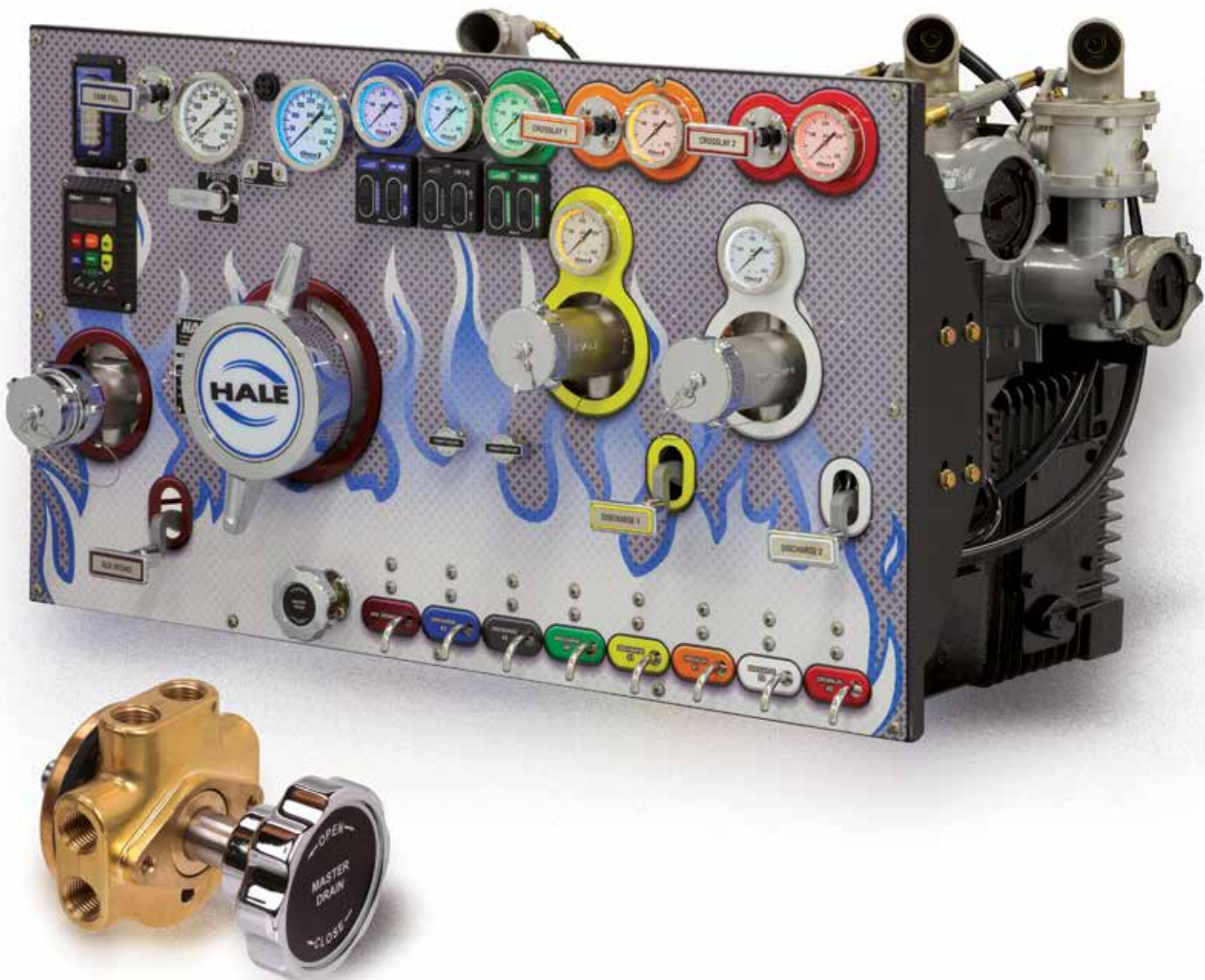




Plumbing

Hale offers a wide variety of plumbing components to make the pump installation and operation easier for the OEM and End User. Hale controls allow for a clean and compact pump panel. Controls can be clearly marked for valve identification. With the many drain valves available, we can make any need possible. Hale's stainless piping and manifold components allow for minimal friction losses along with cleaner pump house construction.



Controls, Drains, Piping, Flanges, Couplings, Caps and Plugs

CONTROL ASSEMBLIES

Locking Top Mount Control

The Locking Top Mount Control allows for a more compact and cleaner pump panel while reducing installation time and material cost.

Features

- Locks in any position
- No slots in the pump panel (eliminates road grime buildup)
- Built-in pump panel hinge
- Recessed area in handle for round ID tag

100984	Top Mount Control Assembly - straight
101005	Top Mount Control Assembly - angled
100983	Center Fill Extrusion (48" long)
100996	1-1/2" Top Mount Control (3.5" long)
101923	1-1/2" Arm Extension



Locking Push-Pull Control

The Hale Locking Push-Pull Control handles valve actuation.

Features

- Recessed area in handle for 1" x 3" ID tags
- Polished chrome plated zinc handle and panel plate
- Quarter turn locking in any position
- Hard coated anodized aluminum 3/4" rod
- Aluminum linkage connector or brass ball swivel connector

100348	Locking Push-Pull Control Assembly (9.5 stroke)
100348-S	Locking Push-Pull Control Assembly w/ball swivel
100348-SF	Locking Push-Pull Control Assembly w/ball swivel - female end

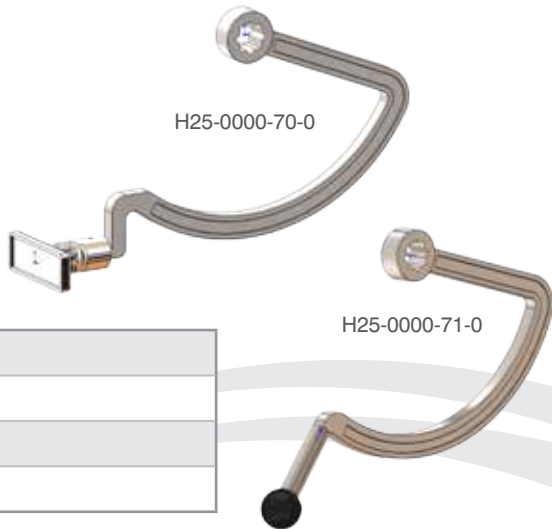


Swift Handles

Features

- Increased leverage for opening/closing valves
- No slot required in panel
- Increases panel strength
- Stainless steel cast lever
- T-handle and ball configurations

H25-0000-70-0-50	Swift Handle Assembly, T-handle
121199	Casting, Swift Handle T-handle
H25-0000-71-0-50	Swift Handle Assembly, Ball
121100	Casting, Swift Handle with 3/8 thread



CONTROL ROD / HANDLES / ADAPTERS

Control Rod Assemblies

Hale Control Rod Assemblies are made with galvanized pipe with 1/2-20 threaded inserts. Hale control rods are available in 1/2" increments starting at 6" up to 55". Longer sizes are available.

Contact Hale for part numbers.



Push-Pull Handle / Tag Adapter

Push-Pull Handle is for valve actuation control. The T-handle is specially designed to fit the hand with a recessed area for 1" x 3" ID tags. The T-handle is made of cast zinc and finished with polished chrome for panel enhancement. T-Handles are available for 3/4" rods and 1/2" rods.

The Hale Adapter/Bezel adapts 1" x 3" recessed tag areas for push-pull T-handles, 1/4 turn ball valve bleeders to fit 3/4" x 2-1/2" tags. The adapter/bezel also can be used for stand-alone mounting of 3/4" x 2-1/2" tags. The tag adapter bezel is made of cast zinc and finished with polished chrome for tag enhancement. The adapter/bezel mounts with double stick tape or two (2) counter sunk screws. The adapter bushing is a stainless steel bushing to adapt the 3/4" rod T-handle to a 3/8" - 24 threaded rod with a 3/16" roll pin.

100294	T-Handle 3/4" rod
100295	T-Handle 1/2" rod
100170	Adapter/Bezel



Test Port Assembly

Ease of installation and simplicity of design make this test port assembly the best option for multiple tasks behind the panel. Each port has one front 1/4" NPT port, one back 1/4" NPT port, and two 1/4" DOT push-on fittings. The ports behind the panel are perfect for mounting pressure transducers for pressure governors. This assembly is made of brass with a chrome plated bezel. The identification tag is included.



Gauge Test Plug is nickel plated brass with a 1/4" NPT front port and 1/8" NPT back port.

121384	Test Port Assembly
102709	Gauge Test Plug (Nickel plated brass)



DRAINS

Automatic Master Drain

The Hale Automatic Master Drain has six individually sealed ports. The drain is normally open and is closed with air pressure. The master drain can be activated with an air switch for manual control or tied into an air operated pump shift for automatic control.

- Features
- All brass construction with stainless steel spring
 - Six individually sealed ports
 - 100 psi air pressure will hold 600 psi of water pressure
 - Can be operated manually or automatically

103005	Master Drain
104031	Air Switch
546-3430-00-0	Repair Kit



Manual Master Drain

Manual Master Drain has twelve individually sealed ports that allow quick draining of multiple intake and discharge lines. The all brass and stainless steel construction allows for operation up to 600 psi.

121368	Manual Master Drain, 12 Port
104961	Manual Master Drain, 6 Port
109366	Repair Kit, 12 Port
546-2850-00-0	Repair Kit, 6 Port



3/4” Automatic Drain

The Automatic Drain is normally open and closes at 6 PSI. It can be mounted in the discharge line true low spot under the truck. Great for deck guns and front or rear jump lines.

- Features
- All brass body
 - Heavy duty neoprene seal
 - 3/4” Female NPT inlet
 - All brass check assembly with stainless steel spring

34AD	3/4” Automatic Drain
105315	3/4” Automatic Drain 90°



3/4” Air Operated Drain

- Features
- Brass body
 - 1-1/4” bore air cylinder
 - One 3/4” female NPT inlet
 - For use with Air Switch

110527	3/4” Air Operated Drain
104031	Air Toggle Switch



BALL VALVE DRAINS

Ball Valve Drains

- Features
- Nickel plated brass
 - Reinforced Teflon® seals
 - Meets NFPA specifications
 - Chrome plated handle
 - Round or rectangular handle available
 - Recessed area for 1” x 3” ID tags or round tags

14BV	1/4” Ball Valve
38BV	3/8” Ball Valve
12BV	1/2” Ball Valve
34BV	3/4” Ball Valve
10BV	1” Ball Valve
14BVR	1/4” Ball Valve (round handle)
38BVR	3/8” Ball Valve (round handle)
12BVR	1/2” Ball Valve (round handle)
34BVR	3/4” Ball Valve (round handle)
10BVR	1” Ball Valve (round handle)
115639	3/4” Lift Handle Drain
34BV90	3/4” Ball Valve w/90° Elbow (rectangular handle)
34BVR90	3/4” Ball Valve w/90° Elbow (round handle)
120545	3/4” Ball Valve w/90° Elbow (lift handle)



Petcock Valve

Hale’s Petcock Valve is an all brass assembly with a tag recess area in the chrome plated zinc handle. The petcock valve has 1/4” ports and is great for engine coolers, pump coolers and air valves.

105120	Peacock Valve
--------	---------------



Tap for Gauge Sensing Line



PIPING / COUPLINGS

High Pressure Flexible Piping

Features

- High strength
- Abrasive resistant
- Ozone resistant
- Economical
- Flexible
- Choice of couplings
- Easy to install



Inside Dimension	Outside Dimension	Working Pressure	Min. Bend Radius	Wt./Ft. (lbs.)
1.0"	1.50"	250#	4"	.25
1.5"	2.063"	300#	6"	.92
2"	2.563"	300#	8"	1.18
2.5"	3.188"	300#	10"	1.710
3"	3.688"	300#	12"	2.06
4"	4.844"	300#	16"	3.30

Specifications

FLEXIBLE PIPING — Black synthetic rubber hose with 300# working and 1200# burst pressure for sizes 1.5” through 4” flexible piping. Sizes ¾”, 1” and 5” are rated at 250 working and 1000# burst pressure. All sizes are rated at 30 HG vacuum. Reinforcement consists of two plies of high tensile strength tire cord for all sizes and helix wire installed in sizes 1” through 5” for maximum performance in tight bend applications. The material comes in 100’ lengths and has a temperature rating of -40° F to 210° F.

COUPLINGS — Full flow couplings are precision machined from high tensile strength stainless steel. All female couplings are brass. 3” and 1” male and Victaulic® couplings are brass.

FERRULE — High tensile strength stainless steel ferrule with serrations on the I.D. to assure maximum holding power.

HOSE MACHINE — Contact Hale for information on a hose machine to produce custom hose assemblies at your facility.

Non-Assembled High Pressure Flexible Piping & Couplings



Size (I.D.)	MC	VC	FC	FE	FP ft.in.
1"	10 MCS	10 VCS	N/A	10 FES	10 FP'/"
1.5"	15 MC	15 VC	15 FC Brass	15 FE	15 FP'/"
2.0"	20 MC	20 VC	20 FC Brass	20 FE	20 FP'/"
2.5"	25 MC	25 VC	25 FC Brass	25 FE	25 FP'/"
3"	30 MC	30 VC	30 FC Brass	30 FE	30 FP'/"
4"	40 MC	40 VC	N/A	40 FE	40 FP'/"

Assembled High Pressure Flexible Piping

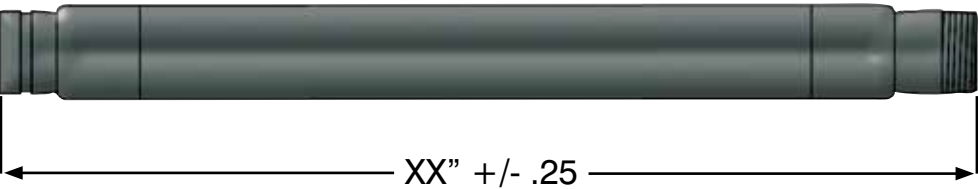
Hale can quickly and easily build your custom pipe assemblies for new construction or replacement hose needs.

To order a custom built high pressure hose assembly:

1. Determine the diameter of the hose required;
2. Determine the couplings required;
3. Determine the overall length of the engine hose assembly tip to tip.

Example: 2.5” hose, female end by Victaulic end, 44” overall length.
Hale will assemble your hose with a tolerance of +/- ¼”.

Most hoses can be built and shipped within 24 hours of receipt of your purchase order.



PIPING / COUPLINGS

Piping Accessories

34D	3/4" Stainless FNPT Coupling
082-3060-00-0	Stainless Flowminder Transmitter Mounting Socket
154B	Stainless Base Bracket - Fits 1-1/2" through 4"



082-3060-00-0
Stainless Flowminder
Transmitter Mounting Socket

Stainless Steel Swivels*

Stainless steel swivels are available in several different configurations to best fit your application. The assemblies are centered around the polished 90° elbow, which is available in both 1.5” NH (short and long) and 2.5” NH threads. The 1.5” NH assemblies have 2.0” piping with a Victaulic® connection. The 2.5” NH assemblies have 2.5” piping with a Victaulic® connection. The assemblies can be ordered with or without the bumper flange.

Features

- Specially designed elbow that reduces friction loss
- All stainless steel construction
- Optional stainless steel brackets for mounting
- Polished swivel end standard

102958	1.5" NH Short Swivel Elbow - 90° Piping - No Flange
104828	1.5" NH Short Swivel Elbow - 90° Piping - Bumper Flange
104289	1.5" NH Short Swivel Elbow - 90° Piping - Bumper Flange with 3/4" FNPT Drain
104831	2.5" NH Short Swivel Elbow - 90° Piping - Bumper Flange
104346	2.5" NH Short Swivel Elbow - 90° Piping - Bumper Flange with 3/4" FNPT Drain



Swivel without Flange



Swivel with Flange

Air Operated Valve Cylinder & Bracket

Specifications

AIR CYLINDER — The cylinders are fabricated using aluminum head and tube body. The piston is hard chrome plated steel. The cylinder includes the front trunnion mount and clevis for mounting to the bracket and valve.

BRACKET — The 1” through 2-1/2” brackets are fabricated from 1/8” hot rolled steel and the 3” bracket is fabricated from 3/16” hot rolled steel. The brackets are precision punched and formed from trunnion mounting plates. Two 7/8” O.D. steel mounting pads are welded to the bracket for mounting to the valve.

FINISH — The brackets are cleaned and finished with a black epoxy powder coating.

Bracket Part Number	90° Bracket Part Number	Air Cylinder Part Number (Bore x Stroke)	For Hale 800 Series SVS Valves, Akron® 7600 & 7800 Series Valves	Air Toggle Switch Assembly
10BRK	100386	320600 (1.25 x 6)	1”	117491
15BRK	15BRK90	400550 (1.5 x 5.5)	1-1/2”	117491
20BRK	20BRK90	400550 (1.5 x 5.5)	2”	117491
25BRK	25BRK90	400550 (1.5 x 5.5)	2-1/2”	117491
30BRK	30BRK90	630550 (2.5 x 5.5)	3”	117491



Air Operated Valve Cylinder



Air Operated Valve Cylinder Bracket



Air Toggle Switch Assembly

AIR BRAKE TUBING

Air Brake Tubing

Class1 also offers an assortment of air brake tubing in sizes from 1/4” to 3/4” and colors in Red, Black, and Blue. (Only available in full rolls.)

Part Number	Size/Color	Full Roll
104938	1/4” Black	1000’ Roll
104939	1/4” Red	1000’ Roll
104942	1/4” Blue	1000’ Roll
604-0079-03-0	3/8” Black	1000’ Roll
104948	1/2” Black	500’ Roll
104953	5/8” Black	250’ Roll
104958	3/4” Black	250’ Roll

Grooved End Pipe Couplings

Victaulic® Style 75 — The Style 75 is recommended for piping applications involving moderate pressure and external stresses. It is suitable for many applications in industrial plants, OEM, HVAC and utility piping systems.

Specifications

HOUSING — Malleable iron ASTM A 47 or ductile iron ASTM A 536

BOLTS — Oval neck track bolts and heavy hex nuts per ANSI B18.10 and B18.22; Minimum tensile 110,000 psi ASTM A 183

GASKET — EPDM

FINISH — Prime painted

Coupling	300 PSI	1000 PSI
1-1/2"	P10515W	088-00012-015
2"	P10520W	088-00012-020
2-1/2"	P10525W	088-00012-025
3"	P10530W	088-00012-030
4"	P10540W	088-00012-040
5"	P10550W	088-00012-050
6"	P10560W	088-00012-060



Victaulic style coupling

Working pressures are based on hydrostatic tests with no external load using standard weight cut or roll grooved steel pipe.

CAPS / PLUGS / ADAPTERS

Caps, Plugs and Adapters

Hale caps and fittings are specially designed for firefighting apparatus by Class1 in styles that are priced for your needs.

Features and Benefits

- Patented self-venting lugs are designed to relieve trapped pressure and help reduce possible operator injuries
- Designed to meet NFPA 1963 and 1901 standards
- Bright finished, polished products
- 3” and smaller caps and plugs come complete with 12” chain
- 6” long handle cap designed for custom center inserts
- Contact Class1 for custom 6” Cap logos



008-0100-00-0	Cap 1.5 NH with lug vent
107660	Adapter 1.5 MNH 1.5 FNPT SWVL
107661	Adapter 1.5 MNH 1.5 MNH SWVL
107662	Adapter 1.5 MNH 1.5 MNH
107663	Adapter 1.5 MNH 1.5 MNPT
107664	Adapter 2.5 MNH 1.5 MNH
108007	Cap 2.5 NH with lug vent
107666	Plug 2.5 NH with chain
107683	Adapter 2.5 MNH 2.5 FNPT 2.63 LG
107684	Adapter 2.5 MNH 2.5 FNPT 3.63 LG
107668	Adapter 2.5 FNH 2.5 FNPT SWVL
107669	Adapter 2.5 MNH 2.5 MNH SWVL
107670	Adapter 2.5 MNH 2.5 MNPT
107671	Adapter 2.5 MNH 2.5 MNPT SWVL
107673	Adapter 2.5 MNH 2.5 MNH 30 DEG
108008	Cap 3.0 NH with lug vent

107675	Plug 3.0 NH with chain
107678	Adapter 3.0 MNH 3.0 MNH 30 DEG
107679	Adapter 3.0 MNH 3.0 FNPT
109196	Cap 4.0 NH (flat cap) vent
108162	Cap 4.5 NH (flat cap) vent
108344	Cap 5.0 NH (flat cap) vent
109401	Cap 6.0 NH recessed assembled with vent
108346	Cap 6.0 NH recessed vent
108345	Cap 6.0 NH (flat cap) vent
108168	Spanner wrench
108501	Chrome insert - 6” cap
108596	Polydome tag - Hale logo

PUSH-ON FITTINGS

Gauge DOT Push-On Fittings

Class1’s DOT Push-On Fittings are available in a variety of sizes from 1/4” to 3/4” and a variety of configurations including 45° and 90° elbow, swivel and nonswivel, straight, tee and bulkhead.

P/N	DOT HOSE SIZE					NPT THREAD SIZE								FEATURES							
	1/4" POH	3/8" POH	1/2" POH	5/8" POH	3/4" POH	1/8" Female NPT	1/4" Female NPT	3/8" Female NPT	1/8" Male NPT	1/4" Male NPT	3/8" Male NPT	1/2" Male NPT	3/4" Male NPT	Straight	90o Elbow (Swivel)	90o Elbow (Non-Swivel)	45o Elbow (Swivel)	45o Elbow (Non-Swivel)	Tee (Swivel)	Bulkhead	Union
102718	●						●								●						
104587	●													●							●
104588		●												●							●
104589	●								●					●							
104590		●							●					●							
104591	●									●				●							
104592		●								●				●							
104593		●									●			●							
104594		●										●		●							
104595					●							●		●							
104596					●								●	●							
104597	●								●								●				
104598	●								●						●						
104599		●							●						●						
104600	●									●						●					
104601		●								●						●					
104602		●									●					●					
104603		●										●				●					
104604					●							●				●					
104605					●								●				●				
104606	●									●									●		
104609	●							●							●						
104795			●								●				●						
104796			●									●			●						
104797			●									●		●							
104798	●									●							●				
104799	●						●							●						●	

Gauge DOT Push-On Fittings (Cont.)

P/N	DOT HOSE SIZE					NPT THREAD SIZE								FEATURES							
	1/4" POH	3/8" POH	1/2" POH	5/8" POH	3/4" POH	1/8" Female NPT	1/4" Female NPT	3/8" Female NPT	1/8" Male NPT	1/4" Male NPT	3/8" Male NPT	1/2" Male NPT	3/4" Male NPT	Straight	90o Elbow (Swivel)	90o Elbow (Non-Swivel)	45o Elbow (Swivel)	45o Elbow (Non-Swivel)	Tee (Swivel)	Bulkhead	Union
104800			●							●				●							
104801	●													●						●	
104803			●								●			●							
104804	●										●			●							
104805		●								●							●				
104805	●										●				●						
104807				●								●		●							
104808				●							●			●							
104809				●								●			●						
104810				●							●				●						
104811		●							●								●				
104812			●							●							●				
104813				●								●					●				
104816	●						●							●							
104819		●								●									●		
104820				●										●						●	
104821	●								●										●		
104822			●											●							●
104823				●										●							●
104824		●					●												●		
104914	●								●								●				
105176	●					●									●						
105178		●											●		●						
105179		●											●	●							
105181				●									●		●						
105589					●								●				●				
105590					●								●		●						
106262	●								●										●		

PLUMBING PRODUCTS

VALVE x WELD

104301
112381
120989
122427
122428
122429

1.0"
1.5"
2.0" x 1.5"
2.0"
2.5"
3.0"

PIPE
HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

HEIGHT: 2.25"

110156
110157

4.0" - 3/4" NPT PORT
4.0" - FLOWMINDER PORT

HEIGHT: 2.82"

4" PIPE
FLOWMINDER/NPT
4" AK/ELK FLANGE

114408

3.0"

HEIGHT: 3.00"

4" PIPE
3/4" FNPT
3" VALVE (HALE/AK)

VALVE x GROOVE

112391
120991
112392
112393
112394

1.5" - HEIGHT: 2.25"
2.0" x 1.5" - HEIGHT: 2.25"
2.0" - HEIGHT: 2.8"
2.5" - HEIGHT: 2.9"
3.0" - HEIGHT: 2.9"

GROOVE
3/4" FNPT
(1/4" FNPT ON 112391 & 120991)

HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

112404
112405
112406

2.0" - HEIGHT: 2.8"
2.5" - HEIGHT: 2.9"
3.0" - HEIGHT: 2.9"

GROOVE
FLOWMINDER

HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

115223
115221
115219

2.0" - HEIGHT (FLG TO CL): 3.0"
2.5" - HEIGHT (FLG TO CL): 3.0"
3.0" - HEIGHT (FLG TO CL): 3.69"

3/4" FNPT
90° ELBOW
GROOVE

HALE/AK VALVE

114627

3.0"

45°
3" VALVE
3" GROOVE

115222
115220
115218

2.0"
2.5"
3.0"

3/4" FNPT
45° ELBOW
GROOVE

HALE/AK VALVE

VALVE x HOSE

114471

3.0"

HEIGHT: 4.30"

4" MNH
3/4" FNPT
3.0" VALVE (HALE/AK)

044-1750-06-0
115560
120988
044-1770-13-0
044-1771-09-0
044-1781-09-0
115917

1.5" - 1.53" HGT
1.5" - 2.0" HGT
2.0 x 1.5" - 1.53" HGT
2.5" - 3.75" HGT
2.5" - 6.0" HGT
3.0" - 6.0" HGT
4.0" - 8.25" HGT

HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

3/4" FNPT
(2.5" & 3.0" SIZES ONLY)

MNH

044-1781-07-0

3.0"

HEIGHT: 3.00"

HOSE BARB FOR 3.50" ID HOSE
3.0" VALVE (HALE/AK)

C25-2600-00-0
C30-2600-00-0

2.5" BASE 044-1771-12-0
3.0" BASE 044-1781-11-0

HEIGHT: 7.0"

HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

3/4" FNPT
FNH SWIVEL

826-7100-00-0

2.5" BASE 114036

HEIGHT: 5.0"

2.5" VALVE
HALE/AK/ELK
3/4" FNPT
FNH SWIVEL

044-1771-11-0
044-1781-12-0

2.5"
3.0"

HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

45° ELBOW
MNH
3/4" FNPT

115596

2.5" (BASE 044-1771-11-0)

CUT 2.5" FROM FLANGE BASE

2.5" VLV
(HALE/AK/ELK)
3/4" FNPT
30° ELBOW
2.5" MNH

VALVE x VALVE

113639

2.5" - 1.0" THK (USE O-RING 040-1550-00-0)

SPACER
2.5" VALVE
(HALE/AK/ELK)

VALVE x NPT

044-1751-03-0
120987
044-1761-03-0
044-1771-03-0
044-1781-03-0

1.5" - 2.53" HGT
2.0" x 1.5" - 2.53" HGT
2.0" - 2.21" HGT
2.5" - 2.68" HGTz
3.0" - 2.71" HGT

FNPT
HALE/AK/ELK VALVE
(3" HALE/AK ONLY)

120987
044-1761-03-0
044-1771-03-0
044-1781-03-0

2.0" x 1.5"
2.0" - 2.21" HGT
2.5" - 2.68" HGT
3.0" - 2.71" HGT

HEIGHT: 2.53"

2.0" VLV
(HALE/AK/ELK)
3/4" FNPT
1.5" FNPT

VALVE x 115

113637 2.5" x 115 - FOR 70" PANEL
111069 2.5" x 115 - FOR 72" PANEL
115083 2.5" x 115 - FOR 74" PANEL
117020 2.5" x 115 - FOR 76" PANEL



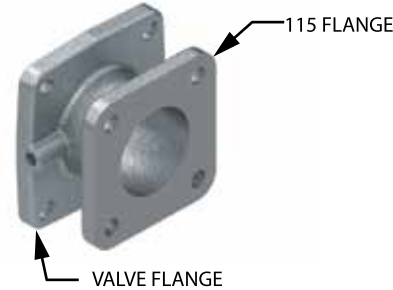
113638 3.0" x 115 - FOR 70" PANEL
111070 3.0" x 115 - FOR 72" PANEL
115087 3.0" x 115 - FOR 74" PANEL
117021 3.0" x 115 - FOR 76" PANEL



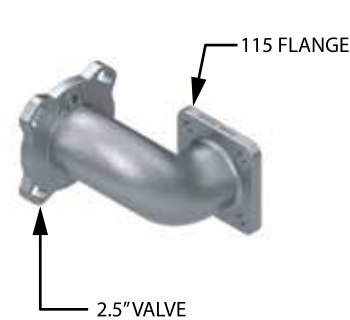
113641 2.5" x 115 - FOR 70" PANEL
111071 2.5" x 115 - FOR 72" PANEL
115082 2.5" x 115 - FOR 74" PANEL
117022 2.5" x 115 - FOR 76" PANEL



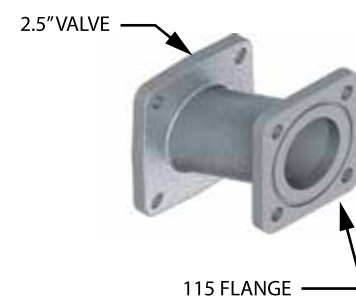
112408 2.5" x 115 - HEIGHT: 2.50"
113270 1.5" x 115 - HEIGHT: 3.75"
113271 2.0" x 115 - HEIGHT: 3.75"



114490 2.5" x 115 (72")
114490 & 113639 2.5" x 115 (74")
117133 2.5" x 115 (76")

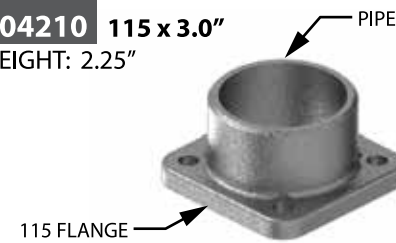


116095 2.5" x 115
 HEIGHT: 4.00"
 OFFSET: 1.50"

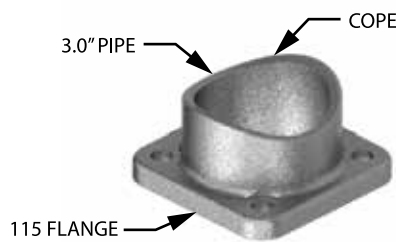


115 x WELD

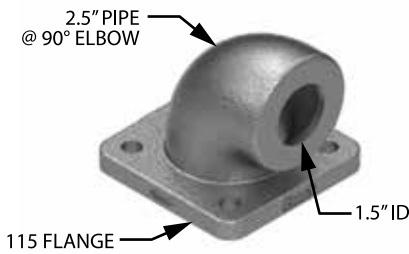
104302 115 x 2.0"
104209 115 x 2.5"
104210 115 x 3.0"
 HEIGHT: 2.25"



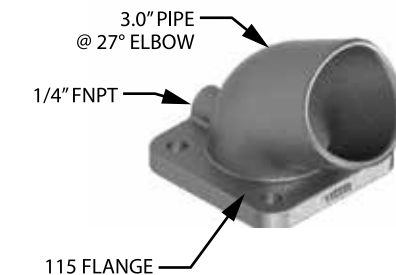
105289 COPED FOR 4"/5" PIPE
109972 COPED FOR 6" PIPE



109816 115 x 2.5"
 HEIGHT: 1.5" (FLANGE TO CENTERLINE)

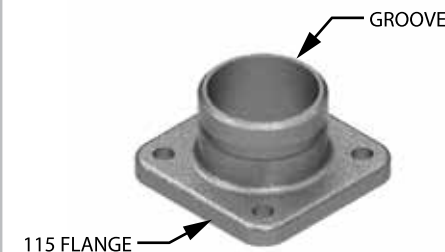


115733 115 x 3.0"
 HEIGHT: 1.5" (FLANGE TO CENTERLINE)



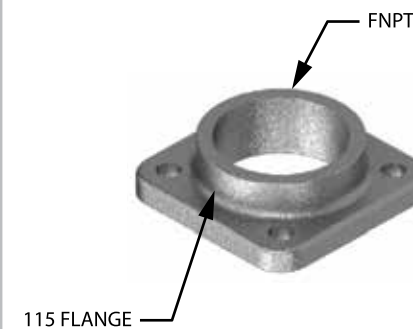
115 x GROOVE

105810 115 x 2.0"
105326 115 x 2.5"
105811 115 x 3.0"
 HEIGHT: 2.25"



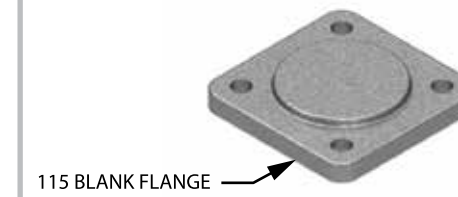
115 x NPT

111892 115 x 2.5" - HEIGHT: 1.25"
114131 115 x 3.0" - HEIGHT: 1.38"

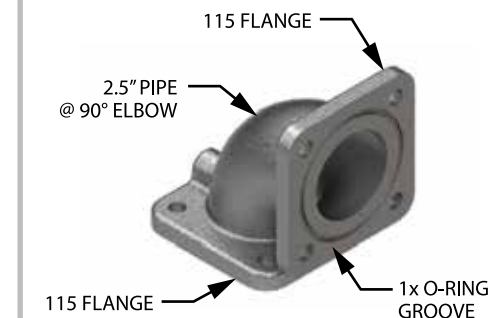


115 x 115

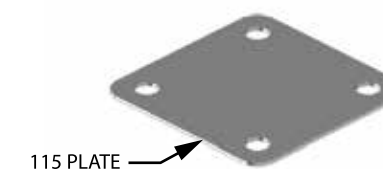
110574 115 x 115
 HEIGHT: 0.50"



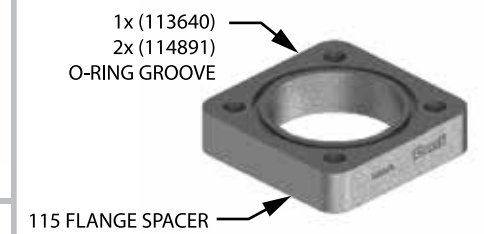
113081 115 x 115
 HEIGHT: 2.94" (2x FLANGE TO CENTERLINE)



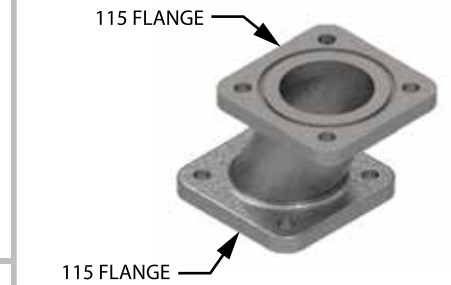
113386 115 x 115
 HEIGHT: 0.08"



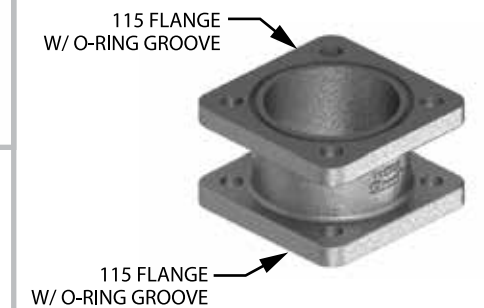
113640 115 x 1.00" THICK
114891 115 x 0.44" THICK



114491 115 x 115
 HEIGHT: 4.00"
 OFFSET: 1.5"



115795 115 x 115
 HEIGHT: 2.50"



TEES

112692 5.0"

LENGTH: 10.0"
HEIGHT: 4.2" (FROM C/L TO GROOVE)



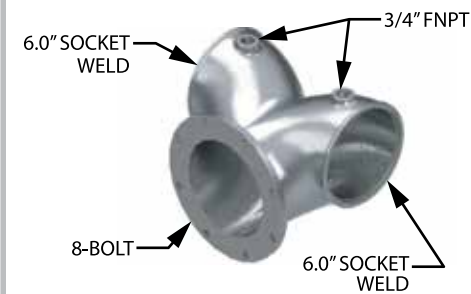
112867 6.0"

LENGTH: 10.0"
HEIGHT: 5.25" (FROM C/L TO GROOVE)



178-0470-00-0 8-BOLT X 6.0"

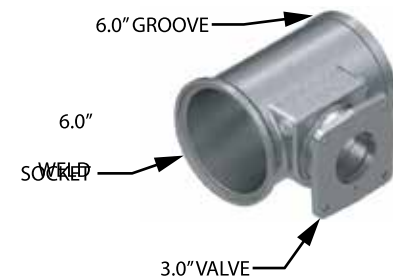
WIDTH: 12.5"
HEIGHT: 2.5" (C/L TO C/L)
DEPTH: 6.38" (8-BOLT TO C/L)



CHECK VALVE

116485

WIDTH: 9.5"
HEIGHT: 5.81" (FLG TO C/L)



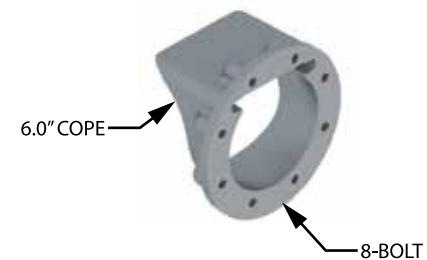
178-00199-000 5"

178-00031-000 6"
WIDTH: 11.67"
HEIGHT: 5.38" (C/L TO TOP)



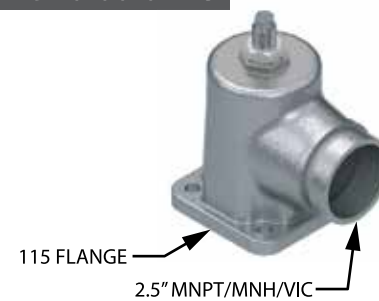
115-1700-00-0 6" COPE

120940 CHECK VALVE ADT



RELIEF VALVES

538-1920-10-0 NPT
538-1920-20-0 NH
538-1920-00-0 VIC



NH

112603

4.5" MNH x 5.0" WELD

114842

5.0" MNH x 6.0" WELD

108129

6.0" MNH x 6.0" WELD

116196

5.0" MNH x 5"/6" WELD



MIV HANDLE

113404

4.46" LONG

113404-001

5.46" LONG

113404-002

1.02" LONG

041-0550-00-0

3.53" LONG



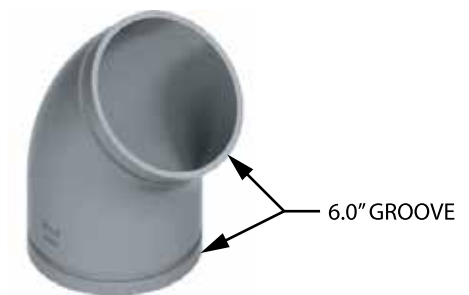
GROOVE PIPE

109266 6.0"

HEIGHT: 2.5"



115036 6.0" @ 45°



STRAINERS

010-0050-00-0 2.5"

010-0130-00-0 3.0"



010-0010-00-0 4.5"

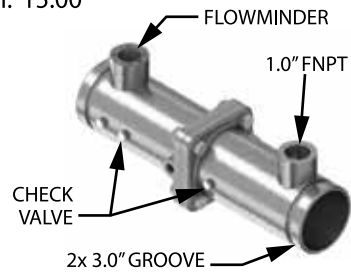
010-0020-00-0 5.0"

010-0030-00-0 6.0"

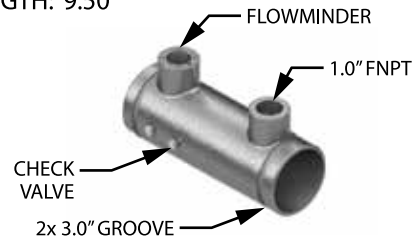


CHECK VALVE

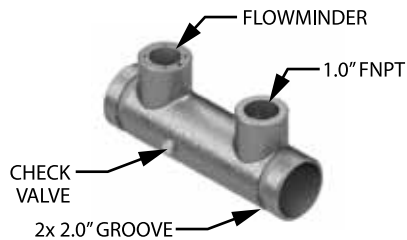
538-1840-00-0 3.0" DUAL
LENGTH: 15.00"



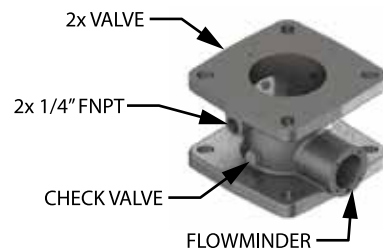
538-1850-00-0 3.0" SINGLE
LENGTH: 9.50"



112074 2.0" SINGLE
LENGTH: 8.50"



113216 3.0" SINGLE - HEIGHT: 4.53"

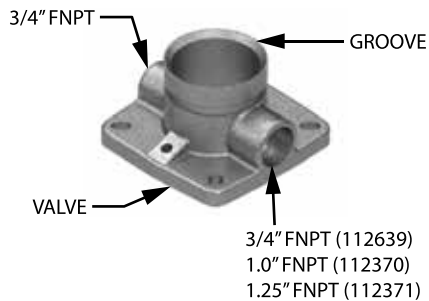


MIXER

112334 2.0"
112335 2.5"
112336 3.0"



112369 2.0" - HEIGHT: 2.25"
112370 2.5" - HEIGHT: 2.90"
112371 3.0" - HEIGHT: 2.90"



O-RINGS

142-0390-00-0 115 FLANGE



GASKETS

046-0050-00-0 115 FLANGE



046-0060-00-0 8-BOLT FLANGE



046-1760-00-0 8-BOLT FLANGE
USE WITH 115-00038, 122870, 110155

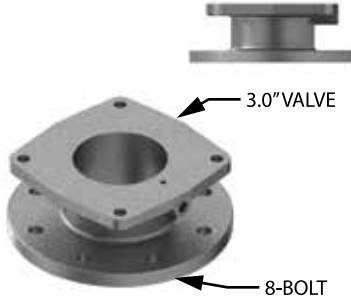


046-0040-00-0 12-BOLT FLANGE

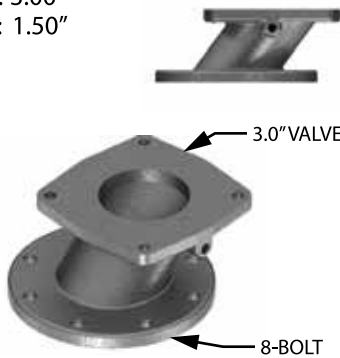


8-BOLT (2433) x VALVE

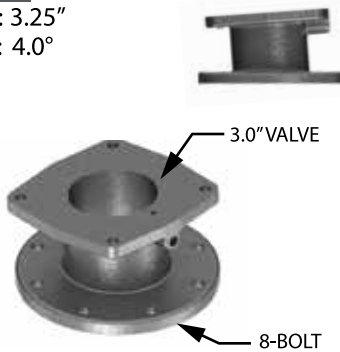
112407 3.0" - HEIGHT: 2.50"
044-00025 2.5" - HEIGHT: 2.63"



113272 3.0"
HEIGHT: 3.00"
OFFSET: 1.50"



113273 3.0"
HEIGHT: 3.25"
OFFSET: 4.0"



159-2230-00-0 2.5" X 5.70"
159-2230-02-0 2.5" X 6.70"
159-2230-04-0 2.5" X 7.70"
159-2230-06-0 2.5" X 8.70"



113274 3.0"
HEIGHT: 7.10"
OFFSET: 3.00" @ 4.0°



115393 3.0"
HEIGHT: 3.38"
OFFSET: 1.85" @ 4.0°

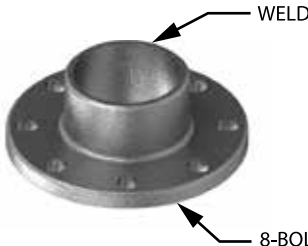


159-2230-01-0 3.0" X 5.70"
159-2230-03-0 3.0" X 6.70"
159-2230-05-0 3.0" X 7.70"
159-2230-07-0 3.0" X 8.70"



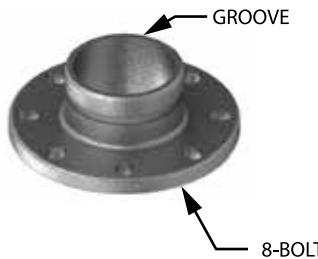
8-BOLT x WELD

122870 3.0"
110155 4.0"
HEIGHT: 2.25"
USE GASKET 046-1760-00-0



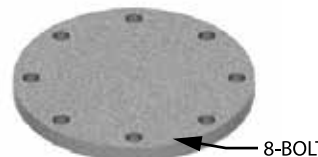
8-BOLT x GROOVE

115-00038 3.0"
HEIGHT: 2.25"
USE GASKET 046-1760-00-0



8-BOLT FLANGE

109433 BLANK
THICKNESS: 0.50"



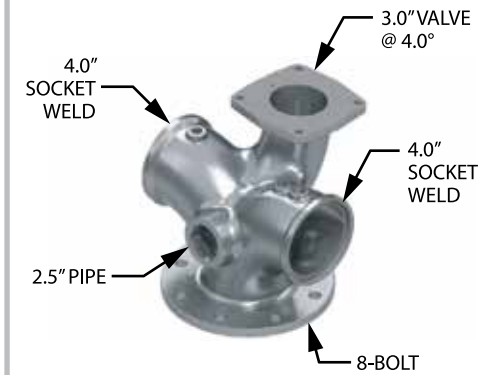
12-BOLT 2417

110986 6.0"
HEIGHT: 3.50"



DSD DISCHARGE

119075 TEE
HEIGHT: 5.5" (FLG TO PIPE C/L)
WIDTH: 10.5"

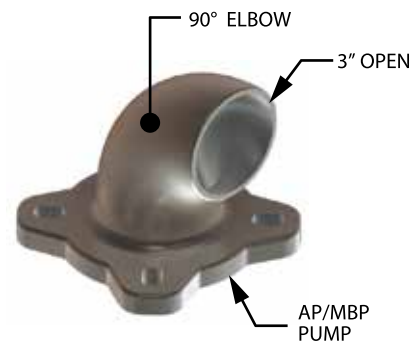


119076 BRANCH
HEIGHT: 11.0"



AP/MBP DISCHARGE

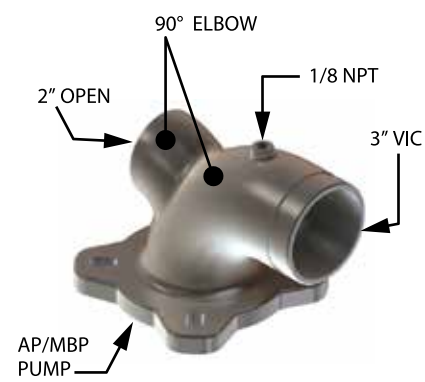
122438



122439

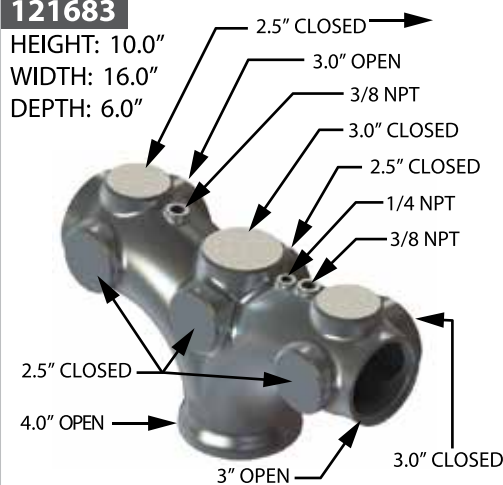


122440



121683

HEIGHT: 10.0"
WIDTH: 16.0"
DEPTH: 6.0"



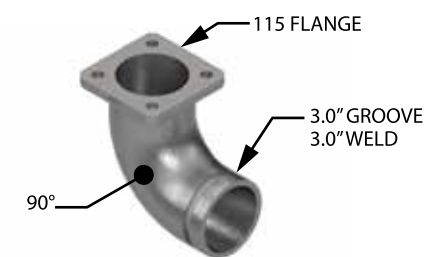
121684

HEIGHT: 11.38"

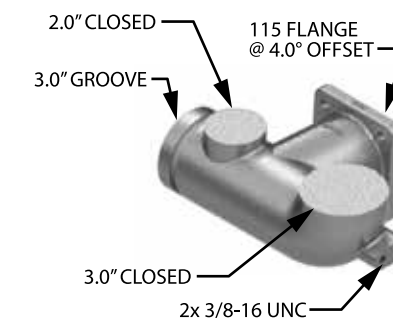


MIDSHIP DISCHARGE

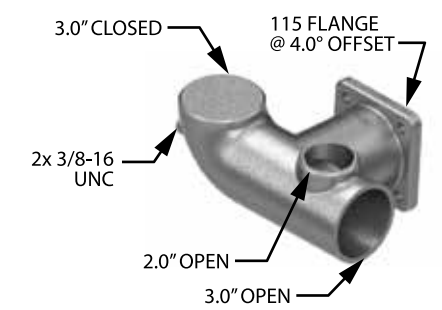
113342 3.0" GROOVE
113343 3.0" WELD
HEIGHT: 4.9" (FLG TO PIPE C/L)



113275 3.0"



113344 3.0"



110119 3.0"
LENGTH: 12.25"




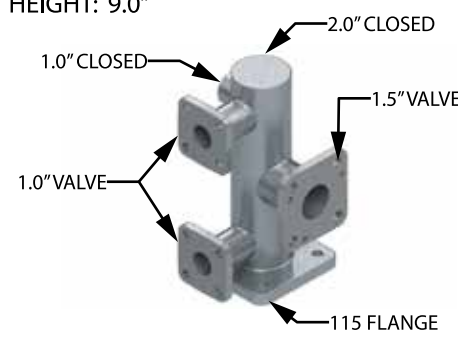
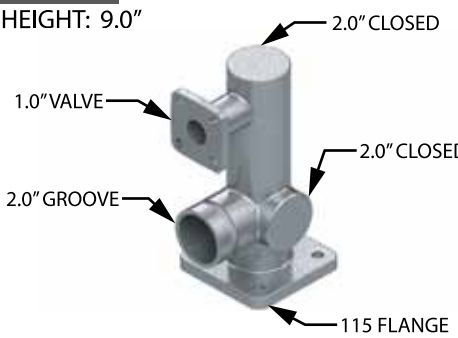
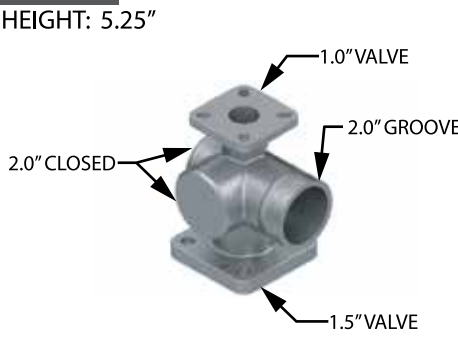
114396 3.0"
LENGTH: 6.0"



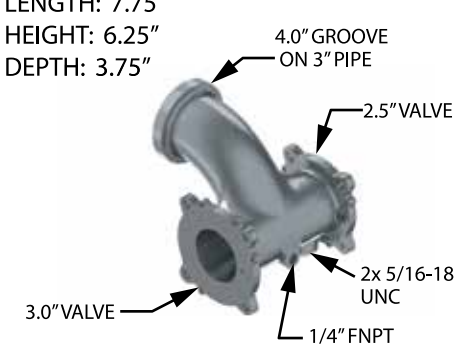

114397 3.0"
LENGTH: 6.0"



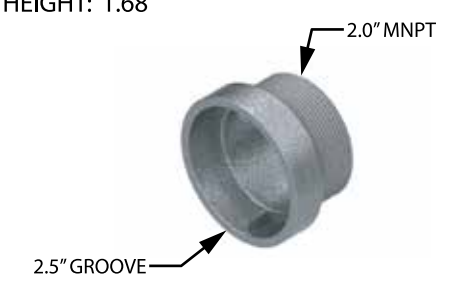

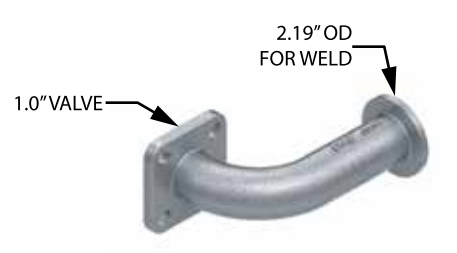
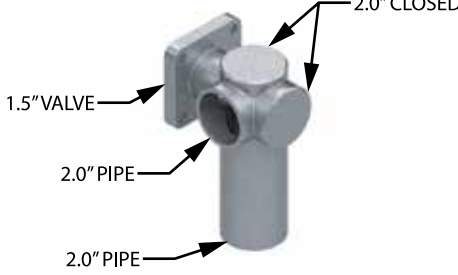
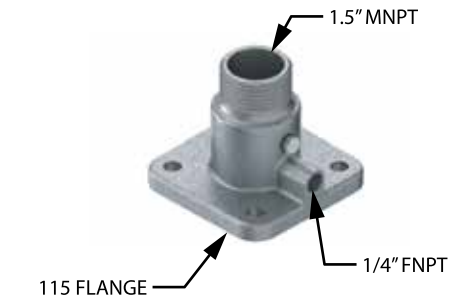
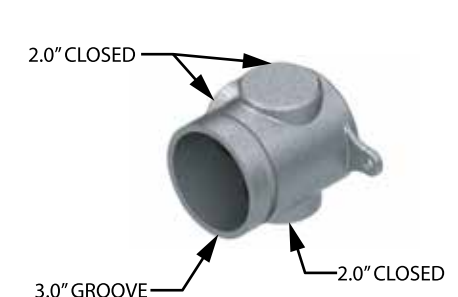
PORTABLE DISCHARGE

<p>110506 HEIGHT: 9.0"</p> 	<p>111647 HEIGHT: 9.0"</p> 
<p>111648 HEIGHT: 9.0"</p> 	<p>111650 HEIGHT: 5.25"</p> 

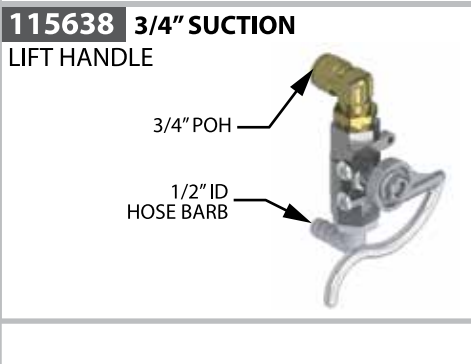
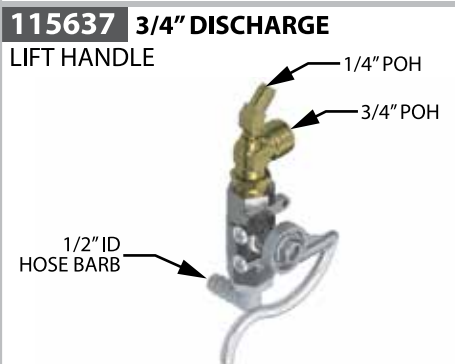
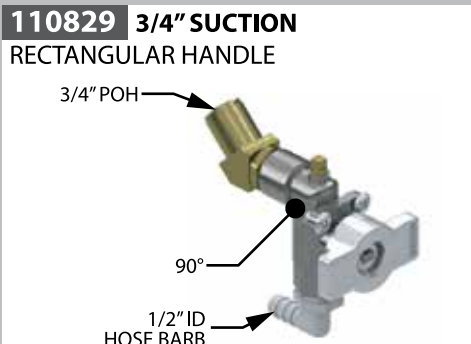
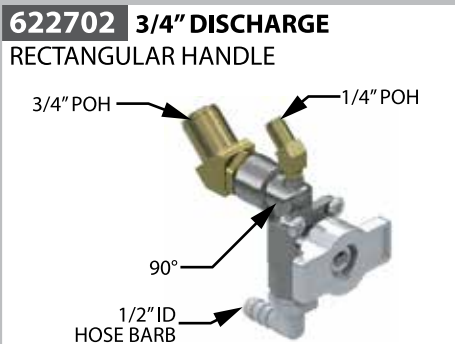
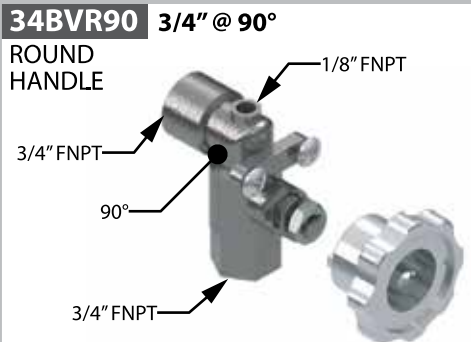
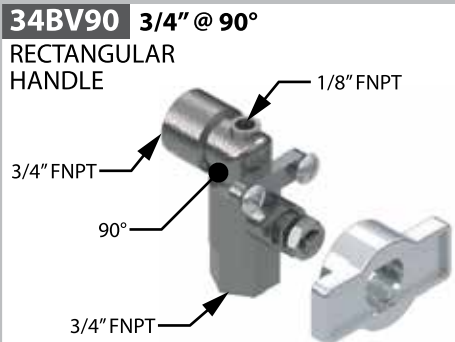
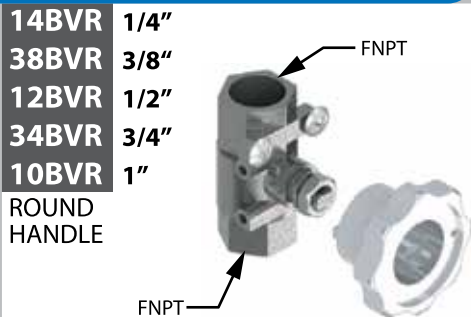
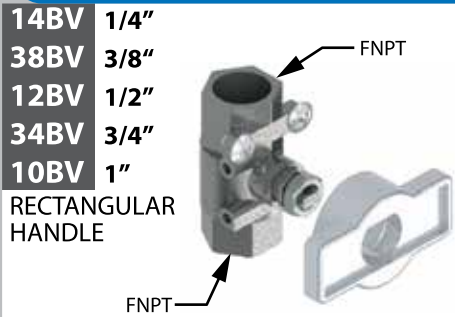
PORTABLE SUCTION

<p>108986 LENGTH: 7.75" HEIGHT: 6.25" DEPTH: 3.75"</p> 	<p>111841 LENGTH: 8.25" HEIGHT: 3.75" DEPTH: 4.00"</p> 
---	--

PORTABLE ADAPTER

<p>111715 HEIGHT: 1.68"</p> 	<p>115553 HEIGHT: 1.0"</p> 
<p>115489 HEIGHT: 2.75" LENGTH: 5.0"</p> 	<p>115453 HEIGHT: 7.0"</p> 
<p>112075 CHECK VALVE HEIGHT: 3.70"</p> 	<p>118903 LENGTH: 4.25"</p> 

BALL VALVES



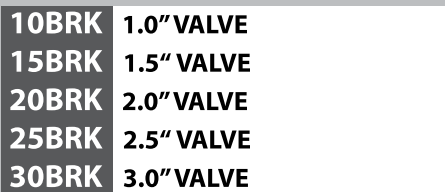
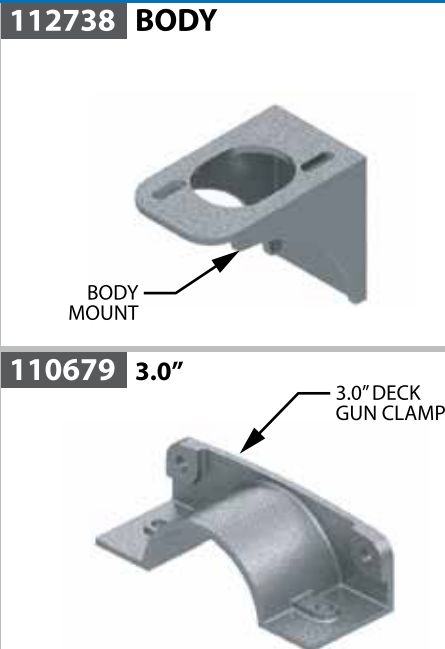
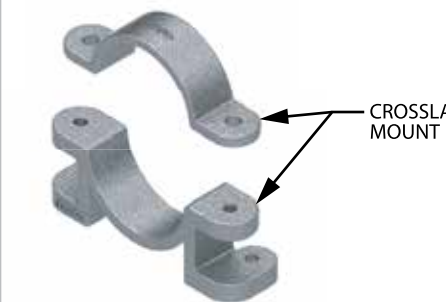
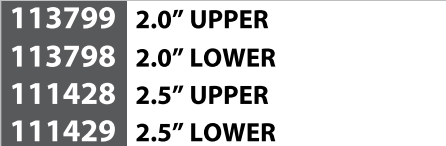
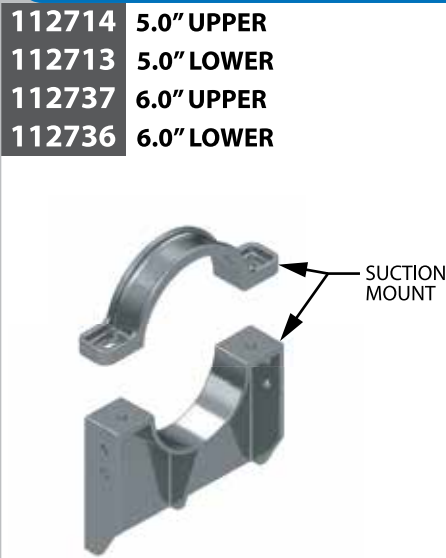
LEVERS



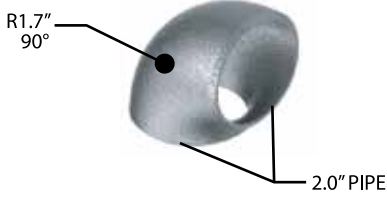
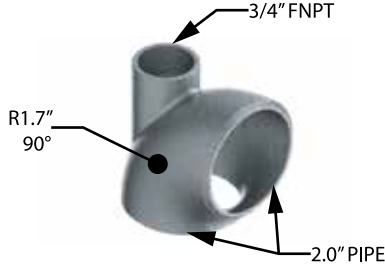
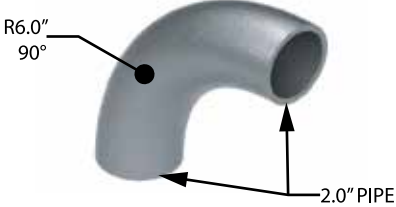
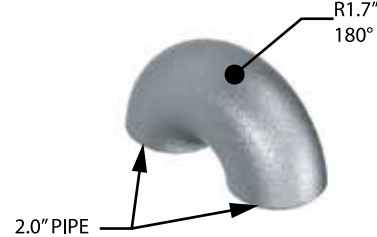
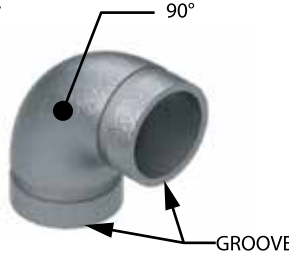
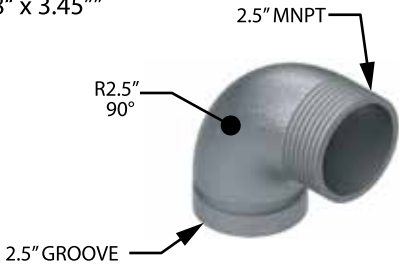

HANDLES



BRACKETS



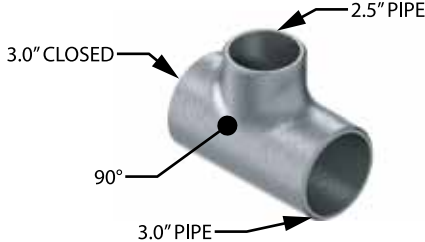
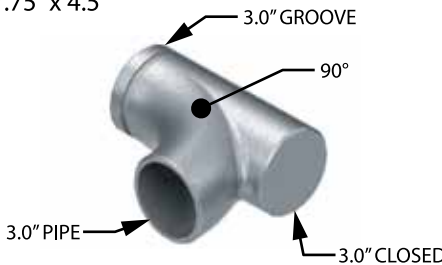

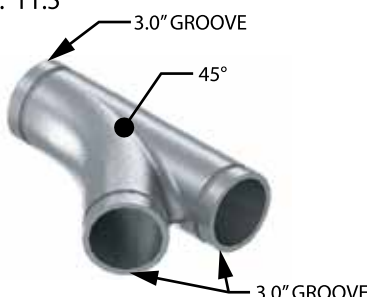
ELBOWS

113080 2.0" 	110671 2.0" 	114000 2.0" @ 90° 
110672 2.0" 	114537 2.0" 114536 2.5" 114715 5.0" 	112062 2.5" 3.8" x 3.45" 
120617 2.5" 3.75" x 9.75" 		

ADAPTERS

113064 HEIGHT: 4.1" (END TO PIPE) 	114066 3.0" HEIGHT: 3.25" 	115744 3.0" HEIGHT: 4.03" (GROOVE TO PIPE) 
---	---	--

TEES

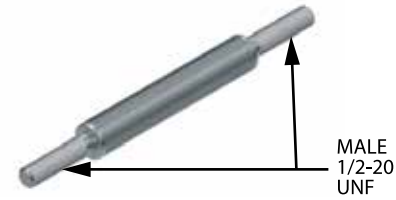
114406 2.5" x 3.0" 6.5" x 3.3" 
110116 3.0" 7.75" x 4.5" 
115106 3.0" 10.35" x 7.75" 
110111 3.0" HEIGHT: 11.5" 

CAPS

106942 2.0" 106892 3.0" 

CONTROL ROD ENDS

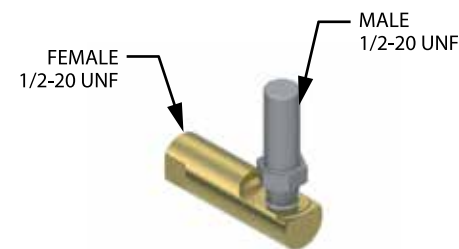
PRXXXX CONTROL ROD
TIP-TO-TIP LENGTH SET BY XXXX
MIN LG 6.00" = PR0600
MAX LG 72.00" = PR7200



118424 1.5" OFFSET
118425 3.0" OFFSET
118426 4.5" OFFSET
LENGTH: 6.75"



100916 BALL JOINT

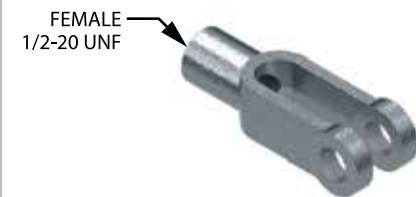


121024 TANK FILL EXTENSION
LENGTH: 3.5"



YOKES

103402 STRAIGHT
LENGTH: 3.0"



105235 OFFSET
LENGTH: 2.25"
OFFSET: 0.83"



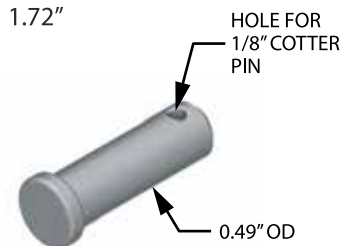
103448 ANGLED LONG
LENGTH: 3.25"
HEIGHT: 1.75"



106672 ANGLED SHORT
LENGTH: 2.75"
HEIGHT: 0.88"



103403 PIN
LENGTH: 1.72"



BELL CRANKS

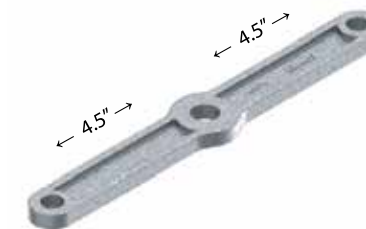
114214 LEFT (SHOWN)
114215 RIGHT
OFFSET: 1.25"



114499



116474
2 X 4.5"



113305 BOLT



119707 BRACKET



116475 RRR BRACKET
HEIGHT: 4.0"

