.750	2.370	15A-G250	---
3"	1.750	2.870	15A-G300	15A-R300
4"	1.750	3.834	15A-G400	---

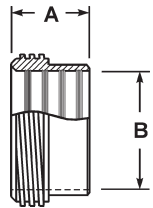
3 Short Threaded Bevel Seat Ferrules - 15TRF



Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1"	.718	.870	15TRF-G100
1½"	.718	1.370	15TRF-G150
2"	.750	1.870	15TRF-G200
2½"	.875	2.370	15TRF-G250
3"	.906	2.870	15TRF-G300
4"	1.031	3.834	15TRF-G400

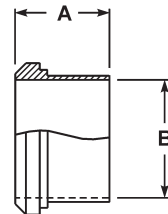
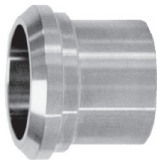
3 Recessless Threaded Bevel Seat Ferrules - 15R

For use when modifying or repairing existing on-site farm milk handling systems.



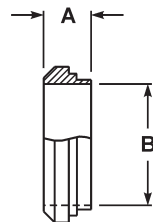
Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1½"	1.125	1.500	15R-G150
2"	1.375	2.000	15R-G200
2½"	1.500	2.500	15R-G250
3"	1.675	3.000	15R-G300
4"	1.675	4.000	15R-G400

3 Long Plain Bevel Seat Ferrules - 14A



Tube OD	Dimensions		304 Stainless Steel	316L Stainless Steel
	A	B	Part #	Part #
1"	1.375	.870	14A-G100	14A-R100
1½"	1.500	1.370	14A-G150	14A-R150
2"	1.500	1.870	14A-G200	14A-R200
2½"	1.750	2.370	14A-G250	14A-R250
3"	1.750	2.870	14A-G300	14A-R300
4"	1.750	3.834	14A-G400	14A-R400

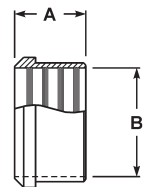
3 Short Plain Bevel Seat Ferrules - 14PRF



Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1"	.718	.870	14PRF-G100
1½"	.718	1.370	14PRF-G150
2"	.750	1.870	14PRF-G200
2½"	.875	2.370	14PRF-G250
3"	.906	2.870	14PRF-G300
4"	1.031	3.834	14PRF-G400

3 Recessless Plain Bevel Seat Ferrules - 14R

For use when modifying or repairing existing on-site farm milk handling systems.



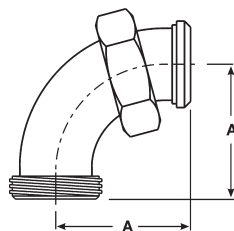
Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1½"	1.125	1.500	14R-G150
2"	1.312	2.000	14R-G200
2½"	1.375	2.500	14R-G250
3"	1.437	3.000	14R-G300

Bevel Seat Elbows

90° Bevel Seat Elbows - B2F 

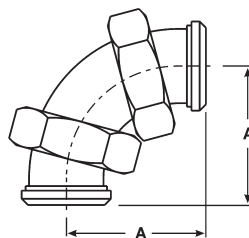
Tube OD	Dimension A	304 Stainless Steel Part #
1½"	2.968	B2F-G150
2"	3.750	B2F-G200
2½"	4.625	B2F-G250
3"	5.406	B2F-G300

hex nut is CF8 (304 stainless steel)

Plain Bevel Seat x Plain Bevel Seat with Hex Nut 90° Elbows - B2E 

Tube OD	Dimension A	304 Stainless Steel Part #
1½"	2.968	B2E-G150
2"	3.750	B2E-G200
3"	5.406	B2E-G300

hex nut is CF8 (304 stainless steel)

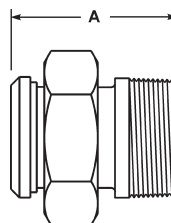


Bevel Seat Adapters

Plain Bevel Seat x Male NPT Adapters - 14-19

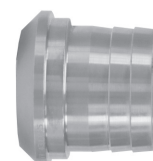
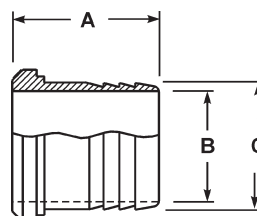
Tube OD	Dimension A	304 Stainless Steel Part #
1½"	3.250	14-19-G150
2"	3.312	14-19-G200
3"	4.250	14-19-G300

hex nut is CF8 (304 stainless steel)



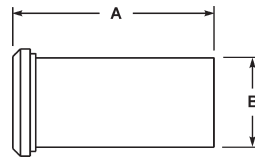
Plain Bevel Seat Rubber Hose Adapters - 14AHR

Tube OD	Dimensions			304 Stainless Steel Part #
	A	B	C	
1½"	1.687	1.370	1.500	14AHR-G150
2"	2.312	1.870	2.000	14AHR-G200
3"	3.500	2.870	3.000	14AHR-G300



Bevel Seat Adapters

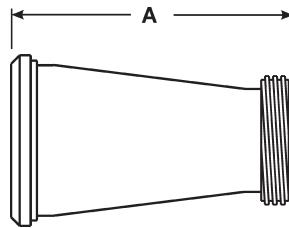
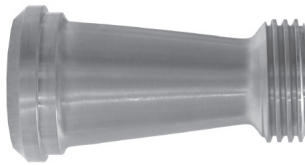
Plain Bevel Seat Tygon Hose Adapters - 14AHT



Tube OD	Dimensions		304 Stainless Steel
	A	B	Part #
1½"	4.719	1.500	14AHT-G150
2"	4.719	2.000	14AHT-G200
3"	4.906	3.000	14AHT-G300

Bevel Seat Reducers

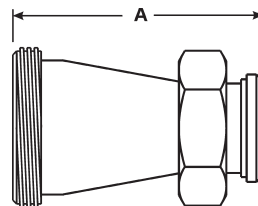
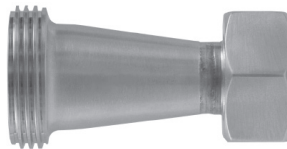
Plain Bevel Seat x Threaded Bevel Seat Concentric Reducers - B3115F



Tube OD	Dimension A	304 Stainless Steel
	A	Part #
2" x 1½"	3.468	B3115F-G200150
2½" x 2"	3.625	B3115F-G250200
3" x 2½"	3.781	B3115F-G300250
4" x 3"	5.793	B3115F-G400300



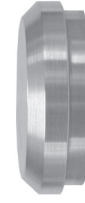
Threaded Bevel Seat x Plain Bevel Seat with Hex Nut Concentric Reducers - B31TP



Tube OD	Dimension A	304 Stainless Steel
	A	Part #
2" x 1½"	3.468	B31TP-G200150
2½" x 2"	3.625	B31TP-G250200
3" x 2"	5.656	B31TP-G300200

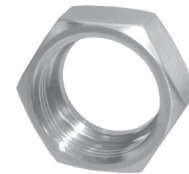
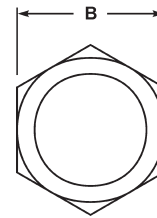
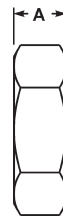
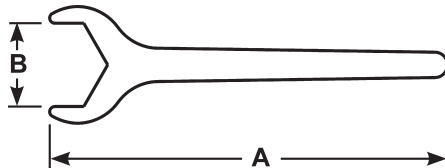
Bevel Seat End Caps and Nuts**Plain Bevel Seat Solid End Caps - 16A**

Tube OD	Dimension A	304 Stainless Steel Part #
1"	1.312	16A-G100
1½"	1.843	16A-G150
2"	2.375	16A-G200
2½"	2.906	16A-G250
3"	3.437	16A-G300
4"	4.500	16A-G400

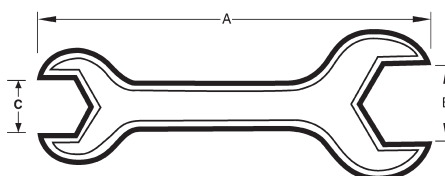
**Hex Union Nuts - 13H**

- 400 PSI maximum

Tube OD	Dimensions A B		304 Stainless Steel Part #
1"	.906	1.812	13H-G100
1½"	.968	2.406	13H-G150
2"	1.062	3.000	13H-G200
2½"	1.187	3.594	13H-G250
3"	1.281	4.188	13H-G300
4"	1.500	5.438	13H-G400

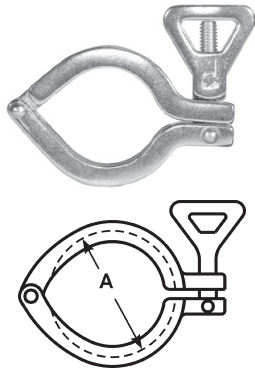
**Bevel Seat Hex Wrenches****Single Sided Aluminum Hex Wrenches - 25H**

Tube OD	Dimensions		Weight Lbs.	Aluminum
	A	B		Part #
1"	10.500	1.812	.640	25H-100
1½"	12.000	2.406	.860	25H-150
2"	14.000	3.000	1.760	25H-200
2½"	16.250	3.594	2.400	25H-250
3"	18.500	4.188	3.040	25H-300
4"	19.500	5.438	3.620	25H-400

Two Sided Aluminum Hex Wrenches - 25H

Tube OD	Dimensions			Weight Lbs.	Aluminum
	A	B	C		Part #
1½" x 1"	12.000	2.406	1.812	1.000	25H-150100
2" x 1½"	14.000	3.000	2.406	1.750	25H-200150
2½" x 2"	16.500	3.594	3.000	2.800	25H-250200
3" x 2"	18.000	4.188	3.000	3.200	25H-300200
3" x 2½"	18.000	4.188	3.594	3.700	25H-300250

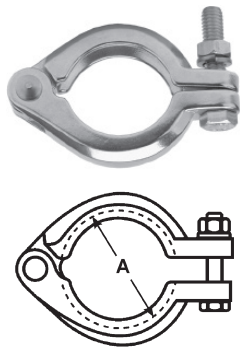
I-Line Clamps
Heavy Duty Clamps - 13ILH



Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel	
				Part #	
1" - 1½"	700 PSI	250 PSI	2.122	13ILH100-150	
2"	450 PSI	250 PSI	2.654	13ILH200	
2½"	450 PSI	200 PSI	3.185	13ILH250	
3"	350 PSI	150 PSI	3.717	13ILH300	
4"	200 PSI	125 PSI	4.820	13ILH400	

* wing nut tightened to 25 in. lbs. torque

Bolted Clamps - 13ILB

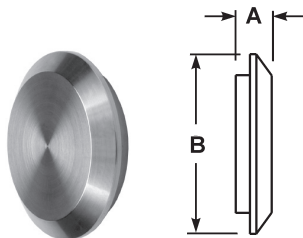


Tube OD	Service Pressure Rating @ 70°F *	Service Pressure Rating @ 250°F *	Dimension A	304 Stainless Steel	
				Part #	
1" - 1½"	1220 PSI	1100 PSI	2.122	13ILB100-150	
2"	900 PSI	830 PSI	2.654	13ILB200	
2½"	720 PSI	660 PSI	3.185	13ILB250	
3"	600 PSI	550 PSI	3.717	13ILB300	
4"	570 PSI	525 PSI	4.820	13ILB400	

* nut must be tightened to 20 ft. lbs.

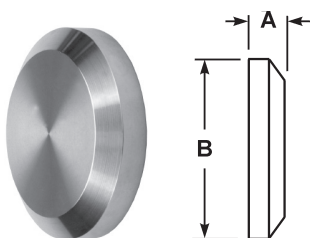
I-Line End Caps

Male I-line Solid End Caps - 16AI-14I



Tube OD	Dimensions		304 Stainless Steel	
	A	B	Part #	
1"	.500	1.985	16AI-14I100	
1½"	.500	1.985	16AI-14I150	
2"	.562	2.640	16AI-14I200	
2½"	.750	3.307	16AI-14I250	
3"	.750	3.870	16AI-14I300	
4"	.750	4.870	16AI-14I400	

Female I-line Solid End Caps - 16AI-15I

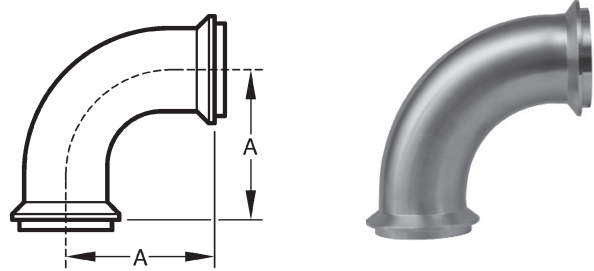


Tube OD	Dimensions		304 Stainless Steel	
	A	B	Part #	
1"	.500	1.985	16AI-15I100	
1½"	.500	1.985	16AI-15I150	
2"	.562	2.640	16AI-15I200	
2½"	.750	3.307	16AI-15I250	
3"	.750	3.870	16AI-15I300	
4"	.750	4.870	16AI-15I400	

I-Line Elbows

90° Male I-Line Elbows - B2EI 

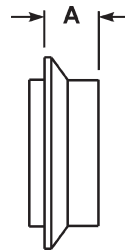
Tube OD	Dimension A	304 Stainless Steel Part #
2"	3.781	B2EI-G200



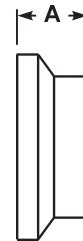
I-Line Ferrules

Male I-Line Short Weld Ferrules - 14WI  

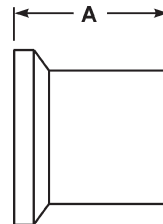
Tube OD	Dimension A	304 Stainless Steel Part #
1½"	.765	14WI-G150
2"	.790	14WI-G200
2½"	.848	14WI-G250
3"	.906	14WI-G300
4"	1.031	14WI-G400

Female I-line Short Weld Ferrules - 15WI 

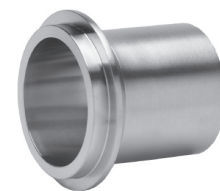
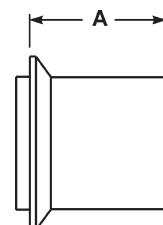
Tube OD	Dimension A	304 Stainless Steel Part #
1½"	.950	15WI-G150
2"	1.040	15WI-G200
2½"	1.160	15WI-G250
3"	1.220	15WI-G300
4"	1.350	15WI-G400

Female I-line Long Weld Ferrules - 15WLI 

Tube OD	Dimension A	304 Stainless Steel Part #
1"	1.750	15WLI-G100
1½"	2.031	15WLI-G150
2"	2.312	15WLI-G200
3"	2.688	15WLI-G300
4"	3.000	15WLI-G400

Male I-line Long Weld Ferrules - 14WLI 

Tube OD	Dimension A	304 Stainless Steel Part #
1"	1.562	14WLI-G100
1½"	1.843	14WLI-G150
2"	2.062	14WLI-G200
3"	2.375	14WLI-G300
4"	2.688	14WLI-G400



Tube Hangers

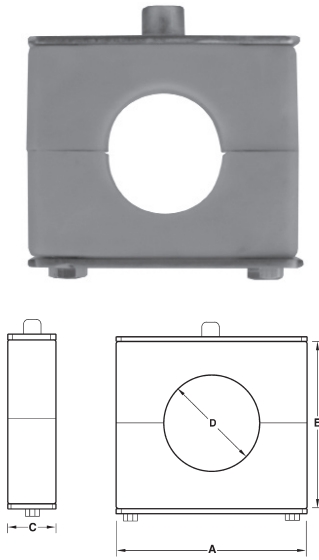
Block Tube Hangers with hang plate - B24HAP**

Polypropylene (PP)

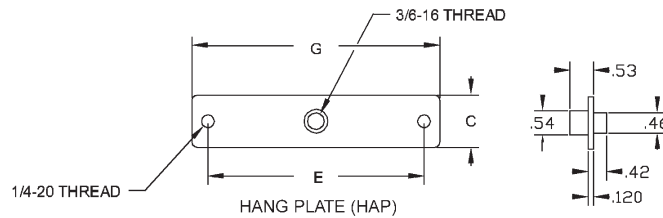
- maximum temperature: **212°F**

Santoprene (SP)

- FDA approved material
- maximum temperature: **302°F**



Tube OD	Dimensions			<i>Polypropylene Block</i>	<i>Santoprene Block</i>
	A	B	C	Part #	Part #
1/2"	1.880	1.380	1.190	B24PPHAP-G50	B24SPHAP-G50
3/4"	1.880	1.380	1.190	B24PPHAP-G75	B24SPHAP-G75
1"	3.340	2.630	1.190	B24PPHAP-G100	B24SPHAP-G100
1 1/2"	3.340	2.630	1.190	B24PPHAP-G150	B24SPHAP-G150
2"	3.340	2.630	1.190	B24PPHAP-G200	B24SPHAP-G200
2 1/2"	5.000	4.380	1.190	B24PPHAP-G250	B24SPHAP-G250
3"	5.000	4.380	1.190	B24PPHAP-G300	B24SPHAP-G300
4"	5.770	4.800	1.190	B24PPHAP-G400	B24SPHAP-G400



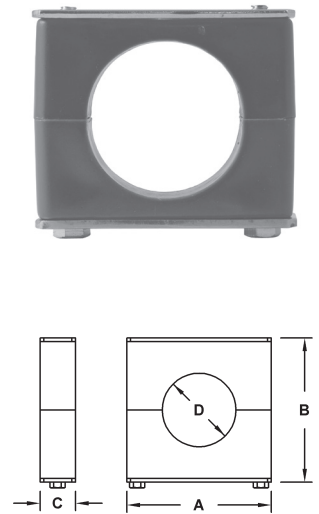
Block Tube Hangers with standard weld plate - B24STW**

Polypropylene (PP)

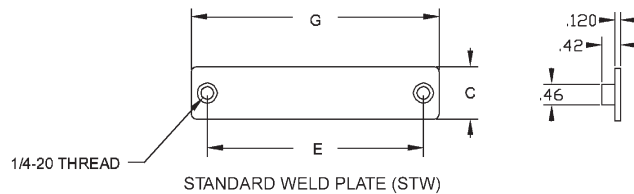
- maximum temperature: **212°F**

Santoprene (SP)

- FDA approved material
- maximum temperature: **302°F**

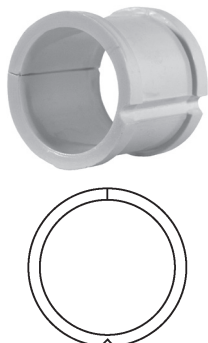


Tube OD	Dimensions			<i>Polypropylene Block</i>	<i>Santoprene Block</i>
	A	B	C	Part #	Part #
1/2"	1.880	1.380	1.190	B24PPSTW-G50	B24SPSTW-G50
3/4"	1.880	1.380	1.190	B24PPSTW-G75	B24SPSTW-G75
1"	3.340	2.630	1.190	B24PPSTW-G100	B24SPSTW-G100
1 1/2"	3.340	2.630	1.190	B24PPSTW-G150	B24SPSTW-G150
2"	3.340	2.630	1.190	B24PPSTW-G200	B24SPSTW-G200
2 1/2"	5.000	4.380	1.190	B24PPSTW-G250	B24SPSTW-G250
3"	5.000	4.380	1.190	B24PPSTW-G300	B24SPSTW-G300
4"	5.770	4.800	1.190	B24PPSTW-G400	B24SPSTW-G400



ABS Sleeves - 13PS

- maximum temperature: **230°F**

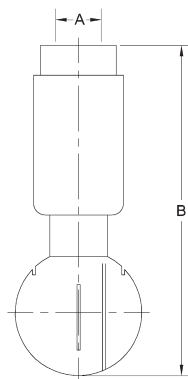


Size	Part #	Size	Part #
1/2"	13PS-50	2 1/2"	13PS-250
3/4"	13PS-75	3"	13PS-300
1"	13PS-100	4"	13PS-400
1 1/2"	13PS-150	6"	13PS-600
2"	13PS-200	8"	13PS-800

Spray Balls

Rotating

- 304 stainless steel
- stainless steel ball bearings to eliminate rust
- ideal for cleaning all types of tanks and vessels
- cleaning solution used to lubricate unit
- connections available: clamp and NPT
- mirror-like finish (ID/OD)

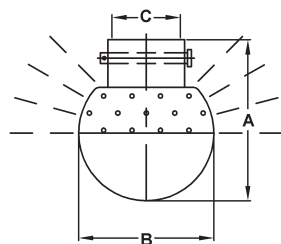


Size	Type	Spray Pattern	Dimensions		304 stainless steel Part #
			A	B	
¾"	NPT	360°	¾" NPT	5.46	SRH360NPT-G075

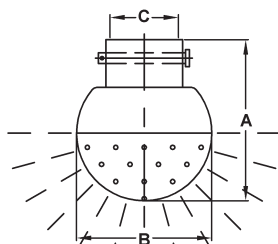
Fixed

- R = 316L stainless steel
- G = 304 stainless steel
- heavy stainless steel construction for longer life
- various spray patterns available, (blanks available as special order)

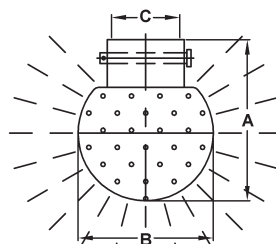
- stationary - designed to be mounted to a tube or pipe
- typical uses are in food and beverage industries for cleaning storage tanks



180° Bottom Pattern



180° Top Pattern



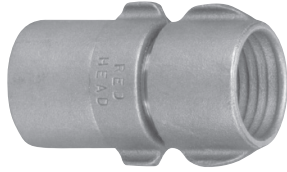
360° Pattern



Size	Spray Pattern	Dimensions			Part #
		A	B	C	
1"	360°	3.04	2.45	1.005	STC-360-R100
1½"	360°	3.54	2.95	1.505	STC-360-R150
1"	180° bottom	3.54	2.95	1.005	STC-180B-G100
1½"	180° bottom	3.54	2.95	1.505	STC-180B-G150
1"	180° top	3.54	2.95	1.005	STC-180T-G100
1½"	180° top	3.54	2.95	1.505	STC-180T-G150

Expansion Ring Fire Hose Couplings

Complete Set - Brass



Brass Rocker Lug

Rack Hose
(No Lugs on Male)

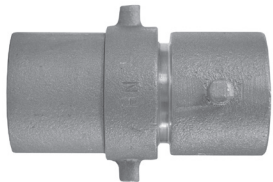
Size	Thread	Bowl	Part #
1½"	NPSH	1-11/16"	RRH15168
1½"	NST (NH)	1-11/16"	RRH15168F

Single Jacket

Size	Thread	Bowl	Part #
1½"	NPSH	1-3/4"	RS15175
1½"	NPSH	1-11/16"	RS15168
1½"	NPSH	1-13/16"	RS15181
2½"	NPSH	2-13/16"	RS25281
1½"	NST (NH)	1-3/4"	RS15175F
1½"	NST (NH)	1-11/16"	RS15168F
1½"	NST (NH)	1-13/16"	RS15181F
2½"	NST (NH)	2-13/16"	RS25281F

Double Jacket

Size	Thread	Bowl	Part #
1½"	NPSH	1-15/16"	RD15193
1½"	NPSH	2-1/16"	RD15206
2½"	NPSH	3"	RD253
1½"	NST (NH)	1-15/16"	RD15193F
1½"	NST (NH)	2-1/16"	RD15206F
2½"	NST (NH)	3"	RD253F



Brass Pin Lug

Single Jacket

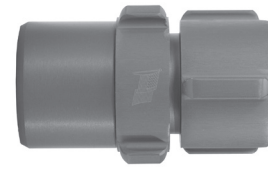
Size	Thread	Bowl	Part #
1½"	NPSH	1-3/4"	S15175
1½"	NPSH	1-13/16"	S15181
2½"	NPSH	2-13/16"	S25281
1½"	NST (NH)	1-3/4"	S15175F
1½"	NST (NH)	1-13/16"	S15181F
2½"	NST (NH)	2-13/16"	S25281F

Double Jacket

Size	Thread	Bowl	Part #
1½"	NPSH	1-15/16"	D15193
2½"	NPSH	3"	D253
1½"	NST (NH)	1-15/16"	D15193F
2½"	NST (NH)	3"	D253F

For females only, use 2/3 set price. For males only, use 1/2 set price. Both shipped from the factory only.

Complete Set - Hardcoated finish



Aluminum Rocker Lug **

- Special tooling is required to attach these couplings to hose (see page 412 machine)
- All couplings come complete with expansion rings, swivel and tail washers.

** 3 rocker lugs on male and female

Single Jacket

Size	Thread	Bowl	Part #
1"	NPSH	1-1/4"	S10125
1½"	NPSH	1-3/4"	S16175
1½"	NPSH	1-11/16"	S16168
1½"	NPSH	1-13/16"	S16181
2"	NPSH	2-1/4"	S20225
2"	NPSH	2-3/8"	S20375
2½"	NPSH	2-13/16"	S26281
1½"	NST (NH)	1-11/16"	S16168F
1½"	NST (NH)	1-3/4"	S16175F
1½"	NST (NH)	1-13/16"	S16181F
2½"	NST (NH)	2-11/16"	S26268F
2½"	NST (NH)	2-13/16"	S26281F

Double Jacket

Size	Thread	Bowl	Part #
1½"	NPSH	1-13/16"	D16181
1½"	NPSH	1-15/16"	D16193
1½"	NPSH	2-1/16"	D16206
2½"	NPSH	3"	D263
1½"	NST (NH)	1-13/16"	D16181F
1½"	NST (NH)	1-15/16"	D16193F
1½"	NST (NH)	2-1/16"	D16206F
2½"	NST (NH)	2-7/8"	D26287F
2½"	NST (NH)	3"	D263F

Fire Hose Coupling Washers

Swivel Washers

- Buna-N



ID	OD	Thickness	Part #
1-1/16"	1-7/16"	1/8"	SW100F
1-9/16"	2-1/16"	1/8"	SW150
2-9/16"	3-3/16"	3/16"	SW250
3-1/16"	3-3/4"	1/4"	SW300F
4-1/6"	5-1/8"	1/4"	SW400F
4-9/16"	5-7/8"	1/4"	SW450F
5-3/32"	6-13/32"	1/4"	SW500F
6-1/16"	7-1/8"	1/4"	SW600F

Tail Washers

- Buna-N



ID	OD	Thickness	Part #
1-9/16"	1-3/4"	3/16"	RTW150
1-9/16"	1-15/16"	3/16"	STW150
1-5/8"	2-1/8"	3/16"	DTW150
2-9/16"	3"	1/4"	STW250
2-5/8"	3-1/4"	1/4"	DTW250

Expansion Rings

- 85/15 red brass



OD	Length	Part #
1"	1-1/4"	ER10125
1-1/2"	3/4"	ER1575
1-1/2"	7/8"	ER1587
1-1/2"	1"	ER1510
1-1/2"	1-1/4"	ER15125
1-3/4"	1-1/4"	ER17125
2-7/16"	1-1/4"	ER27125
2-7/16"	1-1/2"	ER27150
3"	2"	ER3020

Style Brute X-Pander

Compact Hand Pump



- designed for forestry service, fire departments, small distributors and ski areas
- All-in-one design means fewer parts and no hydraulic connections making the X-Pander reliable and service free.
- may be used to attached 1" through 3" couplings
- ideal for in-house use or mounted in a service van for field repairs
- size: 13" wide x 17" deep x 10" high
- weight: 45 lbs.

Part #

BruteXpander

Note: Brute expanders *do not* include any expansion unit assemblies. They must be ordered separately.

NEW

Expansion Unit Assemblies

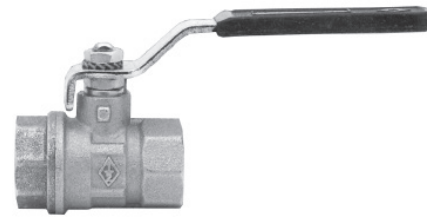


Description	Part #
1 1/2"	16154
2 1/2" (Storz also)	16171

For a complete list of all available expansion units and sizes contact the factory for assistance.

Imported Brass Ball Valves

- For control of air, water, oil and gas in hose or pipe lines.
For other services, please contact the factory.
- rated to **600 PSI WOG; 150 PSI WSP**
- forged brass bodies
- blow-out proof stems
- PTFE seats, seals and thrust washers
- chrome-plated brass balls and plated steel handles
- maximum temperature **366°**



female NPT x female NPT

Size	Port Type	Brass Part #
1/4"	full	FBV25
3/8"	full	FBV38
1/2"	full	FBV50
3/4"	full	FBV75
1"	full	FBV100
1 1/4"	full	FBV125
1 1/2"	full	FBV150
2"	full	FBV200

female NPT x female NPT

Size	Port Type	Brass Part #
2 1/2"	full	FBV250
3"	full	FBV300
4"	full	FBV400

female NPT x female NPT

Size	Port Type	Brass Part #
1/2"	standard	BV50
3/4"	standard	BV75
1"	standard	BV100
1 1/4"	standard	BV125
1 1/2"	standard	BV150
2"	standard	BV200

- For control of air, water, oil and gas in hose or pipe lines.
For other services, please contact the factory.
- rated to **600 PSI WOG; 150 PSI WSP**
- forged brass bodies
- blow-out proof stems
- PTFE seats, seals and thrust washers
- chrome-plated brass balls and plated steel handles
- maximum temperature **366°F**

female NPT x female NPT

Size	Port Type	Brass Part #
1/2"	full	FBVI50
3/4"	full	FBVI75
1"	full	FBVI100
1 1/4"	full	FBVI125
1 1/2"	full	FBVI150
2"	full	FBVI200

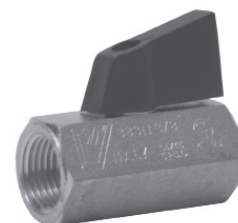
- For control of air, water, oil and gas in hose or pipe lines.
For other services, please contact the factory.
- rated to **600 PSI WOG; 150 PSI WSP**
- blow-out proof stems
- PTFE seats, double O-ring stem packing
- chrome-plated brass ball
- maximum temperature **366°F**
- Underwriters approved

Mini Ball Valves

- rated to **150 PSI**
- nickel plated brass body
- Teflon® seats and Buna-N stem seal
- blow-out proof stem
- maximum temperature **150°F**

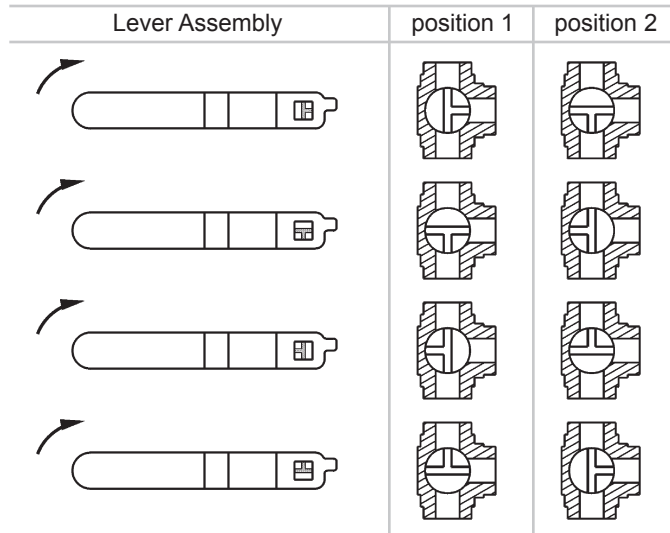
female NPT x female NPT

Size	Port Type	Brass Part #
1/8"	standard	MBV12
1/4"	full	MBV25
3/8"	full	MBV38
1/2"	standard	MBV50



3-Way Diverting Ball Valves

T Flow Pattern



- rated to **400 PSI** WOG;
100 PSI saturated steam
- brass body
- blow-out proof stem
- chrome plated brass ball
- PTFE seats, seals, and thrust washer
- adjustable stem packing
- maximum temperature: **320°F**

female NPT x female NPT x female NPT

Size	Port Type	Brass Part #
1/2"	standard	BBV50DTW
3/4"	standard	BBV75DTW
1"	standard	BBV100DTW
1 1/4"	standard	BBV125DTW
1 1/2"	standard	BBV150DTW
2"	standard	BBV200DTW

Note: 1/4 turn handle can be adjusted to any orientation.
Notches on the valve stem reflect the three openings on the ball.

3-Way Diversion Ball Valves

L Flow Pattern

- can be used with gasoline and diesel fuel
- rated to **400 PSI** WOG
- bronze body
- blow-out proof stem
- chromium-plated ball
- RPTFE seats and stuffing box ring
- stainless steel handle and nut with vinyl sleeve
- adjustable packing gland

female NPT x female NPT x female NPT

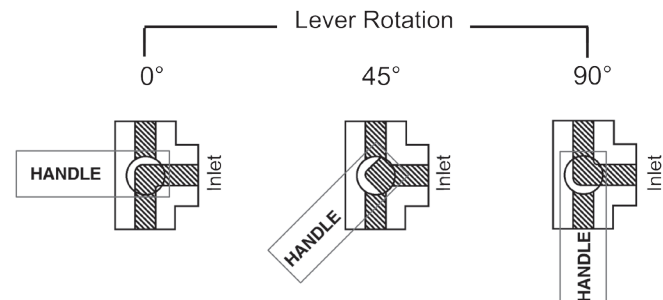
Size	Port Type	Brass Part #
1/2"	full	BBV50TW
3/4"	standard	BBV75TW
1"	standard	BBV100TW



- rated to **800 PSI** WOG
- stainless steel body and ball
- blow-out proof stem
- RPTFE seats and stuffing box ring
- stainless steel handle and nut with vinyl sleeve
- adjustable packing gland
- meets NACE MR-01-75

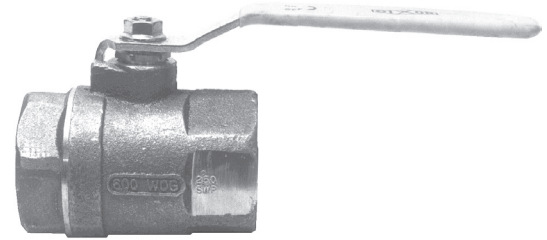
female NPT x female NPT x female NPT

Size	Port Type	Stainless Steel Part #
1/2"	full	SSBV50TW
3/4"	standard	SSBV75TW
1"	standard	SSBV100TW



250 Lb. Steam Ball Valves

- recommended for use with fluids with widely varying temperatures and/or thermal expansion rates
- rated to **600 PSIG; 250 PSI** saturated steam
- vacuum service to 29 inches Hg
- threaded bronze valve
- 316 stainless steel ball and stem
- multi-fill RPTFE seats
- multi-fill stuffing box ring
- high temperature MTFE stem packing
- blow-out proof stem design
- adjustable packing gland
- maximum temperature rating **406°F**



female NPT x female NPT

Size	Port Type	Bronze Part #
1/2"	full	BBV50ST
3/4"	standard	BBV75ST
1"	standard	BBV100ST
2"	standard	BBV200ST

Carbon Steel Ball Valves

- for control of air, water, oil and gas in hose or pipe lines, for other services, please contact the factory
- rated to **150 PSI** saturated steam
- 1/4" - 1" rated to **2000 PSI**; 1 1/4" - 2" rated to **1500 PSI**
- carbon steel body
- chromium plated ball
- RPTFE seats and seals
- blow-out proof stem
- adjustable packing gland



female NPT x female NPT

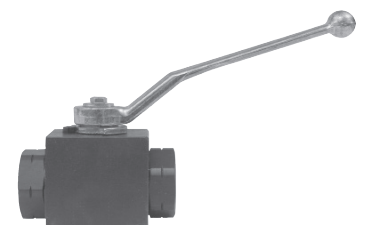
Size	Port Type	Carbon Steel Part #
1/4"	full	IBV25
3/8"	full	IBV38
1/2"	standard	IBV50
3/4"	standard	IBV75
1"	standard	IBV100
1-1/4"	standard	IBV125
1-1/2"	standard	IBV150
2"	standard	IBV200

High Pressure Full-Bore Ball Valves

- blow out proof stem
- rugged construction
- Viton® shaft seals
- female thread

female x female

Size	PSI	Carbon Steel		PSI	Stainless Steel
		NPTF Part #	SAE Part #		
1/4"	7350	HPBV25	HPBV25SAE	7250	HPBV25SS
3/8"	7350	HPBV38	HPBV38SAE	7250	HPBV38SS
1/2"	7350	HPBV12	HPBV12SAE	7250	HPBV12SS
3/4"	5880	HPBV34	HPBV34SAE	5800	HPBV34SS
1"	5145	HPBV10	HPBV10SAE	5075	HPBV10SS
1 1/4"	5880	HPBV125	HPBV125SAE	---	---
1 1/2"	5880	HPBV150	HPBV150SAE	---	---
2"	5880	HPBV200	HPBV200SAE	---	---



Stainless Steel Ball Valves

CAM & Groove

Tank Truck

Boss

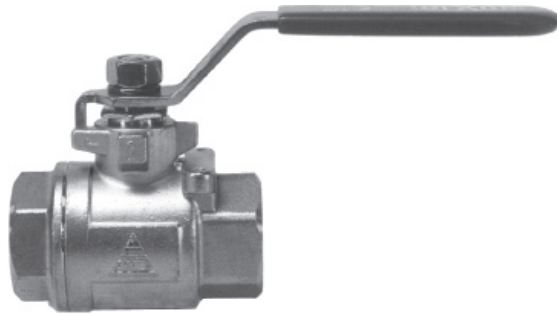
Air

Shank

Brass

Clamp

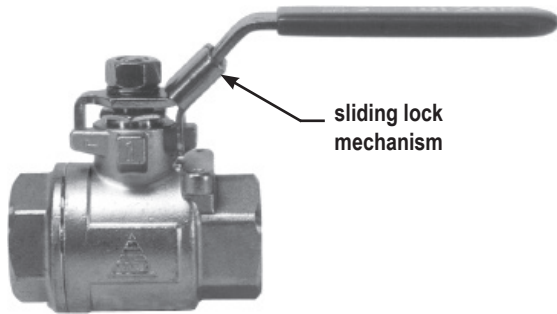
- for use in water, oil and gas
- 1/4" - 2" rated to **1000 PSI WOG** (CWP); 2 1/2" - 3" rated to **800 PSI WOG** (CWP); **100 PSI** saturated steam
- 316 stainless steel body, ball and stem
- Teflon® seat, joint gasket and thrust washer
- plastic cover on handle
- blow-out proof stem design
- temperature range **-60°F to 450°F**



female NPT x female NPT

Size	Port Type	Stainless Steel Part #
1/4"	full	SSBV25
3/8"	full	SSBV38
1/2"	full	SSBV50
3/4"	full	SSBV75
1"	full	SSBV100
1-1/4"	full	SSBV125
1-1/2"	full	SSBV150
2"	full	SSBV200
2-1/2"	full	SSBV250
3"	full	SSBV300

- for use in water, oil and gas
- rated to **1000 PSI WOG**; **100 PSI** saturated steam
- 316 stainless steel body, ball and stem
- Teflon® seat, joint gasket and thrust washer
- plastic cover on handle
- blow-out proof stem design
- temperature range **-60°F to 450°F**
- lockable

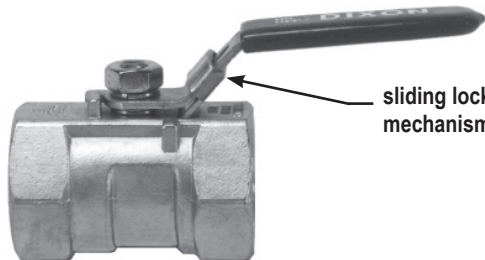


sliding lock mechanism

female NPT x female NPT

Size	Port Type	316 Stainless Steel Part #
1/4"	full	SSLBV25
3/8"	full	SSLBV38
1/2"	full	SSLBV50
3/4"	full	SSLBV75
1"	full	SSLBV100
1-1/4"	full	SSLBV125
1-1/2"	full	SSLBV150
2"	full	SSLBV200

- for use in water, oil and gas
- rated to **800 PSI WOG**; **100 PSI** saturated steam
- 316 stainless steel body, ball and stem
- Teflon® seat, joint gasket and thrust washer
- plastic cover on handle
- blow-out proof stem design
- temperature range **-60°F to 450°F**
- lockable



sliding lock mechanism

female NPT x female NPT

Size	Port Type	316 Stainless Steel Part #
1/4"	reduced	SSLBV25SP
3/8"	reduced	SSLBV38SP
1/2"	reduced	SSLBV50SP
3/4"	reduced	SSLBV75SP
1"	reduced	SSLBV100SP
1-1/4"	reduced	SSLBV125SP
1-1/2"	reduced	SSLBV150SP
2"	reduced	SSLBV200SP

Stainless Steel Ball Valves

- for use in water, oil and gas
- 1/4" - 1" rated to **2000 PSI** (CWP);
1 1/4" - 2" rated to **1500 PSI** (CWP)
- body conforms to ASTM A-351 Grade CF8M
- ball is 316 stainless steel
- PTFE, glass-filled seat
- blow-out proof stem design

female NPT x female NPT

Size	Port Type	Stainless Steel Part #
1/4"	reduced	SSBV25RP
3/8"	reduced	SSBV38RP
1/2"	reduced	SSBV50RP
3/4"	reduced	SSBV75RP
1"	reduced	SSBV100RP
1-1/4"	reduced	SSBV125RP
1-1/2"	reduced	SSBV150RP
2"	reduced	SSBV200RP

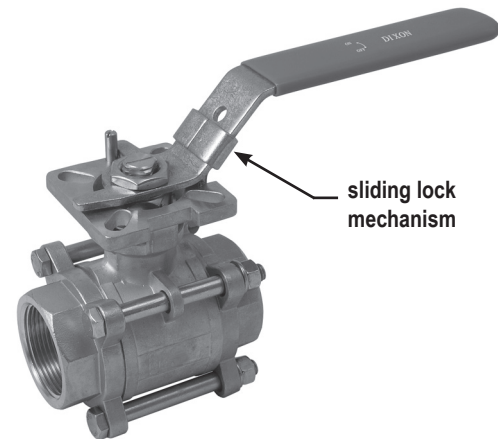


3-Piece Stainless Steel Ball Valves

- 15% glass reinforced RTFE seats
- swing-out design for easy maintenance
- ISO 5211 mounting pad
- 316 stainless steel stem
- CF8M body and ball
- spring loaded stem packing using Belleville washers
- temperature range: **-40°F to 400°F**

female NPT x female NPT x female NPT

Size	Port Type	PSI @ 65°F	Body Length	Stainless Steel Part #
1/2"	full	1000	2.5"	3SSBV50
3/4"	full	1000	2.9"	3SSBV75
1"	full	1000	3.2"	3SSBV100
1 1/4"	full	1000	3.7"	3SSBV125
1 1/2"	full	1000	4.3"	3SSBV150
2"	full	1000	4.8"	3SSBV200
2 1/2"	full	800	6.2"	3SSBV250
3"	full	800	7.5"	3SSBV300
4"	full	600	8.9"	3SSBV400



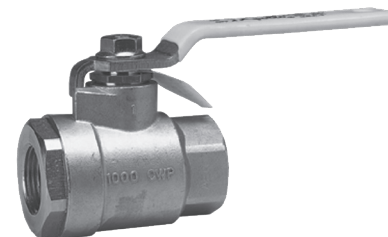
2-Piece 316 Stainless Steel Domestic Ball Valves



- rated to **1,000 PSI** CWP
- rated to **150 PSI** saturated steam
- vacuum service to 29 inches Hg
- 316 stainless body, ball and stem
- PTFE seals
- blow-out proof stem
- vinyl handle cover

female NPT x female NPT

Size	Port Type	316 Stainless Steel Part #
1/4"	full	DSBV25
3/8"	full	DSBV38
1/2"	full	DSBV50
3/4"	full	DSBV75
1"	full	DSBV100
1 1/4"	full	DSBV125
1 1/2"	full	DSBV150
2"	full	DSBV200



Notched Turned Back Nipples

- When used with an appropriate notched ferrule, these fittings can be swaged or crimped onto hose, thereby providing improved shank retention.
- The stem can be removed from a damaged hose by cutting away the ferrule, without necessarily damaging the fitting. *After inspection to determine its suitability for reuse, it can be reinstalled into another hose by using a new ferrule.*
- When used with double bolt or band clamps, notched turned back nipples will provide shank retention similar to that of the King turned back nipples.
- Notched turned back nipples let you use the same ferrules used with the notched (NO) cam and groove. This lets you maximize your inventory usage and reduce costs.
- Stems are for use with lap joint flanges on page 195.

SAFETY
ALERT



Size	Carbon Steel Part #	316 Stainless Steel Part #
1½"	N150NO	RN150NO
2"	N200NO	RN200NO
3"	N300NO	RN300NO
4"	N400NO	RN400NO

* Special pushers required: 1½" stem - RN150NOPUSH
2" stem - RN200NOPUSH
3" stem - RN300NOPUSH
4" stem - RN400NOPUSH

Notched Ferrules for Notched Turned Back Nipples



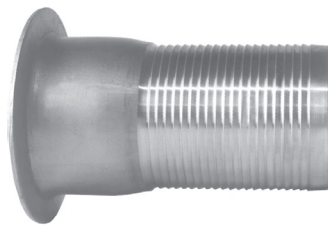
Hose ID	Hose O.D.		304 Stainless Steel Part #
	from	to	
1½"	1-60/64"	2-12/64"	GAS2334NO
	2-4/64"	2-22/64"	GAS2370NO
2"	2-30/64"	2-44/64"	GAS2709NO
	2-42/64"	2-54/64"	GAS2885NO
3"	3-30/64"	3-46/64"	GAS3760NO
	3-47/64"	3-54/64"	GAS3885NO
4"	4-40/64"	4-47/64"	GAS5010NO

SAFETY
ALERT

Dixon stems and ferrules are specifically designed to be used together as a coupling system. Due to differences in dimensions and tolerances for safety reasons, do not use other manufacturer's stems or ferrules with Dixon Holedall products.

King Turned Back Hose Nipples for Floating Flanges

- A turned back nipple, when used in a floating flange assembly, allows the flange to be aligned without stressing (twisting) the hose. This generally increases the hose's service life by eliminating a common cause of premature hose failure.
- For use with Lap Joint flanges shown on page 195



Size	Plated Carbon Steel Part #	316 Stainless Steel Part #
¾"	N5¹	---
1"	N10	RN10
1¼"	N15	RN15
1½"	N20	RN20
2"	N25	RN25
2½"	N30	RN30
3"	N35	RN35
4"	N40	RN40
6"	N60	RN60
8"	N80	RN80
10"	N100	RN100
12"	N120	RN120

¹ Will be deleted as inventory is depleted

King Turned Back Weld-To-Metal Hose Nipples

- MSS Type C
- For use with Slip-On and Lap Joint flanges shown on page 195.

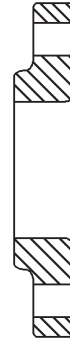


Size	Length	Phono-Finish Face Schedule 40	Phono-Finish Face Schedule 10	Smooth Face Schedule 10
		Plated Carbon Steel Part #	304 Stainless Steel Part #	304 Stainless Steel Part #
¾"	2"	NW5	GNW5	GNWP5
1"	2"	NW10	GNW10	GNWP10
1¼"	2"	NW15	GNW15	GNWP15
1½"	2"	NW20	GNW20	GNWP20
2"	2½"	NW25	GNW25	GNWP25
2½"	2½"	NW30	GNW30	GNWP30
3"	2½"	NW35	GNW35	GNWP35
4"	3"	NW40	GNW40	GNWP40
6"	3½"	NW60	GNW60	GNWP60
8"	4"	NW80	GNW80	GNWP80
10"	5"	NW100	GNW100	GNWP100
12"	6"	NW120	GNW120	GNWP120

150 LB. ASA Forged Flanges Lap-Joint

Size	Carbon Steel Part #
1"	LJ100
1¼"	LJ125
1½"	LJ150
2"	LJ200
2½"	LJ250
3"	LJ300
4"	LJ400
5"	LJ500
6"	LJ600
8"	LJ800
10"	LJ1000
12"	LJ1200

- raised shoulder with no raised face
- The lap joint flange is commonly called a Van Stone or a floating flange.



Slip-On

Size	Carbon Steel	Stainless Steel
	Part #	Part #
1"	SO100	---
1¼"	SO125	---
1½"	SO150	SOR150
2"	SO200	SOR200
2½"	SO250	---
3"	SO300	SOR300
4"	SO400	SOR400
5"	SO500	---
6"	SO600	SOR600
8"	SO800	---
10"	SO1000	---
12"	SO1200	---

- square shoulder with raised face



NPT Threaded

Size	Carbon Steel	Stainless Steel
	Part #	Part #
1"	IPD100FLA/T100	---
1¼"	IPD125FLA/T125	---
1½"	IPD150FLA/T150	TR150
2"	IPD200FLA/T200	TR200
2½"	IPD250FLA/T250	---
3"	IPD300FLA/T300	TR300
4"	IPD400FLA/T400	TR400
5"	IPD500FLA/T500	---
6"	IPD600FLA/T600	TR600
8"	IPD800FLA/T800	---
10"	IPD1000FLA/T1000	---
12"	IPD1200FLA/T1200	---



Gaskets

Size	Neoprene	Klingsil® C-4401
	Part #	Part #
1"	NG10	AG10
1¼"	NG15	AG15
1½"	NG20	AG20
2"	NG25	AG25
2½"	NG30	AG30
3"	NG35	AG35
4"	NG40	AG40
5"	NG50	---
6"	NG60	AG60
8"	NG80	AG80

- standard drop-ring type all 1/16" thick

NPT Threaded Reducer Hex Bushings



Male NPT	Female NPT	50# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/4"	1/8"	HB2518	HB2518G	HB2518SS	HB2518FS	---
3/8"	1/8"	HB3818	---	---	---	---
3/8"	1/4"	HB3825	HB3825G	HB3825SS	HB3825FS	---
1/2"	1/8"	HB5018	---	---	---	---
1/2"	1/4"	HB5025	HB5025G	HB5025SS	HB5025FS	---
1/2"	3/8"	HB5038	HB5038G	HB5038SS	HB5038FS	---
3/4"	1/8"	HB7518	---	---	---	---
3/4"	1/4"	HB7525	HB7525G	HB7525SS	HB7525FS	---
3/4"	3/8"	HB7538	HB7538G	HB7538SS	HB7538FS	---
3/4"	1/2"	HB7550	HB7550G	HB7550SS	HB7550FS	---
1"	1/8"	HB1018	---	---	---	---
1"	1/4"	HB1025	HB1025G	HB1025SS	HB1025FS	---
1"	3/8"	HB1038	HB1038G	HB1038SS	HB1038FS	---
1"	1/2"	HB1050	HB1050G	HB1050SS	HB1050FS	---
1"	3/4"	HB1075	HB1075G	HB1075SS	HB1075FS	---
1-1/4"	1/2"	HB1250	---	---	---	---
1-1/4"	3/4"	HB1275	---	HB1275SS	HB1275FS	---
1-1/4"	1"	HB1210	HB1210G	HB1210SS	HB1210FS	HB1210B
1-1/2"	1/2"	HB1550	---	---	---	---
1-1/2"	3/4"	HB1575	HB1575G	HB1575SS	HB1575FS	HB1575B
1-1/2"	1"	HB1510	HB1510G	HB1510SS	HB1510FS	HB1510B
1-1/2"	1-1/4"	HB1512	HB1512G	HB1512SS	HB1512FS	HB1512B
2"	1/2"	HB2050	HB2050G	---	---	HB2050B
2"	3/4"	HB2075	HB2075G	HB2075SS	HB2075FS	HB2075B
2"	1"	HB2010	HB2010G	HB2010SS	HB2010FS	HB2010B
2"	1-1/4"	HB2012	HB2012G	HB2012SS	HB2012FS	HB2012B
2"	1-1/2"	HB2015	HB2015G	HB2015SS	HB2015FS	HB2015B
2-1/2"	1-1/2"	HB2515	---	---	---	---
2-1/2"	2"	HB2520	HB2520G	HB2520SS	HB2520FS	---
3"	1"	HB3010	---	---	---	---
3"	1-1/2"	HB3015	---	---	---	---
3"	2"	HB3020	HB3020G	HB3020SS	HB3020FS	HB3020B
3"	2-1/2"	HB3025	---	HB3025SS	HB3025FS	HB3025B
4"	1"	HB4010	---	---	---	---
4"	1-1/2"	HB4015	---	---	---	---
4"	2"	HB4020	HB4020G	HB4020SS	---	HB4020B
4"	2-1/2"	HB4025	---	---	---	---
4"	3"	HB4030	HB4030G	HB4030SS	HB4030FS	HB4030B
5"	4"	HB5040	---	---	---	---
6"	3"	HB6030	---	---	---	---
6"	4"	HB6040	---	---	---	---

NPT Threaded Reducing Union



Female NPT	Female NPT	150# Iron Part #
3/4"	1/2"	MIRU7550

NPT Threaded Unions



- other sizes are also available
- 304 stainless steel fittings are also available, *consult the factory for pricing and availability*

NEW

Female NPT	300# Iron Part #	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	---	MIU18	---	--- TUN025SS	---	---
1/4"	---	MIU25	---	--- TUN050SS	---	TUN2F
3/8"	---	MIU38	TUN038G	TUN075SS	---	TUN3F
1/2"	300MIU50	MIU50	TUN050G	TUN100SS	TUN050FS	TUN4F
3/4"	300MIU75	MIU75	TUN075G	TUN125SS	TUN075FS	TUN5F
1"	300MIU100	MIU100	TUN100G	TUN150SS	TUN100FS	TUN6F
1-1/4"	---	MIU125	TUN125G	TUN200SS	---	TUN7F
1-1/2"	300MIU150	MIU150	TUN150G	---	TUN150FS	TUN8F
2"	---	MIU200	TUN200G	---	TUN200FS	TUN9F
2-1/2"	---	MIU250	---	---	---	---
3"	300MIU300	MIU300	---	---	---	---
4"	---	MIU400	---	---	---	---

NPT Threaded Unions

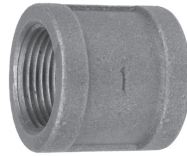


- other sizes are also available
- 304 stainless steel fittings are also available, *consult the factory for pricing and availability*

NEW

Female NPT	Female NPT	300# Iron Part #	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/4"	1/8"	---	BR1418	---	---	---	---
3/8"	1/8"	---	BR3818	---	---	---	---
3/8"	1/4"	---	BR3825	---	BR3825SS	---	---
1/2"	1/4"	300BR5025	BR5025	BR5025G	BR5025SS	---	---
1/2"	3/8"	---	BR5038	BR5038G	BR5038SS	BR5038FS	BR5038B
3/4"	1/4"	---	BR7525	---	---	---	---
3/4"	3/8"	---	BR7538	---	BR7538SS	---	---
3/4"	1/2"	300BR7550	BR7550	BR7550G	BR7550SS	BR7550FS	BR7550B
1"	1/4"	---	BR1025	---	---	---	---
1"	3/8"	---	BR1038	---	---	---	---
1"	1/2"	---	BR1050	BR1050G	BR1050SS	---	---
1"	3/4"	300BR1075	BR1075	BR1075G	BR1075SS	BR1075FS	BR1075B
1-1/4"	1/2"	---	BR1250	---	---	---	---
1-1/4"	3/4"	---	BR1275	---	---	---	---
1-1/4"	1"	300BR1210	BR1210	BR1210G	BR1210SS	---	BR1210B
1-1/2"	3/4"	---	BR1575	---	---	---	BR1575B
1-1/2"	1"	300BR1510	BR1510	BR1510G	BR1510SS	BR1510FS	BR1510B
1-1/2"	1-1/4"	300BR1512	BR1512	BR1512G	BR1512SS	BR1512FS	---
2"	3/4"	---	BR2075	---	---	---	---
2"	1"	300BR2010	BR2010	BR2010G	BR2010SS	BR2010FS	BR2010B
2"	1-1/4"	300BR2012	BR2012	---	---	---	---
2"	1-1/2"	300BR2015	BR2015	BR2015G	BR2015SS	BR2015FS	BR2015B
2-1/2"	1"	---	BR2510	---	---	---	---
2-1/2"	1-1/2"	---	BR2515	---	---	---	---
2-1/2"	2"	---	BR2520	BR2520G	---	---	---
3"	1"	---	BR3010	---	---	---	---
3"	1-1/4"	---	BR3012	---	---	---	---
3"	1-1/2"	---	BR3015	---	---	---	---
3"	2"	---	BR3020	BR3020G	BR3020SS	---	BR3020B
3"	2-1/2"	---	BR3025	BR3025G	---	---	---
4"	1"	---	BR4010	---	---	---	---
4"	1-1/2"	---	BR4015	---	---	---	---
4"	2"	---	BR4020	---	---	---	---
4"	2-1/2"	---	BR4025	---	---	---	---
4"	3"	---	BR4030	BR4030G	---	---	BR4030B
6"	3"	---	BR6030	---	---	---	---
6"	4"	---	BR6040	---	---	---	---

NPT Threaded Couplings Both Ends



NEW

Female NPT	300# Iron Part #	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	---	RHC18	RHC18G	---	---	---
1/4"	300RHC25	RHC25	RHC25G	RHC25SS	RHC25FS	RHC25B
3/8"	300RHC38	RHC38	RHC38G	RHC38SS	RHC38FS	RHC38B
1/2"	300RHC50	RHC50	RHC50G	RHC50SS	RHC50FS	RHC50B
3/4"	300RHC75	RHC75	RHC75G	RHC75SS	RHC75FS	RHC75B
1"	300RHC100	RHC100	RHC100G	RHC100SS	RHC100FS	RHC100B
1-1/4"	300RHC125	RHC125	RHC125G	RHC125SS	RHC125FS	RHC125B
1-1/2"	300RHC150	RHC150	RHC150G	RHC150SS	RHC150FS	RHC150B
2"	300RHC200	RHC200	RHC200G	RHC200SS	RHC200FS	RHC200B
2-1/2"	---	RHC250	---	---	---	---
3"	---	RHC300	RHC300G	RHC300SS	---	---
4"	---	RHC400	RHC400G	RHC400SS	---	---
5"	---	RHC500	---	---	---	---
6"	---	RHC600	---	---	---	---

NPT Threaded 90° Threaded Elbows



- other sizes are also available
- 304 stainless steel fittings are also available, consult the factory for pricing and availability

NEW

Female NPT	300# Iron Part #	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	---	EL9018	EL9018G	EL9018SS	---	---
1/4"	300EL9025	EL9025	EL9025G	EL9025SS	EL9025FS	---
3/8"	300EL9038	EL9038	EL9038G	EL9038SS	EL9038FS	---
1/2"	300EL9050	EL9050	EL9050G	EL9050SS	EL9050FS	---
3/4"	300EL9075	EL9075	EL9075G	EL9075SS	EL9075FS	---
1"	300EL90100	EL90100	EL90100G	EL90100SS	EL90100FS	EL90100B
1-1/4"	300EL90125	EL90125	EL90125G	EL90125SS	EL90125FS	---
1-1/2"	300EL90150	EL90150	EL90150G	EL90150SS	EL90150FS	EL90150B
2"	300EL90200	EL90200	EL90200G	EL90200SS	EL90200FS	EL90200B
2-1/2"	---	EL90250	---	---	---	---
3"	---	EL90300	EL90300G	EL90300SS	---	---
4"	---	EL90400	EL90400G	EL90400SS	---	---
5"	---	EL90500	---	---	---	---
6"	---	EL90600	---	---	---	---

NPT Threaded 45° Threaded Elbows

Female NPT	150# Iron Part #
1/8"	EL4518
1/4"	EL4525
3/8"	EL4538
1/2"	EL4550
3/4"	EL4575
1"	EL45100
1-1/4"	EL45125
1-1/2"	EL45150
2"	EL45200
2-1/2"	EL45250
3"	EL45300
4"	EL45400
5"	EL45500
6"	EL45600



NPT Threaded Side Outlet Elbows

Female NPT	150# Iron Part #
1/8"	SOE18
1/4"	SOE25
3/8"	SOE38
1/2"	SOE50
3/4"	SOE75
1"	SOE100
1-1/4"	SOE120
1-1/2"	SOE150
2"	SOE200



NPT Threaded Reducing Elbows

- other sizes are also available
- 304 stainless steel fittings are also available, *consult the factory for pricing and availability*

Female NPT	Female NPT	150# Iron Part #
1/4"	1/8"	REL2518
1/2"	1/4"	REL5025
1/2"	3/8"	REL5038
3/4"	1/2"	REL7550
1"	1/2"	REL1050
1"	3/4"	REL1075
1-1/4"	1"	REL1210
1-1/2"	1"	REL1510
1-1/2"	1-1/4"	REL1525
2"	1"	REL2010
2"	1-1/2"	REL2015
2-1/2"	2"	REL2520
3"	2"	REL3020
4"	2"	REL4020
4"	3"	REL4030

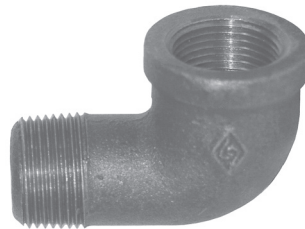


NPT Threaded 45° Street Elbows



Size	150# Iron Part #	Galvanized Part #
1/8"	SE4518	---
1/4"	SE4525	SE4525G
3/8"	SE4538	---
1/2"	SE4550	SE4550G
3/4"	SE4575	SE4575G
1"	SE45100	---
1-1/4"	SE45125	SE45125G
1-1/2"	SE45150	SE45150G
2"	SE45200	SE45200G
2-1/2"	SE45250	SE45250G
3"	SE45300	SE45300G
4"	SE45400	SE45400G

NPT Threaded 90° Street Elbows



- other sizes are also available
- 304 stainless steel fittings are also available, consult the factory for pricing and availability

Size	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	SE9018	SE9018G	SE9018SS	---	---
1/4"	SE9025	SE9025G	SE9025SS	SE9025FS	---
3/8"	SE9038	SE9038G	SE9038SS	SE9038FS	---
1/2"	SE9050	SE9050G	SE9050SS	SE9050FS	---
3/4"	SE9075	SE9075G	SE9075SS	SE9075FS	SE9075B
1"	SE9010	SE9010G	SE9010SS	SE9010FS	SE9010B
1-1/4"	SE9012	SE9012G	SE9012SS	SE9012FS	SE9012B
1-1/2"	SE9015	SE9015G	SE9015SS	SE9015FS	SE9015B
2"	SE9020	SE9020G	SE9020SS	SE9020FS	SE9020B
2-1/2"	SE90250	---	---	---	---
3"	SE90300	SE9030G	---	---	---
4"	SE90400	---	---	---	---
6"	SE90600	---	---	---	---

NPT Threaded Female Reducing Tees



Female NPT	Female NPT	150# Iron Part #
3/8"	1/4"	FRT3825
1/2"	3/8"	FRT5038
3/4"	1/2"	FRT7550
1"	1/2"	FRT1050
1-1/4"	1"	FRT1210
1-1/2"	1"	FRT1510
2"	1"	FRT2010
2"	1-1/2"	FRT2015
3"	2"	FRT3020

NPT Threaded Female Tees

Female NPT	150# Iron Part #
1/2"	SOT50
3/4"	SOT75
1"	SOT100
1-1/4"	SOT120
1-1/2"	SOT150
2"	SOT200



NPT Threaded Street Service Tees

Female NPT	150# Iron Part #
1/2"	SST50
3/4"	SST75
1"	SST100
1-1/2"	SST150



NPT Threaded Female Tees



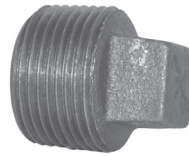
Female NPT	300# Iron Part #	316 Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	---	FT18	---	---	---	---
1/4"	300FT25	FT25	FT25G	FT25SS	FT25FS	---
3/8"	300FT38	FT38	FT38G	FT38SS	---	---
1/2"	300FT50	FT50	FT50G	FT50SS	FT50FS	---
3/4"	---	FT75	FT75G	FT75SS	FT75FS	FT75B
1"	300FT10	FT10	FT100G	FT100SS	FT100FS	FT10B
1-1/4"	300FT120	FT120	FT120G	FT120SS	FT120FS	---
1-1/2"	---	FT15	FT150G	FT150SS	FT150FS	FT15B
2"	---	FT200	FT200G	FT200SS	FT200FS	FT20B
2-1/2"	---	FT250	---	---	---	---
3"	---	FT30	FT300G	---	---	---
4"	---	FT40	FT400G	---	---	---
5"	---	FT500	---	---	---	---
6"	---	FT60	---	---	---	---



NPT Threaded Bull Head Tees

Female NPT	Female NPT	150# Iron Part #
1/2"	3/4"	BHT1575
1/2"	1"	BHT1510
3/4"	1"	BHT7510
1"	1-1/2"	BHT1015
1"	2"	BHT1020
1-1/2"	2"	BHT1520
2"	2-1/2"	BHT2025



NPT Threaded Square Head Plugs**NEW**

Male NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	SHP18	SHP18G	SHP18SS	---	---
1/4"	SHP14	SHP14G	SHP14SS	SHP14FS	---
3/8"	SHP38	SHP38G	SHP38SS	SHP38FS	---
1/2"	SHP50	SHP50G	SHP50SS	SHP50FS	SHP50B
3/4"	SHP75	SHP75G	SHP75SS	SHP75FS	SHP75B
1"	SHP100	SHP100G	SHP100SS	SHP100FS	SHP100B
1-1/4"	SHP125	SHP125G	SHP125SS	---	---
1-1/2"	SHP150	SHP150G	SHP150SS	SHP150FS	---
2"	SHP200	SHP200G	SHP200SS	---	---
2-1/2"	SHP250	SHP250G	SHP250SS	---	---
3"	SHP300	SHP300G	SHP300SS	SHP300FS	---
4"	SHP400	SHP400G	SHP400SS	---	---
5"	SHP500	---	---	---	---
6"	SHP600	SHP600G	---	---	---

NPT Threaded Crosses

Female NPT	150# Iron Part #
1/8"	MIC18
1/4"	MIC25
3/8"	MIC38
1/2"	MIC50
3/4"	MIC75
1"	MIC100
1-1/4"	MIC125
1-1/2"	MIC150
2"	MIC200
2-1/2"	MIC250
3"	MIC300
4"	MIC400

NPT Threaded Caps

- other sizes are also available
- 304 stainless steel fittings are also available, consult the factory for pricing and availability

**NEW**

Female NPT	Iron Part #	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #
1/8"	---	MICAP18	---	SSCAP18
1/4"	---	MICAP25	---	SSCAP25
3/8"	---	MICAP38	---	SSCAP38
1/2"	300MICAP50	MICAP50	MICAP50G	SSCAP50
3/4"	300MICAP75	MICAP75	MICAP75G	SSCAP75
1"	300MICAP100	MICAP100	---	SSCAP10
1-1/4"	300MICAP125	MICAP120	---	SSCAP12
1-1/2"	300MICAP150	MICAP150	---	SSCAP15
2"	300MICAP200	MICAP200	MICAP200G	SSCAP20
2-1/2"	---	MICAP250	---	---
3"	---	MICAP300	---	---
4"	---	MICAP400	---	---
5"	---	MICAP500	---	---
6"	---	MICAP600	---	---

Pipe Nipples

SAFETY
ALERT

Do not use pipe nipples as hose inserts.

SAFETY
ALERT

Threaded Both Ends

- made from schedule 40 welded pipe
- male NPT x male NPT design
- brass nipples are available on page 116
- other lengths are also available, consult factory for pricing



Male NPT	Overall Length	Carbon Steel Part #	316 Stainless Steel Part #
1/2"	2"	TN050X2	---
3/4"	2"	TN075X2	---
1"	2"	TN100X2	---
1 1/4"	2"	TN125X2	---
1 1/2"	2"	TN150X2	---
1/2"	3"	TN050X3	---
3/4"	3"	TN075X3	---
1"	3"	TN100X3	---
1 1/2"	3"	TN150x3	---
2"	3"	TN200X3	---
3"	3"	TN300X3	---
1/2"	4"	TN050X4	---
3/4"	4"	TN075X4	---
1"	4"	TN100X4	---
1 1/4"	4"	TN125X4	---
1 1/2"	4"	TN150X4	---
2"	4"	TN200X4	---
3"	4"	TN300X4	---
4"	4"	TN400X4	---
2"	5"	TN200X5	---
1/4"	6"	---	TN025X6SS
1/2"	6"	TN050X6	TN050X6SS
3/4"	6"	TN075X6	TN075X6SS
1"	6"	TN100X6	TN100X6SS
1 1/4"	6"	TN125X6	TN125X6SS
1 1/2"	6"	TN150X6	TN150X6SS
2"	6"	TN200X6	TN200X6SS
3"	6"	TN300X6	TN300X6SS
4"	6"	TN400X6	TN400X6SS
6"	6"	TN600X6	---
2"	8"	TN200X8	---
4"	8"	TN400X8	---
6"	8"	TN600X8	---

NEW

Merchant Couplings

- other sizes are also available



Female NPSM	Black Iron Part #
1/4"	MRCH25
3/8"	MRCH38
1/2"	MRCH50
3/4"	MRCH75
1"	MRCH100
1-1/4"	MRCH125
1-1/2"	MRCH150
2"	MRCH200
3"	MRCH300 ¹

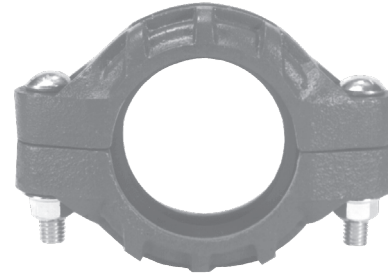
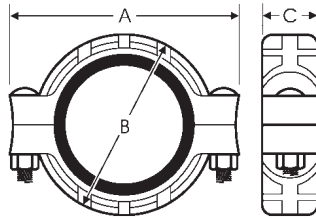
¹ 3" has NPT thread

Standard Couplings - Series S



Standard couplings are designed for a wide range of applications: commercial/industrial construction, mining, process piping, and many others. The housing design allows for optimum strength without excessive casting weight.

- ductile iron body with rust inhibiting paint.
- Underwriters Listed and Factory Mutual approved
- Interchangeable with:
Victaulic's #77
Grinnell's #7001



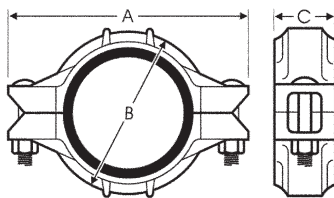
Nominal Size	Pipe OD	Max Working Pressure PSI	Max End Load Lbs.	Coupling Dimensions			Approx. Weight (lbs.)	Bolts			Ductile Iron w/ EPDM gasket	Ductile Iron w/ Buna-N gasket
				A	B	C		qty	size	length	Part #	Part #
1½"	1.900	1000	2835	4-9/16"	3-1/4"	1-3/4"	1.5	2	3/8"	2-1/4"	C115	C115BU
2"	2.375	1000	4430	5-3/8"	3-5/8"	1-3/4"	2.6	2	1/2"	2-1/2"	C12	C12BU
2½"	2.875	1000	6492	6-1/4"	4-1/4"	1-3/4"	3.4	2	1/2"	2-1/2"	C125	C125BU
3"	3.500	1000	9621	7"	5"	1-3/4"	4.2	2	1/2"	2-3/4"	C13	C13BU
4"	4.500	1000	15904	8-1/2"	6-3/8"	2-1/16"	6.0	2	5/8"	3-1/4"	C14	C14BU
6"	6.625	1000	34472	11-1/2"	8-7/8"	2-1/16"	10.8	2	3/4"	4-1/4"	C16	C16BU
8"	8.625	800	46741	14-1/4"	11-1/4"	2-3/8"	21.8	2	7/8"	5"	C18	C18BU
10"	10.750	800	72610	16"	13-1/2"	2-1/2"	24.2	2	7/8"	5-1/2"	C20	C20BU
12"	12.750	800	102141	18"	15-1/2"	2-1/2"	27.5	2	7/8"	6"	C24	C24BU

Lightweight Flexible Couplings - Series L



Lightweight flexible couplings are designed for applications requiring moderate internal pressure or where weight is a factor. Applications include; general purpose, mining, irrigation, and compressed air where a deflection of 5% or less is required.

- ductile iron body with rust inhibiting paint
- Underwriters Listed and Factory Mutual approved
- Interchangeable with:
Victaulic's #75
Grinnell's #7000

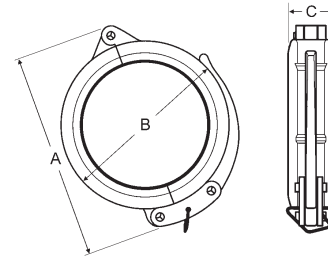
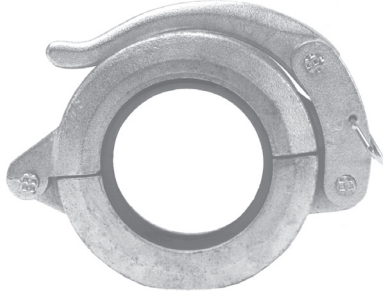


Nominal Size	Pipe OD	Max Working Pressure PSI	Max End Load Lbs.	Coupling Dimensions			Approx. Weight (lbs.)	Bolts			Ductile Iron w/ EPDM gasket	Ductile Iron w/ Buna-N gasket
				A	B	C		qty	size	length	Part #	Part #
1½"	1.900	500	1418	4-1/2"	2-7/8"	1-3/4"	1.5	2	3/8"	2-1/4"	L215	L215BU
2"	2.375	500	2215	5-5/32"	3-11/32"	1-3/4"	1.7	2	3/8"	1-7/8"	L02	L02BU
2½"	2.875	300	3246	5-25/32"	3-29/32"	1-3/4"	2.2	2	3/8"	2"	L025	L025BU
3"	3.500	300	4811	6-35/64"	4-3/8"	1-51/64"	2.8	2	1/2"	2-1/2"	L03	L03BU
4"	4.500	300	6362	8-3/64"	5-21/32"	1-15/16"	3.7	2	1/2"	2-3/4"	L04	L04BU
5"	5.563	300	9722	9-1/2"	6-3/4"	2"	5.7	2	5/8"	3-1/4"	L05	L05BU
6"	6.625	300	13789	10-53/64"	7-7/8"	2"	7.4	2	5/8"	3-1/4"	L06	L06BU
8"	8.625	300	20449	13-7/8"	10-13/64"	2-13/32"	12.8	2	3/4"	4-1/4"	L08	L08BU

Quick Release Couplings - Series Q

Quick release couplings are specially designed for applications requiring a quick connection and/or disconnection of a pipe joint. A locking pin through the handle prevents accidental opening of the coupling.

- ductile iron body with zinc plating and steel safety clip
- Interchangeable with:
Victaulic's #78
Grinnell's #7003



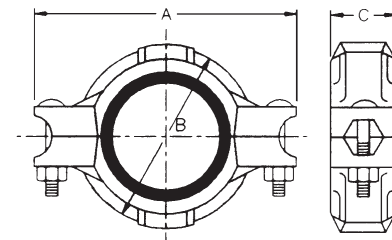
Nominal Size	Pipe OD	Max Working Pressure PSI	Max End Load Lbs.	Coupling Dimensions			Approx. Weight (lbs.)	Ductile Iron w/ EPDM gasket	Ductile Iron w/ Buna-N gasket
				A	B	C		Part #	Part #
1½"	1.900	300	850	4-3/4"	3-1/2"	1"	1.5	H315	H315BU
2"	2.375	300	1329	5-1/2"	3-3/4"	1-3/4"	2.5	H32	H32BU
2½"	2.875	300	2120	5-7/8"	4-3/4"	1-7/8"	4.0	H325	H325BU
3"	3.500	300	2886	7-1/4"	5-1/4"	1-3/4"	3.8	H33	H33BU
4"	4.500	300	4771	8-1/2"	6-1/2"	2"	6.0	H34	H34BU
6"	6.625	300	10341	10-5/8"	8-1/2"	2"	8.6	H36	H36BU



Rigid Couplings - Series R

This lightweight, low pressure, rigid style coupling is ideal for fire protection, plumbing, low pressure air and drainage. Small gripping teeth hold the housing into the groove allowing a straight run of pipe and preventing any flex at the joint.

- ductile iron body with rust inhibiting paint
- Underwriters Listed and Factory Mutual approved
- Interchangeable with:
Victaulic's #005
Grinnell's #7400



Nominal Size	Pipe OD	Max Working Pressure PSI	Max End Load Lbs.	Coupling Dimensions			Approx. Weight (lbs.)	Bolts			Ductile Iron w/ EPDM gasket	Ductile Iron w/ Buna-N gasket
				A	B	C		qty	size	length	Part #	Part #
2"	2.375	175	4425	5"	3-15/64"	1-3/4"	1.5	2	3/8"	2"	R72	R72BU
2½"	2.875	175	6490	5-5/8"	3-45/64"	1-3/4"	1.7	2	3/8"	2"	R725	R725BU
3"	3.500	175	9620	6-29/64"	4-5/16"	1-3/4"	2.5	2	3/8"	2"	R73	R73BU
4"	4.500	175	12720	7-53/64"	5-17/32"	2"	3.6	2	1/2"	2-3/4"	R74	R74BU
6"	6.625	175	27570	10-23/64"	7-37/64"	2"	5.8	2	5/8"	3-1/4"	R76	R76BU
8"	8.625	175	35050	13-25/32"	10"	2-21/64"	15.9	2	5/8"	3-1/4"	R78	R78BU

CAM & Groove

Tank Truck

Boss

Air

Shank

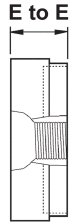
Brass

Clamp

End Caps

ANSI Caps with Tapped Outlet - Series EC

- ductile iron construction with rust inhibiting galvanized finish



Nominal Size	Outlet	E to E	Approx. Weight (Lbs.)	Ductile Iron Part #
2"	1"	7/8"	.50	EC201
2½"	1"	7/8"	.70	EC251
3"	1"	7/8"	1.05	EC301
4"	1"	1"	2.30	EC401
4"	2"	1"	2.10	EC402
6"	1"	1"	5.10	EC601
6"	2"	1"	5.35	EC602
8"	2"	1-3/16"	10.10	EC802

Blank Caps - Series BE



- Interchangeable with: Victaulic's #60 Grinnell's #7074

- ductile iron body with rust inhibiting paint
- Underwriters Listed and Factory Mutual approved

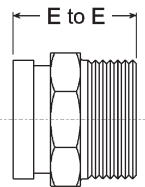


Nominal Size	E to E	Approx. Weight (Lbs.)	Ductile Iron Part #
2"	7/8"	.6	BEC20
2½"	7/8"	.7	BEC25
3"	7/8"	1.1	BEC30
4"	1"	2.6	BEC40
6"	1"	5.0	BEC60
8"	1-3/16"	11.0	BEC80

Adapter Nipples

Short Hex Style - Series HN

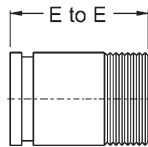
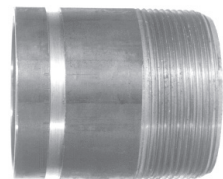
- These adapter nipples are designed to provide minimum pressure drop and uniform strength.
- maximum working pressure is **1000 PSI**



Nominal Size	E to E	Ductile Iron Part #
2"	2-3/8"	A712S
2½"	2-5/8"	A7125S
3"	2-7/8"	A713S
4"	3-1/2"	A714S

Note: items will be discontinued as stock is depleted

Long Pipe Style - Series AN



Nominal Size	E to E	Ductile Iron Part #
2"	4"	A712
2½"	4"	A7125
3"	4"	A713
4"	6"	A714
5"	6"	A715
6"	6"	A716

Victaulic x Weld



Male NPT	Aluminum Part #	Carbon Steel Part #	316 Stainless Steel Part #
2"	AVN2000-200	VN2000-200	VNR2000-200
2½"	AVN2500-200	VN2500-200	VNR2500-200
3"	AVN3000-200	VN3000-200	VNR3000-200
4"	AVN4000-200	VN4000-200	VNR4000-200

Heavy-Duty Lava Hand Cleaner



- heavy duty hand cleaner with pumice
- 7.5 fl oz pump bottle
- sold in case quantity only



Part #	Case Qty
LAVA221	12

Marking Pens

- marks on wood, glass, paper, metal, and many other surfaces
- permanent mark, but can be removed with fluid remover
- unique valve action prevents tip drying



Color	Part #
black	BK91
white	WT91
yellow	YW91

Dixon Soft Hose Mallet

- soft mallet for pounding metal objects without damaging them.
- The head material will not crack and is firmly attached to strong shaft-handle.
- length: 23"
- weight: 10 lbs.



Part #
DCM1

Dixon Hose Knife

- for fast cutting of rubber hose and belting
- guard protects hand while cutting



Part #
DRK15

Diameter Tape

- 6' tape for quickly finding the outside diameter of any cylindrical object
- converts circumference to OD at the measured point
- metal case



Part #
DDT1

Holedall | Sanitary | Fire Hose | Valves | Pipe & Welding | Maintenance & Repair | PTFE Hose & Fittings

FIRE PROTECTION SLEEVE

Woven mineral fibre flame protection sleeve with silicon external coating.
Used to protect hoses and fittings from extreme temperatures.
To be fixed with hose clamps or crimped rings.

Temperature: +250 °C (482 °F)
intermittent to 1500 °C (2732 °F)

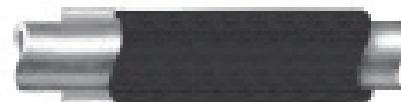


Item Code	Part Number	d mm
1901772	RLYGAS0-0130000	13
1901103	RLYGAS0-0160000	16
1901774	RLYGAS0-0190000	19
1901775	RLYGAS0-0220000	22
1901771	RLYGAS0-0250000	25
1901151	RLYGAS0-0290000	29
1901770	RLYGAS0-0320000	32
1901110	RLYGAS0-0380000	38
1901773	RLYGAS0-0510000	51
1901114	RLYGAS0-0640000	64
2600094	RLYGAS0-0760000	76

MSHA TEXTILE SLEEVE

Polyester sleeve to protect the hose from abrasion,
weathering and high temperature.
MSHA IC-152/18 approval.

Temperature: -40 °C (+150 °C) (-40 °F +300 °F)



Item Code	Part Number	ID (mm)	ID (inch)
RTYOG0A01700M00	RTYOG0A-0170000	17	0.67
RTYOG0A02000M00	RTYOG0A-0200000	20	0.79
RTYOG0A02300M00	RTYOG0A-0230000	23	0.91
RTYOG0A02700M00	RTYOG0A-0270000	27	1.06
RTYOG0A03100M00	RTYOG0A-0310000	31	1.22
RTYOG0A03600M00	RTYOG0A-0360000	36	1.42
RTYOG0A04000M00	RTYOG0A-0400000	40	1.57
RTYOG0A04400M00	RTYOG0A-0440000	44	1.73
RTYOG0A04700M00	RTYOG0A-0470000	47	1.85
RTYOG0A05500M00	RTYOG0A-0550000	55	2.17
RTYOG0A06600M00	RTYOG0A-0660000	66	2.60
RTYOG0A07600M00	RTYOG0A-0760000	76	2.99

PLASTIC PROTECTIVE FLAT COIL SLEEVE

The plastic coil sleeve is resistant against air, water, oil,
petrol, hydraulic liquids etc.

This coil sleeve can also be used for group bundling of hose lines.

Temperature: -20 °C to +84 °C (-4 °F to +180 °F)



Part Number		Spiral Size mm								
BLACK	YELLOW	OD Ø	WALL W	PITCH P	HOLE DISTANCE X	HOLE DIAMETER	OD in. Ø	ID in.	COIL WEIGHT lbs.	COIL LENGTH ft.
RLS1000-009	012C100YE	12	1.2	10.5			1/2	0.40	2.7	100
RLS1000-013	016C100YE	16	1.3	12			2/3	0.50	4.0	100
RLS1000-015	SPT-04-08Y	20	2	20			3/4	0.65	6.0	100
RLS1000-020	SPT-08-10Y	25	2.2	25			1	0.80	10.1	100
RLS1000-025	SPT-10-16Y	32	2.5	22			1 1/4	1.10	12.8	100
RLS1000-030	SPT-16-20Y	40	2.7	24			1 3/5	1.40	20.1	100
RCS1000-040	SPT-20-24Y	50	3.4	30			2	1.70	26.8	100
RCS1000-050	063C100YE	63	3.7	37			2 1/2	2.20	43.6	100
075C75BK	SPT-32-40Y	75	4.4	45	35	10	3	2.60	36.8	75
090C50BK	SPT-48-50Y	90	4.9	45	35	10	3 1/2	3.20	40.3	50
110C50BK	SPT-64-70Y	110	5.5	50	35	10	4 1/3	3.90	59.1	50
125C40BK	125C40YE	125	5.9	52	35	10	4 9/10	4.50	59.9	40
140C10BK	140C30YE	140	6.5	55	35	10	5 1/2	5.00	50.3	30

Fire Jackets

- fiberglass coated silicone rubber
- fluid resistant to hydraulic fluids and lubricating oils
- color is iron oxide red
- temperature range: **-65°F to 500°F**

Size	Length	Part #
3"	50'	4055-3

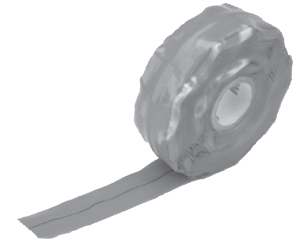


Fire Tape for Hose

Silicone rubber tape used to seal the ends of fire sleeves to prevent fraying.

- completely non-asbestos
- color is iron oxide red
- temperature range: **-45°F to 380°F** (-45°C to 200°C)

Size	Length	Part #
1"	12 yards	FTH100

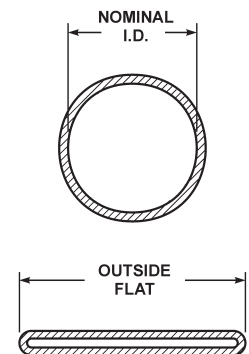


Nylon Protective Sleeves - MSHA Accepted

- Woven nylon tubular sleeving, ideal for use as a protective covering on hydraulic and industrial hose.
- Tight weave of the seamless tubular sleeving helps dispense the flow of fluid in a ruptured hose.
- MSHA accepted, withstands temperatures up to **275°F** (135°C) and fully passes flammability tests.



Nominal ID	Outside Flat	100' rolls	300' rolls
		Part #	Part #
0.90"	1.50"	DHS90-100	DHS90-300
1.00"	1.66"	DHS100-100	DHS100-300
1.13"	1.88"	DHS106-100	DHS106-300
1.25"	2.13"	DHS122-100	DHS122-300
1.46"	2.25"	DHS138-100	DHS138-300
1.42"	2.50"	DHS142-100	DHS142-300
1.58"	2.75"	DHS159-1-100	DHS159-1-300
1.78"	2.88"	DHS175-100	DHS175-300
1.91"	3.00"	DHS181-100	DHS181-300
2.18"	3.63"	DHS219-100	DHS219-300
2.38"	3.88"	DHS238-100	DHS238-300
2.65"	4.25"	DHS263-100	DHS263-300
2.86"	4.75"	DHS288-100	DHS288-300
3.65"	5.88"	DHS366-100	DHS366-300



Stretch Straps

- durable tie down straps
- made of EPDM
- length does not include S-hooks
- S-hooks are steel



Length	Part #
10"	SSE10
15"	SSE15
21"	SSE21
31"	SSE31
41"	SSE41

WARNING!!

Failure to comply with this warning may result in serious damage and/or personal injury.

Maximum end to end safe stretch = 150% of length

- do not exceed maximum safe stretch
- inspect before each use, do not use if strap is cut, cracked or abraded
- inspect hooks for damage and/or wear. Replace if needed.
- protect strap from sharp edges or heat.
- wear eye protection during use
- do not use this product as the primary tie down
- refer to federal or state regulations for proper tie down methods

SAFETY
ALERT

Nominal

Suitable for conveying chemicals, foods, pharmaceuticals, oils, gas, fuels and steam. Available in a variety of end connections in brass, carbon steel and stainless steel.

- nominal standard smooth bore PTFE hose meets SAE100R14
- range: -3 to -20
- operating temperature: **-76°F to 500°F** (-60°C to 260°C)
- 304 stainless braided
- Extruded or heat shrink coverings are available upon request.

Smooth Bore PTFE Hose



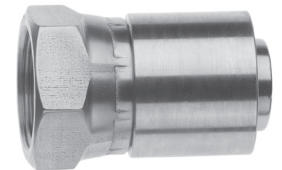
Nominal Size	Average ID	Dash Size	White, non-conductive tube Part #	Black, conductive tube Part #
3/16"	.125"	dash-03	WSB-03-100	BSB-03-100
1/4"	.187"	dash-04	WSB-04-100	BSB-04-100
5/16"	.250"	dash-05	WSB-05-100	BSB-05-100
3/8"	.312"	dash-06	WSB-06-100	BSB-06-100
3/8T"	.375"	dash-06T	WSB-06T-100	BSB-06T-100
1/2"	.405"	dash-08	WSB-08-100	BSB-08-100
5/8"	.500"	dash-10	WSB-10-100	BSB-10-100
3/4"	.625"	dash-12	WSB-12-100	BSB-12-100
3/4T"	.750"	dash-12T	WSB-12T-50	BSB-12T-50
1"	.875"	dash-16	WSB-16-50	BSB-16-50
1-1/8"	1.000"	dash-16T	WSB-16T-50	BSB-16T-50
1-1/4"	1.250"	dash-20T	WSB-20Z-50	BSB-20Z-50

Fittings

Crimp Collars for all Nominal fittings are included

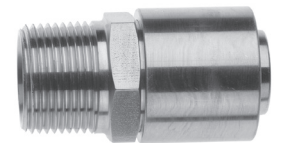
Female JIC Swivel

Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #	Box Qty
dash 4	1/4"	FJC-04-04	FJS-04-04	---	25
dash 5	5/16"	FJC-05-05	FJS-05-05	FJB-05-05	25
dash 6	3/8"	FJC-06-06	FJS-06-06	FJB-06-06	25
dash 8	1/2"	FJC-08-08	FJS-08-08	FJB-08-08	25
dash 10	5/8"	FJC-10-10	FJS-10-10	FJB-10-10	25
dash 12	3/4"	FJC-12-12	FJS-12-12	FJB-12-12	10
dash 16	1"	FJC-16-16	FJS-16-16	FJB-16-16	10
dash 20Z	1 1/4"	FJC-20Z-20	FJS-20Z-20	FJB-20Z-20	5



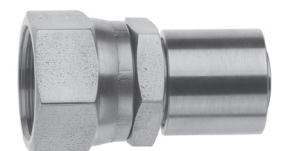
Rigid Male Pipe

Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #	Box Qty
dash 4	1/8"	MPC-04-02	MPS-04-02	MPB-04-02	25
dash 4	1/4"	MPC-04-04	MPS-04-04	MPB-04-04	25
dash 5	1/4"	MPC-05-04	MPS-05-04	MPB-05-04	25
dash 6	1/4"	MPC-06-04	MPS-06-04	MPB-06-04	25
dash 6	3/8"	MPC-06-06	MPS-06-06	MPB-06-06	25
dash 8	3/8"	MPC-08-06	MPS-08-06	MPB-08-06	25
dash 8	1/2"	MPC-08-08	MPS-08-08	MPB-08-08	25
dash 10	1/2"	MPC-10-08	MPS-10-08	MPB-10-08	25
dash 12	3/4"	MPC-12-12	MPS-12-12	MPB-12-12	10
dash 16	1"	MPC-16-16	MPS-16-16	MPB-16-16	10
dash 20Z	1 1/4"	MPC-20Z-20	MPS-20Z-20	MPB-20Z-20	5



Female SAE Swivel

Hose Size	Thread Size	Carbon Steel Part #	Brass Part #	Box Qty
dash 6	3/8"	SAEC-06-06	SAEB-06-06	25
dash 12	3/4"	SAEC-12-12	SAEB-12-12	10



True ID

Suitable for conveying acids, chemicals, foods and pharmaceuticals.

- range: 3/8" to 2"
- operating temperature: **-76°F to 500°F** (-60°C to 260°C)
- stainless braided
- Other braids including synthetic, extruded and heat shrink coverings are available upon request.

Hose



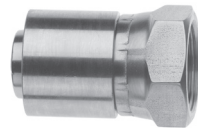
Open Pitch Convuluted Hose

Size	White, non-conductive Part #	Black, conductive Part #
1/4"	WOC-T04-50	BOC-T04-50
3/8"	WOC-T06-50	BOC-T06-50
1/2"	WOC-T08-50	BOC-T08-50
3/4"	WOC-T12-50	BOC-T12-50
1"	WOC-T16-50	BOC-T16-50
1 1/4"	WOC-T20-50	BOC-T20-50
1 1/2"	WOC-T24-25	BOC-T24-25
2"	WOC-T32-25	BOC-T32-25

Heavy Wall True ID Smooth Bore Hose

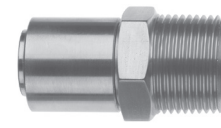
Size	White Part #	Black Part #
1/4"	WTB-T04-50	BTB-T04-50
3/8"	WTB-T06-50	BTB-T06-50
1/2"	WTB-T08-50	BTB-T08-50
3/4"	WTB-T12-50	BTB-T12-50
1"	WTB-T16-50	BTB-T16-50
1"	WTB-T16Z-50¹	BTB-T16Z-50¹
1 1/4"	WTB-T20Z-50¹	BTB-T20Z-50¹
1 1/2"	WTB-T24Z-50¹	BTB-T24Z-50¹

¹ double braid



Female JIC Swivel

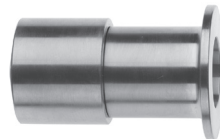
Size	Carbon Steel Part #	316 Stainless Steel Part #	Box Qty
1/4"	---	FJR-T04	10
3/8"	---	FJR-T06	10
1/2"	FJC-T08	FJR-T08	10
3/4"	FJC-T12	FJR-T12	10
1"	FJC-T16	FJR-T16	10
1 1/4"	FJC-T20	FJR-T20	10
1 1/2"	FJC-T24	FJR-T24	10
2"	FJC-T32	FJR-T32	10



Rigid Male Pipe

Size	Carbon Steel Part #	316 Stainless Steel Part #	Box Qty
1/4"	---	MPR-T04	10
3/8"	---	MPR-T06	10
1/2"	MPC-T08	MPR-T08	10
3/4"	MPC-T12	MPR-T12	10
1"	MPC-T16	MPR-T16	10
1 1/4"	MPC-T20	MPR-T20	10
1 1/2"	MPC-T24	MPR-T24	10
2"	MPC-T32	MPR-T32	10

Fittings
Crimp Collars for all True ID fittings
are sold separately



Flange Retainer

Size	Carbon Steel Part #	316 Stainless Steel Part #	Box Qty
1/2"	FRR-T08	---	10
3/4"	FRR-T12	FRRE-T12	10
1"	FRR-T16	FRRE-T16	10
1 1/4"	FRR-T20	FRRE-T20	10
1 1/2"	FRR-T24	FRRE-T24	10
2"	FRR-T32	FRRE-T32	10



Sanitary Tri-Clamp

Hose Size	Clamp Size	316 Stainless Steel Part #	Box Qty
1/2"	1"	TCR-T08-16	10
1/2"	1 1/2"	TCR-T08-24	10
3/4"	1 1/2"	TCR-T12-24	10
1"	1"	TCR-T16-16	10
1"	1 1/2"	TCR-T16-24	10
1 1/2"	1 1/2"	TCR-T24-24	10
2"	2"	TCR-T32-32	10

Crimp Collars

Size	Carbon Steel Part #	304 Stainless Steel Part #	Box Qty
1/4"	---	SSC-T04	10
3/8"	---	SSC-T06	10
1/2"	CSC-T08	SSC-T08	10
3/4"	CSC-T12	SSC-T12	10
1"	CSC-T16	SSC-T16	10
1 1/4"	CSC-T20	SSC-T20	10
1 1/2"	CSC-T24	SSC-T24	10
2"	CSC-T32	SSC-T32	10

Mini Sanitary Tri-Clamp

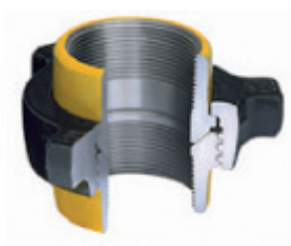
Size	316 Stainless Steel Part #	Box Qty
1/2"	TCRM-T08	10
3/4"	TCRM-T12	10

Notes:

- insertion tool is available to aid in assembly fabrication
- contact Dixon Specialty Hose for GSM PTFE and metal hose assemblies

HAMMER LUG UNIONS - FIG.100

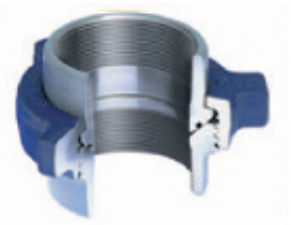
NPT THREADED - 3 Pieces (female/male/nut)



Item Code	PART #	NPT Thread in	Material
I1TC66C6-051051		2	ASTM A-105 FORGED CARBON STEEL
I1TC66C6-076076		3	ASTM A-105 FORGED CARBON STEEL
I1TC66C6-102102	2303955	4	ASTM A-105 FORGED CARBON STEEL
I1TC66C6-127127	2303956	5	ASTM A-105 FORGED CARBON STEEL
I1TC66C6-152152	2303957	6	ASTM A-105 FORGED CARBON STEEL

HAMMER LUG UNIONS - FIG.200

NPT THREADED - 3 Pieces (female/male/nut)



Item Code	Part #	NPT Thread in	Material
I1TC96C9-051051	2303958	2	ASTM A-105 FORGED CARBON STEEL
I1TC96C9-076076	2306567	3	ASTM A-105 FORGED CARBON STEEL
I1TC96C9-102102	2306568	4	ASTM A-105 FORGED CARBON STEEL
I1TC96C9-152152	2306569	6	ASTM A-105 FORGED CARBON STEEL

HAMMER LUG UNIONS - FIG.602

NPT THREADED - 3 Pieces (female/male/nut)



Item Code	Part #	NPT Thread in	Material
I1TE26E2-025025	2306573	1	ALOY STEEL AISI 4130
I1TE26E2-051051		2	ALOY STEEL AISI 4130
I1TE26E2-076076		3	ALOY STEEL AISI 4130
I1TE26E2-102102		4	ALOY STEEL AISI 4130

HAMMER LUG UNIONS - FIG.1502

NPT THREADED - 3 Pieces (female/male/nut)



Item Code	Part #	NPT Thread in	Material
I1TE16E1-051051	2306257	2	ALOY STEEL AISI 4130
I1TE16E1-076076		3	ALOY STEEL AISI 4130
I1TE16E1-102102		4	ALOY STEEL AISI 4130

WHIP CHAIN

Whip Chains are a reliable retaining system made of strong cables used for the safe holding of assemblies, should they accidentally separate.

Alfagomma can offer a wide range of Whip Chains for:

- Hoses attached with port adaptors
- Hoses using flange-style connections

Whip Chains to be used in combination with the specific hose band, depending on diameter.



for SAE Flange fitting 3000/6000 psi

Part Number	Description	RELATED FITTING	Additional description	Pack q.ty
R1YCCF1-0850300	RETAINING SYS FL. ID08.5 L300	FLANGE 3000 and 6000 1/2"	STOPFUSAE 085 PACK	10
R1YCCF1-1050450	RETAINING SYS FL. ID10.5 L450	FLANGE 3000 3/4"-1"-1 1/4" and 6000 3/4"	STOPFUSAE 105 PACK	5
R1YCCF1-1250450	RETAINING SYS FL. ID12.5 L450	FLANGE 3000 1 1/2"-2"-2 1/2" and 6000 1"	STOPFUSAE 125 PACK	5
R1YCCF1-1450450	RETAINING SYS FL. ID14.5 L450	FLANGE 6000 1 1/4"	STOPFUSAE 145 PACK	5
R1YCCF1-1650450	RETAINING SYS FL. ID16.5 L450	FLANGE 3000 3"-3 1/2"-4"-5" and 6000 1 1/2"	STOPFUSAE 165 PACK	5
R1YCCF1-2050450	RETAINING SYS FL. ID20.5 L450	FLANGE 6000 2"	STOPFUSAE 205 PACK	5

for other fitting

Part Number	Description	RELATED FITTING	Additional description	Pack q.ty
R1YCCV1-1300450	RETAINING SYS FL. ID13 L450	SLING FOR GENERIC FITTING	STOPFUVARIE PACK	5

WHIP SOCK

Safety retaining sock for various hose types, with tie-on device for retrofitting existed hose lines without disconnecting hose fittings.



Type	for hose O/D in mm	SHH0-63-0002 15-25	SHH0-63-0003 20-40	SHH0-63-0001 30-50	SHH0-63-0004 50-65	SHH0-63-0005 60-80
R13	DN				31, 40	51
R15	DN			25, 31	40	
4SH	DN		19	25,31	38	51
4SP	DN	6, 10	12, 16,19	25		
2SN	DN	6, 8, 10, 12	16, 19, 25	31	38	51
1SN	DN	8, 10, 12, 16	19, 25	31	38	51
241T	DN	8, 10, 12, 16	19, 25			
1SC	DN	10, 12, 16	19, 25			
2SC	DN	8, 10, 12, 16	19, 25			

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Corrosion Resistance of Coupling Material

Caution

The following data has been compiled from generally available sources and should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

Ratings

Metal
1 = Excellent
2 = Good
3 = Fair
X = Not Recommended
- = Contact Factory

Non-Metal
A = Acceptable
X = Not Recommended
- = Contact Factory

Gasket/Seal Material
T = Teflon®
V = Viton®
E = EPDM, EPR
N = Neoprene
B = Buna N

Note: (1) Ratings given are based at 70°F. Chemical compatibility varies greatly with temperature. For applications at temperatures other than 70°F, contact the Factory for recommendations.

(2) Gasket / seal materials are not necessarily listed in order of preference.

(3) Chemical resistance of a material does not necessarily indicate the suitability of a fitting in a given application due to variables such as improper clamp and coupling application, special hose construction, gasket material, etc.

Special caution should be taken when handling hazardous materials.

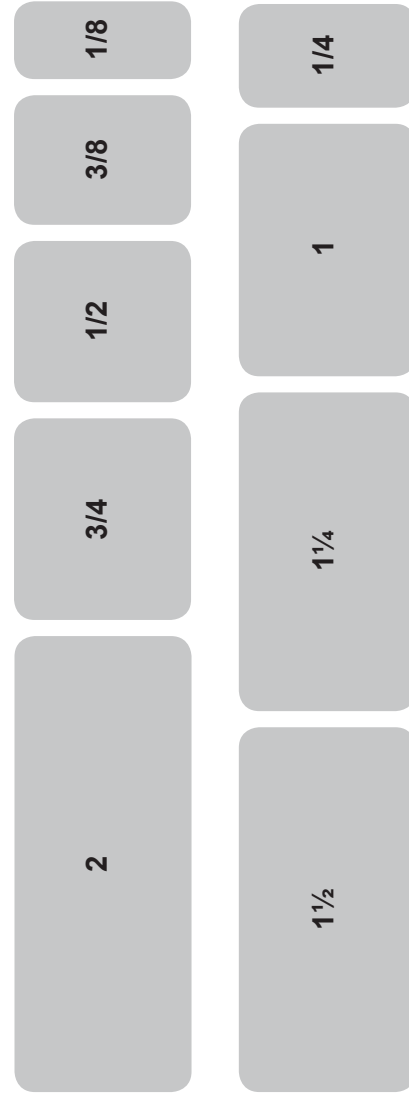
Temperature Conversions

Look up reading in middle column (shaded). If in degrees Centigrade, read Fahrenheit equivalent in right-hand column; if in degrees Fahrenheit, read Centigrade equivalent in left-hand column.

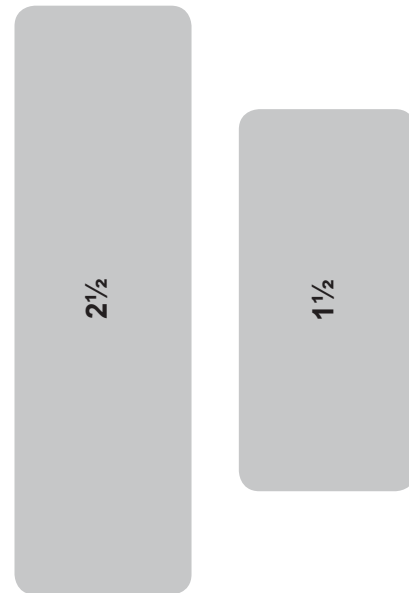
°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
-73	-100	-148	5.0	41	105.8	33.3	92	197.6	
-68	-90	-130	5.6	42	107.6	33.9	93	199.4	
-62	-80	-112	6.1	43	109.4	34.4	94	201.2	
-57	-70	-94	6.7	44	111.2	35.0	95	203.0	
-51	-60	-76	7.2	45	113.0	35.6	96	204.8	
-46	-50	-58	7.8	46	114.8	36.1	97	206.6	
-40	-40	-40	8.3	47	116.6	36.7	98	208.4	
-34	-30	-22	8.9	48	118.4	37.2	99	210.2	
-29	-20	-4	9.4	49	120.2	37.8	100	212.0	
-23	-10	14	10.0	50	122.0				
-17.8	0	32	10.6	51	123.8	43	110	230	
-17.2	1	33.8	11.1	52	125.6	49	120	248	
-16.7	2	35.6	11.7	53	127.4	54	130	266	
-16.1	3	37.4	12.2	54	129.2	60	140	284	
-15.6	4	39.2	12.8	55	131.0	66	150	302	
-15.0	5	41.0	13.3	56	132.8	71	160	320	
-14.4	6	42.8	13.9	57	134.6	77	170	338	
-13.9	7	44.6	14.4	58	136.4	82	180	356	
-13.3	8	46.4	15.0	59	138.2	88	190	374	
-12.8	9	48.2	15.6	60	140.0	93	200	392	
-12.2	10	50.0	16.1	61	141.8	99	210	410	
-11.7	11	51.8	16.7	62	143.6	100	212	413.6	
-11.1	12	53.6	17.2	63	145.4	104	220	428	
-10.6	13	55.4	17.8	64	147.2	110	230	446	
-10.0	14	57.2	18.3	65	149.0	116	240	464	
-9.4	15	59.0	18.9	66	150.8	121	250	482	
-8.9	16	60.8	19.4	67	152.6	127	260	500	
-8.3	17	62.6	20.0	68	154.4	132	270	518	
-7.8	18	64.4	20.6	69	156.2	138	280	536	
-7.2	19	66.2	21.1	70	158.0	143	290	554	
-6.7	20	68.0	21.7	71	159.8	149	300	572	
-6.1	21	69.8	22.2	72	161.6	154	310	590	
-5.6	22	71.6	22.8	73	163.4	160	320	608	
-5.0	23	73.4	23.3	74	165.2	166	320	626	
-4.4	24	75.2	23.9	75	167.0	170	338	640	
-3.9	25	77.0	24.4	76	168.8	171	340	644	
-3.3	26	78.8	25.0	77	170.6	177	350	662	
-2.8	27	80.6	25.6	78	172.4	182	360	680	
-2.2	28	82.4	26.1	79	174.2	186	366	691	
-1.7	29	84.2	26.7	80	176.0	188	370	698	
-1.1	30	86.0	27.2	81	177.8	193	380	716	
-.6	31	87.8	27.8	82	179.6	198	388	730	
0	32	89.6	28.3	83	181.4	199	390	734	
.6	33	91.4	28.9	84	183.2	204	400	752	
1.1	34	93.2	29.4	85	185.0	208	406	763	
1.7	35	95.0	30.0	86	186.8	210	410	770	
2.2	36	96.8	30.6	87	188.6	216	420	788	
2.8	37	98.6	31.1	88	190.4	221	430	806	
3.3	38	100.4	31.7	89	192.2	227	440	824	
3.9	39	102.2	32.2	90	194.0	232	450	842	
4.4	40	104.0	32.8	91	195.8				

Fittings Size Chart

Male NPT Thread Sizes



Male NST Thread Sizes



Steam Temperature - Pressure Conversion Guide

Temperature - Pressure Equivalents of Saturated Steam
Gauge Pressure at Sea Level

Temperature		Lbs. per Sq. Inch	Temperature		Lbs. per Sq. Inch	Temperature		Lbs. per Sq. Inch
°F	°C		°F	°C		°F	°C	
212	100.0	0.0	286	141.1	39.4	336	168.9	97.1
214	101.1	0.6	287	141.7	40.3	337	169.4	98.7
216	102.2	1.2	288	142.2	41.1	338	170.0	100.2
218	103.3	1.8	289	142.8	42.0	339	170.6	101.8
220	104.4	2.5	290	143.3	42.9	340	171.1	103.3
222	105.6	3.2	291	143.9	43.8	341	171.7	105.0
224	106.7	3.9	292	144.4	44.7	342	172.2	106.5
226	107.8	4.6	293	145.0	45.6	343	172.8	108.2
228	108.9	5.3	294	145.6	46.5	344	173.3	109.8
230	110.0	6.1	295	146.1	47.5	345	173.9	111.5
232	111.1	6.9	296	146.7	48.4	346	174.4	113.1
234	112.2	7.7	297	147.2	49.4	347	175.0	114.8
236	113.3	8.5	298	147.8	50.3	348	175.6	116.5
238	114.4	9.4	299	148.3	51.3	349	176.1	118.2
240	115.6	10.3	300	148.9	52.3	350	176.7	119.9
242	116.7	11.2	301	149.4	53.4	352	177.8	123.5
244	117.8	12.1	302	150.0	54.4	354	178.9	127.1
246	118.9	13.1	303	150.6	55.4	356	180.0	130.8
248	120.0	14.1	304	151.1	56.4	358	181.1	134.5
250	121.1	15.1	305	151.7	57.5	360	182.2	138.3
252	122.2	16.2	306	152.2	58.6	362	183.3	142.3
254	123.3	17.3	307	152.8	59.7	364	184.4	146.2
256	124.4	18.4	308	153.3	60.7	366	185.6	150.3
258	125.6	19.6	309	153.9	61.9	368	186.7	154.4
260	126.7	20.7	310	154.4	63.0	370	187.8	158.7
261	127.2	21.4	311	155.0	64.2	372	188.9	163.0
262	127.8	22.0	312	155.6	65.3	374	190.0	167.4
263	128.3	22.6	313	156.1	66.5	376	191.1	171.9
264	128.9	23.2	314	156.7	67.6	378	192.2	176.4
265	129.4	23.9	315	157.2	68.8	380	193.3	181.1
266	130.0	24.5	316	157.8	70.0	382	194.4	185.8
267	130.6	25.2	317	158.3	71.3	384	195.6	190.6
268	131.1	25.8	318	158.9	72.5	386	196.7	195.6
269	131.7	26.5	319	159.4	73.7	388	197.8	200.6
270	132.2	27.2	320	160.0	75.0	390	198.9	205.7
271	132.8	27.9	321	160.6	76.3	392	200.0	210.9
272	133.3	28.6	322	161.1	77.5	394	201.1	216.2
273	133.9	29.3	323	161.7	78.8	396	202.2	221.5
274	134.4	30.0	324	162.2	80.1	398	203.3	227.0
275	135.0	30.8	325	162.8	81.5	400	204.4	232.6
276	135.6	31.5	326	163.3	82.8	402	205.5	238
277	136.1	32.3	327	163.9	84.2	404	206.7	244
278	136.7	33.0	328	164.4	85.6	406	207.8	250
279	137.2	33.8	329	165.0	87.0	408	208.9	256
280	137.8	34.5	330	165.6	88.4	410	210	262
281	138.3	35.3	331	166.1	89.8	412	211.1	268
282	138.9	36.1	332	166.7	91.2	414	212.2	275
283	139.4	36.9	333	167.2	92.7	416	213.3	281
284	140.0	37.7	334	167.8	94.1	418	214.4	288
285	140.6	38.6	335	168.3	95.6	420	215.6	294

Degrees Celsius = 5/9 (Degrees F -32)

Bolt Tightening Sequence for Dixon Boss Clamps

Note:

1. The correct size Boss clamp must be used.
2. Bolts in Boss clamps are designed to bend as they are tightened. This allows the clamp to conform to the hose outside diameter.
3. Always tighten bolts to their specified torque value. This torque value can be found on the page 224.
4. Periodic re-tightening of bolts is required due to "cold flow" phenomenon present in all rubber hoses.
5. Boss Clamps are for single use only! Once removed they are to be discarded.

2 Bolt Dixon Boss Clamp Bolt Tightening Sequence

Using a torque wrench, begin tightening the bolts as follows:

- a) First bolt (nut facing assembler) 1 full turn.
- b) Second bolt (opposite first bolt) 1 full turn.
- c) Repeat procedure "a" and "b" until both bolts have reached the recommended torque.
- d) Remove assembly from vise.

4 Bolt Dixon Boss Clamp Bolt Tightening Sequence

Using a torque wrench, begin tightening the bolts as follows:

- a) Back bolt (bolt with nut facing assembler that is furthest away from gripping finger) 1 full turn.
- b) Front bolt (bolt with nut facing assembler that is closest to gripping finger) 1 full turn.
- c) Snug by hand (if bolts are loose) nuts on opposite side of bolts just torqued.
- d) Opposite side back bolt (bolt with nut facing assembler furthest away from gripping finger) 1 full turn.
- e) Opposite side front bolt (bolt with nut facing assembler closest to gripping finger) 1 full turn.
- f) Snug by hand (if bolts are loose) nuts on opposite side of bolts just torqued.
- g) Repeat above procedure "a" through "f" until all of the bolts have reached the recommended torque.
- h) Remove assembly from vise.

6 Bolt Dixon Boss Clamp Bolt Tightening Sequence

Using a torque wrench, begin tightening the bolts as follows:

- a) Back bolt (bolt with nut facing assembler that is furthest away from gripping finger) having "X" near it one full turn.
- b) Front bolt (bolt with nut facing assembler that is closest to gripping finger) of same segment one full turn.
- c) Moving to clamp segment to the left of the one just tightened, snug bolts by hand (if bolts are loose).
- d) Back bolt to one full turn.
- e) Front bolt one full turn.
- f) Moving to clamp segment to the left of the one just tightened, snug bolts by hand (if bolts are loose).
- g) Back bolt one full turn.
- h) Front bolt one full turn.
- i) Repeat above procedure "a" through "h" until all of the bolts have reached the recommended torque.
- j) Remove assembly from vise.

Fraction - Decimal Conversion Chart

	<u>Inches</u>	<u>Millimeters</u>		<u>Inches</u>	<u>Millimeters</u>
$\frac{1}{32}$	$\frac{1}{64}$.015625	.3969	$\frac{17}{32}$	$\frac{33}{64}$.515625	13.0969
$\frac{1}{16}$	$\frac{3}{64}$.046875	1.1906	$\frac{9}{16}$	$\frac{35}{64}$.546875	13.8907
$\frac{3}{32}$	$\frac{5}{64}$.078125	1.9844	$\frac{19}{32}$	$\frac{37}{64}$.578125	14.6844
$\frac{1}{8}$	$\frac{7}{64}$.109375	2.7781	$\frac{5}{8}$	$\frac{39}{64}$.609375	15.4782
$\frac{5}{32}$	$\frac{9}{64}$.140625	3.5719	$\frac{21}{32}$	$\frac{41}{64}$.640625	16.2719
$\frac{3}{16}$	$\frac{11}{64}$.171875	4.3656	$\frac{11}{16}$	$\frac{43}{64}$.671875	17.0657
$\frac{7}{32}$	$\frac{13}{64}$.203125	5.1594	$\frac{23}{32}$	$\frac{45}{64}$.703125	17.8594
$\frac{1}{4}$	$\frac{15}{64}$.234375	5.9531	$\frac{3}{4}$	$\frac{47}{64}$.734375	18.6532
$\frac{9}{32}$	$\frac{17}{64}$.265625	6.7469	$\frac{25}{32}$	$\frac{49}{64}$.765625	19.4470
$\frac{5}{16}$	$\frac{19}{64}$.296875	7.5406	$\frac{13}{16}$	$\frac{51}{64}$.796875	20.2407
$\frac{11}{32}$	$\frac{21}{64}$.328125	8.3344	$\frac{27}{32}$	$\frac{53}{64}$.828125	21.0345
$\frac{3}{8}$	$\frac{23}{64}$.359375	9.1282	$\frac{7}{8}$	$\frac{55}{64}$.859375	21.8282
$\frac{13}{32}$	$\frac{25}{64}$.390625	9.9219	$\frac{29}{32}$	$\frac{57}{64}$.890625	22.6220
$\frac{7}{16}$	$\frac{27}{64}$.421875	10.7157	$\frac{15}{16}$	$\frac{59}{64}$.921875	23.4157
$\frac{15}{32}$	$\frac{29}{64}$.453125	11.5094	$\frac{31}{32}$	$\frac{61}{64}$.953125	24.2095
$\frac{1}{2}$	$\frac{31}{64}$.484375	12.3032	$\frac{63}{64}$	$\frac{63}{64}$.984375	25.0032
		12.7001	1	1.000	25.4001

Identifying Threads

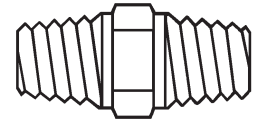
Pipe Threads

Pipe threads are either tapered or straight (parallel). The two styles are not compatible except for NPSL (National Pipe Straight Locknut), which is compatible with NPT.

Tapered threads

Tapered threads are the most common type of thread available. As the name implies, they have a slight taper. When mated together and tightened, the threads compress to form a seal. The mating threads both hold the fitting in place and seal the connection. The most widely used pipe threads in North America are NPT (National Pipe Taper). Some confusion may result from the use of NPT, FPT, and MPT in describing threads. Both FPT and MPT are NPT threads, with FPT meaning female threads (internal) and MPT meaning male threads (external).

NPTF (Dryseal) threads are modified NPT threads, which are less likely to leak without a sealant. For a leak-free seal, we recommend using a sealant compound or PTFE tape. You can use NPTF threads with NPT threads, but you'll lose some of the leak-free characteristics.

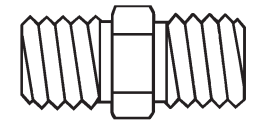


tapered threads

Straight threads

Straight (parallel) threads are used for mechanical joining. They serve one purpose - to hold a fitting in place. As a result, an O-ring (elastomer), hard metal seal or a soft seat seal is required. When used together, the threads and sealing method provide a better overall seal than tapered threads. Straight pipe threads include NPSM (National Pipe Straight Mechanical), NPSL (National Pipe Straight Locknut) and NPSH (National Pipe Straight Hose) conform to SAE (Society of Automotive Engineers) specifications. Sizing and pitches differ from the NPT threads.

Less common straight threads are GHT (Garden Hose) and NST (fire hose coupling).



straight threads

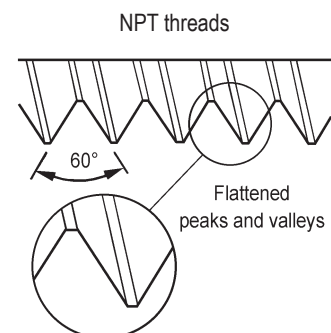
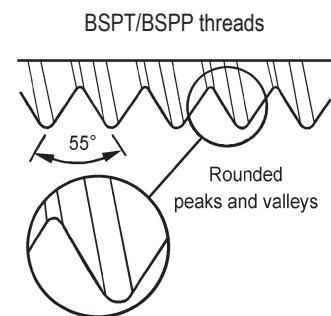
NPT vs. BSP (British Standard Pipe)

BSP threads are common in many countries outside the United States. BSP consists of two types of threads - BSPT (British Standard Pipe Taper) and BSPP (British Standard Pipe Parallel). The two styles are not compatible.

BSPT threads have a slight taper similar to NPT. BSPP threads are straight (parallel) threads and have the same thread angle, shape and threads per inch (pitch) as BSPT threads. *BSPT and BSPP threads should not be substituted for NPT threads.*

NPT and BSPT/BSPP threads have different angles, shape, and (in most cases) threads per inch (pitch). The thread angle is 60° for NPT threads; 55° for BSPT/BSPP threads. NPT threads are flattened at the peaks and valleys, while BSPT/BSPP threads are rounded.

Nominal Pipe Size	Threads per inch	
	NPT	BSPT / BSPP
1/16"	27	---
1/8"	27	28
1/4"	18	19
3/8"	18	19
1/2"	14	14
3/4"	14	14
1"	11½	11
1-1/4"	11½	11
1-1/2"	11½	11
2"	11½	11
2-1/2"	8	11
3"	8	11
3-1/2"	8	11
4"	8	11
5"	8	11
6"	8	11
8"	8	11



Identifying Threads

It is important to identify the threads required before ordering couplings.

Identifying threads can sometimes be the most difficult and frustrating part of coupling selection. However, without the right combination of threads, you may not provide a functional or safe connection.

The diameters, threads per inch (TPI) and thread pitch, etc. are necessary to completely identify a thread. Ring, Plug and GO/NOGO gauges are required to accurately gauge or identify threads. In the field, in the absence of these gauges, thread leaf gauges can be used to identify the Threads Per Inch (TPI) and the thread pitch. On threads you have determined to be straight threads, a caliper can be used to measure the Outside Diameter of the Male (ODM) or the Inside Diameter of the Female (IDF). A caliper can also be used to take measurements of tapered thread diameters. However, these are more difficult to define because of the taper. Fortunately, there are few tapered threads to deal with and these can usually be identified from the nominal ODM and the TPI.

However, identifying the thread may not fully identify what is needed in a mating fitting. The application is the primary *limiting factor on the thread type used*. Dixon offers products with a wide variety of threads used with hose, pipe and hydraulics.

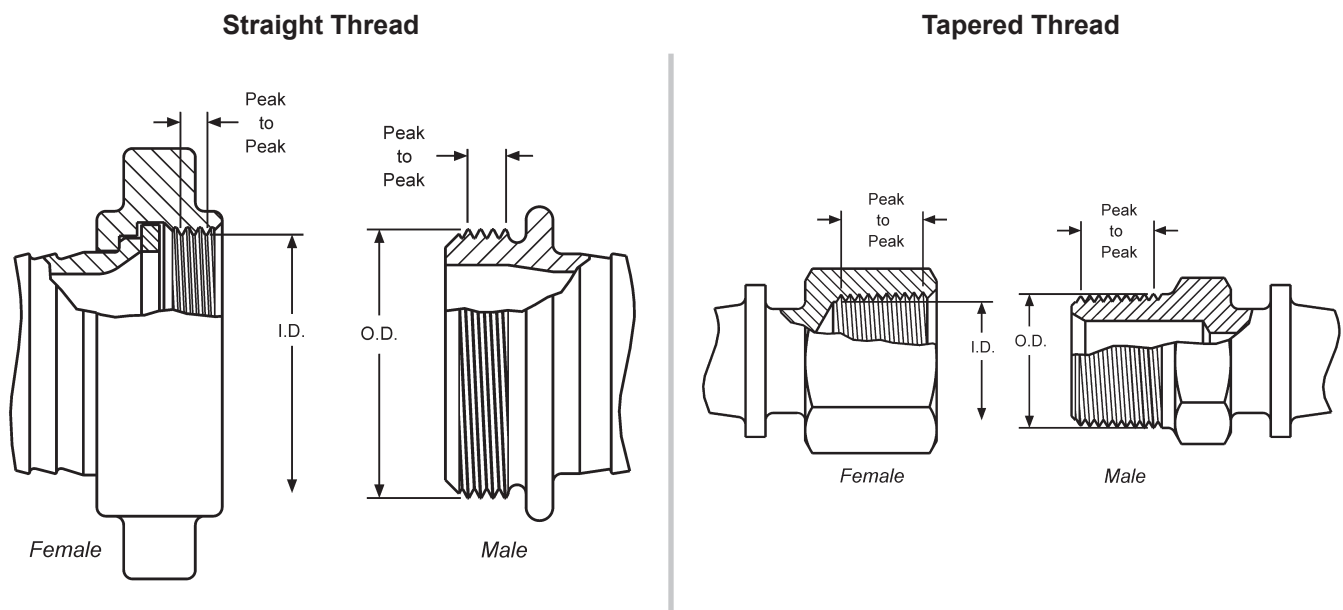
When attempting to choose a fitting, it is always advisable to first identify the thread to which it must connect. This may entail checking with a fitting or equipment manufacturer.

The fire hose thread specifications for some local municipal fire equipment and hydrants may vary according to local specifications. These can generally be most easily identified by contacting the local fire department responsible for the hydrant. The most common thread used on fire equipment is National Standard Thread (NST), also known as National Hose thread (NH).

When it is not possible to identify the thread:

- 1) Determine the number of threads per inch by measuring the distance from peak of thread to peak of thread across the largest number of whole threads. Then divide the number of threads by the measurement (This will provide the TPI).
- 2) Check to see if the thread is straight or tapered.
 - a) Straight Threads
Measure the Outside Diameter of the Male (ODM) or the Inside Diameter of the Female (IDF), from peak of thread to peak of thread.
 - b) Tapered Threads
Measure the Outside Diameter of the Male (ODM) at the large end and the small end, or the Inside Diameter of the Female (IDF) at the large end and the small end, from peak of thread to peak of thread. Then measure the Outside Diameter (OD) of the unthreaded pipe.

Once the application and these two pieces of information have been determined, the thread can generally be determined. When in doubt, contact the factory.



Threading Information

Abbreviation	System Name	Compatibility	Seal Method
BSPP	British Standard Pipe Parallel	Male BSPP with Female BSPP Female BSPP with Male BSPP Female BSPP with Male BSPT _r	Washer Washer Washer
BSPT_r	British Standard Pipe Taper	Male BSPT _r with Female BSPT _r Male BSPT _r with Female BSPP Female BSPT _r with Male BSPT _r <i>Female BSPT_r not compatible with Male BSPP</i>	Thread Washer Thread
CHT	American Standard Fire Hose Thread (1" National Hose Thread is Chemical Hose Thread , also known as Booster Hose Thread)	1" Male NH (NST) with 1" Female NH (NST) 1" Female NH (NST) with 1" Male NH (NST) 1" Thread is used on both 3/4" hose and 1" hose. <i>Not compatible with other systems</i>	Washer Washer
GHT	Garden Hose Thread	Male GHT with Female GHT Female GHT with Male GHT Thread is same for all size hose <i>Not compatible with other systems</i>	Washer Washer
IPS	Iron Pipe Straight Thread	Generic Name for Straight Pipe Thread See NPSH for compatibility	Washer
IPT	Iron Pipe Thread	Generic Name for All Pipe Thread <i>More information required</i>	
JIC	Joint Industrial Committee	Used with other mating JIC threads	Mechanical
NH or NST	American Standard Fire Hose Coupling Thread (National Hose thread also known as National Standard Thread)	Male NH (NST) with Female NH (NST) Female NH (NST) with Male NH (NST) <i>Not compatible with other systems</i> Thread pitch and diameters of fire threads may vary according to local and municipal regulations.	Washer Washer
NPT	American Standard Taper Pipe Thread (National Pipe Tapered)	Male NPT with Female NPT Male NPT with Female NPTF Male NPT with Female NPSM Male NPT with Female NPSH Female NPT with Male NPT Female NPT with Male NPTF Female NPT not compatible with Male NPSM or Male NPSH	Thread Thread Washer Washer Thread Thread
NPTF	American Standard Taper Pipe Fuel Dryseal Thread (National Pipe Tapered) (Dryseal)	Male NPTF with Female NPTF Male NPTF with Female NPT Male NPTF with Female NPSM Male NPTF with Female NPSH Female NPTF with Male NPTF Female NPTF with Male NPT <i>Female NPTF with Male NPSM or NPSH</i> <i>Note: NPTF with NPTF threads do not require sealant for the initial use. After that, sealant is required.</i>	Thread Thread Washer Washer Thread Thread Not Compatible
NPSH	American Standard Straight Pipe for Hose Couplings (National Pipe Straight Hose)	Male NPSH with Female NPSH Female NPSH with Male NPSH Female NPSH with Male NPT Female NPSH with Male NPTF Female NPSH with Male NPSM	Washer Washer Washer Washer Washer
NPSM	American Standard Straight Mechanical Joints (National Pipe Straight Mechanical)	Male NPSM with Female NPSM Male NPSM with Female NPSH Female NPSM with Male NPSM Female NPSM with Male NPT Female NPSM with Male NPTF	Seal can be either mechanical or washer. Mating fittings must be of same type.
SIPT	Straight Iron Pipe Thread	Generic name for Straight Pipe Thread	Washer
TIPT	Tapered Iron Pipe Thread	Generic name for Tapered Pipe Thread	Thread
NYC	NYC Fire Department	Straight Thread used in New York City	Washer
Chicago	Chicago Fire Department	Straight Thread used in Chicago	Washer

Thread Dimensions

Nominal Dimensions of Standard Threads

ODM -- Outside Diameter of the Male

IDF -- Inside Diameter of the Female

TPI -- Threads Per Inch

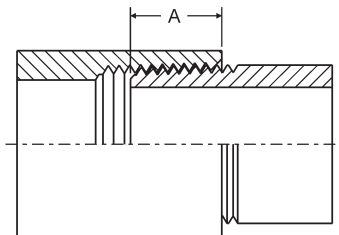
Size	Pipe OD	Tapered Threads		Straight Threads											
		NPT	BSPT _r	NPSH			NPSM			NST (NH)			BSPP		
		TPI	TPI	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)
1/8"	.405	27	28				27	0.397	0.358					0.383	0.337
1/4"	.540	18	19				18	0.526	0.468					0.516	0.450
3/8"	.675	18	19				18	0.662	0.603					0.656	0.588
1/2"	.840	14	14	14	0.8248	0.7395	14	0.823	0.747					0.825	0.733
3/4"	1.050	14	14	14	1.0353	0.9500	14	1.034	0.958	8	1.375	1.2246		1.041	0.950
1"	1.315	11.5	11	11.5	1.2951	1.1921	11.5	1.293	1.201	8	1.375	1.2246	11	1.309	1.193
1-1/4"	1.660	11.5	11	11.5	1.6399	1.5369	11.5	1.638	1.546				11	1.650	1.534
1-1/2"	1.900	11.5	11	11.5	1.8788	1.7758	11.5	1.877	1.785	9	1.990	1.8577		1.882	1.766
2"	2.375	11.5	11	11.5	2.3528	2.2498	11.5	2.351	2.259				11	2.347	2.231
2-1/2"	2.875	8	11	8	2.8434	2.6930	8	2.841	2.708	7.5	3.068	2.9104	11	2.960	2.844
3"	3.500	8	11				8	3.467	3.334	6	3.623	3.5306	11	3.460	3.344
4"	4.500	8	11				8	4.466	4.333	4	5.010	4.7111		4.450	4.334
4-1/2"										4	5.760	5.4611	11		
5"	5.563	8	11				8	5.528	5.395	4	6.260	5.9602	11	5.450	5.359
6"	6.625	8	11				8	6.585	6.452	4	7.025	6.7252		6.450	6.359
8"	8.625	8													
10"	10.750	8													
12"	12.750	8													

GHT (3/4") -- 1.0625 ODM, 11-1/2 TPI

Note: Female NPT (Tapered Pipe) thread is not available on hose swivel nuts.

Normal Engagement Length of NPT Thread in Inches (A) *

* Dimensions given do not allow for variations in tapping or threading.



Thread Size	Dimension A
1/8"	1/4"
1/4"	3/8"
3/8"	3/8"
1/2"	1/2"
3/4"	9/16"
1"	11/16"
1-1/4"	11/16"
1-1/2"	11/16"
2"	3/4"
2-1/2"	15/16"
3"	1"
4"	1-1/8"
5"	1-1/4"
6"	1-5/16"
8"	1-7/16"
10"	1-5/8"
12"	1-3/4"

Force Chart

Force (In Pounds)

Hose ID	25 PSI	50 PSI	75 PSI	100 PSI	150 PSI	200 PSI	250 PSI	300 PSI	500 PSI	1000 PSI
1/4"	1	2	4	5	7	10	12	15	25	49
3/8"	3	6	8	11	17	22	28	33	55	110
1/2"	5	10	15	20	29	39	49	59	98	196
3/4"	11	22	33	44	66	88	110	133	221	442
1"	20	39	59	79	118	157	196	236	393	785
1-1/4"	31	61	92	123	184	245	307	368	614	1227
1-1/2"	44	88	133	177	265	353	442	530	884	1767
2"	79	157	236	314	471	628	785	942	1571	3142
2-1/2"	123	245	368	491	736	982	1227	1473	2454	4909
3"	177	353	530	707	1060	1414	1767	2121	3534	7069
4"	314	628	942	1257	1885	2513	3142	3770	6283	12566
5"	491	982	1473	1964	2945	3927	4909	5891	9818	19635
6"	707	1414	2121	2827	4241	5655	7069	8482	14137	28274
8"	1257	2513	3770	5027	7540	10053	12566	15080	25133	50266
10"	1964	3927	5891	7854	11781	15708	19635	23562	39270	78540
12"	2827	5655	8482	11310	16965	22620	28274	33929	56549	113098

Note: For hose I.D.'s from 1-1/4" to 12" the force in pounds is greater than the PSI.

- Force is the dynamic power which is exported longitudinally through a hose, towards the ends. To arrive at the number of pounds of force exerted, you merely multiply the area of the I.D. times the working pressure being used.
- Area of a circle: $\pi \times r^2$ (PI [3.1416] times radius squared)
- Force = Area x Pressure

Pressure - Temperature Ratings

Pressure Class	150	300
Test Pressure	425	1100
Service Temperature	Pressure	
-20 to 100	275	720
150	255	710
200	240	700
250	225	690
300	210	680
350	195	675
400	180	665
450	165	650
500	150	625
550	140	590
600	130	555
650	120	515
700	110	470
750	100	425

Note: Ratings apply to all products covered by USA B16.5 valves conforming to the requirements of this standard must, in other respects, merit these ratings.

All ratings are maximum allowable non-shock pressures (PSIG) at the tabulated temperatures (degree Fahrenheit) and may be interpolated between temperatures shown. The primary service pressure ratings are shown in bold face type. Temperatures are those on the inside of the pressure retaining structure.

The use of these ratings requires gaskets conforming to the requirements of USA B16.5. The user is responsible for selecting gaskets of dimensions and materials to withstand the required bolt loading without injurious crushing, and suitable for the service conditions in all other respects.

Pipe Dimensions

Dimensions of Seamless and Welded Steel Pipe ASA-B36.10 and B36.19

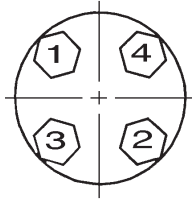
Nominal Pipe Size	Outside Diameter	Pipe Schedule Wall Thickness												
		10	20	30	Stand.	40	60	Extra Strong	80	100	120	140	160	XXX Strong
1/8"	0.405"	0.049	---	---	0.068	0.068	---	0.095	0.095	---	---	---	---	---
1/4"	0.540"	0.065	---	---	0.088	0.088	---	0.119	0.119	---	---	---	---	---
3/8"	0.675"	0.065	---	---	0.091	0.091	---	0.126	0.126	---	---	---	---	---
1/2"	0.840"	0.083	---	---	0.109	0.109	---	0.147	0.147	---	---	---	0.188	0.294
3/4"	1.050"	0.083	---	---	0.113	0.113	---	0.154	0.154	---	---	---	0.219	0.308
1"	1.315"	0.109	---	---	0.133	0.133	---	0.179	0.179	---	---	---	0.250	0.358
1-1/4"	1.660"	0.109	---	---	0.140	0.140	---	0.191	0.191	---	---	---	0.250	0.382
1-1/2"	1.900"	0.109	---	---	0.145	0.145	---	0.200	0.200	---	---	---	0.281	0.400
2"	2.375"	0.109	---	---	0.154	0.154	---	0.218	0.218	---	---	---	0.344	0.436
2-1/2"	2.875"	0.120	---	---	0.203	0.203	---	0.276	0.276	---	---	---	0.375	0.552
3"	3.500"	0.120	---	---	0.216	0.216	---	0.300	0.300	---	---	---	0.438	0.600
3-1/2"	4.000"	0.120	---	---	0.226	0.226	---	0.318	0.318	---	---	---	---	---
4"	4.500"	0.120	---	---	0.237	0.237	---	0.337	0.337	---	0.438	---	0.531	0.674
5"	5.563"	0.134	---	---	0.258	0.258	---	0.375	0.375	---	0.500	---	0.625	0.750
6"	6.625"	0.134	---	---	0.280	0.280	---	0.432	0.432	---	0.562	---	0.719	0.864
8"	8.625"	0.148	0.250	0.277	0.322	0.322	0.406	0.500	0.500	0.594	0.719	0.812	0.906	0.873
10"	10.750"	0.165	0.250	0.307	0.365	0.365	0.500	0.500	0.594	0.719	0.844	1.000	1.125	1.000
12"	12.750"	0.180	0.250	0.330	0.375	0.406	0.562	0.500	0.688	0.844	1.000	1.125	1.312	1.000

Definitive Cross-Reference from NPS to DN Specification Sizes

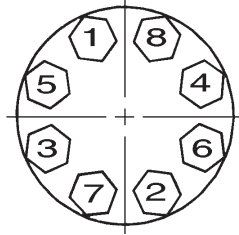
Nominal Pipe Size	DN	OD (inches)	Pipe Schedule Wall Thickness													
			5S	5	10S	10	20	30	40S	40	60	80S	80	100	120	160
1/8"	6	0.405	---	0.035	---	0.049	---	0.057	---	0.068	---	---	0.095	---	---	---
1/4"	8	0.540	---	0.049	---	0.065	---	0.073	---	0.088	---	---	0.119	---	---	---
1/2"	15	0.840	---	0.065	---	0.083	---	0.095	---	0.109	---	---	0.147	---	0.170	0.188
3/4"	20	1.050	---	0.065	---	0.083	---	0.095	---	0.113	---	---	0.154	---	0.170	0.219
1"	25	1.315	---	0.065	---	0.109	---	0.114	---	0.133	---	---	0.179	---	0.200	0.250
1-1/4"	32	1.660	---	0.065	---	0.109	---	0.117	---	0.140	---	---	0.191	---	0.215	0.250
1-1/2"	40	1.900	---	0.065	---	0.109	---	0.125	---	0.145	---	---	0.200	---	0.225	0.281
2"	50	2.375	---	0.065	---	0.109	---	---	---	0.154	---	---	0.218	---	0.250	0.344
2-1/2"	65	2.875	---	0.083	---	0.120	---	---	---	0.203	---	---	0.276	---	0.300	0.375
3"	80	3.500	---	0.083	---	0.120	---	---	---	0.216	---	---	0.330	---	0.350	0.438
4"	100	4.500	---	0.083	---	0.120	---	---	---	0.237	0.281	---	0.377	---	0.437	0.531
5"	125	5.563	---	0.109	---	0.134	---	---	---	0.258	---	---	0.375	---	0.500	0.625
6"	150	6.625	---	0.109	---	0.134	---	---	---	0.280	---	---	0.432	---	0.562	0.719
8"	200	8.625	---	0.109	---	0.148	0.250	0.277	---	0.322	0.406	---	0.500	0.593	0.718	0.906
10"	250	10.750	0.134	0.134	0.165	0.165	0.250	0.307	0.365	0.365	0.500	0.500	0.593	0.718	0.843	---
12"	300	12.750	0.156	0.165	0.180	0.180	0.250	0.330	0.375	0.406	0.500	0.500	0.687	0.843	1.000	---

Flange Information

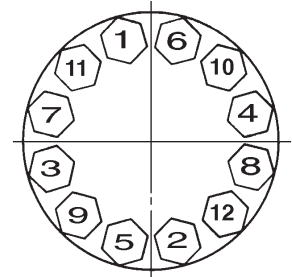
*Flange Bolt Tightening Sequence
(Use appropriate gaskets and bolts)*



4 Bolt



8 Bolt

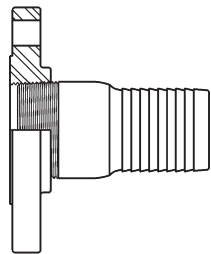


12 Bolt

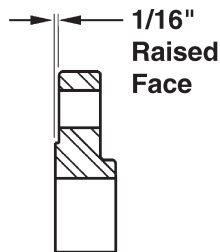
See page 567 for drilling dimensions

Flange Diagrams

Threaded Applications

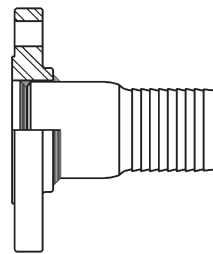


**Threaded Flange
with raised face**

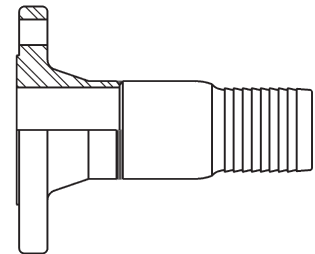


1/16"
Raised
Face

Welded Applications

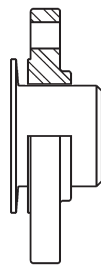


**Slip-On Flange
with raised face**

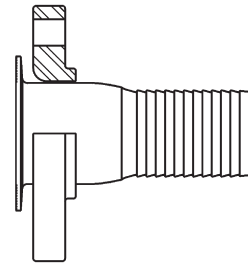


**Weld Neck Flange
with raised face**

**Floating Applications
(flange free to swivel)**



**Slip-On Flange
with raised face**



Lap-Joint Flange

Flange Dimensions

Dimensions of 150 LB. ASA Steel Flanges

Nominal Pipe Size	Flange OD	Thickness*	OD of Raised Face	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolt Holes	Diameter of Bolts
1"	4-1/2"	9/16"	2"	3-1/8"	4	5/8"	1/2"
1-1/2"	5"	11/16"	2-7/8"	3-7/8"	4	5/8"	1/2"
2"	6"	3/4"	3-5/8"	4-3/4"	4	3/4"	5/8"
2-1/2"	7"	7/8"	4-1/8"	5-1/2"	4	3/4"	5/8"
3"	7-1/2"	15/16"	5"	6"	4	3/4"	5/8"
4"	9"	15/16"	6-3/16"	7-1/2"	8	3/4"	5/8"
5"	10"	15/16"	7-5/16"	8-1/2"	8	7/8"	3/4"
6"	11"	1"	8-1/2"	9-1/2"	8	7/8"	3/4"
8"	13-1/2"	1-1/8"	10-5/8"	11-3/4"	8	7/8"	3/4"
10"	16"	1-3/16"	12-3/4"	14-1/4"	12	1"	7/8"
12"	19"	1 1/4"	15"	17"	12	1"	7/8"

* 1/16" raised face is included in the thickness.

Dimensions of Tank Truck Flanges (TTMA Drilling)

Nominal Pipe Size	Flange OD	Thickness*	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolt Holes	Diameter of Bolts
3"	5-5/8"	3/8"	4-7/8"	8	7/16"	3/8"
4"	6-5/8"	3/8"	5-7/8"	8	7/16"	3/8"
6"	8-7/8"	3/8"	8-1/8"	12	7/16"	3/8"

* Listed thickness is for aluminum flanges

Water Data and Formulas

1 gallon water = 231 cubic inches = 8.333 pounds

1 pound of water = 27.7 cubic inches

1 cubic foot water = 7.5 gallons = 62.5 pounds (salt water weighs approximately 64.3 pounds per cubic foot)

Pounds per square inch at bottom of a column of water = height of column in feet x .434

1 miner's inch = 9 to 12 gallons per minute

Horsepower to Raise Water

If pumping liquid other than water, multiply the gallons per minute below by the liquids specific gravity

$$\text{Horsepower} = \frac{\text{gallons per minute} \times \text{total head in feet}}{3960}$$

Gallons Per Minute through a Pipe

GPM = .0408 x pipe diameter inches² x feet/minute water velocity

Weight of Water in a Pipe

Pounds water = pipe length feet x pipe diameter inches² x .34

Distance (inches)	Gallons per Minute Discharge for a Given Nominal Pipe Diameter (inches)				
	5	6	8	10	12
5	163	---	---	---	---
6	195	285	---	---	---
7	228	334	580	---	---
8	260	380	665	1060	---
9	293	430	750	1190	1660
10	326	476	830	1330	1850
11	360	525	915	1460	2020
12	390	570	1000	1600	2220
13	425	620	1080	1730	2400
14	456	670	1160	1860	2590
15	490	710	1250	2000	2780
16	520	760	1330	2120	2960
17	550	810	1410	2260	3140
18	590	860	1500	2390	3330
19	620	910	1580	2520	3500
20	650	950	1660	2660	3700
21	685	1000	1750	2800	3890
22	720	1050	1830	2920	4060
23	750	1100	1910	3060	4250
24	---	1140	2000	3200	4440

Water Discharge Table

This table is intended for general reference and general applicability only, and should not be relied upon as the sole or precise source of information available with respect to the subject covered. The user should also refer to and follow manufacturer's specific instructions and recommendations with regard to such information, where they exist.

Flow of water through 100 foot lengths of hose, Straight-Smooth Bore - U.S. Gallons per minute

PSI at Hose Inlet	Nominal Hose ID Diameters - Inches							
	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"
20	26	47	76	161	290	468	997	2895
30	32	58	94	200	360	582	1240	3603
40	38	68	110	234	421	680	1449	4209
50	43	77	124	264	475	767	1635	4748
60	47	85	137	291	524	846	1804	5239
75	53	95	154	329	591	955	2035	5910
100	62	112	180	384	690	1115	2377	6904
125	70	126	203	433	779	1258	2681	7788
150	77	139	224	478	859	1388	2958	8593
200	90	162	262	558	1004	1621	3455	10038

Figures are to be used as a guide since the hose inside diameter tolerance, the type of fittings used, and orifice restriction all influence the actual discharge. Thus, variations plus or minus from the table may be obtained in actual service.

Conversion Table - Feet of Water to Inches of Mercury

Feet of Water	1	2	4	6	8	10	12	14	16	20	22	24	26	28	30	32	34
Inches of Mercury	0.9	1.8	3.5	5.3	7.1	8.8	10.6	12.4	14.1	17.7	19.4	21.2	23.0	24.8	26.5	28.3	30.0

Feet Head of Water to PSI

Feet Head	Pounds per Square Inch	Feet Head	Pounds per Square Inch	Feet Head	Pounds per Square Inch	Feet Head	Pounds per Square Inch
1	0.43	15	6.50	100	43.31	250	108.27
2	0.87	20	8.66	110	47.64	300	129.93
3	1.30	25	10.83	120	51.97	350	151.58
4	1.73	30	12.99	130	56.30	400	173.24
5	2.17	40	17.32	140	60.63	500	216.55
6	2.60	50	21.65	150	64.96	600	259.85
7	3.03	60	25.99	160	69.29	700	303.16
8	3.46	70	30.32	170	73.63	800	346.47
9	3.90	80	34.65	180	77.96	900	389.78
10	4.33	90	38.98	200	86.62	1000	433.00

Note: One foot of water at 62° F equals 0.433 PSI.
 To find the PSI for any feet head not given in the table, multiply the feet head by 0.433.

**Maximum Recommended Air Flow (SCFM)
 Through ANSI Standard Weight Schedule 40 Metal Pipe**

The flow values in the table below are based on a pressure drop of 10% of the applied pressure per 100 feet of pipe for 1/8", 1/4", 3/8", and 1/2" pipe sizes; and a pressure drop of 5% of the applied pressure per 100 feet of pipe for 3/4", 1", 1-1/4", 2", 2-1/2", 3" pipe sizes. The table gives recommended flows for pipe sizes at listed pressures and should be used to determine appropriate piping for air systems.

Applied Pressure PSI	Nominal Standard Pipe Size										
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
5	0.5	1.2	2.7	4.9	6.6	13	27	40	80	135	240
10	0.8	1.7	3.9	7.7	11.0	21	44	64	125	200	370
20	1.3	3.0	6.6	13.0	18.5	35	75	110	215	350	600
40	2.5	5.5	12.0	23.0	34.0	62	135	200	385	640	1100
60	3.5	8.0	18.0	34.0	50.0	93	195	290	560	900	1600
80	4.7	10.5	23.0	44.0	65.0	120	255	380	720	1200	2100
100	5.8	13.0	29.0	54.0	80.0	150	315	470	900	1450	2600
150	8.6	20.0	41.0	80.0	115.0	220	460	680	1350	2200	3900
200	11.5	26.0	58.0	108.0	155.0	290	620	910	1750	2800	5000
250	14.5	33.0	73.0	135.0	200.0	370	770	1150	2200	3500	6100

CFM vs PSI for Nozzles

Gauge PSI	CFM Free Air Flow @ Nozzle Diameter (Inch)							
	1/64	1/32	3/64	1/16	3/32	1/8	3/16	1/4
1	.03	.11	.2	.4	1.0	1.7	3.9	6.8
5	.06	.24	.5	1.0	2.2	3.9	8.7	15.4
10	.08	.34	.8	1.4	3.1	5.4	12.3	21.8
15	.10	.42	.9	1.6	3.7	6.6	15.0	26.7
20	.12	.48	1.1	1.9	4.2	7.7	17.1	30.8
25	.13	.54	1.2	2.2	4.7	8.6	19.4	34.5
30	.16	.63	1.4	2.5	5.6	10.0	22.5	40.0
40	.19	.77	1.7	3.1	6.8	12.3	27.5	49.1
50	.22	.91	2.0	3.6	8.2	14.5	32.8	58.2
60	.26	1.05	2.3	4.2	9.4	16.8	37.5	67.0
70	.29	1.19	2.7	4.8	10.7	19.0	43.0	76.0
80	.33	1.33	3.0	5.3	11.9	21.2	47.5	85.0
90	.36	1.47	3.3	5.9	13.1	23.5	52.5	94.0
100	.40	1.61	3.7	6.4	14.5	25.8	58.3	103.0
110	.43	1.76	3.9	7.0	15.7	28.0	63.0	112.0
120	.47	1.90	4.30	7.6	17.0	30.2	68.0	121.0
130	.50	2.04	4.6	8.1	18.2	32.4	73.0	130.0
140	.54	2.17	4.9	8.7	19.5	34.5	78.0	138.0
150	.57	2.33	5.2	9.2	20.7	36.7	83.0	147.0
175	.66	2.65	5.9	10.6	23.8	42.1	95.0	169.0
200	.76	3.07	6.9	12.2	27.5	48.7	110.0	195.0

PSI = pounds/square inch; CFM = cubic feet/minute

Formulas

Air Velocity in a Pipe

Using the equation and typical values of V, D and L explained to the right approximate values of P are computed as follows:

Velocity Ft/Sec	Pipe Diameter in Inches, 10' long				
	1	2	4	6	10
1	.0004	.0002	.0001	.00007	.00004
2	.0016	.0008	.0004	.00030	.00016
5	.0100	.0050	.0025	.00170	.0010
10	.0400	.0200	.0100	.00670	.0040
15	.0900	.0450	.0225	.01500	.0090
20	.1600	.0800	.0400	.02700	.0160
25	.2500	.1250	.0625	.04170	.0250
30	.3600	.1800	.0900	.06000	.0360

$$V = \sqrt{\frac{25,000 DP}{L}}$$

V = air velocity in feet per second
 D = pipe inside diameter in inches
 L = length of pipe in feet
 P = pressure loss due to air friction in ounces/square inch

formula from B.F.Sturtevant Company

Air Volume Discharged from Pipe

CFM = air volume in cubic feet per minute

V = air velocity in feet per second as determined in the equation at the top of this page

A = cross section area of pipe in square feet

$$CFM = 60VA$$

Boyle's Law

If temperature is kept constant, the volume of a given mass of gas is inversely proportional to the pressure which is exerted upon it.

$$\frac{\text{Initial Pressure}}{\text{Final Pressure}} = \frac{\text{Final Volume}}{\text{Initial Volume}}$$

Suggested Pipe Size for Compressed Air Flow at 100 PSI Length of Run, Feet

SCFM Air Flow	25	50	75	100	150	200	300	500	1000	Compressor HP
4	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1
12	1/2	1/2	1/2	3/4	3/4	1/2	3/4	1	1	3
20	3/4	3/4	3/4	3/4	1	3/4	1	1 1/4	1 1/4	5
30	3/4	3/4	1	1	1	1	1 1/4	1 1/4	1 1/4	7 1/2
40	3/4	1	1	1	1 1/4	1	1 1/4	1 1/2	1 1/2	10
60	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	2	15
80	1	1 1/4	1 1/4	1 1/4	1 1/2	1 1/4	1 1/2	2	2	20
100	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2 1/2	25
120	1 1/4	1 1/2	1 1/2	1 1/2	2	1 1/2	2	2 1/2	2 1/2	30
160	1 1/4	1 1/2	1 1/2	2	2	1 1/2	2 1/2	2 1/2	3	40
200	1 1/2	2	2	2	2	2	2 1/2	3	3	50
240	1 1/2	2	2	2	2 1/2	2	2 1/2	3	3	60
300	2	2	2	2 1/2	2 1/2	2	3	3	3 1/2	75
400	2	2 1/2	2 1/2	2 1/2	3	2 1/2	3	3 1/2	4	100
500	2	2 1/2	2 1/2	3	3	2 1/2	3 1/2	3 1/2	4	125

On a compressed air distribution system, pressure losses greater than 3% are considered excessive, and a well-designed system having a steady rate of air flow is usually designed for not more than a 1% loss or 1 PSI for a 100 PSI system. The pipe size depends not only on the volume of air flow but how far it must be carried. To hold the distribution loss to 1 PSI, pipes of larger diameter must be used on longer runs to carry the same flow that can be handled by smaller pipes on shorter runs.

Figures in the body of the chart above are pipe sizes recommended on a 100 PSI system to carry air with less than 1 PSI loss. When measuring lengths of runs, add 5 feet of length for each pipe fitting. If carrying 120 PSI pressure these sizes will carry slightly more air than shown, or pressure loss will be slightly less than 1 PSI. If carrying 80 PSI pressure these pipes will carry slightly less air at 1 PSI pressure loss than shown in the chart.

The left column of the chart shows the volume of air to be carried. It is difficult to estimate the air flow volume to be carried in each leg of the distribution system. This varies with the application. On some applications, like in a large plant with many legs in the distribution system serving dozens of air-operated machines, the air usage may be at a fairly steady rate. Other applications, usually on small systems, may have to carry a high surge of air if several machines happen to be operated at the same time. Then there may be a period with almost no flow.

To make a realistic estimate of air flow volume, the far right column of the chart showing compressor HP may be used. On steady pumping, a compressor will produce a minimum of 4 SCFM air flow for each 1 HP of capacity. This is a conservative figure, as most compressors will produce 5 or 6 SCFM.

For example, a 25 HP compressor will produce at least 100 SCFM of air. This is shown in the far left column on the same line as 25 HP.

excerpted from *Industrial Fluid Power*, Volume 1, third edition, 1984

Air Receiver Capacities

If your tank is not listed in the table to the right, use the following formula to calculate the tank size (gallons) and then estimate the cubic feet tank capacity at a given pressure from the table above.

$$\text{Tank Gallons} = \frac{\text{Tank Height} \times (\text{Tank Radius})^2}{73.53}$$

Height and Radius are in inches

Tank Size (inches)	Tank Size (gallons)	Gauge Pressure on Tank (PSI)			
		0	100	150	200
Cubic Feet Tank Capacity					
12 x 24	10	1.3	11	15	19
14 x 36	20	2.7	21	30	39
16 x 36	30	4.0	31	45	59
20 x 48	60	8.0	62	90	117
20 x 63	80	10.7	83	120	156
24 x 68	120	16.0	125	180	234
30 x 84	240	32.0	250	360	467

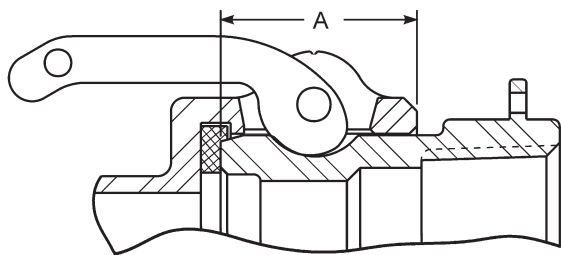
Air Hose Friction

Hose Size (inches)	CFM thru 50' Hose	Gauge Pressure - Pounds/sq inch			
		50	70	90	110
PSI Loss Over 50' Hose Length					
1/2"	20	1.8	1.0	.8	.6
	30	5.0	3.4	2.4	2.0
	40	10.1	7.0	5.4	4.3
	50	18.1	12.4	9.5	7.6
	60	+	20.0	14.8	12.0
	70	+	28.4	22.0	17.6
	80	+	+	30.5	24.6
	90	+	+	41.0	33.3
	10	+	+	+	44.5
	110	+	+	+	+
3/4"	20	.04	.2	.2	.1
	30	.08	.5	.4	.3
	40	1.5	.9	.7	.5
	50	2.4	1.5	1.1	.9
	60	3.5	2.3	1.6	1.3
	70	4.4	3.2	2.3	1.8
	80	6.5	4.2	3.1	2.4
	90	8.5	5.5	4.0	3.1
	100	11.4	7.0	5.0	3.9
	110	14.2	8.8	6.2	4.9
	120	+	11.0	7.5	5.9
	130	+	+	9.0	7.1
	1"	20	.1	0	0
30		.2	.1	.1	.1
40		.3	.2	.2	.2
50		.5	.4	.3	.2
60		.8	.5	.4	.3
70		1.1	.7	.6	.4
80		1.5	1.0	.7	.6
90		2.0	1.3	.9	.7
100		2.6	1.6	1.2	.9
110		3.5	2.0	1.4	1.1
120		4.8	2.5	1.7	1.3
130		7.0	3.1	2.0	1.5

PSI = pressure in pounds/square inch
CFM = air flow in cubic feet/minute

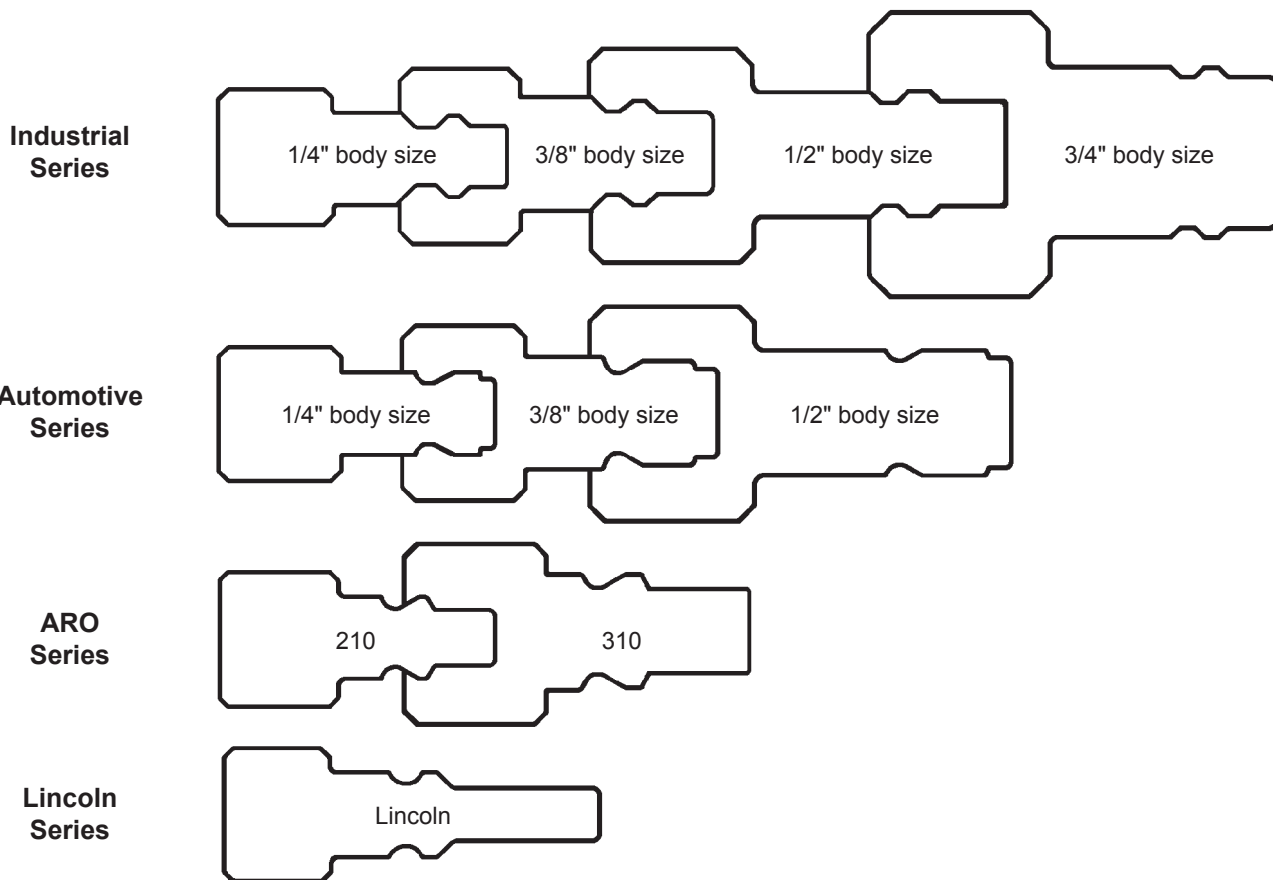
+ pressure loss is too great and therefore the combination of Hose Size, CFM, and Gauge Pressure is not recommended. Gauge Pressures the indicated air pressure in pounds/square inch, at the source (i.e. the air compressor receiver tank)

Cam and Groove Nominal Take-Up Lengths



Thread Size	Dimension A
1/2"	0.97"
3/4"	0.97"
1"	1.20"
1-1/4"	1.44"
1-1/2"	1.50"
2"	1.81"
2-1/2"	1.82"
3"	1.78"
4"	1.84"
5"	2.00"
6"	2.13"
8"	2.06"
8"	3.22"

Air Chief Actual Size Profile Chart



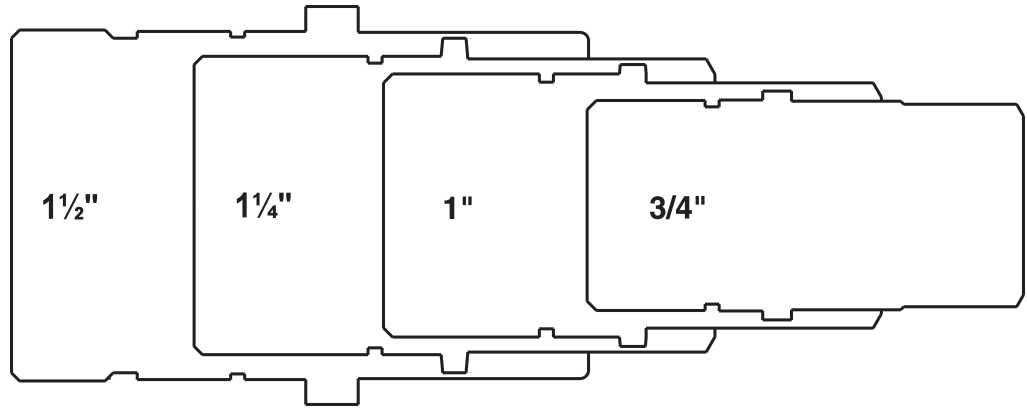
* 1/2" Industrial Series may also interchange with 1/2" Automotive Series.

Hydraulic Plug Profile Chart

**Industry/Competitor
Interchange**

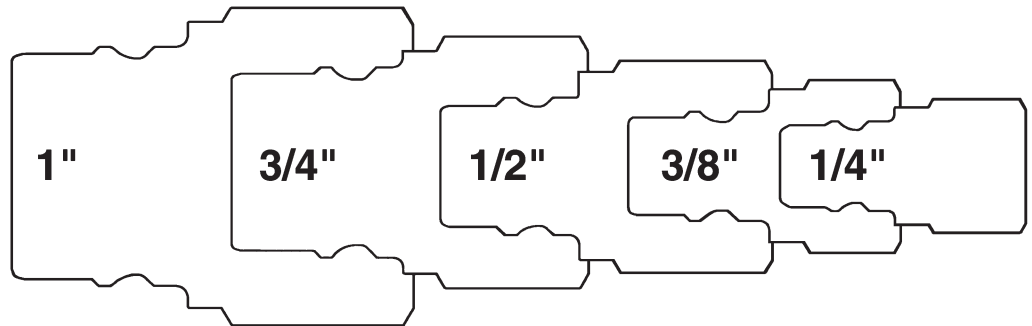
Dixon 7800 Series

Perfecting W Series
Aeroquip 5100
Parker 6100



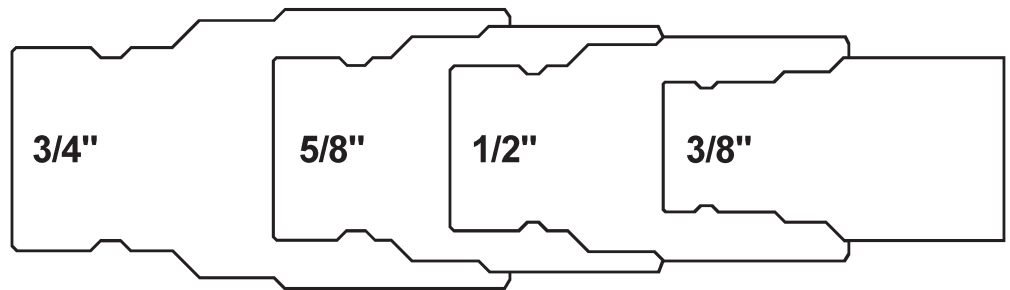
Dixon VH Series

Perfecting V Series
Snap-tite H
Faster TNV



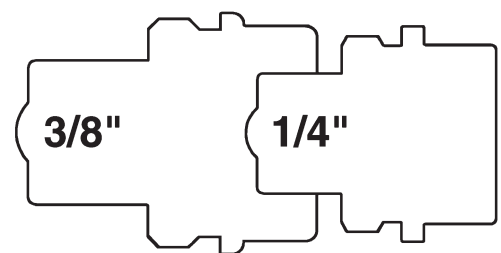
Dixon Flush Face Fittings

Perfecting HT Series
Aeroquip FD49
HTMA Parker FF



Dixon 3000 Series

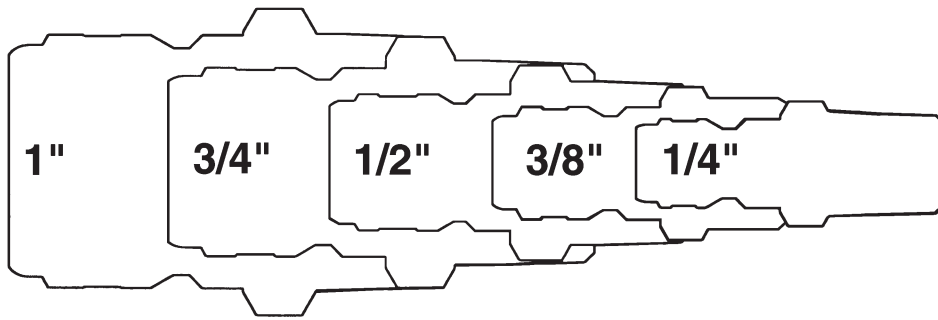
Perfecting T Series
Parker 3000
Enerpac C604



Hydraulic Plug Profile Chart

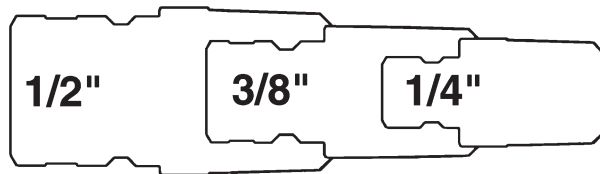
Industry/Competitor
Interchange

Dixon Straight Thru Fittings



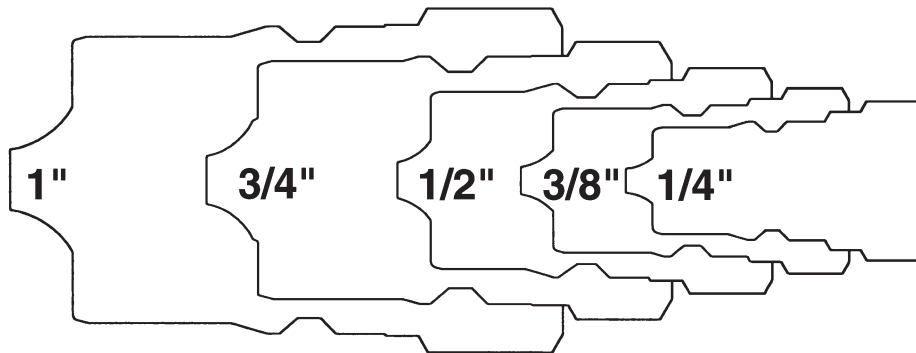
Perfecting E Series
Parker ST
Hansen ST

Flow Mate Couplings



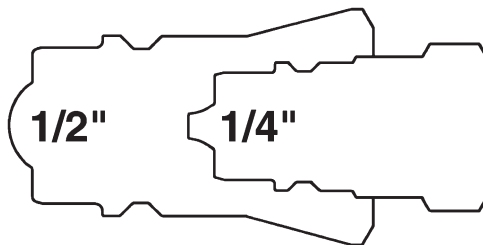
Perfecting CM Series
Parker Moldmate
Hansen Flo-Temp

Dixon Industrial Fittings



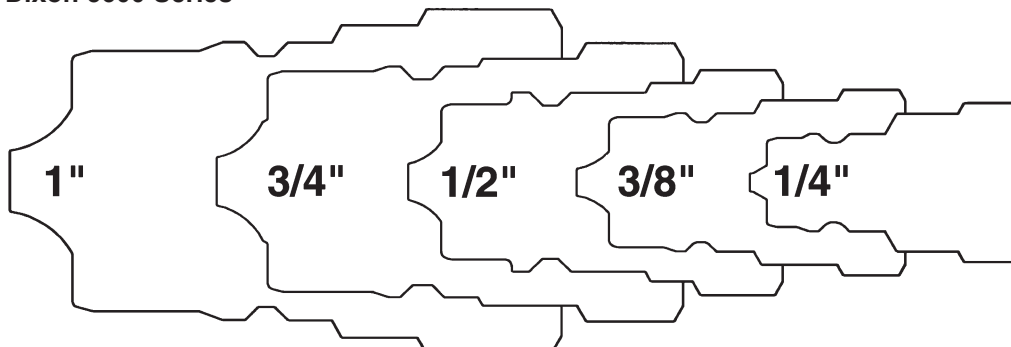
ISO 7241-B
Perfecting H Series
Hansen HK
Aeroquip FD45
Parker 60

Dixon Agricultural Fittings



Perfecting R Series
Aeroquip FD76
Parker/Pioneer 4000
Safeway S20

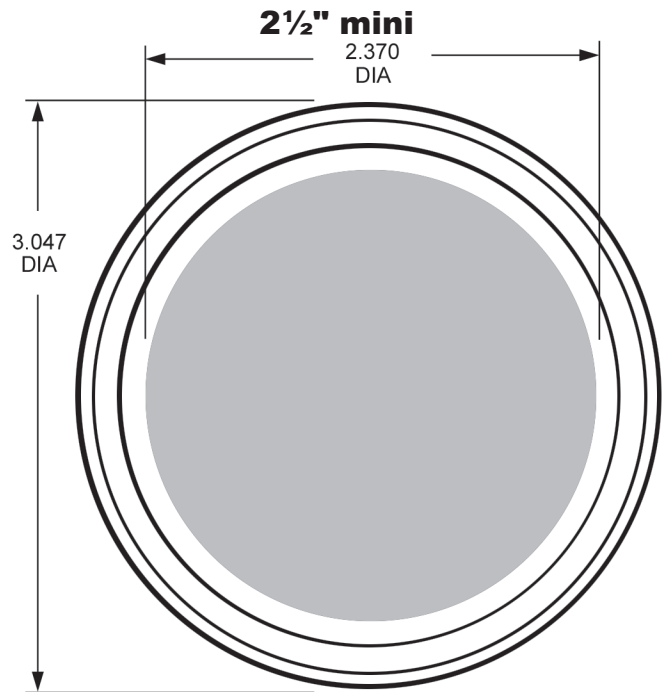
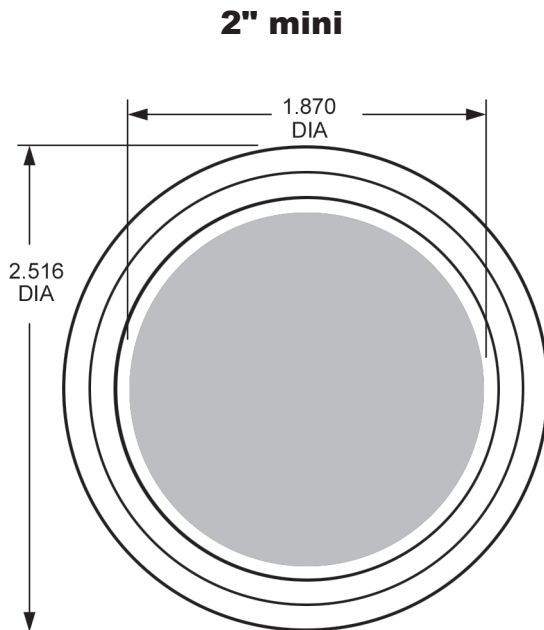
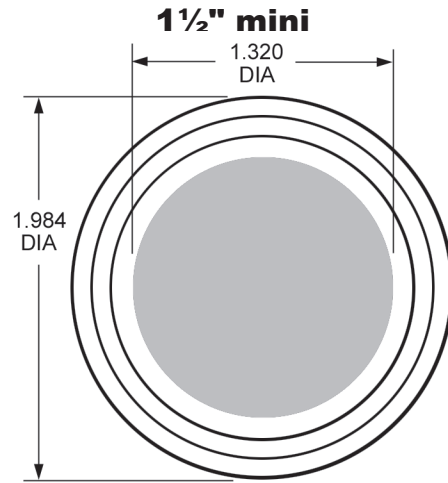
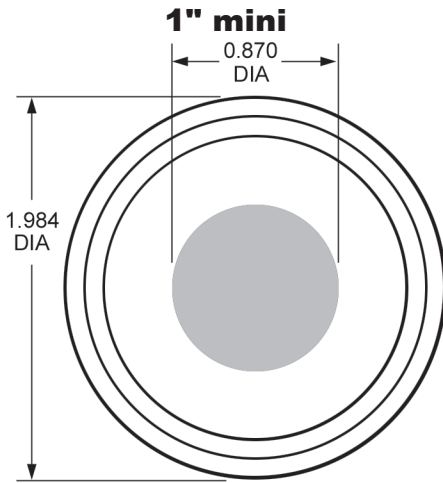
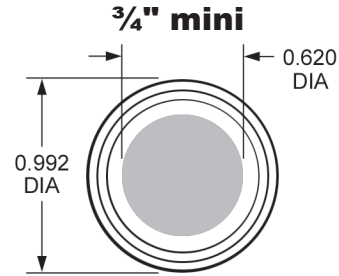
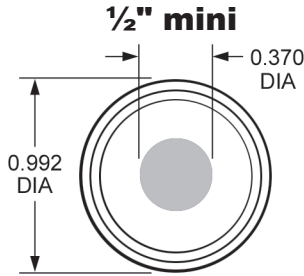
Dixon 5600 Series



ISO 7241-A
Perfecting K Series
Aeroquip 5600
Parker 6600

Sanitary Sizing Guide

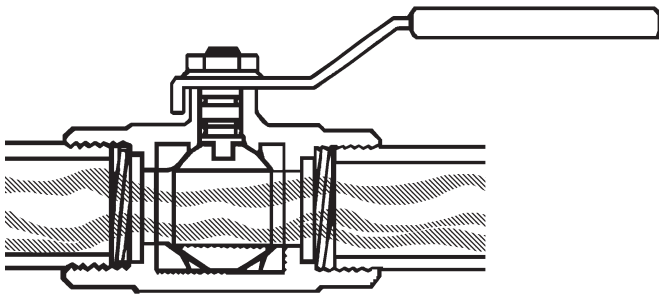
- These actual size diagrams are provided to eliminate sizing errors when specifying sanitary fittings.
- The outside diameters are the same for 1/2" and 3/4" (0.992 O.D.) and 1" and 1 1/2" (1.984 O.D.).
- Sizes 2" and above have specific outside diameter dimensions.
- Diagrams are not available for 3" and above, a table is supplied for your convenience.



Sanitary Size	OD of clamp end	ID of fitting	Sanitary Size	OD of clamp end	ID of fitting
1/2"	0.992	0.370	3"	3.579	2.870
3/4"	0.992	0.620	4"	4.682	3.834
1"	1.984	0.870	6"	6.562	5.782
1 1/2"	1.984	1.320	8"	8.602	7.760
2"	2.516	1.870	10"	10.570	9.782
2 1/2"	3.047	2.370	12"	12.570	11.760

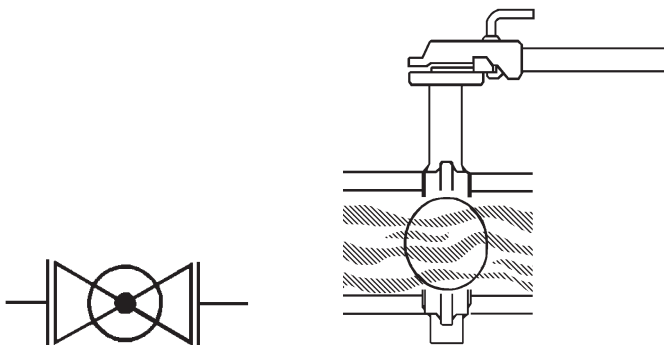
Valve Selection Guide

Ball Valve



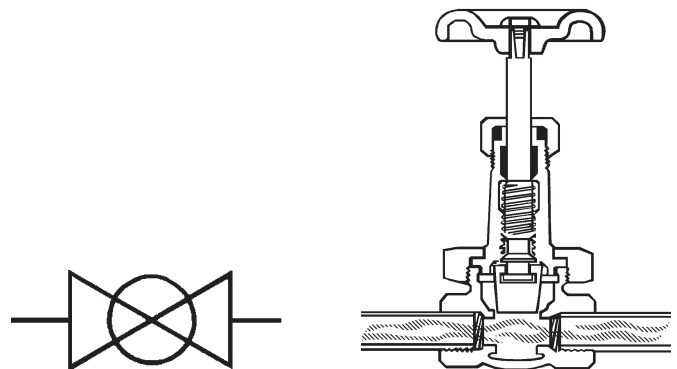
- can be used for on and off service or throttling
- when positive shut-off is necessary
- where a low valve profile is necessary
- only 90° rotation from open to fully closed (quick opening)
- Handle position is a quick indication of whether valve is open or closed.
- full port ball valves do not resist flow

Butterfly Valve



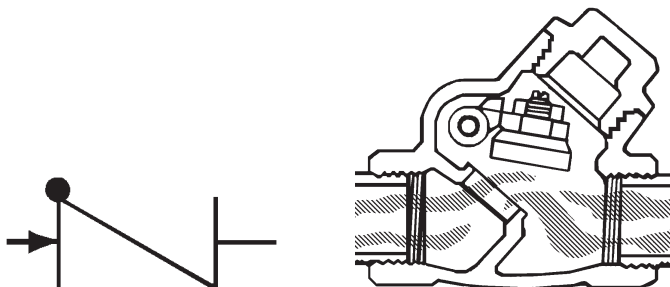
- where positive shut-off is necessary
- primarily for fully open or fully closed applications
- may be used for throttling
- only 90° rotation from open to fully closed
- lightweight
- easy to install
- less costly than an iron body gate valve

Gate Valve



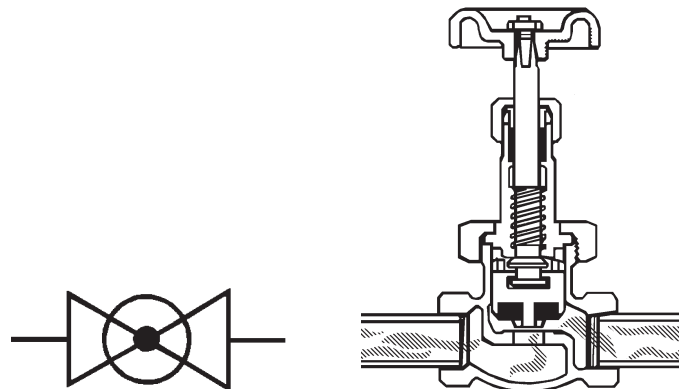
- for fully open or fully closed service - not for throttling
- for minimum line pressure drop
- for minimum fluid entrapment in the line
- for relatively infrequent operation

Check Valve



- To control the direction of flow and for quick, automatic reactions to flow change. Swing check valves are used when a minimum resistance to flow is required.
- Swing check valves are recommended for use in conjunction with gate valves. They should not be used in a rapid recycling system such as reciprocating pumps or air compressor service where they could cause chatter and damaging vibration.

Globe Valve



- for regulation (throttling) of flow
- for frequent operation; short stem travel reduces operator's time
- where some line resistance is acceptable

Crimp Recommendations

The crimp recommendation charts are only guides. It will not apply to every coupling situation. In some instances alternative dies and crimping dimensions must be employed to ensure safety. Experience has shown that variances in the construction of similar hoses and couplings may cause some assemblies to react differently when crimped. It is not uncommon to find hose with an outer diameter that fluctuates from one end to the other or from production lot to production lot. These inconsistencies coupled with the inherent differences between textile or wire braid, hard or soft wall, the presence or absence of an internal spiral wire and the differences in hose coverings make it difficult to establish hard and fast rules. Therefore, it is imperative that hose dimensions are accurately measured, assemblies are tested, and documentation is maintained.

Crimped Dix-Lock and Dual-Lock Recommendation Guide

Hose ID	Part #	Hose OD		Crimp Diameter (±0.005)	Crimp Length		% Reduction
		Fractional	Decimal		QM/QB	PHL	
1/2"	QM3WF	54/64	0.844	0.925	1-1/8	1-1/4	18.9
	QB3WF	55/64	0.859	0.940	1-1/8	1-1/4	18.1
	QM22WF	56/64	0.875	0.950	1-1/8	1-1/4	18.9
	QB22WF	57/64	0.891	0.965	1-1/8	1-1/4	18.4
	QM33WF	58/64	0.906	0.975	1-1/8	1-1/4	19.0
	QB33WF	59/64	0.922	0.990	1-1/8	1-1/4	18.5
	PHL8WF	60/64	0.938	1.005	1-1/8	1-1/4	18.0
		61/64	0.953	1.015	1-1/8	1-1/4	18.5
		62/64	0.969	1.030	1-1/8	1-1/4	18.1
		63/64	0.984	1.040	1-1/8	1-1/4	18.6
		1	1.000	1.055	1-1/8	1-1/4	18.2
		1-1/64	1.016	1.065	1-1/8	1-1/4	18.8
		1-2/64	1.031	1.080	1-1/8	1-1/4	18.3
3/4"	QM4WF	1-10/64	1.156	1.220	1-1/4		18.5
	QB4WF	1-11/64	1.171	1.235	1-1/4		18.0
	QM23WF	1-12/64	1.187	1.244	1-1/4		18.7
	QB23WF	1-13/64	1.203	1.260	1-1/4		18.1
	QM44WF	1-14/64	1.218	1.270	1-1/4		18.8
	QB44WF	1-15/64	1.234	1.285	1-1/4		18.2
	PHL12WF	1-16/64	1.250	1.295	1-1/4		18.8
		1-17/64	1.265	1.310	1-1/4		18.4
		1-18/64	1.281	1.320	1-1/4		18.8
		1-19/64	1.296	1.335	1-1/4		18.5
		1-20/64	1.312	1.345	1-1/4		19.0
		1-21/64	1.328	1.360	1-1/4		18.5
		1-22/64	1.343	1.370	1-1/4		19.0

Crimped 3500 Nipple Recommendation Guide

See page 102 for the 3500 Nipples.

Hose ID	Part #	Hose OD		Crimp Diameter (±0.005)	Crimp Length	% Reduction
		Fractional	Decimal			
1/2"	3512WF	54/64	0.844	0.906	1-1/4	21.1
		55/64	0.859	0.906	1-1/4	24.5
		56/64	0.875	0.938	1-1/4	19.3
		57/64	0.891	0.938	1-1/4	22.6
		58/64	0.906	0.969	1-1/4	17.8
3/4"	3514WF	1-10/64	1.156	1.218	1-7/16	17.8
		1-11/64	1.171	1.218	1-7/16	20.7
		1-12/64	1.187	1.218	1-7/16	23.6
		1-13/64	1.203	1.250	1-7/16	19.4
		1-14/64	1.218	1.250	1-7/16	22
1"	3518WF	1-30/64	1.468	1.500	1-15/16	23
		1-31/64	1.484	1.531	1-15/16	19
		1-32/64	1.500	1.531	1-15/16	21.6
		1-33/64	1.515	1.563	1-15/16	17.9
		1-34/64	1.531	1.563	1-15/16	20.3

Crimped Air King Recommendation Guide

for Air King products.

Hose ID	Part #	Hose OD		Crimp Diameter (±0.005)	Crimp Length	% Reduction		
		Fractional	Decimal					
1/2"	AM1WF	54/64	0.843	0.906	1-1/4	18.3		
		55/64	0.859	0.937	1-1/4	13.2		
		56/64	0.875	0.937	1-1/4	16.9		
		57/64	0.890	0.968	1-1/4	12.1		
		58/64	0.906	0.968	1-1/4	15.5		
		59/64	0.921	1.000	1-1/4	11.1		
		60/64	0.937	1.000	1-1/4	14.4		
		61/64	0.953	1.000	1-1/4	17.2		
		62/64	0.968	1.031	1-1/4	13.4		
		63/64	0.984	1.031	1-1/4	16.1		
		1	1.000	1.062	1-1/4	12.7		
		1-1/64	1.015	1.062	1-1/4	15.3		
		1-2/64	1.031	1.093	1-1/4	12.0		
		3/4"	AM6WF RAM6WF	1-4/64	1.062	1.156	1-1/4	13.4
1-5/64	1.078			1.156	1-1/4	17.3		
1-6/64	1.093			1.187	1-1/4	11.9		
1-7/64	1.109			1.187	1-1/4	15.8		
1-8/64	1.125			1.218	1-1/4	11.2		
1-9/64	1.140			1.218	1-1/4	14.6		
1-10/64	1.156			1.218	1-1/4	17.5		
1-11/64	1.171			1.250	1-1/4	13.0		
1-12/64	1.187			1.250	1-1/4	16.2		
1-13/64	1.203			1.281	1-1/4	12.3		
1-14/64	1.218			1.281	1-1/4	15.1		
1-15/64	1.234			1.312	1-1/4	11.5		
1-16/64	1.250			1.312	1-1/4	14.4		
1-17/64	1.265			1.312	1-1/4	16.9		
1-18/64	1.281			1.343	1-1/4	13.5		
1-19/64	1.296			1.343	1-1/4	15.9		
1-20/64	1.312			1.375	1-1/4	12.6		
1-21/64	1.328			1.375	1-1/4	15.0		
1-22/64	1.343			1.406	1-1/4	12.1		
1"	AM11WF-1			1-18/64	1.281	1.375	1-1/2	16.7
				1-19/64	1.296	1.375	1-1/2	20.5
				1-20/64	1.312	1.406	1-1/2	15.0
		1-21/64	1.328	1.406	1-1/2	18.6		
		1-22/64	1.343	1.437	1-1/2	13.7		
		1-23/64	1.359	1.437	1-1/2	17.5		
		1-24/64	1.375	1.468	1-1/2	12.8		
		1-25/64	1.390	1.468	1-1/2	16.1		
		1-26/64	1.406	1.500	1-1/2	11.5		
		1-27/64	1.421	1.500	1-1/2	14.7		
		1-28/64	1.437	1.500	1-1/2	17.6		
		1-29/64	1.453	1.531	1-1/2	13.9		
		AM11WF-1 AM11WF	1-30/64	1.468	1.531	1-1/2	16.8	
			1-31/64	1.484	1.562	1-1/2	12.8	
	1-32/64		1.500	1.562	1-1/2	15.4		
	1-33/64		1.515	1.593	1-1/2	12.0		
	1-34/64		1.531	1.593	1-1/2	14.7		
	AM11WF	1-35/64	1.546	1.625	1-1/2	11.1		
		1-36/64	1.562	1.625	1-1/2	13.7		
		1-37/64	1.578	1.625	1-1/2	15.9		
		1-38/64	1.593	1.656	1-1/2	12.9		
		1-39/64	1.609	1.656	1-1/2	15.1		
		1-40/64	1.625	1.687	1-1/2	12.4		
		1-41/64	1.640	1.687	1-1/2	14.5		
		1-42/64	1.656	1.718	1-1/2	11.8		
		1-43/64	1.671	1.718	1-1/2	14.0		
1-44/64		1.687	1.750	1-1/2	11.3			
1-45/64		1.703	1.750	1-1/2	13.3			
1-46/64	1.718	1.750	1-1/2	15.1				

Crimped Global Air King Recommendation Guide

for Global Air King products.

1/2" Global Air King

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			<i>Fractional</i>	<i>Decimal</i>		
1/2"	GAM1	CCF0906	54/64	0.8438	0.840	15
		CCF0906	55/64	0.8594	0.853	15
		CCF0906	56/64	0.8750	0.867	15

3/4" Global Air King

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			<i>Fractional</i>	<i>Decimal</i>		
3/4"	GAM6	CCF1120	1-5/64	1.0781	1.082	20
		CCF1120	1-6/64	1.0938	1.094	20
		CCF1149	1-7/64	1.1094	1.107	20
		CCF1149	1-8/64	1.1250	1.119	20
		CCF1190	1-9/64	1.1406	1.122	20
		CCF1190	1-10/64	1.1563	1.134	20
		CCF1218	1-11/64	1.1719	1.147	20
		CCF1218	1-12/64	1.1875	1.159	20
		CCF1246	1-13/64	1.2031	1.182	20
		CCF1246	1-14/64	1.2188	1.194	20

1" Global Air King

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			<i>Fractional</i>	<i>Decimal</i>		
1"	GAM11	CCF1438	1-25/64	1.3906	1.388	20
		CCF1438	1-26/64	1.4063	1.400	20
		CCF1469	1-27/64	1.4219	1.413	20
		CCF1469	1-28/64	1.4375	1.425	20
		CCF1500	1-29/64	1.4531	1.438	20
		CCF1500	1-30/64	1.4688	1.450	20
		CCF1531	1-31/64	1.4844	1.463	20
		CCF1531	1-32/64	1.5000	1.475	20

Crimped Interlocking Cam & Groove Recommendation Guide

See page 135-137 for Interlocking Cam & Groove products.

1½" Interlocking Style Cam and Groove

Hose ID	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction	Crimp Die #	Offset
		Fractional	Decimal				
1½"	CF150-1	1-49/64	1.766	1.845	20%	45	0.072
		1-50/64	1.781	1.857	20%	45	0.085
		1-51/64	1.797	1.870	20%	45	0.097
		1-52/64	1.813	1.882	20%	45	0.110
	CF150-2	1-53/64	1.828	1.895	20%	45	0.123
		1-54/64	1.844	1.907	20%	45	0.135
		1-55/64	1.859	1.920	20%	45	0.148
		1-56/64	1.875	1.932	20%	45	0.160
	CF150-3	1-57/64	1.891	1.945	20%	45	0.173
		1-58/64	1.906	1.957	20%	45	0.185
		1-59/64	1.922	1.970	20%	45	0.198
		1-60/64	1.938	1.982	20%	45	0.210
	CF150-4	1-61/64	1.953	1.995	20%	45	0.223
		1-62/64	1.969	2.007	20%	45	0.235
		1-63/64	1.984	2.020	20%	51	0.011
		2	2.000	2.032	20%	51	0.024
	CF150-5	2-1/64	2.016	2.045	20%	51	0.036
		2-2/64	2.031	2.057	20%	51	0.049
		2-3/64	2.047	2.070	20%	51	0.061
		2-4/64	2.063	2.082	20%	51	0.074
	CF150-6	2-5/64	2.078	2.095	20%	51	0.087
		2-6/64	2.094	2.107	20%	51	0.099
		2-7/64	2.109	2.120	20%	51	0.112
		2-8/64	2.125	2.132	20%	51	0.124
	CF150-7	2-9/64	2.141	2.145	20%	51	0.137
		2-10/64	2.156	2.157	20%	51	0.149
		2-11/64	2.172	2.170	20%	51	0.162
		2-12/64	2.188	2.182	20%	51	0.174
	CF150-8	2-13/64	2.203	2.195	20%	51	0.187
		2-14/64	2.219	2.207	20%	51	0.199
		2-15/64	2.234	2.220	20%	51	0.212
		2-16/64	2.250	2.232	20%	51	0.224
	CF150-9	2-17/64	2.266	2.245	20%	57	0.000
		2-18/64	2.281	2.257	20%	57	0.013
		2-19/64	2.297	2.270	20%	57	0.025
		2-20/64	2.313	2.282	20%	57	0.038
	CF150-10	2-21/64	2.328	2.295	20%	57	0.050
		2-22/64	2.344	2.307	20%	57	0.063
		2-23/64	2.359	2.320	20%	57	0.075
		2-24/64	2.375	2.332	20%	57	0.088

2" Interlocking Style Cam and Groove

Hose ID	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction	Crimp Die #	Offset
		Fractional	Decimal				
2"	CF200-1	2-21/64	2.328	2.388	20%	57	0.144
		2-22/64	2.344	2.400	20%	57	0.156
		2-23/64	2.359	2.413	20%	57	0.169
		2-24/64	2.375	2.425	20%	57	0.181
	CF200-2	2-25/64	2.391	2.438	20%	57	0.194
		2-26/64	2.406	2.450	20%	57	0.206
		2-27/64	2.422	2.463	20%	57	0.219
		2-28/64	2.438	2.475	20%	57	0.231
	CF200-3	2-29/64	2.453	2.488	20%	63	0.007
		2-30/64	2.469	2.500	20%	63	0.020
		2-31/64	2.484	2.513	20%	63	0.033
		2-32/64	2.500	2.525	20%	63	0.045
	CF200-4	2-33/64	2.516	2.538	20%	63	0.058
		2-34/64	2.531	2.550	20%	63	0.070
		2-35/64	2.547	2.563	20%	63	0.083
		2-36/64	2.563	2.575	20%	63	0.095
	CF200-5	2-37/64	2.578	2.588	20%	63	0.108
		2-38/64	2.594	2.600	20%	63	0.120
		2-39/64	2.609	2.613	20%	63	0.133
		2-40/64	2.625	2.625	20%	63	0.145

Crimped Interlocking Cam & Groove Recommendation Guide

See page 135-137 for Interlocking Cam & Groove products.

2" Interlocking Style Cam and Groove

Hose ID	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction	Crimp Die #	Offset
		Fractional	Decimal				
2"	CF200-6	2-41/64	2.641	2.638	20%	63	0.158
		2-42/64	2.656	2.650	20%	63	0.170
		2-43/64	2.672	2.663	20%	63	0.183
		2-44/64	2.688	2.675	20%	63	0.195
		2-45/64	2.703	2.688	20%	63	0.208
	CF200-7	2-46/64	2.719	2.700	20%	63	0.220
		2-47/64	2.734	2.713	20%	63	0.233
		2-48/64	2.750	2.725	20%	69	0.008
		2-49/64	2.766	2.738	20%	69	0.020
	CF200-8	2-50/64	2.781	2.750	20%	69	0.033
		2-51/64	2.797	2.763	20%	69	0.046
		2-52/64	2.813	2.775	20%	69	0.058
		2-53/64	2.828	2.788	20%	69	0.071
	CF200-9	2-54/64	2.844	2.800	20%	69	0.083
		2-55/64	2.859	2.813	20%	69	0.095
		2-56/64	2.875	2.825	20%	69	0.108
		2-57/64	2.891	2.838	20%	69	0.121
	CF200-10	2-58/64	2.906	2.850	20%	69	0.133
		2-59/64	2.922	2.863	20%	69	0.146
		2-60/64	2.938	2.875	20%	69	0.158

3" Interlocking Style Cam and Groove

Hose ID	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction	Crimp Die #	Offset
		Fractional	Decimal				
3"	CF300-1	3-23/64	3.359	3.553	20%	90	0.010
		3-24/64	3.375	3.565	20%	90	0.022
		3-25/64	3.391	3.578	20%	90	0.035
		3-26/64	3.406	3.590	20%	90	0.047
	CF300-2	3-27/64	3.422	3.603	20%	90	0.059
		3-28/64	3.438	3.615	20%	90	0.072
		3-29/64	3.453	3.628	20%	90	0.084
		3-30/64	3.469	3.640	20%	90	0.097
	CF300-3	3-31/64	3.484	3.653	20%	90	0.110
		3-32/64	3.500	3.665	20%	90	0.122
		3-33/64	3.516	3.678	20%	90	0.135
		3-34/64	3.531	3.690	20%	90	0.147
	CF300-4	3-35/64	3.547	3.703	20%	90	0.160
		3-36/64	3.563	3.715	20%	90	0.172
		3-37/64	3.578	3.728	20%	90	0.185
		3-38/64	3.594	3.740	20%	90	0.197
	CF300-5	3-39/64	3.609	3.753	20%	90	0.210
		3-40/64	3.625	3.765	20%	90	0.222
		3-41/64	3.641	3.778	20%	90	0.235
		3-42/64	3.656	3.790	20%	96	0.010
	CF300-6	3-43/64	3.672	3.803	20%	96	0.023
		3-44/64	3.688	3.815	20%	96	0.035
		3-45/64	3.703	3.828	20%	96	0.048
		3-46/64	3.719	3.840	20%	96	0.060
	CF300-7	3-47/64	3.734	3.853	20%	96	0.073
		3-48/64	3.750	3.865	20%	96	0.085
		3-49/64	3.766	3.878	20%	96	0.098
		3-50/64	3.781	3.890	20%	96	0.110
	CF300-8	3-51/64	3.797	3.903	20%	96	0.123
		3-52/64	3.813	3.915	20%	96	0.135
		3-53/64	3.828	3.928	20%	96	0.148
		3-54/64	3.844	3.940	20%	96	0.160
	CF300-9	3-55/64	3.859	3.953	20%	96	0.173
		3-56/64	3.875	3.965	20%	96	0.185
		3-57/64	3.891	3.978	20%	96	0.198
		3-58/64	3.906	3.990	20%	96	0.210
	CF300-10	3-59/64	3.922	4.003	20%	96	0.223
		3-60/64	3.938	4.015	20%	96	0.235
		3-61/64	3.953	4.028	20%	102	0.011
		3-62/64	3.969	4.040	20%	102	0.024

Crimped Interlocking Cam & Groove Recommendation Guide

See page 135-137 for Interlocking Cam & Groove products.

4" Interlocking Style Cam and Groove

Hose ID	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction	Crimp Die #	Offset
		Fractional	Decimal				
4"	CF400-1	4-23/64	4.359	4.553	20%	114	0.064
		4-24/64	4.375	4.565	20%	114	0.077
		4-25/64	4.391	4.578	20%	114	0.089
	CF400-2	4-26/64	4.406	4.590	20%	114	0.102
		4-27/64	4.422	4.603	20%	114	0.115
		4-28/64	4.438	4.615	20%	114	0.127
	CF400-3	4-29/64	4.453	4.628	20%	114	0.139
		4-30/64	4.469	4.640	20%	114	0.152
		4-31/64	4.484	4.653	20%	114	0.164
	CF400-4	4-32/64	4.500	4.665	20%	114	0.177
		4-33/64	4.516	4.678	20%	114	0.189
		4-34/64	4.531	4.690	20%	114	0.202
	CF400-5	4-35/64	4.547	4.703	20%	114	0.214
		4-36/64	4.563	4.715	20%	114	0.227
		4-37/64	4.578	4.728	20%	120	0.003
	CF400-6	4-38/64	4.594	4.740	20%	120	0.016
		4-39/64	4.609	4.753	20%	120	0.028
		4-40/64	4.625	4.765	20%	120	0.041
	CF400-7	4-41/64	4.641	4.778	20%	120	0.053
		4-42/64	4.656	4.790	20%	120	0.066
		4-43/64	4.672	4.803	20%	120	0.078
	CF400-8	4-44/64	4.688	4.815	20%	120	0.091
		4-45/64	4.703	4.828	20%	120	0.103
		4-46/64	4.719	4.840	20%	120	0.116
	CF400-9	4-47/64	4.734	4.853	20%	120	0.129
		4-48/64	4.750	4.865	20%	120	0.141
		4-49/64	4.766	4.878	20%	120	0.153
	CF400-10	4-50/64	4.781	4.890	20%	120	0.166
		4-51/64	4.797	4.903	20%	120	0.179
		4-52/64	4.813	4.915	20%	120	0.191
	CF400-11	4-53/64	4.828	4.928	20%	120	0.203
		4-54/64	4.844	4.940	20%	120	0.216
		4-55/64	4.859	4.953	20%	120	0.228
	CF400-12	4-56/64	4.875	4.965	20%	126	0.004
		4-57/64	4.891	4.978	20%	126	0.016
		4-58/64	4.906	4.990	20%	126	0.029
	CF400-13	4-59/64	4.922	5.003	20%	126	0.041
		4-60/64	4.938	5.015	20%	126	0.054
		4-61/64	4.953	5.028	20%	126	0.066
	CF400-14	4-62/64	4.969	5.040	20%	126	0.079

Note: The crimp die #'s and offset dimensions are for use with Dixon's Holedall Crimp System (CM400) only.

Crimped Sanitary Recommendation Guide

See page 159 for Crimp Sanitary products.

1" Crimped Sanitary Fittings

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			Fractional	Decimal		
1"	CSSR100 CBSR100	F16G-1453	1 26/64	1.406	1.565	23%
			1 27/64	1.422	1.577	23%
			1 28/64	1.438	1.589	23%
		F16G-1500	1 29/64	1.453	1.601	23%
			1 30/64	1.469	1.613	23%
			1 31/64	1.484	1.625	23%
		F16G-1547	1 32/64	1.500	1.637	23%
			1 33/64	1.516	1.649	23%
			1 34/64	1.531	1.661	23%
		F16G-1594	1 35/64	1.547	1.673	23%
			1 36/64	1.563	1.685	23%
			1 37/64	1.578	1.697	23%
		F16G-1641	1 38/64	1.594	1.709	23%
			1 39/64	1.609	1.721	23%
			1 40/64	1.625	1.733	23%

Crimped Sanitary Recommendation Guide

See page 159 for Crimp Sanitary products.

1½", 2", 3" and 4" Crimped Sanitary Fittings

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			Fractional	Decimal		
1½"	CSSR150 CBSR150 CILR150 CTER150	F24G-1969	1 58/64	1.906	2.063	23%
			1 59/64	1.922	2.075	23%
			1 60/64	1.938	2.087	23%
			1 61/64	1.953	2.099	23%
			1 62/64	1.969	2.111	23%
		F24G-2031	1 63/64	1.984	2.123	23%
			2	2.000	2.135	23%
			2 1/64	2.016	2.147	23%
			2 2/64	2.031	2.159	23%
			2 3/64	2.047	2.171	23%
		F24G-2094	2 4/64	2.063	2.183	23%
			2 5/64	2.078	2.195	23%
			2 6/64	2.094	2.207	23%
			2 7/64	2.109	2.219	23%
			2 8/64	2.125	2.231	23%
		F24G-2156	2 9/64	2.141	2.243	23%
			2 30/64	2.469	2.611	23%
			2 31/64	2.484	2.623	23%
			2 32/64	2.500	2.635	23%
			2 33/64	2.516	2.647	23%
2"	CSSR200 CBSR200 CILR200 CTER200	F32G-2531	2 34/64	2.531	2.659	23%
			2 35/64	2.547	2.671	23%
			2 36/64	2.563	2.683	23%
			2 37/64	2.578	2.695	23%
			2 38/64	2.594	2.707	23%
		F32G-2594	2 39/64	2.609	2.719	23%
			2 40/64	2.625	2.731	23%
			2 41/64	2.641	2.743	23%
			2 42/64	2.656	2.755	23%
			2 43/64	2.672	2.767	23%
F32G-2656	2 44/64	2.688	2.779	23%		
	2 45/64	2.703	2.791	23%		
	2 46/64	2.719	2.803	23%		
	2 47/64	2.734	2.815	23%		
	2 48/64	2.750	2.828	23%		
3"	CSSR300 CBSR300 CILR300 CTER300	F48G-3625	3 49/64	3.766	3.840	23%
			3 50/64	3.781	3.852	23%
			3 51/64	3.797	3.864	23%
			3 52/64	3.813	3.876	23%
			3 53/64	3.828	3.888	23%
		F48G-3688	3 54/64	3.844	3.900	23%
			3 55/64	3.859	3.912	23%
			3 56/64	3.875	3.924	23%
			3 57/64	3.891	3.936	23%
			3 58/64	3.906	3.948	23%
F48G-3750	3 59/64	3.922	3.960	23%		
	4 40/64	4.625	4.857	23%		
	4 41/64	4.641	4.869	23%		
	4 42/64	4.656	4.881	23%		
	4 43/64	4.672	4.893	23%		
F48G-3813	4 44/64	4.688	4.905	23%		
	4 45/64	4.703	4.917	23%		
	4 46/64	4.719	4.929	23%		
	4 47/64	4.734	4.941	23%		
	4 48/64	4.750	4.954	23%		
F48G-3875	4 49/64	4.766	4.966	23%		
	4 50/64	4.781	4.978	23%		
	4 51/64	4.797	4.990	23%		
	4 52/64	4.813	5.002	23%		
	4 53/64	4.828	5.014	23%		
F48G-3938	4 54/64	4.844	5.026	23%		
	4 55/64	4.859	5.038	23%		
	4 56/64	4.875	5.050	23%		
	4 57/64	4.891	5.062	23%		
	4 58/64	4.906	5.074	23%		
4"	CSSR400 CBSR400 CILR400 CTER400	F64G-4688	4 59/64	4.922	5.086	23%
			4 40/64	4.625	4.857	23%
			4 41/64	4.641	4.869	23%
			4 42/64	4.656	4.881	23%
			4 43/64	4.672	4.893	23%
		F64G-4750	4 44/64	4.688	4.905	23%
			4 45/64	4.703	4.917	23%
			4 46/64	4.719	4.929	23%
			4 47/64	4.734	4.941	23%
			4 48/64	4.750	4.954	23%
F64G-4813	4 49/64	4.766	4.966	23%		
	4 50/64	4.781	4.978	23%		
	4 51/64	4.797	4.990	23%		
	4 52/64	4.813	5.002	23%		
	4 53/64	4.828	5.014	23%		
F64G-4875	4 54/64	4.844	5.026	23%		
	4 55/64	4.859	5.038	23%		
	4 56/64	4.875	5.050	23%		
	4 57/64	4.891	5.062	23%		
	4 58/64	4.906	5.074	23%		
F64G-4938	4 59/64	4.922	5.086	23%		

Glossary of Terms

A

ANSI	American National Standards Institute, Inc.
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
Anodize	A process for aluminum, similar to zinc or chrome plating steel, in which an aluminum part is electrically charged then, dipped in various chemicals to produce various colors and/or surface hardness.

B

Burst Pressure	The pressure at which rupture occurs.
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C

Chamfer	To cut an angle on the hose tube aid in stem insertion and to prevent the hose end from flaring when a stem is inserted.
Clamp	A metal fitting, band or wire used around the outside of a hose end to secure a coupling, fitting or nipple.
Cold Flow	Continued deformation or movement of rubber under stress.
Compression Set	The deformation that remains in rubber after it has been subjected to and released from stress such as a clamp. The longer the stress is maintained the more definitive the deformation.
Coupling	A device at the end or ends of a length of hose that allows a connection to be made.
Crimping	The act of forming the metal sleeve or ferrule of a hose fitting with a surrounding series of die segments to compress the hose within the fitting. The crimping process changes the shape of the entire circumference and length simultaneously. Often interchanged with the term "swaged".

D

Durometer	An instrument for measuring the hardness of rubber.
Durometer Hardness	A numerical value which indicates the resistance to indentation of the blunt indenter of the durometer.

E

Elastomer	Any of various elastic substances resembling rubber.
Expansion Ring	Typically refers to a type of fire hose couplings that are attached by expanding a sleeve (usually brass) outward to compress the hose against the wall of the bowl of the coupling.
External Swage (Swaging)	A ferrule is passed through a reducing die, usually split, to bring the ferrule OD down to a predetermined size (for proper coupling retention) forcing the hose tube down into the stem serrations.

F

Ferrule	A collar placed over a hose end to attach the fitting to the hose. The ferrule may be crimped swaged, forcing the hose against the shank of the coupling, or the shank may be expanded, forcing the hose out against the ferrule, or both.
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Glossary of Terms

G	
Gripping Finger	The part of the clamp that goes over and behind the stem collar to aid in clamp retention.
H	
Hard Coat	An anodizing process in which the surface hardness of aluminum becomes similar to or greater than that of case hardened steel.
I	
Internal Expansion (IX)	A plug (or bullet) is pulled through a stem or a set of blades (fingers) increase the stem ID to the plug OD or a predetermined setting when using expansion blades (fingers). This forces the stem serrations into the hose tube and the hose cover into the serrations of the ferrule.
J	
JIC	Joint Industrial Committee
JIC Thread	Typically refers to the threads on hydraulic fittings having 37° conical sealing surfaces.
M	
MSHA	Mine Safety and Health Administration
N	
NSF/ANSI Standard 61	Drinking Water System Components was published in 1988 to establish minimum requirements for the control of potential adverse human health effects from products that contact drinking water.
Nipple	The section of the fitting that is inserted into the hose. Also known as the shank of a coupling.
Nominal	A dimensional value assigned for the purpose of convenient designation.
O	
Operating Pressure	The pressure at which system functions, also known as Working Pressure
P	
PSI	Pounds per square inch
PSIG	Pounds per square inch gauge
Permanent Fitting	The type of fitting which, after it is applied, cannot be removed for reuse.
Polymer	A macromolecular material formed by the chemical combination of monomers having the same or different chemical composition.
Proof Pressure	A specified pressure which exceeds the hose assemblies rated working pressure to indicate its reliability at normal working pressure. Follow RMA's testing guidelines for specific pressures and duration's for various types of hose.
PTFE	Versatile polymer, polytetrafluoroethylene, commonly known as the DuPont brand name Teflon®
R	
RMA	Rubber Manufacturers Association
Reusable Fitting	The type of fitting that is designed to be removed from a hose and recoupled on another hose.

Glossary of Terms

S

SAE	Society of Automotive Engineers
SAE Threads	Similar to JIC except 45° conical sealing surfaces
SCFM	Standard Cubic Feet per Minute. Typically refers to the amount of compressed air a compressor can produce.
Safety Factor	A ratio used to establish the working pressure of a hose based upon the burst pressure. Typical Safety Factors are as follows: <ol style="list-style-type: none"> 1. Water hose up to 150 psi WP: 3 to 1 2. Hose for all other liquids, solid materials suspended in liquids or air and water hose over 150 psi WP: 4 to 1 3. Hose for compressed air and other gases: 4 to 1 4. Hose for liquid media that immediately changes into gas under standard atmospheric conditions: 5 to 1 5. Steam hose: 10 to 1
Serration	The part of the shank (stem) that grips the hose tube.
Shank	The section of the fitting or coupling that is inserted into the hose.
Sintered	Process in which powdered metal is formed in a mold under extreme pressure to form a finished part.
Surge	A rapid rise and decrease of internal pressure.

T

Torque	Amount of force required to turn an object. Usually measured in inch pounds (in. lbs.) or foot pounds (ft. lbs.)
Tube	The innermost part of the hose that's purpose is to contain the media being transported. Usually, rubber compounds or plastics are blended to give the tube specific properties so that it is compatible with certain media.

U

UHMW	Ultra High Molecular Weight. Next generation of chemical hoses after cross-linked polyethylene having a thin tube liner made from extremely dense material giving it excellent chemical resistance properties.
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V

Victaulic Groove	A style of couplings that has a groove cut near the end of the stem where threads would typically be. The couplings are attached using a "C" shaped clamp that fits into the grooves on the stem.
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W

WOG	Water, Oil, Gas. Pressure rating for valves handling these products. This does not include steam.
WP	Working Pressure
Working Pressure	The maximum pressure to which a hose assembly will be subjected to including pressure surges.

X

XLPE	Cross-Linked Polyethylene tube material that has good chemical resistance properties.
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25302CSSS	139	30320CSSS	139	40412C50AL	135	40502C50SS	136
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25304C50CS	137	30322C50CS	137	40412C50SS	136	40502CSCS	140
25304C50SS	136	30322C50SS	136	40412CSAL	138	40502CSSS	139
25304CSAL	138	30322CSAL	138	40412CSCS	140	40504CSAL	138
25304CSCS	140	30322CSCS	140	40412CSSS	139	40504CSCS	140
25304CSSS	139	30322CSSS	139	40414CSAL	138	40504CSSS	139
25306C50AL	135	30324C50AL	135	40414CSCS	140	40506CSAL	138
25306C50CS	137	30324C50CS	137	40414CSSS	139	40506CSCS	140
25306C50SS	136	30324C50SS	136	40416C50AL	135	40506CSSS	139
25306CSAL	138	30324CSAL	138	40416C50CS	137	40508C50AL	135
25306CSCS	140	30324CSCS	140	40416C50SS	136	40508C50CS	137
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25308CSCS	140	30326CSCS	140	40418C50SS	136	4P3	154
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25310C50CS	137	30328C50AL	135	40418CSCS	140	4SFI-G-VI	56
25310C50SS	136	30328C50CS	137	40418CSSS	139	4SFIPSG	56
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25310CSCS	140	30328CSAL	138	40420C50CS	137	50520CSAL	138
25312C50AL	135	30328CSCS	140	40420C50SS	136	50520CSCS	140
25312C50CS	137	30328CSSS	139	40420CSAL	138	50520CSSS	139
25312C50SS	136	30330C50AL	135	40420CSCS	140	50530C50AL	135
25312CSAL	138	30330C50CS	137	40420CSSS	139	50530C50CS	137
25312CSCS	140	30330C50SS	136	40422C50AL	135	50530C50SS	136
25312CSSS	139	30330CSAL	138	40422C50CS	137	6	133
25316C50AL	135	30330CSCS	140	40422C50SS	136	60610CSAL	138
25316C50CS	137	30330CSSS	139	40422CSAL	138	60610CSCS	140
25316C50SS	136	30400C50AL	135	40422CSCS	140	60610CSSS	139
25318C50AL	135	30400C50CS	137	40422CSSS	139	60612CSAL	138
25318C50CS	137	30400C50SS	136	40424C50AL	135	60612CSCS	140
25318C50SS	136	30400CSAL	138	40424C50CS	137	60612CSSS	139

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60616CSCS	140	13ILB250	183	13MO200	165	14A-R300DIN	178
60616CSSS	139	13ILB300	183	13MO250	165	14A-R400	179
60618CSAL	138	13ILB400	183	13MO300	165	14A-R400DIN	178
60618CSCS	140	13ILH100-150	183	13MO400	165	14MPHR-G100	170
60618CSSS	139	13ILH200	183	13MO600	165	14MPHR-G150	170
60620CSAL	138	13ILH250	183	13MO800	165	14MPHR-G200	170
60620CSCS	140	13ILH300	183	13MO1000	165	14MPHR-G250	170
60620CSSS	139	13ILH400	183	13MO1200	165	14MPHR-G300	170
60628C50AL	135	13MHHM-3P200	164	13PS-50	185	14MPHR-G400	170
60628C50CS	137	13MHHM-3P250	164	13PS-75	185	14MPHR-G600	170
60628C50SS	136	13MHHM-3P300	164	13PS-100	185	14MPHR-G10050	170
60628CSAL	138	13MHHM-3P400	164	13PS-150	185	14MPHR-G10075	170
60628CSCS	140	13MHHM-3P1200	164	13PS-200	185	14MPHR-G15050	170
60628CSSS	139	13MHHM-3P100150	164	13PS-250	185	14MPHR-G15075	170
60630C50AL	135	13MHHM50-75	163	13PS-300	185	14MPHR-G150625	170
60630C50CS	137	13MHHM50-75SN	163	13PS-400	185	14MPHR-G200150	170
60630C50SS	136	13MHHM100-150	163	13PS-600	185	14MPHRL100	171
60630CSAL	138	13MHHM100-150SN	163	13PS-800	185	14MPHRL150	171
60630CSCS	140	13MHHM200	163	13PV-100	176	14MPHRL200	171
60630CSSS	139	13MHHM200SN	163	13PV-150	176	14MPHRL250	171
60702C50AL	135	13MHHM250	163	13PV-200	176	14MPHRL300	171
60702C50CS	137	13MHHM250SN	163	13PV-250	176	14MPHRL400	171
60702C50SS	136	13MHHM300	163	13PV-300	176	14MPHR-R50	170
60704CSAL	138	13MHHM300SN	163	13PV-400	176	14MPHR-R75	170
60704CSCS	140	13MHHM400	163	13PV-600	176	14MPHR-R100	170
60704CSSS	139	13MHHM400SN	163	13R-G100DIN	178	14MPHR-R150	170
6P1	154	13MHHM500	163	13R-G150DIN	178	14MPHR-R200	170
6P2	154	13MHHM600	163	13R-G200DIN	178	14MPHR-R250	170
6P3	154	13MHHM600SN	163	13R-G250DIN	178	14MPHR-R300	170
7	133	13MHHM800	163	13R-G300DIN	178	14MPHR-R400	170
8	133	13MHHM800SN	163	13R-G400DIN	178	14MPHR-R5025	170
80816CSAL	138	13MHHM-DP200	163	13RP	165	14MPHR-R5075	170
80816CSCS	140	13MHHM-DP250	163	13RP6	165	14MPHR-R7525	170
80816CSSS	139	13MHHM-DP300	163	13WGC100-150	165	14MPHR-R7550	170
80820CSAL	138	13MHHM-DP400	163	13WGC200	165	14MPHR-R10050	170
80820CSCS	140	13MHHM-DP1000	163	13WGC250	165	14MPHR-R10075	170
80820CSSS	139	13MHHM-DP100150	163	13WGC300	165	14MPHR-R15025	170
80904CSAL	138	13MHHM-Q75	163	13WGC400	165	14MPHR-R15050	170
80904CSCS	140	13MHHM-Q200	163	13WNS	165	14MPHR-R15075	170
80904CSSS	139	13MHHM-Q250	163	13WNX	165	14MPHR-R50125	170
80916CSAL	138	13MHHM-Q300	163	14	133	14MPHR-R50375	170
80916CSSS	139	13MHHM-Q400	163	14-19-G150	180	14MPHR-R75125	170
80920CSSS	139	13MHHM-Q100150	163	14-19-G200	180	14MPHR-R75375	170
8P1	154	13MHHV100	174	14-19-G300	180	14MPHR-R100375	170
8P2	154	13MHHV150	174	14A-G100	179	14MPHR-R150100	170
8P3	154	13MHHV200	174	14A-G150	179	14MPHR-R150625	170
9	133	13MHHV250	174	14A-G200	179	14MPHR-R200150	170
10	133	13MHHV300	174	14A-G250	179	14MPHT-R75	171
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11	133	13MHLA100-150	164	14A-G400	179	14MPHT-R150	171
12	133	13MHLA200	164	14AHR-G150	180	14MPHT-R200	171
12P1	154	13MHLA250	164	14AHR-G200	180	14MPHT-R250	171
12P2	154	13MHLA300	164	14AHR-G300	180	14MPHT-R300	171
12P3	154	13MHLA400	164	14AHT-G150	181	14MPHT-R400	171
13	133	13MHP75	164	14AHT-G200	181	14MPW-R50	168
13H-G100	182	13MHP100-150	164	14AHT-G300	181	14MPW-R75	168
13H-G150	182	13MHP200	164	14A-R100	179	14MPW-R100	168
13H-G200	182	13MHP250	164	14A-R100DIN	178	14MPW-R150	168
13H-G250	182	13MHP300	164	14A-R150	179	14MPW-R200	168
13H-G300	182	13MHP400	164	14A-R150DIN	178	14MPW-R250	168
13H-G400	182	13MHP600	164	14A-R200	179	14MPW-R300	168
13IB	165	13MHP800	164	14A-R200DIN	178	14MPW-R400	168
13IB6	165	13MHP1000	164	14A-R250	179	14MPW-R600	168
13ILB100-150	183	13MHP1200	164	14A-R250DIN	178	14PRF-G100	179

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14PRF-G200	179	14WMV-G150	175	16AI-15I400	183	21MP-G100200	169
14PRF-G250	179	14WMV-G200	175	16AMP-G50-75	166	21MP-G150100	169
14PRF-G300	179	14WMV-G250	175	16AMP-G100-150	166	21MP-G150125	169
14PRF-G400	179	14WMV-G300	175	16AMP-G200	166	21MP-G150200	169
14R-G150	179	14WMV-G400	175	16AMP-G250	166	21MP-G150250	169
14R-G200	179	14WMX-G100	175	16AMP-G300	166	21MP-G150375	169
14R-G250	179	14WMX-G150	175	16AMP-G400	166	21MP-G200100	169
14R-G300	179	14WMX-G200	175	16AMP-G600	166	21MP-G200125	169
14RMP-G100	166	14WMX-G250	175	16AMP-G800	166	21MP-G200150	169
14RMP-G150	166	14WMX-G300	175	16AMP-G1000	166	21MP-G200250	169
14RMP-G200	166	14WMX-G400	175	16AMP-R50-75	166	21MP-G200400	169
14RMP-G250	166	15	133	16AMP-R100-150	166	21MP-G250100	169
14RMP-G300	166	15A-G150	179	16AMP-R100DIN	178	21MP-G250150	169
14RMP-G400	166	15A-G200	179	16AMP-R150DIN	178	21MP-G250200	169
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14WI-G200	184	15A-G300	179	16AMP-R200DIN	178	21MP-G300100	169
14WI-G250	184	15A-G400	179	16AMP-R250	166	21MP-G300150	169
14WI-G300	184	15A-R100DIN	178	16AMP-R250DIN	178	21MP-G300200	169
14WI-G400	184	15A-R150	179	16AMP-R300	166	21MP-G300250	169
14WLI-G100	184	15A-R150DIN	178	16AMP-R300DIN	178	21MP-G400300	169
14WLI-G150	184	15A-R200	179	16AMP-R400	166	21MP-R50	169
14WLI-G200	184	15A-R200DIN	178	16AMP-R400DIN	178	21MP-R75	169
14WLI-G300	184	15A-R250DIN	178	16AMP-R600	166	21MP-R100	169
14WLI-G400	184	15A-R300	179	16AMP-R800	166	21MP-R150	169
14WLMP-G100	167	15A-R300DIN	178	16AMV-G100	175	21MP-R200	169
14WLMP-G150	167	15A-R400DIN	178	16AMV-G150	175	21MP-R250	169
14WLMP-G200	167	15R-G150	179	16AMV-G200	175	21MP-R300	169
14WLMP-G250	167	15R-G200	179	16AMV-G250	175	21MP-R400	169
14WLMP-G300	167	15R-G250	179	16AMV-G300	175	21MP-R600	169
14WLMP-G400	167	15R-G300	179	16AMV-G400	175	21MP-R5025	169
14WLMP-G600	167	15R-G400	179	16P1	154	21MP-R5075	169
14WLMP-R100	167	15TRF-G100	179	16P2	154	21MP-R7525	169
14WLMP-R150	167	15TRF-G150	179	16P3	154	21MP-R7550	169
14WLMP-R200	167	15TRF-G200	179	16P4	154	21MP-R10025	169
14WLMP-R250	167	15TRF-G250	179	17	133	21MP-R10050	169
14WLMP-R300	167	15TRF-G300	179	17MP-14-G100	168	21MP-R10075	169
14WLMP-R400	167	15TRF-G400	179	17MP-14-G150	168	21MP-R15050	169
14WLMP-R600	167	15WI-G150	184	17MP-14-G200	168	21MP-R15075	169
14WMP-G50	167	15WI-G200	184	17MP-14-G250	168	21MP-R20050	169
14WMP-G75	167	15WI-G250	184	17MP-14-G300	168	21MP-R20075	169
14WMP-G100	167	15WI-G300	184	17MP-14-G400	168	21MP-R25050	169
14WMP-G150	167	15WI-G400	184	17MP-15-G100	168	21MP-R50375	169
14WMP-G200	167	15WLI-G100	184	17MP-15-G150	168	21MP-R75100	169
14WMP-G250	167	15WLI-G150	184	17MP-15-G200	168	21MP-R75375	169
14WMP-G300	167	15WLI-G200	184	17MP-15-G250	168	21MP-R100125	169
14WMP-G400	167	15WLI-G300	184	17MP-15-G300	168	21MP-R100150	169
14WMP-G500	167	15WLI-G400	184	17MP-15-G400	168	21MP-R100200	169
14WMP-G600	167	16	133	18	133	21MP-R100375	169
14WMP-G800	167	16A-G100	182	19	133	21MP-R150100	169
14WMP-G1000	167	16A-G150	182	20	133	21MP-R150125	169
14WMP-G1200	167	16A-G200	182	21	133	21MP-R150200	169
14WMP-R50	167	16A-G250	182	21MP-G100	169	21MP-R150250	169
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14WMP-R100	167	16A-G400	182	21MP-G200	169	21MP-R200100	169
14WMP-R150	167	16AI-14I100	183	21MP-G250	169	21MP-R200125	169
14WMP-R200	167	16AI-14I150	183	21MP-G300	169	21MP-R200150	169
14WMP-R250	167	16AI-14I200	183	21MP-G400	169	21MP-R200250	169
14WMP-R300	167	16AI-14I250	183	21MP-G600	169	21MP-R200400	169
14WMP-R400	167	16AI-14I300	183	21MP-G10075	169	21MP-R250100	169
14WMP-R500	167	16AI-14I400	183	21MP-G15050	169	21MP-R250150	169
14WMP-R600	167	16AI-15I100	183	21MP-G15075	169	21MP-R250200	169
14WMP-R800	167	16AI-15I150	183	21MP-G20050	169	21MP-R300100	169
14WMP-R1000	167	16AI-15I200	183	21MP-G20075	169	21MP-R400300	169
14WMP-R1200	167	16AI-15I250	183	21MP-G100125	169	22	133

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22MP-G150	170	25H-200150	182	40MP-G300	161	42MP-E50	161
22MP-G200	170	25H-250200	182	40MP-G400	161	42MP-E75	161
22MP-G250	170	25H-300200	182	40MP-G600	161	42MP-G50	161
22MP-G300	170	25H-300250	182	40MP-G800	161	42MP-G75	161
22MP-G400	170	26	133	40MP-G1000	161	42MP-GRE50	161
22MP-G10050	170	27	133	40MP-G1200	161	42MP-U50	160
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22MP-G15075	170	32P1SO15	154	40MP-GRE100	161	42MP-UW75	160
22MP-G20050	170	32P2LJ15	154	40MP-GRE200	161	42MP-XC50	160
22MP-G100125	170	32P2SO15	154	40MP-GRE300	161	42MP-XC75	160
22MP-G150100	170	32P3LJ15	154	40MP-GRE400	161	42MP-XW50	160
22MP-G150200	170	32P3SO15	154	40MPS-U100	162	42MP-XW75	160
22MP-G200100	170	32PFX2.500	157	40MPS-U150	162	48P1LJ15	154
22MP-G200150	170	32PFX2.562	157	40MPS-U200	162	48P1SO15	154
22MP-G200250	170	32PFX2.625	157	40MPS-U250	162	48P2LJ15	154
22MP-G250200	170	32PFX2.687	157	40MPS-U300	162	48P2SO15	154
22MP-G250300	170	32PFX2.750	157	40MPS-U400	162	48P3LJ15	154
22MP-G300200	170	32PFX2.812	157	40MP-U100	160	48P3SO15	154
22MP-R50	170	32PFX2.875	157	40MP-U150	160	48PFX3.562	157
22MP-R50-125	170	32PFX2.937	157	40MP-U200	160	48PFX3.625	157
22MP-R100	170	40A-45TCAL	21	40MP-U250	160	48PFX3.687	157
22MP-R150	170	40BS-O100	177	40MP-U300	160	48PFX3.750	157
22MP-R200	170	40BS-O150	177	40MP-U400	160	48PFX3.812	157
22MP-R250	170	40BS-O200	177	40MP-U600	160	48PFX3.875	157
22MP-R300	170	40BS-O250	177	40MP-U800	160	48PFX3.937	157
22MP-R5025	170	40BS-O300	177	40MP-UW100	160	48PFX4.000	157
22MP-R5075	170	40BS-O400	177	40MP-UW150	160	48PFX4.062	157
22MP-R7525	170	40BS-S100	177	40MP-UW200	160	48PFX4.125	157
22MP-R7550	170	40BS-S150	177	40MP-UW250	160	50-G	37
22MP-R10025	170	40BS-S200	177	40MP-UW300	160	50-G	38
22MP-R10075	170	40BS-S250	177	40MP-UW400	160	50-HP-SP	34
22MP-R15075	170	40BS-S300	177	40MP-UW600	160	64P1LJ15	154
22MP-R50375	170	40BS-S400	177	40MPV-G100	177	64P1SO15	154
22MP-R150100	170	40MP-E100	161	40MPV-G150	177	64P2LJ15	154
22MP-R150200	170	40MP-E150	161	40MPV-G200	177	64P2SO15	154
22MP-R150375	170	40MP-E200	161	40MPV-G250	177	64P3LJ15	154
22MP-R300250	170	40MP-E250	161	40MPV-G300	177	64P3SO15	154
22-ST14C	36	40MP-E300	161	40MPV-G400	177	64PFX4.625	157
23	133	40MP-E400	161	40MPV-U100	177	64PFX4.687	157
2303955	213	40MP-E600	161	40MPV-U150	177	64PFX4.750	157
2303956	213	40MPF-SFY100	162	40MPV-U200	177	64PFX4.812	157
2303957	213	40MPF-SFY150	162	40MPV-U250	177	64PFX4.875	157
2303958	213	40MPF-SFY200	162	40MPV-U300	177	64PFX4.937	157
2306567	213	40MPF-SFY250	162	40MPV-U400	177	75-G	37
2306568	213	40MPF-SFY300	162	40MP-XC100	160	75-G	38
2306569	213	40MPF-SFY400	162	40MP-XC150	160	75-HP-SP	34
2306573	213	40MPF-SFY600	162	40MP-XC200	160	75-HP-SP	35
2306257	213	40MPF-SFY800	162	40MP-XC250	160	90PPA150	16
24	133	40MPF-SFY1000	162	40MP-XC300	160	90PPA200	16
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25	133	40MPF-XW600	162	40MP-XW600	160	96P1SO15	154
25H-100	182	40MPF-XW800	162	40PFX3.062	157	96P2LJ15	154
25H-150	182	40MPF-XW1000	162	40PFX3.125	157	96P2SO15	154
25H-200	182	40MPF-XW1200	162	40PFX3.187	157	96P3LJ15	154
25H-250	182	40MP-G100	161	40PFX3.250	157	96P3SO15	154
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103-0606	121	145-0609	121	198	127	271-0404	117
103-0806	121	145R	127	198R	127	271-0604	117
103-0808	121	150A-90AL	24	200A-90AL	24	271-0606	117
103-1212	121	150-AA-AL	29	200A-90SS	24	271-0806	117
105	127	150-AA-SS	29	200-AA-AL	29	271-0808	117
105R	127	150-AL-SS	30	200-AA-BR	29	271-1212	117
112D	59	150B-90AL	25	200-AA-SS	29	271R	127
112DNS	59	150C-90AL	24	200-AL-SS	30	273-0402	119
113	127	150C-90SS	24	200B-90AL	25	273-0404	119
113R	127	150D-90AL	24	200B-90SS	25	273-0604	119
114D	59	150D-90BR	24	200C-90AL	24	273-0606	119
114D-AV	60	150DA-90AL	23	200C-90BR	24	273-0806	119
114D-AV-06ASM	60	150DA-90SS	23	200C-90SS	24	273-0808	119
114DAVR	60	150DC-LAL	28	200D-90AL	24	273-1212	119
114DNS	59	150DC-LBR	28	200D-90BR	24	275	66
123	127	150DC-LSS	28	200D-90SS	24	280-0402	117
123R	127	150-DD-SS	29	200DA-45AL	23	280-0404	117
125-AA-SS	29	150-DL-SS	30	200DA-45SS	23	280-0604	117
125C-90BR	24	150F-90AL	25	200DA-90AL	23	280-0606	117
125D-90BR	24	150-G	37	200DA-90SS	23	280-0608	117
125-G	37	150-G	38	200DC-LAL	28	280-0808	117
125-G	38	150GPCTF	57	200DC-LBR	28	280-1212	117
126-0202	121	156	66	200DC-LSS	28	282-0407	118
126-0302	121	157	127	200DD-45AL 300DD-45AL23		282-0408	118
126-0304	121	157R	127	200DD-90AL	23	282-0610	118
126-0402	121	165-0202	116	200-DD-AL	29	282-0812	118
126-0404	121	165-0404	116	200-DD-SS	29	282-1217	118
126-0406	121	165-0606	116	200-DL-SS	30	284-0410	118
126-0504	121	165-0808	116	200E-90SS	24	284-0510	118
126-0604	121	165-1212	116	200F-90AL	25	284-0610	118
126-0606	121	165-1616	116	200F-90SS	25	284-1217	118
126-0608	121	166-0215	116	200-G	37	286	127
126-0806	121	166-0220	116	200-G	38	286-0407	118
126-0808	121	166-0225	116	200GPCBU	57	286-0409	118
126-1212	121	166-0230	116	200GPCTF	57	286-0609	118
128P1LJ15	154	166-0235	116	200-HRP-BR	34	286-0812	118
128P1SO15	154	166-0240	116	200-HRP-SP	34	286-1217	118
128P2LJ15	154	166-0415	116	200-HSCRIP-SI	34	286R	127
128P2SO15	154	166-0420	116	200-LH-BR	34	287-0407	118
128P3LJ15	154	166-0425	116	200-PC-MI	57	287-0408	118
128P3SO15	154	166-0430	116	200-PC-SS	57	287-0612	118
133	127	166-0435	116	200PRSCCS	35	287-0812	118
133R	127	166-0440	116	200PRSCSS	35	287-0814	118
140	127	166-0450	116	200-TCA-AL	21	287-1014	118
140R	127	166-0615	116	200-TCA-SS	21	288-0409	118
142-0307	121	166-0620	116	206	66	288-0609	118
142-0407	121	166-0625	116	210	127	288-1217	118
142-0410	121	166-0630	116	210R	127	290-0406	118
142-0508	121	166-0635	116	212	66	290-0407	118
142-0610	121	166-0640	116	225	66	290-0408	118
142-0612	121	166-0815	116	226	127	290-0508	118
142-0812	121	166-0820	116	226R	127	290-0510	118
143-0307	121	166-0825	116	228-0202	116	290-0608	118
143-0407	121	166-0830	116	228-0404	116	290-0610	118
143-0408	121	166-0835	116	228-0606	116	290-0812	118

290-1014	118	300FT25	201	346	127	470	127
292-0406	118	300FT38	201	346R	127	470R	127
292-0407	118	300FT50	201	350	66	485	127
292-0408	118	300FT120	201	375	66	485R	127
292-0608	118	300-G	37	376	127	500	127
292-0610	118	300-G	38	376R	127	500-AA-AL	29
292-0812	118	300-G-BU	50	396	127	500-AA-SS	29
294-0403	119	300GPCBU	57	396R	127	500AN4	111
294-0404	119	300GPCTF	57	400	133	500-AN7	111
294-0405	119	300GTTFCB	32	400A-90AL	24	500DA-90AL	23
294-0606	119	300GTTFK	32	400-AA-AL	29	500-DD-AL	29
294-0808	119	300GTTFTK	32	400-AA-SS	29	500-DD-SS	29
294-1010	119	300H-PADBR	34	400-AL-SS	30	500-G	37
294-1212	119	300H-PADSS	34	400-ALT-AL	32	500-G	38
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300A-90SS	24	300-HR325P-SI	34	400-AS-AL	31	500GTCATF	21
300-AA-AL	29	300-HR325P-SP	34	400C-90AL	24	500GTCATV	21
300-AA-BR	29	300-HRP-BR	34	400C-90SS	24	500GTCAVI	21
300-AA-SS	29	300-HRP-SP	34	400-CVR-AL	33	500R	127
300-AL-MI	30	300-HSCRIP-SI	34	400-CVR-AL	55	504-1204	115
300-AL-SS	30	300-LH-BR	34	400D-90AL	24	504-1206	115
300-ALT-AL	32	300-MAE	50	400D-90SS	24	504-1208	115
300-ALT-SS	32	300MICAP50	202	400DA-45AL	23	504-1212	115
300ASSSAP	57	300MICAP75	202	400DA-45SS	23	0507	127
300B-90SS	25	300MICAP100	202	400DA-90AL	23	507-1204	115
300BR1075	197	300MICAP125	202	400DA-90SS	23	507-1206	115
300BR1210	197	300MICAP150	202	400DC-LAL	28	0507R	127
300BR1510	197	300MICAP200	202	400DC-LBR	28	509-1612	115
300BR1512	197	300MIU50	197	400DC-LSS	28	515	127
300BR2010	197	300MIU75	197	400DD-45AL	23	515R	127
300BR2012	197	300MIU100	197	400-DD-AL	29	525	133
300BR2015	197	300MIU150	197	400-DD-SS	29	550	133
300BR5025	197	300MIU300	197	400-DDVR-AL	33	600	133
300BR7550	197	300-P	50	400-DDVR-AL	55	600-AA-AL	29
300C-90AL	24	300-PC-AL	57	400-DL-SS	30	600-AA-SS	29
300C-90SS	24	300PCALAP	57	400-DLT-AL	32	600-AL-SS	30
300D-90AL	24	300-PC-MI	57	400-DVR-AL	33	600-ALT-AL	32
300D-90SS	24	300-PC-SS	57	400-DVR-AL	55	600C-90AL	24
300DA-45AL	23	300PCSSAP	57	400E-90AL	24	600D-90AL	24
300DA-45SS	23	300PRSCCS	35	400E-90SS	24	600DA-45AL	23
300DA-90AL	23	300PRSCSS	35	400-G	37	600DA-90AL	23
300DA-90SS	23	300RHC25	198	400-G	38	600DC-LAL	28
300DC-LAL	28	300RHC38	198	400GPCTF	57	600DD-45AL	23
300DC-LBR	28	300RHC50	198	400GTTFCB	32	600DD-90AL	23
300DC-LSS	28	300RHC75	198	400GTTFK	32	600-DD-AL	29
300DD-45SS	23	300RHC100	198	400GTTFTK	32	600-DD-SS	29
300DD-90AL	23	300RHC125	198	400-LH-BR	34	600-DL-SS	30
400DD-90AL	23	300RHC150	198	400-PC-SS	57	600-DLT-AL	32
300DD-90SS	23	300RHC200	198	400-SFI-AL	56	600E-90AL	24
300-DD-AL	29	300RHC250	198	400-TCA-AL	21	600-G	37
300-DD-SS	29	300-SFC-AL	57	400-TCA-BR	21	600-G	38
300-DL-SS	30	300-SFC-MI	57	400-TCA-SS	21	600-HRP-BR	34
300-DLT-AL	32	300-SFC-SS	57	401	66	600-HRP-SI	34
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300E-90SS	24	300-TCA-BR	21	410R	127	675	133
300EL9025	198	300-TCA-MI	21	418	66	0709	127
300EL9038	198	300-TCA-SS	21	425	127	0709R	127
300EL9050	198	300-TFA	53	425R	127	769	133
300EL9075	198	300-TFG	50	431	133	800-G	38
300EL90100	198	301	127	440	127	800-HNP-BR	34
300EL90125	198	301R	127	440R	127	800-HP-BR	34
300EL90150	198	0305	127	450	66	0811	127
300EL90200	198	0305R	127	455	127	0811R	127
300F-90SS	25	306	66	455R	127	818	133
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900B	59	2015-DA-SS	27	3032	95	4030-C-AL	26
900B34	59	2015-D-SS	26	3033	95	4030-C-SS	26
900S	59	2015-E-AL	26	3034	95	4030-CVR-AL	33
900S34	59	2015-E-SS	26	3036	95	4030-CVR-AL	55
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900W34S	59	2023R	127	3040-AA-AL	29	4030-DA-ALH	27
968	66	2025-DA-AL	27	3040-A-AL	26	4030-DA-BR	27
0983	128	2025-DA-SS	27	3040-AA-SS	29	4030-D-AL	26
0986	128	2030-AA-AL	29	3040ALTAL	32	4030-DA-MI	27
988	133	2030-A-AL	26	3040-C-AL	26	4030-DA-SS	27
0989	128	2030-AA-SS	29	3040-DA-AL	27	4030-DAVR-AL	33
0993	128	2030-A-SS	26	3040-DA-BR	27	4030-DAVR-AL	55
0997	128	2030-DA-AL	27	3040-DA-SS	27	4030-D-BR	26
0999	128	2030-DA-SS	27	3040-DD-AL	29	4030-D-SS	26
1005	128	2030-DD-AL	29	3040-DD-SS	29	4030-DVR-AL	33
1009	128	2030-DD-SS	29	3040DLTAL	32	4030-DVR-AL	55
1015-DA-AL	27	2040-AA-AL	29	3060-DA-AL	27	4030-E-AL	26
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1021	128	2040-DA-AL	27	3437	127	4030-MAE	50
1029	128	2040-DA-SS	27	3437R	127	4030-RD-AL	57
1098	128	2143SEALBU	54	3501	102	4030-RD-SS	57
1099	128	2225	127	3502	102	4050-AA-AL	29
1113	127	2225R	127	3504	102	4050-DA-AL	27
1113R	127	2327	127	3505	102	4050-DD-AL	29
1124D	59	2327R	127	3506	102	4050-DD-SS	29
1125	133	2520-DA-SS	27	3508	102	4055-3	209
1144D	59	2530-AA-AL	29	3509	102	4060-AA-AL	29
1217AR-4	78	2530-AA-SS	29	3510	102	4060-A-AL	26
1217AR-4AK	78	2530-DA-SS	27	3511	102	4060-AA-SS	29
1217AR-4FR	78	2540-AA-AL	29	3512	102	4060-DA-AL	27
1217FRAME	78	2731	127	3512WF	102	4060-DA-SS	27
1250-94	60	2731R	127	3512WF	236	4060-DD-AL	29
1275	133	3010-RC-SS	57	3513	102	4060-DD-SS	29
1315	127	3015-DA-AL	27	3514	102	4500-5	54
1315R	127	3015-DA-SS	27	3514WF	102	4530	54
1360	133	3020-A-AL	26	3514WF	236	4540	54
1450	133	3020-A-SS	26	3515	102	5000-24	54
1510-DA-AL	27	3020-C-AL	26	3516	102	5000-25	54
1510-D-AL	26	3020-C-SS	26	3518	102	5030-DA-AL	27
1510-DA-SS	27	3020-DA-AL	27	3518WF	102	5030-DA-SS	27
1510-D-SS	26	3020-DA-ALH	27	3518WF	236	5040-C-AL	26
1517	127	3020-DA-BR	27	3533AA	30	5040-DA-AL	27
1517R	127	3020-D-AL	26	3533CA	30	5040-D-AL	26
1518	127	3020-DA-MI	27	3533CC	30	5040-DA-SS	27
1518R	127	3020-DA-SS	27	3534AA	30	5040-E-AL	26
1520-AA-AL	29	3020DAT25SS	27	3534CA	30	5060-AA-AL	29
1520-AA-SS	29	3020DAT38SS	27	3542	102	5060-DA-AL	27
1520-DA-AL	27	3020DAT50SS	27	3543CA	30	5060-DA-SS	27
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1580U	60	3020-E-SS	26	3544CA	30	5200-SFI-3	56
1700	133	3020-RD-AL	57	3544CC	30	5200-SFI-3-RK1	56
1720	127	3020-RD-MI	57	3545	102	5200-SFI-3V-RK1	56
1720R	127	3020-RD-SS	57	3546	102	5200-SFI-RK1	56
1765A	126	3020RDSSAP	57	3550	102	5200-SFIV-RK1	56
1922	127	3022	95	3552	102	5450LP	82
1922R	127	3023	95	3554	102	5600LP	82
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6000-17	51	A712S	206	AG15	195	AMB1	69
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6000ASAL	52	A713S	206	AG25	195	AMC1	69
6000D	51	A714	206	AG30	195	AMH	69
6000DT	51	A714S	206	AG35	195	ANH75	67
6000-SSA	52	A715	206	AG40	195	ANH100	67
6000T	51	A716	206	AG60	195	ANH125	67
6030	51	A7125	206	AG80	195	ANH150	67
6030-DA-AL	27	A7125S	206	AKSP1	70	AR3000-A2	110
6030-DA-SS	27	AAPN75GHT	111	AKSP25	70	ARTEL18A	110
6040-A-AL	26	AB0	69	AL9	108	ARTEL-BELT	110
6040-A-SS	26	AB1	69	AL248	109	ASC125	67
6040-DA-AL	27	AB2	69	AL323XX	109	ASC150	67
6040-DA-BR	27	AB3	69	AL324XX	109	ASFI25T25B	45
6040-D-AL	26	AB5	69	AL325XX	109	ASFI25T25T	45
6040-DA-MI	27	AB6	69	AL326XX	109	ASFI30T30B	45
6040-DA-SS	27	AB7	69	AL333	109	ASFI30T30T	45
6050-DA-AL	27	AB8	69	AL344	109	AST10	83
6050-DA-SS	27	AB10	69	AL361	109	AST15	83
6200	51	AB11	69	AL362	109	AST20	83
6200-1	51	AB12	69	AL450	110	AST25	83
6200A	51	AB13	69	AL451	110	AST30	83
6200ARK	51	AB16	68	AL453	110	AST35	83
6200BK	51	AB18	68	AL454	110	AST40	83
6200D	51	AB21	68	AL455F	110	AST50	83
6200DT	51	AB23	68	AL456	110	AST60	83
6200SGK	51	AB26	68	AL462	110	ATCS30	22
6200T	51	AB28	68	AL464	110	ATCS40	22
6200X	51	ABB	69	AL472	110	ATCT30	22
6200XA	51	ABB1	69	AL477	110	ATCT40	22
6200XD	51	ABC	69	AL478	110	AVN2000-200	206
6200XDT	51	ABC1	69	AM0	69	AVN2500-200	206
6200XT	51	ABH	69	AM1	69	AVN3000-200	206
6400	52	AC1	70	AM1WF	71	AVN4000-200	206
7600HP	82	AC7	36	AM1WF	239	AWR4	70
7670LP	82	AC7	70	AM2	69	AWR14	68
7800LP	82	ACB304	92	AM2SWIV	71	AWS6	70
7800MP	82	ACB304	95	AM3	69	AWSG	107
7850LP	82	ACL2	35	AM5	69	AWSG-TG	107
8060-DA-AL	27	ACL3	35	AM6	69	AWSG-W	107
9901	128	ACL4	35	AM6SWIV	71	B2	63
16154	188	ACL8	70	AM6WF	71	B2CMP-G100	171
16171	188	AD90400EZ 2	24	AM6WF	239	B2CMP-G150	171
30210	95	ADA2030	28	AM7	69	B2CMP-G200	171
30212	95	ADA2030EZ	28	AM7SWIV	71	B2CMP-G250	171
30310	95	ADA2520	28	AM7T	71	B2CMP-G300	171
30312	95	ADA2530	28	AM8	69	B2CMP-G400	171
31440-225AL	54	ADA3020	28	AM8SWIV	71	B2CMP-G600	171
40022ALTAL	32	ADA3020EZ	28	AM10	69	B2CMP-R50	171
40022DLTAL	32	ADA3040	28	AM11	69	B2CMP-R75	171
41440-225AL	54	ADA3040EZ	28	AM11WF	71	B2CMP-R100	171
41450-DCAL	54	ADA4020	28	AM11WF	239	B2CMP-R150	171
51970	132	ADA4020EZ	28	AM11WF	239	B2CMP-R200	171
82075LP	82	ADA4030	28	AM11WF-1	71	B2CMP-R250	171
82100LP	82	ADA4030EZ	28	AM11WF-1	239	B2CMP-R300	171
83000LP	82	ADA6040	28	AM11WF-1	239	B2CMP-R400	171
83050LP	82	ADA6040EZ	28	AM12	69	B2E-G150	180
300300FCE	50	ADA8060	28	AM13	69	B2E-G200	180
300300MAE	50	ADD200	29	AM16	68	B2E-G300	180
452963	75	ADD300	29	AM18	68	B2EI-G200	184
855206	75	ADD400	29	AM21	68	B2F-G150	180
855231	75	ADD2030	29	AM23	68	B2F-G200	180
3004030MAE	50	ADD3040	29	AM26	68	B2F-G250	180
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B2FMP-14-G250	172	B16-400S	62	B24SPHAP-G250	185	B3114MP-R400250	173
B2FMP-14-G300	172	B16-600S	62	B24SPHAP-G300	185	B3114MP-R400300	173
B2KMP-G100	171	B16-800S	62	B24SPHAP-G400	185	B3115F-G200150	181
B2KMP-G150	171	B16-1200S	62	B24SPSTW-G50	185	B3115F-G250200	181
B2KMP-G200	171	B17	63	B24SPSTW-G75	185	B3115F-G300250	181
B2KMP-G250	171	B17	63	B24SPSTW-G100	185	B3115F-G400300	181
B2KMP-G300	171	B17-200S	62	B24SPSTW-G150	185	B3214MP-G200100	173
B2KMP-G400	171	B17-300S	62	B24SPSTW-G200	185	B3214MP-G200150	173
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B2KMP-R50	171	B17-600S	62	B24SPSTW-G300	185	B3214MP-G250200	173
B2KMP-R75	171	B17-800S	62	B24SPSTW-G400	185	B3214MP-G300150	173
B2KMP-R100	171	B17-1200S	62	B25	66	B3214MP-G300200	173
B2KMP-R150	171	B17SC	65	B27	63	B3214MP-G300250	173
B2KMP-R200	171	B19	66	B27SC	65	B3214MP-G400200	173
B2KMP-R250	171	B22	66	B28AMP-R150	174	B3214MP-G400250	173
B2KMP-R300	171	B23BMP-G100	166	B28AMP-R200	174	B3214MP-G400300	173
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B2WUMP-R100	174	B23BMP-G200	166	B28AMP-R400	174	B3214MP-G600400	173
B2WUMP-R150	174	B23BMP-G250	166	B28BMP-R150	174	BA2	63
B2WUMP-R200	174	B23BMP-G300	166	B28BMP-R200	174	BA31-200	58
B2WUMP-R300	174	B23BMP-G400	166	B28BMP-R300	174	BA31-300	58
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B5 4	66	B23BMP-R150	166	B30	66	BA32-300	58
B7MP-G100	172	B23BMP-R200	166	B31TP-G200150	181	BA61-300	58
B7MP-G150	172	B23BMP-R250	166	B31TP-G250200	181	BA62-300	58
B7MP-G200	172	B23BMP-R300	166	B31TP-G300200	181	BA73	115
B7MP-G300	172	B23BMP-R400	166	B31WMP-G200100	168	BA74	115
B7MP-G400	172	B23BMP-R5014	166	B31WMP-G250150	168	BA776	115
B7MP-G600	172	B23BMP-R7514	166	B31WMP-G250200	168	BA777	115
B7MP-G800	172	B24	66	B31WMP-G300200	168	BA794	115
B7MP-R50	172	B24PPHAP-G50	185	B31WMP-G400200	168	BA796	115
B7MP-R75	172	B24PPHAP-G75	185	B31WMP-G400300	168	BA971	115
B7MP-R100	172	B24PPHAP-G100	185	B31WMP-R200100	168	BA972	115
B7MP-R150	172	B24PPHAP-G150	185	B32	63	BA973	115
B7MP-R200	172	B24PPHAP-G200	185	B34	66	BA974	115
B7MP-R250	172	B24PPHAP-G250	185	B35	66	BA976	115
B7MP-R300	172	B24PPHAP-G300	185	B37	63	BA977	115
B7MP-R400	172	B24PPHAP-G400	185	B37SC	65	Back Gaskets	98
B7MPS-R150	172	B24PPSTW-G50	185	B39	66	BAS974	115
B7MPS-R200	172	B24PPSTW-G75	185	B47	63	BAS976	115
B7MPS-R250	172	B24PPSTW-G100	185	B67	63	BB4	66
B7RMP-G200100	172	B24PPSTW-G150	185	B3114MP-G150100	173	BB9	66
B7RMP-G200150	172	B24PPSTW-G200	185	B3114MP-G200100	173	BB10	66
B7RMP-G250150	172	B24PPSTW-G250	185	B3114MP-G200150	173	BB14	66
B7RMP-G250200	172	B24PPSTW-G300	185	B3114MP-G250150	173	BB19 2	66
B7RMP-G300150	172	B24PPSTW-G400	185	B3114MP-G250200	173	BB29 2	66
B7RMP-G300200	172	B24PV-G100	176	B3114MP-G300150	173	BBU9	66
B7RMP-R150100	172	B24PV-G150	176	B3114MP-G300200	173	BBU14	66
B7RMP-R200100	172	B24PV-G200	176	B3114MP-G300250	173	BBU24 2	66
B7RMP-R200150	172	B24PV-G250	176	B3114MP-G400200	173	BBU29 2	66
B7RMP-R250150	172	B24PV-G300	176	B3114MP-G400250	173	BBV50DTW	190
B7RMP-R300150	172	B24PV-G400	176	B3114MP-G400300	173	BBV50ST	191
B7RMP-R300200	172	B24PV-G600	176	B3114MP-G600400	173	BBV50TW	190
B9	66	B24RV-G100	176	B3114MP-R10050	173	BBV75DTW	190
B9MP-R100	173	B24RV-G150	176	B3114MP-R10075	173	BBV75ST	191
B9MP-R150	173	B24RV-G200	176	B3114MP-R15075	173	BBV75TW	190
B9MP-R200	173	B24RV-G250	176	B3114MP-R20075	173	BBV100DTW	190
B10 4	66	B24RV-G300	176	B3114MP-R150100	173	BBV100DW	76
B12	63	B24RV-G400	176	B3114MP-R200100	173	BBV100DWW	76
B12	63	B24RV-G600	176	B3114MP-R200150	173	BBV100ST	191
B12SC	65	B24SPHAP-G50	185	B3114MP-R250150	173	BBV100TW	190
B14 4	66	B24SPHAP-G75	185	B3114MP-R250200	173	BBV125DTW	190
B15	66	B24SPHAP-G100	185	B3114MP-R300150	173	BBV125DW	76
B16-200S	62	B24SPHAP-G150	185	B3114MP-R300200	173	BBV125DWW	76

BBV150DTW	190	BFM562	125	BLS30NST	104	BN21	120
BBV200DTW	190	BFM593	125	BLS33	104	BN22	120
BBV200ST	191	BFM625	125	BLS43	104	BN23	120
BC73	114	BFM656	125	BLS48	104	BN24	120
BC74	114	BFM687	125	BLS53	104	BN31	120
BC75	114	BFM718	125	BLS63	104	BN32	120
BC76	114	BFM718B	125	BLS63NST	104	BN33	120
BCF73	114	BFM750	125	BLS78	104	BN34	120
BCF74	114	BFM750B	125	BLS93NST	104	BN36	120
BCF75	114	BFM781	125	BLS150NST	104	BN42	120
BCF76	114	BFM781B	125	BLS250NST	104	BN43	120
BCM73	114	BFM812	125	BLS404	104	BN44	120
BCM74	114	BFMW1050	125	BLS406	104	BN46	120
BCM75	114	BFMW1100	125	BLS407	104	BN53	120
BCM76	114	BFMW1150	125	BLS414	104	BN54	120
BD	66	BFMW1225	125	BLS416	104	BN56	120
BEC20	206	BFMW1275	125	BLS417	104	BN64	120
BEC25	206	BFMW1400	125	BLS444	104	BN66	120
BEC30	206	BFMW1500	125	BLS446	104	BN86	120
BEC40	206	BFS11	121	BLS447	104	BN88	120
BEC60	206	BFS21	121	BLS506	104	BN106	120
BEC80	206	BFS22	121	BLS507	104	BN108	120
BF11	120	BFS23	121	BLS516	104	BN122	120
BF12	120	BFS32	121	BLS517	104	BN151	120
BF21	120	BFS33	121	BLS546	104	BN152	120
BF22	120	BFS34	121	BLS547	104	BN251	120
BF23	120	BFS43	121	BLS606	104	BN252	120
BF31	120	BFS44	121	BLS607	104	BN253	120
BF32	120	BFS66	121	BLS616	104	BNH75	67
BF33	120	BFS151	121	BLS617	104	BNH100	67
BF34	120	BFS152	121	BLS646	104	BNH125	67
BF42	120	BFS252	121	BLS647	104	BNH150	67
BF43	120	BFS253	121	BLS808	104	BNS44	107
BF44	120	BFW875	125	BLS818	104	BNS64	107
BF66	120	BFW900	125	BLS848	104	BOC-T04-50	212
BF86	120	BFW925	125	BM1	99	BOC-T06-50	212
BF88	120	BFW975	125	BM1	120	BOC-T08-50	212
BF151	120	BFW1025	125	BM2	99	BOC-T12-50	212
BF152	120	BFW1175	125	BM2	120	BOC-T16-50	212
BF251	120	BH6	34	BM3	99	BOC-T20-50	212
BF252	120	BHSC34	34	BM3	120	BOC-T24-25	212
BF253	120	BHSC152	34	BM4	99	BOC-T32-25	212
BF800	125	BHSC175	34	BM4	120	BPF21	117
BF825	125	BHT1015	201	BM5	99	BPF22	117
BF850	125	BHT1020	201	BM5	120	BPF23	117
BFL380	125	BHT1510	201	BM6	99	BPF31	117
BFL400	125	BHT1520	201	BM6	120	BPF32	117
BFL410	125	BHT1575	201	BM8	99	BPF33	117
BFL450	125	BHT2025	201	BM8	120	BPF34	117
BFL500	125	BHT7510	201	BM15	99	BPF42	117
BFL525	125	BIT-KIT	108	BM15	120	BPF43	117
BFL548	125	BK91	207	BM25	99	BPF44	117
BFL564	125	BL062	58	BM25	120	BPF46	117
BFL575	125	BL064	58	BMA973	115	BPF54	117
BFL600	125	BL066	58	BMA974	115	BPF66	117
BFL625	125	BL066NS	58	BMA976	115	BPFS21	117
BFL650	125	BL068	58	BMAS974	107	BPFS22	117
BFL675	125	BL068NS	58	BMS6	64	BPFS23	117
BFL725	125	BL072	58	BMS11	64	BPFS32	117
BFL750	125	BL072NS	58	BMS16	64	BPFS33	117
BFL775	125	BLCA152CS	36	BMS21	64	BPFS44	117
BFM478	125	BLS15	104	BMS26	64	BPFS46	117
BFM500	125	BLS20	104	BMS36	64	BPFS66	117
BFM525	125	BLS20NST	104	BN6	112	BPM2	119
BFM531	125	BLS25	104	BN11	120	BPM3	119

BPM4	119	BR2510	197	BS406	114	BV75	189
BPM5	119	BR2515	197	BS416	114	BV100	189
BPM6	119	BR2520	197	BS446	114	BV125	189
BPM25	119	BR2520G	197	BS546	114	BV150	189
BPN21	117	BR3010	197	BS606	114	BV200	189
BPN22	117	BR3012	197	BS616	114	BVFS20	100
BPN23	117	BR3015	197	BS646	114	BVFS25	100
BPN31	117	BR3020	197	BS808	114	BVFS35	100
BPN32	117	BR3020B	197	BS818	114	BVFS40	100
BPN33	117	BR3020G	197	BS848	114	BWSG	107
BPN34	117	BR3020SS	197	BSB-03-100	211	BWSG-W	107
BPN36	117	BR3025	197	BSB-04-100	211	BY4051	53
BPN42	117	BR3025G	197	BSB-05-100	211	BZ4051	53
BPN43	117	BR3818	197	BSB-06-100	211	BZ4051S	53
BPN44	117	BR3825	197	BSB-06T-100	211	C2	132
BPN46	117	BR3825SS	197	BSB-08-100	211	C12	204
BPN53	117	BR4010	197	BSB-10-100	211	C12BU	204
BPN54	117	BR4015	197	BSB-12-100	211	C12F	113
BPN56	117	BR4020	197	BSB-12T-50	211	C12HM	113
BPN64	117	BR4025	197	BSB-16-50	211	C12M	113
BPN66	117	BR4030	197	BSB-16T-50	211	C13	204
BPN86	117	BR4030B	197	BSB-20Z-50	211	C13BU	204
BPN88	117	BR4030G	197	BSB75	67	C14	204
BPN251	117	BR5025	197	BSB100	67	C14BU	204
BPN252	117	BR5025G	197	BSB125	67	C16	204
BR1025	197	BR5025SS	197	BSB150	67	C16BU	204
BR1038	197	BR5038	197	BSC125	67	C18	204
BR1050	197	BR5038B	197	BSC150	67	C18BU	204
BR1050G	197	BR5038FS	197	BSP	13	C20	204
BR1050SS	197	BR5038G	197	BSP	13	C20BU	204
BR1075	197	BR5038SS	197	BSP	13	C24	204
BR1075B	197	BR6030	197	BSP	13	C24BU	204
BR1075FS	197	BR6040	197	BSP	13	C34F	113
BR1075G	197	BR7525	197	BSP	13	C34HM	113
BR1075SS	197	BR7538	197	BSS61-200	58	C34M	113
BR1210	197	BR7538SS	197	BSS61-300	58	C58F	113
BR1210B	197	BR7550	197	BSS62-200	58	C58HM	113
BR1210G	197	BR7550B	197	BSS62-300	58	C58M	113
BR1210SS	197	BR7550FS	197	BST10	83	C115	204
BR1250	197	BR7550G	197	BST15	83	C115BU	204
BR1275	197	BR7550SS	197	BST20	83	C125	204
BR1418	197	Brass/Laiton	8	BST25	83	C125BU	204
BR1510	197	Brass/Laiton	8	BST30	83	CAB150N	89
BR1510B	197	Brass/Laiton	8	BST35	83	CAB250N	89
BR1510FS	197	Brass/Laiton	9	BST40	83	CAL15	36
BR1510G	197	Brass/Laiton	9	BTB-T04-50	212	CAL25	36
BR1510SS	197	Brass/Laiton	9	BTB-T06-50	212	CAMWASHER-050	37
BR1512	197	Brass/Laiton	9	BTB-T08-50	212	CAMWASHER-075	37
BR1512FS	197	bronze	13	BTB-T12-50	212	CAMWASHER-100	37
BR1512G	197	bronze	13	BTB-T16-50	212	CAMWASHER-125	37
BR1512SS	197	bronze	13	BTB-T16Z-50 1	212	CAMWASHER-150	37
BR1575	197	bronze	13	BTB-T20Z-50 1	212	CAMWASHER-200	37
BR1575B	197	bronze	13	BTB-T24Z-50 1	212	CAMWASHER-250	37
BR2010	197	bronze	13	BTN75	111	CAMWASHER-300	37
BR2010B	197	BruteXpand	188	BU9 4	66	CAMWASHER-400	37
BR2010FS	197	BS22N	89	BU14	66	CAMWASHER-500	37
BR2010G	197	BS32N	89	BU18	66	CAMWASHER-600	37
BR2010SS	197	BS61-200	58	BU19	66	CAMWASHER-800	37
BR2012	197	BS61-300	58	BU22	66	CARP12BZ	35
BR2015	197	BS62-200	58	BU24	66	CARP34BZ	35
BR2015B	197	BS62-300	58	BU28	66	CARP60BZ	35
BR2015FS	197	BS63N	89	BU29	66	CARP80BZ	35
BR2015G	197	BS93N	89	BU34	66	CAS2334NOS	85
BR2015SS	197	BS201	89	BU35	66	CAS2370NOS	85
BR2075	197	BS301	89	BV50	189	CAS2709NOS	85

CAS2885NOS	85	CF200-5	241	CN600	83	CSSR150	159
CAS3760NOS	85	CF200-6	242	CN800	83	CSSR150	244
CAS3885NOS	85	CF200-7	242	CN1000	83	CSSR200	159
CAS5010NOS	85	CF200-8	242	CN1200	83	CSSR200	244
CB	63	CF200-9	242	CNP-050	83	CSSR300	159
CBC74	114	CF200-10	242	CNP-75	83	CSSR300	244
CBC75	114	CF300-1	242	CNP-100	83	CSSR400	159
CBC76	114	CF300-2	242	CNP-125	83	CSSR400	244
CBC88	114	CF300-3	242	CNP-150	83	CTER150	159
CBSR100	243	CF300-4	242	CNP-200	83	CTER150	244
CBSR100	159	CF300-5	242	CNP-250	83	CTER200	159
CBSR150	244	CF300-6	242	CNP-300	83	CTER200	244
CBSR150	159	CF300-7	242	CNP-400	83	CTER300	159
CBSR200	244	CF300-8	242	CNP-500	83	CTER300	244
CBSR200	159	CF300-9	242	CNP-600	83	CTER400	159
CBSR300	244	CF300-10	242	CNP-800	83	CTER400	244
CBSR300	159	CF400-1	243	CNP-1000	83	D204-30	80
CBSR400	244	CF400-2	243	CNP-1200	83	D204-30P	80
CBSR400	159	CF400-3	243	CNS-50	83	D229	131
CCF0906	70	CF400-4	243	CNS-75	83	D230	81
CCF0906	240	CF400-5	243	CNS-100	83	D253	187
CCF0906	240	CF400-6	243	CNS-125	83	D253F	187
CCF0906	240	CF400-7	243	CNS-150	83	D263	187
CCF1120	70	CF400-8	243	CNS-200	83	D263F	187
CCF1120	240	CF400-9	243	CNS-250	83	D15193	187
CCF1120	240	CF400-10	243	CNS-300	83	D15193F	187
CCF1149	70	CH-B-6	36	CNS-400	83	D16181	187
CCF1149	240	CH-B-12	36	CNS-500	83	D16181F	187
CCF1149	240	CH-B-24	36	CNS-600	83	D16193	187
CCF1190	70	CH-C-12	36	CNS-800	83	D16193F	187
CCF1190	240	CH-SS-6	36	CNV100	84	D16206	187
CCF1190	240	CH-SS-12	36	CNV125	84	D16206F	187
CCF1190	240	CH-SS-24	36	CNV150	84	D26287F	187
CCF1218	70	CILR150	159	CNV200	84	DAA250AL	46
CCF1218	240	CILR150	244	CNV250	84	DAA250ALFL	46
CCF1246	70	CILR200	159	CNV300	84	DAA300AL	46
CCF1246	240	CILR200	244	CNV400	84	DAA300ALFL	46
CCF1246	240	CILR300	159	CNV500	84	DAC250AL	45
CCF1438	70	CILR300	244	CNV600	84	DAC250ALBSP	45
CCF1438	240	CILR400	159	CNV800	84	DAC300AL	45
CCF1438	240	CILR400	244	CNV1000	84	DAC300ALBSP	45
CCF1469	70	Clamp	97	CNV1200	84	DADC250	46
CCF1469	240	CN012SS	105	CSB125	89	DADP250	45
CCF1469	240	CN025SS	105	CSB150	89	DBA11-150	48
CCF1500	70	CN037SS	105	CSB200	89	DBA11-200	48
CCF1500	240	CN50	83	CSB250	89	DBA11-300	48
CCF1500	240	CN050SS	105	CSB300	89	DBA12-150	48
CCF1531	70	CN75	83	CSB400	89	DBA12-200	48
CCF1531	240	CN075SS	105	CSB600	89	DBA12-300	48
CCF1531	240	CN100	83	CSC-T08	212	DBA63-150	48
CD	66	CN100SS	105	CSC-T12	212	DBA63-200	48
CF150-1	241	CN125	83	CSC-T16	212	DBA63-300	48
CF150-2	241	CN150	83	CSC-T20	212	DBA64-150	48
CF150-3	241	CN150B	116	CSC-T24	212	DBA64-200	48
CF150-4	241	CN150SS	105	CSC-T32	212	DBA64-300	48
CF150-5	241	CN200	83	CSM125	89	DBA66-150	48
CF150-6	241	CN200B	116	CSM150	89	DBA66-200	48
CF150-7	241	CN200SS	105	CSM200	89	DBA66-300	48
CF150-8	241	CN250	83	CSM250	89	DBA69-300	48
CF150-9	241	CN300	83	CSM300	89	DBA71-150	48
CF150-10	241	CN300B	116	CSM400	89	DBA71-200	48
CF200-1	241	CN300SS	105	CSM600	89	DBA71-300	48
CF200-2	241	CN400	83	CSN75	111	DBA72-150	48
CF200-3	241	CN400SS	105	CSSR100	159	DBA72-200	48
CF200-4	241	CN500	83	CSSR100	241	DBA72-300	48

DBA73-150	48	DDA150ALFL	44	DDDC300105	44	DL32	133
DBA73-200	48	DDA150BR	44	DDDC300105	58	DL275	133
DBA73-300	48	DDA150BRFL	44	DDDP075	43	DL306	133
DBA74-150	48	DDA150SS	44	DDDP150	43	DL328	133
DBA74-200	48	DDA150SSFL	44	DDDP150	58	DL350	133
DBA74-300	48	DDA200AL	44	DDDP300	43	DM5	100
DBA76-150	48	DDA200ALFL	44	DDDP400	43	DM18	100
DBA76-200	48	DDA200BR	44	DDDP600	43	DMA	100
DBA76-300	48	DDA200BRFL	44	DDDP300105	43	DMXL21	100
DBA77-150	48	DDA200SS	44	DDDP300105	58	DMXL26	100
DBA77-200	48	DDA200SSFL	44	DDT1	207	DRK15	207
DBA77-300	48	DDA300AL	44	DGA100SS	49	DSB20	101
DBAV73-2030	48	DDA300AL105	44	DGA100SSFL	49	DSB25	101
DBC61-150	47	DDA300AL105FL	44	DGA200SS	49	DSB35	101
DBC61-200	47	DDA300AL105TTMA	44	DGA200SSFL	49	DSBV25	193
DBC61-300	47	DDA300AL119TTMA	44	DGA300SS	49	DSBV38	193
DBC62-150	47	DDA300ALFL	44	DGA300SSFL	49	DSBV50	193
DBC62-200	47	DDA300GM	44	DGC100SS	49	DSBV75	193
DBC62-300	47	DDA300GM105	44	DGC200SS	49	DSBV100	193
DBC63-150	47	DDA300GM105FL	44	DGC300SS	49	DSBV125	193
DBC63-200	47	DDA300GMFL	44	DGDC100	44	DSBV150	193
DBC63-300	47	DDA300SS	44	DGDC100	49	DSBV200	193
DBC64-150	47	DDA300SS105	44	DGDC200	44	DST20	101
DBC64-200	47	DDA300SS105FL	44	DGDC200	49	DST25	101
DBC64-300	47	DDA300SSFL	44	DGDC300	49	DST35	101
DBC66-200	47	DDA400AL	44	DGDP100	49	DTW150	188
DBC69-300	47	DDA400AL164TTMA	44	DGDP200	49	DTW250	188
DBC71-150	47	DDA400ALFL	44	DGDP300	49	Dust Cap "DC"	9
DBC71-200	47	DDA400GM	44	DGH7	113	Dust Plug "DP"	9
DBC71-300	47	DDA400GMFL	44	DGH7C	113	EC201	206
DBC72-150	47	DDA400SS	44	DGH7CV	113	EC251	206
DBC72-200	47	DDA400SSFL	44	DGH7P	113	EC301	206
DBC72-300	47	DDA600AL	44	DGH7V	113	EC401	206
DBC73-150	47	DDA600ALFL	44	DGHW7	113	EC402	206
DBC73-200	47	DDA600SS	44	DHS90-100	209	EC601	206
DBC73-300	47	DDA600SSFL	44	DHS90-300	209	EC602	206
DBC74-150	47	DDC075AL	43	DHS100-100	209	EC802	206
DBC74-200	47	DDC075BR	43	DHS100-300	209	EL3154-45	94
DBC74-300	47	DDC075SS	43	DHS106-100	209	EL3154-90	94
DBC76-150	47	DDC100AL	43	DHS106-300	209	EL3156-45	94
DBC76-200	47	DDC100BR	43	DHS122-100	209	EL3156-90	94
DBC76-300	47	DDC100SS	43	DHS122-300	209	EL3158-45	94
DBC77-150	47	DDC150AL	43	DHS138-100	209	EL3158-90	94
DBC77-150-GL	47	DDC150BR	43	DHS138-300	209	EL4518	199
DBC77-200	47	DDC150SS	43	DHS142-100	209	EL4525	199
DBC77-200-GL	47	DDC200AL	43	DHS142-300	209	EL4538	199
DBC77-300	47	DDC200BR	43	DHS159-1-100	209	EL4550	199
DBC79-300	47	DDC200SS	43	DHS159-1-300	209	EL4575	199
DBCL-200	47	DDC300AL	43	DHS175-100	209	EL9018	198
DBS61-200	47	DDC300AL105	43	DHS175-300	209	EL9018G	198
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FJC-08-08	211	FL80-7	152	FST25	87	FVS20	101
FJC-10-10	211	FL96-1	152	FST35	87	FVS25	101
FJC-12-12	211	FL96-2	152	FST40	87	FVS30	101
FJC-16-16	211	FL96-3	152	FST60	87	FVS35	101
FJC-20Z-20	211	FL96-4	152	FST80	87	FVS40	101
FJC-T08	212	FL96-5	152	FST100	87	FVS60	101
FJC-T12	212	FL96-6	152	FST120	87	FVS80	101
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FJC-T20	212	FL96-8	152	FT10B	201	FVSP25	101
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FL20-4	152	FMR31886	94	FT75G	201	G39	98
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FL24-2	152	FMR3181210	94	FT100FS	201	G49	98
FL24-3	152	FNB75GHT	112	FT100G	201	G58	98
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FL64-5	152	FRR-T32	212	FVFA35	101	GAS2709NO	18
FL64-6	152	FRT1050	200	FVFA40	101	GAS2709NO	87
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GAS3760NO	87	GF61P2	65	H32BU	205	HB2012FS	196
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GAS3885NO	194	GF111	63	H315	205	HB2015SS	196
GAS3885NOS	85	GF111P1	65	H315BU	205	HB2050	196
GAS3885NOS	153	GF111P2	65	H325	205	HB2050B	196
GAS3885TO	153	GF111P3	65	H325BU	205	HB2050G	196
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GAS5010TO	153	GH2826	64	HB1018	196	HB2515	196
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GB3	63	GM3	63	HB1025FS	196	HB2518FS	196
GB6	63	GM8	63	HB1025G	196	HB2518G	196
GB8	63	GM13	63	HB1025SS	196	HB2518SS	196
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GB13	63	GM23	63	HB1038FS	196	HB2520FS	196
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GB26	63	GMAS11	65	HB1050G	196	HB3020	196
GB28	63	GMAS21	65	HB1050SS	196	HB3020B	196
GB31	63	GMAS26	65	HB1075	196	HB3020FS	196
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GB66	63	GNW20	194	HB1210FS	196	HB3025SS	196
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GBC	63	GNW35	194	HB1250	196	HB3825FS	196
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GDB33	63	GNWP30	194	HB1512FS	196	HB4030B	196
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GF3	63	GNWP60	194	HB1550	196	HB4030SS	196
GF6	63	GNWP80	194	HB1575	196	HB5018	196
GF26	63	GNWP100	194	HB1575B	196	HB5025	196
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HB5040	196	HS075SS	41	IBV50	191	IPD 100 CB	8
HB6030	196	HS80	129	IBV75	191	IPD 100 CS	8
HB6040	196	HS88	129	IBV100	191	IPD 100 DA	8
HB7518	196	HS96	129	IBV125	191	IPD 100 DB	8
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HDE64	156	HSS8	129	ID2846	147	IPD 125 AS	8
HDE80	156	HSS10	129	ID2906	147	IPD 125 BA	8
HPBV10	191	HSS12	129	ID4002	147	IPD 125 BB	8
HPBV10SAE	191	HSS16	129	ID4059	147	IPD 125 BS	8
HPBV10SS	191	HSS20	129	ID4409	147	IPD 125 CA	8
HPBV12	191	HSS24	129	ID4419	147	IPD 125 CB	8
HPBV12SAE	191	HSS28	129	ID4429	147	IPD 125 CS	8
HPBV12SS	191	HSS32	129	ID4609	147	IPD 125 DA	8
HPBV25	191	HSS36	129	ID4619	147	IPD 125 DB	8
HPBV25SAE	191	HSS40	129	ID4629	147	IPD 125 DCA	9
HPBV25SS	191	HSS44	129	IH6	34	IPD 125 DCB	9
HPBV34	191	HSS48	129	IHSC34	34	IPD 125 DCS	9
HPBV34SAE	191	HSS52	129	IHSC152	34	IPD 125 DPA	9
HPBV34SS	191	HSS56	129	IPD 075 AA	8	IPD 125 DPB	9
HPBV38	191	HSS60	129	IPD 075 AB	8	IPD 125 DPS	9
HPBV38SAE	191	HSS64	129	IPD 075 AS	8	IPD 125 DS	8
HPBV38SS	191	HSS72	129	IPD 075 BA	8	IPD 125 EA	9
HPBV125	191	HSS80	129	IPD 075 BB	8	IPD 125 EB	9
HPBV125SAE	191	HSS88	129	IPD 075 BS	8	IPD 125 ES	9
HPBV150	191	HSS96	129	IPD 075 CA	8	IPD 125 FA	9
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HS6	129	HSS236	129	IPD 075 DPA	9	IPD 150 AS	8
HS8	129	HSS248	129	IPD 075 DPB	9	IPD 150 BA	8
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HS28	129	I728L206-050060	13	IPD 075 FA	9	IPD 150 DA	8
HS32	129	I728L206-080090	13	IPD 075 FB	9	IPD 150 DB	8
HS36	129	I728L206-100114	13	IPD 075 FS	9	IPD 150 DCA	9
HS40	129	I1228100-050060	13	IPD075-SAND-AL	67	IPD 150 DCB	9
HS44	129	I1228100-080090	13	IPD 100 AA	8	IPD 150 DCS	9
HS48	129	I1228100-100114	13	IPD 100 AB	8	IPD 150 DPA	9
HS52	129	I1328100-050060	13	IPD 100 AS	8	IPD 150 DPB	9
HS56	129	I1328100-080090	13	IPD 100 BA	8	IPD 150 DPS	9
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IPD150SS-FEM-BR	88	IPD300-ADA-XFLG	30	IPD 500 BS	8	IXH32	156
IPD150SS-MALE-AL	88	IPD 300 AS	8	IPD 500 CA	8	IXH40	156
IPD150SS-MALE-BR	88	IPD 300 BA	8	IPD 500 CB	8	IXH48	156
IPD 200 AA	8	IPD 300 BB	8	IPD 500 CS	8	IXH64	156
IPD 200 AB	8	IPD 300 BS	8	IPD 500 DA	8	IXHC150	156
IPD200-ADA-XFLG	30	IPD 300 CA	8	IPD 500 DB	8	IXHC200	156
IPD 200 AS	8	IPD 300 CB	8	IPD 500 DCA	9	IXHC250	156
IPD 200 BA	8	IPD300-CPL-XFLG	30	IPD 500 DCB	9	IXHC300	156
IPD 200 BB	8	IPD 300 CS	8	IPD 500 DCS	9	IXHC400	156
IPD 200 BS	8	IPD 300 DA	8	IPD 500 DPA	9	IXHC500	156
IPD 200 CA	8	IPD 300 DB	8	IPD 500 DPB	9	IXHCG150	156
IPD 200 CB	8	IPD 300 DCA	9	IPD 500 DPS	9	IXHCG200	156
IPD200-CPL-XFLG	30	IPD 300 DCB	9	IPD 500 DS	8	IXHCG250	156
IPD 200 CS	8	IPD 300 DCS	9	IPD 500 EA	9	IXHCG300	156
IPD 200 DA	8	IPD 300 DPA	9	IPD 500 EB	9	IXHCG400	156
IPD 200 DB	8	IPD 300 DPB	9	IPD 500 ES	9	IXHCG500	156
IPD 200 DCA	9	IPD 300 DPS	9	IPD 500 FA	9	IXM16	156
IPD 200 DCB	9	IPD 300 DS	8	IPD 500 FB	9	IXM20	156
IPD 200 DCS	9	IPD 300 EA	9	IPD 500 FS	9	IXM24	156
IPD 200 DPA	9	IPD 300 EB	9	IPD 600 AA	8	IXM32	156
IPD 200 DPB	9	IPD 300 ES	9	IPD 600 AB	8	IXM40	156
IPD 200 DPS	9	IPD 300 FA	9	IPD600-ADA-XFLG	30	IXM48	156
IPD 200 DS	8	IPD 300 FB	9	IPD 600 AS	8	IXM64	156
IPD 200 EA	9	IPD 300 FS	9	IPD 600 BA	8	IXM96	156
IPD 200 EB	9	IPD300FVS	101	IPD 600 BB	8	IXMS24	158
IPD 200 ES	9	IPD300SS-FEM-AL	88	IPD 600 BS	8	IXMS32	158
IPD 200 FA	9	IPD300SS-FEM-BR	88	IPD 600 CA	8	IXMS40	158
IPD 200 FB	9	IPD300SS-MALE-AL	88	IPD 600 CB	8	IXMS48	158
IPD 200 FS	9	IPD300SS-MALE-BR	88	IPD600-CPL-XFLG	30	IXMS64	158
IPD200FVS	101	IPD 400 AA	8	IPD 600 CS	8	IXPE32-3A	157
IPD200SS-FEM-AL	88	IPD 400 AB	8	IPD 600 DA	8	IXSE24	158
IPD200SS-FEM-BR	88	IPD400-ADA-XFLG	30	IPD 600 DB	8	IXSE24-3A	157
IPD200SS-MALE-AL	88	IPD 400 AS	8	IPD 600 DCA	9	IXSE32	158
IPD200SS-MALE-BR	88	IPD 400 BA	8	IPD 600 DCB	9	IXSE32-3A	157
IPD 250 AA	8	IPD 400 BB	8	IPD 600 DCS	9	IXSE40	158
IPD 250 AB	8	IPD 400 BS	8	IPD 600 DPA	9	IXSE48	158
IPD 250 AS	8	IPD 400 CA	8	IPD 600 DPB	9	IXSE48-3A	157
IPD 250 BA	8	IPD 400 CB	8	IPD 600 DPS	9	IXSE64	158
IPD 250 BB	8	IPD400-CPL-XFLG	30	IPD 600 DS	8	IXV20	156
IPD 250 BS	8	IPD 400 CS	8	IPD 600 EA	9	IXV24	156
IPD 250 CA	8	IPD 400 DA	8	IPD 600 EB	9	IXV32	156
IPD 250 CB	8	IPD 400 DB	8	IPD 600 ES	9	IXV40	156
IPD 250 CS	8	IPD 400 DCA	9	IPD 600 FA	9	IXV48	156
IPD 250 DA	8	IPD 400 DCB	9	IPD 600 FB	9	IXV64	156
IPD 250 DB	8	IPD 400 DCS	9	IPD 600 FS	9	J48	133
IPD 250 DCA	9	IPD 400 DPA	9	IPD600FVS	101	J49	133
IPD 250 DCB	9	IPD 400 DPB	9	IPD600SS-FEM-AL	88	J125	36
IPD 250 DCS	9	IPD 400 DPS	9	IPD600SS-MALE-AL	88	J150	36
IPD 250 DPA	9	IPD 400 DS	8	IPD800-ADA-XFLG	30	J300	36
IPD 250 DPB	9	IPD 400 EA	9	IPD800-CPL-XFLG	30	J500	36
IPD 250 DPS	9	IPD 400 EB	9	IPD800FVS	101	JX49	133
IPD 250 DS	8	IPD 400 ES	9	IXAN24	158	KLW1	90
IPD 250 EA	9	IPD 400 FA	9	IXAN32	158	KLW1	104
IPD 250 EB	9	IPD 400 FB	9	IXAN40	158	KLW5	90
IPD 250 ES	9	IPD 400 FS	9	IXAN48	158	KLW5	104
IPD 250 FA	9	IPD400FVS	101	IXAN64	158	KLW5	104

KLW5	104	L14AM7-G150	167	LP36	64	MC3096	93
KLW5	104	L14AM7-G200	167	LP36	132	MC3098	93
KLW5	104	L14AM7-G250	167	LP46	64	MC3134	92
KLW5	104	L14AM7-G300	167	LP46	132	MC3136	92
KLW5	104	L14AM7-G400	167	LP66	64	MC3138	92
KLW10	90	L14AM7-G600	167	LP66	132	MC21110	91
KLW10	104	L14AM7-G800	167	LPB26	64	MC21112	91
KLW15	90	L14AM7-G1000	167	LPB36	64	MC22210	91
KLW20	90	L14AM7-G1200	167	LR7	36	MC22212	91
KLW25	90	L14AM7-R50	167	LR7	70	MC30910	93
KLW30	90	L14AM7-R75	167	LR3042	95	MC30912	93
KLW35	90	L14AM7-R100	167	LR3043	95	MC31310	92
KLW40	90	L14AM7-R150	167	LR3044	95	MC31312	92
KM21	100	L14AM7-R200	167	LR3046	95	MCM3112	93
KM41	100	L14AM7-R250	167	LR3048	95	MCM3113	93
KM42	100	L14AM7-R300	167	LR30410	95	MCM3114	93
KM51	100	L14AM7-R400	167	LR30412	95	MCM3116	93
KM52	100	L14AM7-R600	167	LS48	130	MCM3118	93
KM61	100	L14AM7-R800	167	LS56	130	MCS125	89
KM62	100	L14AM7-R1000	167	LS72	130	MCS125	89
KM81	100	L14AM7-R1200	167	LS88	130	MCS150	89
KM82	100	L14AM7V-G150	175	LS96	130	MCS150	89
KM101	100	L14AM7V-G200	175	LS104	130	MCS200	89
KM102	100	L14AM7V-G250	175	LS128	130	MCS200	89
KM121	100	L14AM7V-G300	175	LS152	130	MCS250	89
KM122	100	L14AM7V-G400	175	LS188	130	MCS250	89
KM162	100	L14AM7X-G100	175	LSS48	130	MCS300	89
KM251	100	L14AM7X-G200	175	LSS72	130	MCS300	89
KNW5	90	L14AM7X-G300	175	LSS88	130	MCS400	89
KNW10	90	L14AM7X-G400	175	LSS104	130	MCS400	89
KNW15	90	L025	204	LSS128	130	MCS600	89
KNW20	90	L025BU	204	LSS188	130	MCS600	89
KNW25	57	L215	204	LSS216	130	MEN-37	100
KNW25	90	L215BU	204	LSS248	130	MEN-50	100
KNW30	90	LAVA221	207	M1	64	MEN-75	100
KNW35	57	LHW	22	M6	64	MEN-100	100
KNW35	90	LJ100	195	M11	64	MEN-125	100
KNW40	57	LJ125	195	M16	64	MEN-150	100
KNW40	90	LJ150	195	M21	64	MEN-200	100
KNW50	90	LJ200	195	M26	64	MEN-250	100
KNW60	90	LJ250	195	M31	64	MEN-300	100
KNW80	90	LJ300	195	M36	64	MEN-400	100
KRW2075	90	LJ400	195	M5834F	113	MEN-500	100
KRW3075	90	LJ500	195	M5834F	113	MEN-600	100
KVW10	90	LJ600	195	M5834HM	113	MEN-800	100
KVW20	90	LJ800	195	M5834HM	113	MEN-1000	100
KVW25	57	LJ1000	195	M5834M	113	MEN-1200	100
KVW25	90	LJ1200	195	M5834M	113	MENSS-050	100
KVW35	57	LM32	155	M09387	148	MENSS-075	100
KVW35	90	LM40	155	MA150N	89	MENSS-100	100
L02	204	LM48	155	MA250N	89	MENSS-125	100
L02BU	204	LM3240	155	MAH4	129	MENSS-150	100
L03	204	LM4048	155	MAH6	129	MENSS-200	100
L03BU	204	LM4864	155	MAH8	129	MENSS-300	100
L04	204	LP16	64	MAH10	129	MENSS-400	100
L04BU	204	LP16-80 2	64	MAH12	129	MFB2	68
L05	204	LP21	64	MAH16	129	MFB2	68
L05BU	204	LP21	132	MAH20	129	MFB2	68
L06	204	LP21-80	132	MBV12	189	MFFS06-16	68
L06BU	204	LP21-80 2	64	MBV25	189	MFFS12-16	68
L08	204	LP26	64	MBV38	189	MFFS16-16	68
L08BU	204	LP26	132	MBV50	189	MFMS06-16	68
L14AM7-G50	167	LP26-80	132	MC3092	93	MFN16	68
L14AM7-G75	167	LP26-80 2	64	MC3093	93	MFN16	68
L14AM7-G100	167	LP31	64	MC3094	93	MFN16	68

MFN20	68	MLS63	103	MRCH200	203	NW20	194
MFN24	68	MLS78	103	MRCH300	203	NW25	194
MFS08-16	68	MP3232	94	MS1	64	NW30	194
MFS12-16	68	MP3233	94	MS4X2	64	NW35	194
MFS16-16	68	MP3234	94	MS6	64	NW40	194
MFS20-20	68	MP3236	94	MS6X4	64	NW60	194
MFS24-24	68	MP3238	94	MS6X8	64	NW80	194
MFTN16	68	MP21010	92	MS8X4	64	NW100	194
MFVN16	68	MP21012	92	MS8X6	64	NW120	194
MH4	131	MP32310	94	MS8X12	64	O246BU	56
MH6	131	MP32312	94	MS11	64	O249BU	56
MH8	131	MPB-04-02	211	MS12X8	64	P1	131
MH10	131	MPB-04-04	211	MS12X16	64	P10	141
MH12	131	MPB-05-04	211	MS16	64	P10S	141
MH16	131	MPB-06-04	211	MS16X12	64	P11	141
MH20	131	MPB-06-06	211	MS21	64	P11S	141
MIC18	202	MPB-08-06	211	MS26	64	P12	141
MIC25	202	MPB-08-08	211	MS31	64	P12S	141
MIC38	202	MPB-10-08	211	MS36	64	P14	141
MIC50	202	MPB-12-12	211	MS46	64	P14S	141
MIC75	202	MPB-16-16	211	MSA	64	P16	141
MIC100	202	MPB-20Z-20	211	MSB	64	P16S	141
MIC125	202	MPC-04-02	211	MSBC200SS	40	P18	141
MIC150	202	MPC-04-04	211	MSBC300SS	40	P18S	141
MIC200	202	MPC-05-04	211	MSBC400SS	40	P20	141
MIC250	202	MPC-06-04	211	MSC	64	P20S	141
MIC300	202	MPC-06-06	211	N5 1	194	P24	141
MIC400	202	MPC-08-06	211	N10	194	P24S	141
MICAP18	202	MPC-08-08	211	N15	194	P26	141
MICAP25	202	MPC-10-08	211	N20	194	P26S	141
MICAP38	202	MPC-12-12	211	N25	194	P28	141
MICAP50	202	MPC-16-16	211	N30	194	P28S	141
MICAP50G	202	MPC-20Z-20	211	N35	194	P3	141
MICAP75	202	MPC-T08	212	N40	194	P310	141
MICAP75G	202	MPC-T12	212	N60	194	P310S	141
MICAP100	202	MPC-T16	212	N80	194	P311	141
MICAP120	202	MPC-T20	212	N100	194	P311S	141
MICAP150	202	MPC-T24	212	N120	194	P316	141
MICAP200	202	MPC-T32	212	N150NO	87	P316S	141
MICAP200G	202	MPR-T04	212	N150NO	194	P3S	141
MICAP250	202	MPR-T06	212	N200NO	87	P3-TFG-1	50
MICAP300	202	MPR-T08	212	N200NO	194	P3-TFG-2	50
MICAP400	202	MPR-T12	212	N300NO	87	P3-TFG-3	50
MICAP500	202	MPR-T16	212	N300NO	194	P3-TFG-4	50
MICAP600	202	MPR-T20	212	N400NO	87	P3-TFG-5	50
MIRU7550	196	MPR-T24	212	N400NO	194	P3-TFG-6	50
MIU18	197	MPR-T32	212	NG10	195	P3-TFG-7	50
MIU25	197	MPS-04-02	211	NG15	195	P3-TFG-8	50
MIU38	197	MPS-04-04	211	NG20	195	P3-TFG-9	50
MIU50	197	MPS-05-04	211	NG25	195	P3-TFG-10	50
MIU75	197	MPS-06-04	211	NG30	195	P3-TFG-11	50
MIU100	197	MPS-06-06	211	NG35	195	P3-TFG-13	50
MIU125	197	MPS-08-06	211	NG40	195	P-301	146
MIU150	197	MPS-08-08	211	NG50	195	P-302	146
MIU200	197	MPS-10-08	211	NG60	195	P-303	146
MIU250	197	MPS-12-12	211	NG80	195	P-304	146
MIU300	197	MPS-16-16	211	NPT	13	P-305	146
MIU400	197	MPS-20Z-20	211	NPT	13	P-306	146
MLS15	103	MRCH25	203	NPT	13	P-307	146
MLS20	103	MRCH38	203	NPT	13	P-308	146
MLS25	103	MRCH50	203	NPT	13	P-309	146
MLS33	103	MRCH75	203	NPT	13	P-310	146
MLS43	103	MRCH100	203	NW5	194	P-311	146
MLS48	103	MRCH125	203	NW10	194	P-312	146
MLS53	103	MRCH150	203	NW15	194	P-313	146

P-314	146	Part "C"	8	PJ-203	143	PO-80	142
P-315	146	Part "D" Coupler	8	PJ-204	143	PO-80-S	142
P-316	146	Part "E"	9	PJ-205	143	PO-96	142
P-317	146	Part "F" Adaptor	9	PJ-206	143	PO-96-S	142
P-318	146	PB-253	145	PJ-207	143	PO-120	142
P-319	146	PB-254	145	PJ-208	143	PO-120-S	142
P32	141	PB-255	145	PJ-209	143	PO-144	142
P-320	146	PB-256	145	PJ-210	143	PO-144-S	142
P-321	146	PB-803	144	PJ-211	143	PO-168	142
P-322	146	PB-804	144	PJ-212	143	PO-168-S	142
P-323	146	PB-805	144	PJ-213	143	PO-192	142
P-324	146	PB-806	144	PJ-214	143	PO-192-S	142
P-325	146	PC403	144	PJ-215	143	PO-313	142
P-326	146	PC404	144	PJ-216	143	PO-313-S	142
P32S	141	PC405	144	PJ-218	143	PO-320	142
P4	141	PC406	144	PJ-219	143	PO-320-S	142
P4S	141	PD-001	145	PJ-230	143	PO-328	142
P5	141	PD-002	145	PJ-236	143	PO-328-S	142
P5S	141	PD-003	145	PJ-241	143	PO-332	142
P6	141	PD-004	145	PJ-242	143	PO-332-S	142
P6S	141	PD-011	145	PJ-243	143	PO-336	142
P7	141	PD-012	145	PJ-245	143	PO-336-S	142
P7S	141	PD-014	145	PJ-301	143	PO-340	142
P8	141	PD-021	145	PJ-302	143	PO-340-S	142
P-816	146	PD-022	145	PJ-303	143	PO-344	142
P-817	146	PD-031	145	PJ-306	143	PO-344-S	142
P-818	146	PD-032	145	PJ-307	143	PO-348	142
P-819	146	PF6	75	PJ-308	143	PO-348-S	142
P-820	146	PF8	75	PJ-309	143	PO-352	142
P-821	146	PF12	75	PJ-310	143	PO-352-S	142
P-822	146	PF12SS	75	PJ-311	143	PO-356	142
P-823	146	PF16	75	PJ-312	143	PO-356-S	142
P-824	146	PFB8	75	PJ-313	143	PO-358	142
P-825	146	PFB12	75	PJ-314	143	PO-358-S	142
P8S	141	PFB16	75	PJ-315	143	PPA50	16
P9	141	PFL8	75	PJ-318	143	PPA75	16
P9S	141	PFL8FS	76	PJ-343	143	PPA100	16
P-901	146	PFL12	75	PJ-345	143	PPA125	16
P-902	146	PFL12FS	76	PL3S	145	PPA150	16
P-903	146	PFL12SS	75	PL5S	145	PPA200	16
P-904	146	PG430	144	Plated Steel	13	PPA300	16
P-905	146	PG431	144	Plated Steel	13	PPA400	16
P-906	146	PG432	144	Plated Steel	13	PPB50	17
P-907	146	PG-440	145	PM6	75	PPB75	17
P-908	146	PG-441	145	PM8	75	PPB100	17
P-909	146	PG-442	145	PM12	75	PPB125	17
P-910	146	PG700	81	PM12SS	75	PPB150	17
P-911	146	PG-831	144	PM16	75	PPB200	17
P-912	146	PG-832	144	PMB8	75	PPB300	17
P-913	146	PHL6	75	PMB12	75	PPB400 2	17
P-914	146	PHL6FS	76	PMB16	75	PPC50	17
P-915	146	PHL8	75	PML6	75	PPC75	17
P-916	146	PHL8FS	76	PML6FS	76	PPC100	17
P-917	146	PHL8WF	76	PML8	75	PPC125	17
P-918	146	PHL8WF	238	PML8FS	76	PPC150	17
P-919	146	PHL12	75	PML12	75	PPC200	17
P-920	146	PHL12FS	76	PML12FS	76	PPC300	17
P-921	146	PHL12SS	75	PML12SS	75	PPC400 2	17
P-922	146	PHL12WF	76	PNB75GHT	111	PPD50	17
P-923	146	PHL12WF	238	PO-56	142	PPD75	17
P-924	146	PHL16	75	PO-56-S	142	PPD100	17
P-925	146	PHLB12	75	PO-64	142	PPD125	17
P-926	146	PHLB16	75	PO-64-S	142	PPD150	17
Part "A" Adaptor	8	PJ-201	143	PO-72	142	PPD200	17
Part "B" Coupler	8	PJ-202	143	PO-72-S	142	PPD300	17

PPD400 2	17	Q808	123	QB21	73	QM81	74
PPE50	16	Q809	123	QB22	73	QM82	74
PPE75	16	Q810	123	QB23	73	QM83	74
PPE100	16	Q811	123	QB25	73	QM85	74
PPE125	16	Q812	123	QB33	74	QM88	74
PPE150	16	Q813	123	QB41	73	QM101	74
PPE200	16	Q816	123	QB42	73	QM102	74
PPE300	16	Q817	123	QB43	73	QM103	74
PPE400	16	Q890	123	QB44	74	QM103V	74
PPF50	16	Q891	123	QB45	73	QM105	74
PPF75	16	Q892	123	QB47	73	QSS4	73
PPF100	16	Q894	123	QB49	73	QSS23	73
PPF125	16	Q895	123	QB61	73	QSS43	73
PPF150	16	Q898	123	QB62	73	QSS63	73
PPF200	16	Q899	123	QB63	73	QSS83	74
PPF300	16	Q900	123	QB65	73	QSS103	74
PPF400	16	Q901	123	QB66	74	R8P2SS	154
PPH75	17	Q902	123	QB67	73	R12P1	154
PPH100	17	Q903	123	QB69	73	R12P2	154
PPH150	17	Q904	123	QB81	74	R12P3	154
PPH200	17	Q905	123	QB82	74	R12P1250	154
PPH300	17	Q906	123	QB83	74	R12P1370	154
PPH400 2	17	Q907	123	QB85	74	R16P1	154
PPN44	86	Q908	123	QB87	74	R16P2	154
PPN66	86	Q909	123	QB88	74	R16P3	154
PPN88	86	Q910	123	QB89	74	R16P4	154
PPP75	16	Q911	123	QB101	74	R16P1620	154
PPP100	16	Q912	123	QB102	74	R16P1770	154
PPP150	16	Q913	123	QB103	74	R1YCCF1-0850300	214
PPP200	16	Q914	123	QB105	74	R1YCCF1-1050450	214
PPP300	16	Q917	123	QB107	74	R1YCCF1-1250450	214
PPP400	16	Q1100	123	QB109	74	R1YCCF1-1450450	214
PSN76	112	Q1101	123	QBM1	74	R1YCCF1-1650450	214
Q700	123	Q1102	123	QBM2	74	R1YCCF1-2050450	214
Q708	123	Q1103	123	QBM3	74	R1YCCV1-1300450	214
Q710	123	Q1104	123	QM1	73	R32P1LJR15	154
Q711	123	Q1105	123	QM2	73	R32P1SOR15	154
Q712	123	Q1106	123	QM3	73	R32P2LJR15	154
Q713	123	Q1107	123	QM3WF	238	R32P2SOR15	154
Q714	123	Q1108	123	QM4	73	R32P3LJR15	154
Q715	123	Q1109	123	QM4WF	238	R32P3SOR15	154
Q716	123	Q1110	123	QM5	73	R48P1LJR15	154
Q717	123	Q1111	123	QM20	73	R48P1SOR15	154
Q718	123	Q1111	123	QM21	73	R48P2LJR15	154
Q719	123	Q1112	123	QM22	73	R48P2SOR15	154
Q719	123	Q1112	123	QM22WF QB22WF	238	R48P3LJR15	154
Q720	123	Q1113	123	QM23	73	R48P3SOR15	154
Q721	123	Q1113	123	QM23WF QB23WF	238	R64P1LJR15	154
Q722	123	Q1120	123	QM25	73	R64P1SOR15	154
Q723	123	Q1121	123	QM33	74	R64P2LJR15	154
Q790	123	Q1122	123	QM33WF QB33WF	238	R64P2SOR15	154
Q791	123	Q1123	123	QM40	73	R64P3LJR15	154
Q792	123	Q1124	123	QM41	73	R64P3SOR15	154
Q794	123	Q1125	123	QM42	73	R72	205
Q795	123	Q1126	123	QM43	73	R72BU	205
Q798	123	Q1127	123	QM44	74	R73	205
Q799	123	Q1128	123	QM44WF QB44WF	238	R73BU	205
Q800	123	Q1129	123	QM45	73	R74	205
Q801	123	Q1130	123	QM60	73	R74BU	205
Q802	123	QB2	73	QM61	73	R76	205
Q803	123	QB3	73	QM62	73	R76BU	205
Q804	123	QB3WF	238	QM63	73	R78	205
Q805	123	QB4	73	QM63V	73	R78BU	205
Q806	123	QB4WF	238	QM65	73	R96P1LJR15	154
Q807	123	QB5	73	QM66	74	R96P1SOR15	154

R96P2LJR15	154	RDA4030EZ	28	RG3054	95	RHC300SS	198
R96P2SOR15	154	RDA6040EZ	28	RG3056	95	RHC400	198
R96P3LJR15	154	RDA90600EZ	23	RG3058	95	RHC400G	198
R96P3SOR15	154	RDD200EZ	29	RG3062	95	RHC400SS	198
R200SS	35	RDD300EZ	29	RG3063	95	RHC500	198
R725	205	RDD400EZ	29	RG3064	95	RHC600	198
R725BU	205	RDD600EZ	29	RG3066	95	RHEZ34	35
RAM0	69	RDD2030EZ	29	RG3068	95	RHEZ152	35
RAM1	69	RDD3040EZ	29	RG20510	92	RHEZ175	35
RAM2	69	RDL100EZ 1	30	RG20512	92	RHS20	101
RAM3	69	RDL150EZ 1	30	RG20610	92	RHS25	101
RAM6	69	RDL200EZ	30	RG20612	92	RHS30	101
RAM6WF	71	RDL300EZ 1	30	RG30510	95	RHS35	101
RAM6WF	237	RDL400EZ 1	30	RG30512	95	RHS40	101
RAM7	69	RDL600EZ 1	30	RG30610	95	RHS50	101
RAM7T	71	RDMA	100	RG30612	95	RHS60	101
RAM8	69	RDMB	100	RGF61P1	65	RHS80	101
RAM11	69	RE075-1370	18	RGF61P2	65	RHS100	101
RAM12	69	RE100-1620	18	RGF81P1	65	RHS120	101
RAM13	69	RE100-1770	18	RGF81P2	65	RHSC34	34
RAMB	69	RE150NO	19	RHC18	198	RHSC152	34
RAMC	69	RE150SE	162	RHC18G	198	RHSC175	34
RAMH	69	RE200NO	19	RHC25	198	RKHN881	105
RB4	66	RE200PF	20	RHC25B	198	R Lock End Plug	98
RB9	66	RE200SE	162	RHC25FS	198	R Lock Reducer	98
RB14	66	RE300NO	19	RHC25G	198	RLP36	64
RB19	66	RE300SE	162	RHC25SS	198	RLP36	64
RB24	66	RE400NO	19	RHC38	198	RLP36	132
RB29	66	REL1050	199	RHC38B	198	RLP46	64
RBU9	66	REL1075	199	RHC38FS	198	RLP46	64
RBU14	66	REL1210	199	RHC38G	198	RLP46	132
RBU24	66	REL1510	199	RHC38SS	198	RLYGAS0-0130000	208
RBU29	66	REL1525	199	RHC50	198	RLYGAS0-0160000	208
RBU35	66	REL2010	199	RHC50B	198	RLYGAS0-0190000	208
RC075EZ-70	18	REL2015	199	RHC50FS	198	RLYGAS0-0220000	208
RC100EZ-20	18	REL2518	199	RHC50G	198	RLYGAS0-0250000	208
RC100EZ-70	18	REL2520	199	RHC50SS	198	RLYGAS0-0290000	208
RC150BLNO	19	REL3020	199	RHC75	198	RLYGAS0-0320000	208
RC150EZNO	19	REL4020	199	RHC75B	198	RLYGAS0-0380000	208
RC150SE	162	REL4030	199	RHC75FS	198	RLYGAS0-0510000	208
RC200BLNO	19	REL5025	199	RHC75G	198	RLYGAS0-0640000	208
RC200EZNO	19	REL5038	199	RHC75SS	198	RLYGAS0-0760000	208
RC200EZPF	20	REL7550	199	RHC100	198	RTYG0G0A-02000T0	208
RC200SE	162	RES33	105	RHC100B	198	RTYG0G0A-02500T0	208
RC300BLNO	19	RES43	105	RHC100FS	198	RTYG0G0A-03000T0	208
RC300EZNO	19	RES48	105	RHC100G	198	RTYG0G0A-03500T0	208
RC300EZPF	20	RES53	105	RHC100SS	198	RTYG0G0A-04000T0	208
RC300SE	162	RES63	105	RHC125	198	RTYG0G0A-04500T0	208
RC400BLNO	19	RES78	105	RHC125B	198	RTYG0G0A-05000T0	208
RC400EZNO	19	RES404	105	RHC125FS	198	RTYG0G0A-06500T0	208
RD253	187	RES444	105	RHC125G	198	RTYG0G0A-07500T0	208
RD253F	187	RES606	105	RHC125SS	198	RTYG0G0A-09000T0	208
RD15193	187	RES646	105	RHC150	198	RM2	99
RD15193F	187	RES808	105	RHC150B	198	RM2	105
RD15206	187	RES848	105	RHC150FS	198	RM3	99
RD15206F	187	RFST20	87	RHC150G	198	RM3	105
RDA2030BL	28	RFST25	87	RHC150SS	198	RM4	99
RDA2030EZ	28	RFST35	87	RHC200	198	RM4	105
RDA3020BL	28	RFST40	87	RHC200B	198	RM6	99
RDA3020EZ	28	RFST60	87	RHC200FS	198	RM6	105
RDA3040BL	28	RFST80	87	RHC200G	198	RMS1	64
RDA3040EZ	28	RFST100	87	RHC200SS	198	RMS6	64
RDA4020BL	28	RFST120	87	RHC250	198	RMS11	64
RDA4020EZ	28	RG3052	95	RHC300	198	RMS16	64
RDA4030BL	28	RG3053	95	RHC300G	198	RMS21	64

RMS26	64	RS25281F	187	S15	88	SAP11	84
RMS31	64	RSDM25	103	S17	88	SAP16	84
RN10	194	RSDM35	103	S20	88	SAP21	84
RN11	105	RSDR25	103	S20	88	SAP26	84
RN15	194	RSDR35	103	S22	88	SB12	88
RCS1000-040	208	RSHR20	103	S22N	89	SB17	88
RCS1000-050	208	RSK26	103	S25	88	SB22	88
RLS1000-009	208	RSK36	103	S25	88	SB22N	89
RLS1000-013	208	RSS20	101	S27	88	SB27	88
RLS1000-015	208	RSS25	101	S30	88	SB32	88
RLS1000-020	208	RSS30	101	S30	88	SB32N	89
RLS1000-025	208	RSS35	101	S32	88	SB33	88
RLS1000-030	208	RSS40	101	S32N	89	SB38	88
RN21	105	RST1	105	S33	88	SB42	88
RN22	105	RST5	105	S36	88	SB48	88
RN23	105	RST10	105	S36	88	SB57	88
RN25	194	RST15	105	S38	88	SB62	88
RN30	194	RST20	105	S40	88	SB63	88
RN31	105	RST25	105	S40	88	SB63N	89
RN32	105	RST25PF	86	S42	88	SB6/PC-153	145
RN33	105	RST35PF	86	S48	88	SB8/PC-154	145
RN34	105	RST40PF	86	S55	88	SB10/PC-155	145
RN35	194	RST60PF	86	S55	88	SB12/PC-156	145
RN40	194	RST150NOS	85	S57	88	SB78	88
RN42	105	RST150NOS	153	S60	88	SB93	88
RN43	105	RST200NOS	85	S60	88	SB93N	89
RN44	105	RST200NOS	153	S62	88	SB111	88
RN46	105	RST300NOS	85	S63	88	SB123	88
RN53	105	RST300NOS	153	S63N	89	SB168	88
RN54	105	RST400NOS	153	S78	88	SB183	88
RN56	105	RST400NOS	85	S93	88	SBC150SS-CR	41
RN60	194	RST0501	85	S93N	89	SBC200AL	40
RN64	105	RST0510	85	S111	88	SBC200SS	40
RN66	105	RST1005	85	S123	88	SBC200SS-CR	41
RN80	194	RST1015	85	S168	88	SBC300AL	40
RN86	105	RST1510	85	S183	88	SBC300SS	40
RN100	194	RST1520	85	S201	89	SBC300SS-CR	41
RN120	194	RST2015	85	S201	89	SBC400AL	40
RN150NO	87	RST2025	85	S301	89	SBC400SS	40
RN150NO	194	RST2520	85	S301	89	SBC400SS-CR	41
RN151	105	RST2535	85	S10125	187	SBCS	67
RN152	105	RST3525	85	S15175	187	SBG	67
RN200NO	87	RSTB5	84	S15175F	187	SC6A/PB203	144
RN200NO	194	RSTB10	84	S15181	187	SC8/PB204	144
RN251	105	RSTB15	84	S15181F	187	SC10/PB205	144
RN252	105	RSTB20	84	S16168	187	SC12/PB206	144
RN253	105	RSTB25	84	S16168F	187	SCVH6	79
RN300NO	87	RSTB30	84	S16175	187	SCVH8	79
RN300NO	194	RSTB35	84	S16175F	187	SCVH10	79
RN400NO	87	RSTB40	84	S16181	187	SCVH12	79
RN400NO	194	RSTB60	84	S16181F	187	SCVH16	79
RRH15168	187	RSTB80	84	S20225	187	SCVH24	79
RRH15168F	187	RSTV20	84	S20375	187	SCVJ6	79
RRHS20	101	RSTV25	84	S25281	187	SCVL2	79
RRHS25	101	RSTV35	84	S25281F	187	SCVL6	79
RRHS35	101	RSTV40	84	S26268F	187	SCVL8	79
RRHS40	101	RTCA30	22	S26281	187	SCVL10	79
RRHS60	101	RTCA40	22	S26281F	187	SCVL12	79
RS15168	187	RTCT30	22	SA4050AL	53	SCVL16	79
RS15168F	187	RTCT40	22	SAEB-06-06	211	SCVL24	79
RS15175	187	RTW150	188	SAEB-12-12	211	SCVM3	79
RS15175F	187	S10	88	SAEC-06-06	211	SCVM4	79
RS15181	187	S10	88	SAEC-12-12	211	SCVM6	79
RS15181F	187	S12	88	SAP1	84	SCVM8	79
RS25281	187	S15	88	SAP6	84	SCVM10	79

SCVM12	79	SE9018G	200	SGS400	132	SHP400G	202
SCVM16	79	SE9018SS	200	SGS600	132	SHP400SS	202
SCVR6	79	SE9020	200	SGS800	132	SHP500	202
SCVS3	79	SE9020B	200	SHC0312	134	SHP600	202
SCVS4	79	SE9020FS	200	SHC0375	134	SHP600G	202
SCVS6	79	SE9020G	200	SHC0500	134	SHS20	101
SCVS8	79	SE9020SS	200	SHC0562	134	SHS25	101
SCVS10	79	SE9025	200	SHC0625	134	SHS30	101
SCVS12	79	SE9025FS	200	SHC0750	134	SHS35	101
SCVS16	79	SE9025G	200	SHC0812	134	SHS40	101
SCVS24	79	SE9025SS	200	SHC1000	134	SHS60	101
SD15	103	SE9030G	200	SHC1125	134	SHS80	101
SD20	103	SE9038	200	SHC1250	134	SK16	103
SD25	103	SE9038FS	200	SHC1500	134	SK21	103
SD30	103	SE9038G	200	SHC1625	134	SK26	103
SD35	103	SE9038SS	200	SHCP	134	SK31	103
SD40	103	SE9050	200	SHH0-63-0001	214	SK36	103
SDBC150L	134	SE9050FS	200	SHH0-63-0002	214	SK46	103
SDBC150R	134	SE9050G	200	SHH0-63-0003	214	SK1098	128
SDBC200L	134	SE9050SS	200	SHH0-63-0004	214	SL038F	72
SDBC200R	134	SE9075	200	SHH0-63-0005	214	SL038H	72
SDBC250L	134	SE9075B	200	SHP14	202	SL038M	72
SDBC250R	134	SE9075FS	200	SHP14FS	202	SL050CR	72
SDBC300L	134	SE9075G	200	SHP14G	202	SL050F	72
SDBC300R	134	SE9075SS	200	SHP14SS	202	SL050H	72
SDBC400L	134	SE45100	200	SHP18	202	SL050M	72
SDBC400R	134	SE45125	200	SHP18G	202	SL075CR	72
SDBC500L	134	SE45125G	200	SHP18SS	202	SL075F	72
SDBC500R	134	SE45150	200	SHP38	202	SL075H	72
SDBC600L	134	SE45150G	200	SHP38FS	202	SL075M	72
SDBC600R	134	SE45200	200	SHP38G	202	SL100CR	72
SDBC800L	134	SE45200G	200	SHP38SS	202	SL100F	72
SDBC800R	134	SE45250	200	SHP50	202	SL100H	72
SDBC1000L	134	SE45250G	200	SHP50B	202	SL100M	72
SDBC1000R	134	SE45300	200	SHP50FS	202	SL150CR	72
SDMP15	103	SE45300G	200	SHP50G	202	SL150F	72
SDMP20	103	SE45400	200	SHP50SS	202	SL150H	72
SDMP25	103	SE45400G	200	SHP75	202	SL150M	72
SDMP30	103	SE90250	200	SHP75B	202	SL200CR	72
SDMP35	103	SE90300	200	SHP75FS	202	SL200F	72
SDMP40	103	SE90400	200	SHP75G	202	SL200H	72
SE4518	200	SE90600	200	SHP75SS	202	SL200M	72
SE4525	200	SEGC1-0.75-12	77	SHP100	202	SLS307	103
SE4525G	200	SEGC1-1.00-12	77	SHP100B	202	SLS317	103
SE4538	200	SEGC1-1.25-14	77	SHP100FS	202	SLS347	103
SE4550	200	SEGC1-1.50-14	77	SHP100G	202	SLS404	103
SE4550G	200	SEGC1-1.75-16	77	SHP100SS	202	SLS407	103
SE4575	200	SEGC1-2.00-16	77	SHP125	202	SLS414	103
SE4575G	200	SEGC1-2.50-18	77	SHP125G	202	SLS417	103
SE9010	200	SEGC1-3.00-18	77	SHP125SS	202	SLS444	103
SE9010B	200	SFL450	126	SHP150	202	SLS447	103
SE9010FS	200	SFM525	126	SHP150FS	202	SLS507	103
SE9010G	200	SFM562	126	SHP150G	202	SLS517	103
SE9010SS	200	SFM625	126	SHP150SS	202	SLS547	103
SE9012	200	SFM656	126	SHP200	202	SLS606	103
SE9012B	200	SFM687	126	SHP200G	202	SL5607	103
SE9012FS	200	SFM718	126	SHP200SS	202	SLS616	103
SE9012G	200	SFM718B	126	SHP250	202	SLS617	103
SE9012SS	200	SFM750	126	SHP250G	202	SLS646	103
SE9015	200	SFM781	126	SHP250SS	202	SLS647	103
SE9015B	200	SFW875	126	SHP300	202	SL5808	103
SE9015FS	200	SFW1175	126	SHP300FS	202	SLS818	103
SE9015G	200	SGS150	132	SHP300G	202	SLS848	103
SE9015SS	200	SGS200	132	SHP300SS	202	SN75	111
SE9018	200	SGS300	132	SHP400	202	SN75NPT	111

SO100	195	SS617	104	SSLBV150SP	192	STW250	188
SO125	195	SS646	104	SSLBV200	192	SW15	90
SO150	195	SS647	104	SSLBV200SP	192	SW20	90
SO200	195	SS808	104	SST50	201	SW25	90
SO250	195	SS818	104	SST75	201	SW30	90
SO300	195	SS848	104	SST100	201	SW40	90
SO400	195	SSA44	107	SST150	201	SW60	90
SO500	195	SSA54	107	SSW-05	90	SW100F	188
SO600	195	SSA64	107	SSW-07	90	SW150	188
SO800	195	SSBV25	192	SSW-10	90	SW153	90
SO1000	195	SSBV25RP	193	SSW-13	90	SW250	188
SO1200	195	SSBV38	192	SSW-15	90	SW300F	188
SOE18	199	SSBV38RP	193	SSW-20	90	SW400F	188
SOE25	199	SSBV50	192	SSW-25	90	SW450F	188
SOE38	199	SSBV50RP	193	SSW-30	90	SW500F	188
SOE50	199	SSBV50TW	190	SSW-40	90	SW600F	188
SOE75	199	SSBV75	192	SSW-50	90	SWDS	106
SOE100	199	SSBV75RP	193	SSW-60	90	SWDSHOSE25	106
SOE120	199	SSBV75TW	190	SSW-80	90	SWDSHOSE50	106
SOE150	199	SSBV100	192	ST25PF	86	SWMF125	60
SOE200	199	SSBV100RP	193	ST35PF	86	SWMF150	60
SOR150	195	SSBV100TW	190	ST40PF	86	SZC150	39
SOR200	195	SSBV125	192	ST60PF	86	SZC200	39
SOR300	195	SSBV125RP	193	STB1	84	SZC300	39
SOR400	195	SSBV150	192	STB5	84	SZC400	39
SOR600	195	SSBV150RP	193	STB10	84	SZC500	39
SOT50	201	SSBV200	192	STB15	84	SZC600	39
SOT75	201	SSBV200RP	193	STB20	84	SZCSF4030T	39
SOT100	201	SSBV250	192	STB25	84	SZCSF5040T	39
SOT120	201	SSBV300	192	STB30	84	SZCSF6060T	39
SOT150	201	SSCAP10	202	STB35	84	SZF1510T	39
SOT200	201	SSCAP12	202	STB40	84	SZF2015T	39
SP59	95	SSCAP15	202	STB50	84	SZF3020T	39
SP76	95	SSCAP18	202	STB60	84	SZF4030T	39
SP89	95	SSCAP20	202	STB80	84	SZF5040T	39
SP159	95	SSCAP25	202	STB100	84	SZF6060T	39
SP159	95	SSCAP38	202	STB120	84	SZG400P	39
SP390	92	SSCAP50	202	STC150NOS	85	SZG400S	39
SP390	95	SSCAP75	202	STC-180B-G100	186	SZG500P	39
SP390	95	SSC-T04	212	STC-180B-G150	186	SZG500S	39
SRH360NPT-G075	186	SSC-T06	212	STC-180T-G100	186	SZG600P	39
SS306	104	SSC-T08	212	STC-180T-G150	186	SZM1510T	39
SS307	104	SSC-T12	212	STC200NOS	85	SZM2015T	39
S/S 316	13	SSC-T16	212	STC300NOS	85	SZM4030T	39
S/S 316	13	SSC-T20	212	STC-360-R100	186	SZM5040T	39
S/S 316	13	SSC-T24	212	STC-360-R150	186	SZM6060T	39
SS316	104	SSC-T32	212	STC400NOS	85	T38	131
SS317	104	SSE10	210	STC0510	85	IPD100FLA/T100	195
SS346	104	SSE15	210	STC1005	85	IPD125FLA/T125	195
SS347	104	SSE21	210	STC1015	85	IPD150FLA/T150	195
SS404	104	SSE31	210	STC1510	85	IPD200FLA/T200	195
SS406	104	SSE41	210	STC1520	85	IPD250FLA/T250	195
SS407	104	SSLBV25	192	STC2015	85	T300	131
SS414	104	SSLBV25SP	192	STC2025	85	IPD300FLA/T300	195
SS416	104	SSLBV38	192	STC2520	85	IPD400FLA/T400	195
SS417	104	SSLBV38SP	192	STC2530	85	IPD500FLA/T500	195
SS444	104	SSLBV50	192	STC2535	85	IPD600FLA/T600	195
SS446	104	SSLBV50SP	192	STC3025	85	IPD800FLA/T800	195
SS447	104	SSLBV75	192	STC3035	85	IPD1000FLA/T1000	195
SS507	104	SSLBV75SP	192	STC3525	85	IPD1200FLA/T1200	195
SS517	104	SSLBV100	192	STC3530	85	TBT1	132
SS547	104	SSLBV100SP	192	STC3540	85	TCRM-T08	212
SS606	104	SSLBV125	192	STC4035	85	TCRM-T12	212
SS607	104	SSLBV125SP	192	STC175200	85	TCR-T08-16	212
SS616	104	SSLBV150	192	STW150	188	TCR-T08-24	212

TCR-T12-24	212	TM48	151	TN200X4B	116	TUN4F	197
TCR-T16-16	212	TM64	151	TN200X5	203	TUN5F	197
TCR-T16-24	212	TM66	99	TN200X6	203	TUN6F	197
TCR-T24-24	212	TM80	151	TN200X6B	116	TUN7F	197
TCR-T32-32	212	TM96	151	TN200X6SS	105	TUN8F	197
TCS30	22	TM128	151	TN200X6SS	203	TUN9F	197
TCS40	22	TM160	151	TN200X8	203	TUN025SS	197
TCT30	22	TML20	151	TN300X3	203	TUN038G	197
TCT40	22	TML24	151	TN300X4	203	TUN050FS	197
TF16WF1-80	151	TML32	151	TN300X6	203	TUN050G	197
TF16WF2-80	151	TML40	151	TN300X6SS	105	TUN050SS	197
TF16WF3-80	151	TML48	151	TN300X6SS	203	TUN075FS	197
TF20WF1-80	151	TML64	151	TN400X4	203	TUN075G	197
TF20WF2-80	151	TML80	151	TN400X6	203	TUN075SS	197
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Les boyaux ou tuyaux utilisés selon une configuration courbée seront soumis à une abrasion accrue. Les brides de serrage ou les couplages peuvent se desserrer une fois que l'installation initiale ait été effectuée. Toutes les sections du boyau et du tuyau y compris les connections, les couplages, les brides de serrage, la conductivité et les liaisons doivent être inspectés de façon fréquente et régulière et devraient être remplacés, ajustés ou reserrés afin d'éviter les fuites et ainsi prévenir les blessures et les dommages et ainsi assurer une sécurité générale. À l'exception de ce qui est mentionné dans la garantie limitée, le vendeur n'est pas tenu responsable des blessures directes ou indirectes ou des dommages causés par un bris ou un mal fonctionnement de tout produit vendu ou distribué par le dit vendeur.

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