

PETROMETALIC

Solutions de régulation des fluides

High Pressure Equipment

4 - Ultra High Pressure Valves, Fittings and Tubing
100,000 and 160,000 psi service



Petrometallic SA

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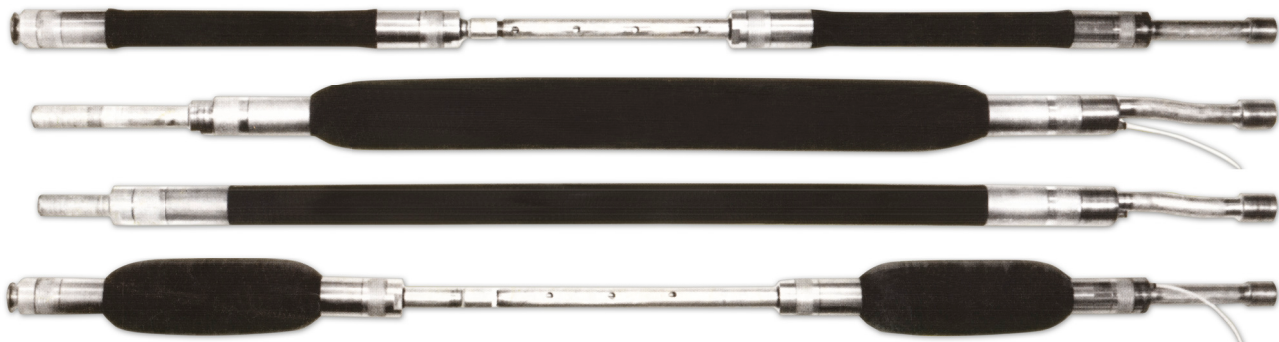
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DÉPARTEMENT ACTIVITÉS SPÉCIFIQUES, TP ET INDUSTRIE



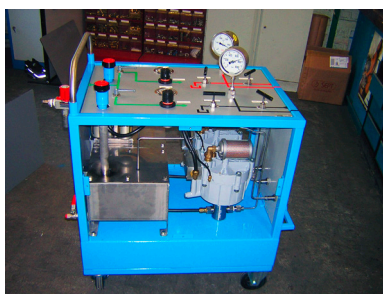
OBTURATEURS BIMBAR / PACKERS

Petrometalic développe et exporte dans le monde entier depuis 1975 le tuyau dilatable BIMBAR, d'abord pour l'abattage hydraulique du charbon, ensuite pour la consolidation des sols et les applications géotechniques.

📄 plus d'information sur les obturateurs sur Petrometalic.com



Surpresseur de chantier SP400 - 90 à 490 bar



Pompe HP Le Touquet - 210 à 2100 bar

POMPES ET SURPRESSEURS

Surpresseurs nus ou équipés en centrale jusqu'à 3000 bars.

- ▶ Types
 - surpresseurs hydropneumatiques
 - surpresseurs à gaz
 - surpresseurs d'injection ciment ou résine
 - surpresseurs de chantier
 - pompes manuelles

- ▶ Domaines
 - TP
 - offshore
 - industrie
 - géotechnologie

📄 catalogue surpresseurs et pompes téléchargeables sur Petrometalic.com



Surpresseur SP2300 - 10 à 2330 bar

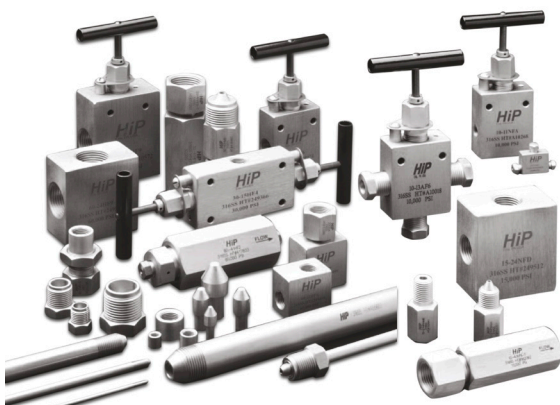


Pompe gros débit S218GJC - jusqu'à 1380 bar

RACCORDS ET TUBES TRÈS HAUTE PRESSION

Une gamme HP et THP couvrant tous les composants consultables et téléchargeables dans nos catalogues.

📄 catalogues THP téléchargeables sur Petrometalic.com



SERVICE COMMERCIAL

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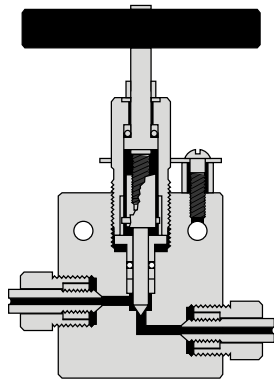
NOS ENGAGEMENTS

- ✓ un stock de 1.1M€
- ✓ 50 ans d'expérience
- ✓ conseil de qualité

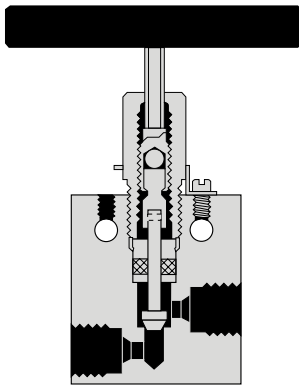
Valve Design

General

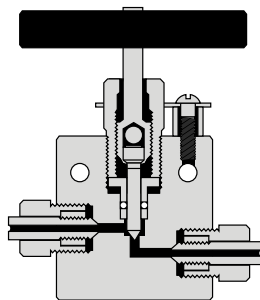
- Valve bodies through 100,000 psi are high tensile Type 316 stainless steel, 150,000 psi valve bodies are 17-4 PH stainless steel.
- Stem assemblies have non-rotating tips to prevent galling with valve seats.
- Packing is located below the stem threads to prevent contact with media (liquid or gas).
- Packing glands are equipped with locking devices or lock nuts.
- Six valve patterns (see chart on page 1.3).
- Tubing connections are: $\frac{1}{16}$ " , $\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{9}{16}$ " , $\frac{3}{4}$ " , and 1". Pipe connections include: $\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , and 1" NPT.
- Remote control air operators are available for most valves.



Positive Guide Stem



Pinned Stem



Rolled Style Stem

Positive Guide Stem: High Pressure Equipment Company's patented "Positive Guide" stem assembly virtually eliminates lower stem rotation — one of the most common causes of premature stem failure. The lower section stem is manufactured from hardened 17-4 PH stainless steel for exceptional wear and corrosion resistance and can be easily serviced with no special tooling required. The one-piece upper section stem eliminates the need for continual adjustment and minimizes "loose handle" backlash.

The Positive Guide Stem is standard for all AF4, AF6, HF4, HF6, and HF9 valves, and 60,000 psi HF2 valves.

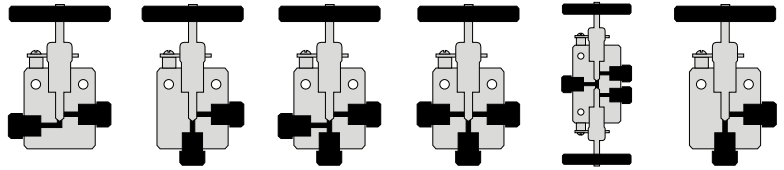
Rolled Style Stem: This simple two-piece design is also non-rotating and is ideal for smaller valves and for valves made from exotic materials. The standard lower section stem is manufactured from hardened 17-4 PH stainless steel. It is affixed to a one-piece upper stem requiring no periodic adjustment. The two stem components are free to rotate independently of each other, thereby minimizing rotation of the lower stem against the valve seat.

The Rolled Style Stem is standard for all AF1, AF2, NFA, NFB, LF4, LF6 valves, 30,000 psi HF2, XF4, and XF6 valves, as well as most valves requiring stems made from exotic materials. It is optional for any valve normally supplied with a Positive Guide Stem.

Pinned Stem Design: This variation on the Rolled Style Stem is a three-piece design in which the lower stem is pinned into a freely-rotating stem guide. It has all of the advantages of the rolled style stem, with the additional benefit of a replaceable lower section stem.

The Pinned Stem Design is standard for all NFC, NFD, NFF, NFH, LF9, LF12, LF16, and HF16 valves.

Quick Selector Guide to Standard Valves



Taper Seal Valves

	Tubing Size		Two Way Straight	Two Way Angle	Three Way Two Press	Three Way One Press	Three Way Two Stem	Replaceable Seat
	O.D.	I.D.						
10,000 psi	1/4"	1/8"	10-11AF4	10-12AF4	10-13AF4	10-14AF4	10-15AF4	NA
	3/8"	1/4"	10-11AF6	10-12AF6	10-13AF6	10-14AF6	10-15AF6	NA
15,000 psi	1/16"	.030"	15-11AF1	15-12AF1	15-13AF1	15-14AF1	15-15AF1	NA
	1/8"	1/16"	15-11AF2	15-12AF2	15-13AF2	15-14AF2	15-15AF2	NA
20,000 psi	1/4"	7/64"	20-11LF4	20-12LF4	20-13LF4	20-14LF4	20-15LF4	20-12LF4R
	3/8"	19/64"	20-11LF6	20-12LF6	20-13LF6	20-14LF6	20-15LF6	20-12LF6R
	9/16"	5/16"	20-11LF9	20-12LF9	20-13LF9	20-14LF9	20-15LF9	20-12LF9R
	3/4"	33/64"	20-11LF12	20-12LF12	20-13LF12	20-14LF12	20-15LF12	20-12LF12R
	1"	11/16"	20-11LF16	20-12LF16	20-13LF16	20-14LF16	20-15LF16	20-12LF16R
30,000 psi	1/8"	.040"	30-11HF2	30-12HF2	30-13HF2	30-14HF2	30-15HF2	30-12HF2R
	1/4"	.083"	30-11HF4	30-12HF4	30-13HF4	30-14HF4	30-15HF4	30-12HF4R
	3/8"	1/8"	30-11HF6	30-12HF6	30-13HF6	30-14HF6	30-15HF6	30-12HF6R
	9/16"	3/16"	30-11HF9	30-12HF9	30-13HF9	30-14HF9	30-15HF9	30-12HF9R
60,000 psi	1/8"	.020"	60-11HF2	60-12HF2	60-13HF2	60-14HF2	60-15HF2	60-12HF2R
	1/4"	1/16"	60-11HF4	60-12HF4	60-13HF4	60-14HF4	60-15HF4	60-12HF4R
	3/8"	1/8"	60-11HF6	60-12HF6	60-13HF6	60-14HF6	60-15HF6	60-12HF6R
	9/16"	3/16"	60-11HF9	60-12HF9	60-13HF9	60-14HF9	60-15HF9	60-12HF9R
100,000 psi	1/4"	1/16"	100-11XF4	100-12XF4	100-13XF4	100-14XF4	NA	100-12XF4R
150,000 psi	3/8"	1/16"	150-11XF6	150-12XF6	150-13XF6	150-14XF6	NA	150-12XF6R

Medium Pressure Valves

High Pressure Valves

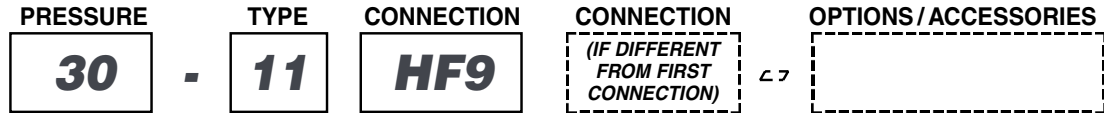
Ultra High Pressure Valves





High Pressure Equipment

Catalog Numbering System



Pressure Series

- 10 = 10,000 psi
- 15 = 15,000 psi
- 20 = 20,000 psi
- 30 = 30,000 psi
- 40 = 40,000 psi
- 60 = 60,000 psi
- 100 = 100,000 psi
- 150 = 150,000 psi

Catalog part numbers for some components (NPT fittings, special alloy parts) have been maintained for historical consideration.

The referred pressure series may not reflect the actual pressure rating. Please refer to applicable catalog page for pressure rating, or consult the factory.

Type of Components

- 2 = Gland, Collar or Sleeve
- 3 = Anti-Vibration Assembly
- 7 = Plug
- 11 = 2-Way Straight Valve
- 12 = 2-Way Angle Valve
- 13 = 3-Way Valve with Two Pressure Connections
- 14 = 3-Way Valve with One Pressure Connections
- 15 = 3-Way, 2-Stem Valve
- 16 = Ball Valve (Floating)
- 21 = Coupling or Adapter
- 22 = Elbow
- 23 = Tee
- 24 = Cross
- 41 = Check Valve
- 51 = Line Filter
- 61 = Safety Head (Straight)
- 63 = Safety Head (Tee Type)
- 71 = 2-Way Ball Valve *
- 72 = 3-Way Ball Valve 180° *
- 73 = 3-Way Ball Valve Diverter *
- 74 = 2-Way Ball Valve *
- 75 = 3-Way Ball Valve 180° *
- 76 = 3-Way Ball Valve Diverter *
- 77 = 3-Way Mini Ball Valve 1/4" NPT
- 80 = 2-Way Ball Valve *
- 81 = 3-Way Ball Valve 180° *
- 82 = 3-Way Ball Valve Diverter *

* (Trunion)

Connection(s) Size and Type

Female	Male	
AF1	AM1	1/16" Taper Seal
AF2	AM2	1/8" Taper Seal
AF4	AM4	1/4" Taper Seal
AF6	AM6	3/8" Taper Seal
LF4	LM4	1/4" Medium Pressure
LF6	LM6	3/8" Medium Pressure
LF9	LM9	9/16" Medium Pressure
LF12	LM12	3/4" Medium Pressure
LF16	LM16	1" Medium Pressure
HF2	HM2	1/8" High Pressure
HF4	HM4	1/4" High Pressure
HF6	HM6	3/8" High Pressure
HF9	HM9	9/16" High Pressure
HF16	HM16	1" High Pressure
XF4	XM4	1/4" Ultra High Pressure
XF6	XM6	3/8" Ultra High Pressure
NFA	NMA	1/8" NPT Pipe
NFB	NMB	1/4" NPT Pipe
NFC	NMC	3/8" NPT Pipe
NFD	NMD	1/2" NPT Pipe
NFF	NMF	3/4" NPT Pipe
NFH	NMH	1" NPT Pipe
—	HA9	9/16" Hose
—	HA12	3/4" Hose
—	HA16	1" Hose
—	HA21	1 5/16" Hose

Options

- V = Micro Control Metering Assembly (See page 6.5)
- HT = High Temperature Stem Extension (Up to 1,000° F) (See page 6.4)
- SGS = Sour Gas (H₂S) Service
- N/O = Normally Open
- N/C = Normally Closed
- K = With Antivibration Collars and Glands
- REG = Regulating Tip
- TSR8 = Ball Valve Actuator
- TDA8 = Ball Valve Actuator Double Acting
- W/O = Without Collars and Glands
- LT = Low Temperature Stem Extension (to -320°F)
- MPO-NO = Medium Duty Piston Operator Normally Open
- MPO-NC = Medium Duty Piston Operator Normally Closed
- HPO-NO = Heavy Duty Piston Operator Normally Open
- HPO-NC = Heavy Duty Piston Operator Normally Closed
- EHPO-NO = Extra Heavy Piston Operator Normally Open
- EHPO-NC = Extra Heavy Piston Operator Normally Closed

How to Order Valves and Fittings

Simply indicate catalog number and specify option or special requirement.

Examples:

30-11HF4 = 30,000 psi Straight Valve for 1/4" O.D. tubing

60-23HF4 = 60,000 psi Tee for 1/4" O.D. tubing

15-21AF2 = 15,000 psi Straight Coupling for 1/8" O.D. tubing, Taper Seal connections

15-21AF2NMB = 15,000 psi Adapter with one end 1/8" O.D. Female Taper Seal and opposite end Male 1/4" NPT Pipe

30-11HF6-HT = 30,000 psi Straight Valve for 3/8" O.D. tubing with High Temperature Extension

"HIPCO" 10-12NFB (N/C) = 10,000 psi Angle Valve for 1/4" NPT Pipe with "Hipco" Air Operator, Normally Closed

"HIPPO" 15-11A4F (N/C) = 10,000 psi Angle Valve for 1/4" Taper Seal with "Hippo" Piston Operator, Normally Closed

60-21HF4 (Hastelloy C-276) = 60,000 psi Straight Coupling for 1/4" O.D. tubing, made from Hastelloy C-276 material



Warranty

High Pressure Equipment Company warrants the products which it manufactures to be free from defects in material and workmanship which would impair their intended usefulness. This warranty is for a period of one year after the date of shipment. Warranty is limited to the repair or replacement of any item manufactured by High Pressure Equipment Company. High Pressure Equipment Company shall not be liable for any direct or indirect consequential damage arising from a failure or malfunction of the equipment. This warranty further excludes damage, failure or malfunction which is caused by corrosion or erosion common to the material supplied.

Terms: Net 30 for qualified accounts

FOB: Erie, PA - USA



High Pressure Equipment

Ultra High Pressure Valves, Fittings and Tubing **100,000 and 150,000 psi service**

High Pressure Equipment Company has developed a line of Ultra High Pressure products to assure safe and easy plumbing for 100,000 psi and 150,000 psi. These needle valves, fittings, check valves, tubing and nipples are engineered to the highest standards of repeatable quality. The reliable performance of these products has made HiP one of the world's leading suppliers of elevated pressure components.

Ultra High Pressure components use a coned-and-threaded connection which accommodates the extreme conditions found in these applications. Ultra High Pressure valves are available in $\frac{1}{4}$ " and $\frac{3}{8}$ " O.D. tubing sizes and four patterns to satisfy widely varied requirements. A line of fittings is available to facilitate adapting to High Pressure systems.



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High Pressure Equipment

Ultra High Pressure Valves 100,000 psi service

High Pressure (coned and threaded) type connections for $\frac{1}{4}$ " O.D. by $\frac{1}{16}$ " I.D. tubing.

Non-rotating tip stems insure long life on valve seats. Heavy duty "rolled style" stem design is shown below.

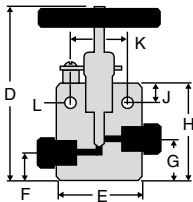
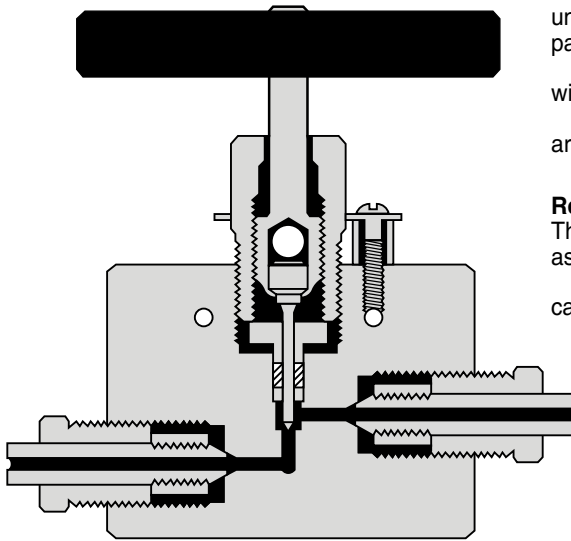
Glands and collars for tubing are supplied with each valve unless otherwise requested (glands and collars are shown on page 5.A).

Materials include 316 stainless steel for valve bodies with tool steel lower section stems. Valve packing is teflon.

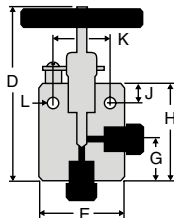
Corresponding fittings (elbows, tees, crosses, etc.) are shown on page 5.4.

Replaceable Seat Valves are available for $\frac{1}{4}$ " O.D. tubing. These valves feature the same body style and body dimensions as the two way angle valves (shown below).

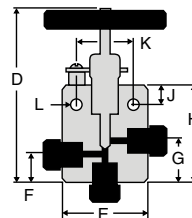
To order add "R" to the corresponding two way valve catalog number (eg. 100-12XF4R).



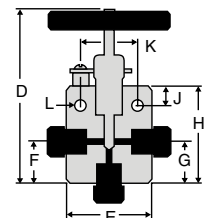
Two Way
Straight



Two Way
Angle



Three Way
Two Inlets



Three Way
One Inlet

Manual Shutoff Valves

Body Pattern	Tubing	Catalog No.	psi	Connection	Orifice	D	E	F	G	H	J	K	L	Thickness
2-Way Straight	$\frac{1}{4}$ " O.D.	100-11XF4	100,000	XF4	$\frac{1}{16}$ "	5"	$2\frac{5}{8}$ "	$\frac{3}{4}$ "	$1\frac{1}{16}$ "	$2\frac{1}{2}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
2-Way Angle	$\frac{1}{4}$ " O.D.	100-12XF4	100,000	XF4	$\frac{1}{16}$ "	$5\frac{1}{4}$ "	$2\frac{5}{8}$ "	—	$1\frac{5}{16}$ "	$2\frac{3}{4}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
3-Way/2 Inlets	$\frac{1}{4}$ " O.D.	100-13XF4	100,000	XF4	$\frac{1}{16}$ "	$5\frac{1}{2}$ "	$2\frac{5}{8}$ "	$1\frac{1}{4}$ "	$1\frac{9}{16}$ "	3"	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
3-Way/1 Inlet	$\frac{1}{4}$ " O.D.	100-14XF4	100,000	XF4	$\frac{1}{16}$ "	$5\frac{1}{4}$ "	$2\frac{5}{8}$ "	$1\frac{5}{16}$ "	$1\frac{5}{16}$ "	$2\frac{3}{4}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "

Ultra High Pressure Valves

150,000 psi service

High Pressure (coned and threaded) type connections for $\frac{3}{8}$ " O.D. by $\frac{1}{16}$ " I.D. tubing.

Non-rotating tip stems insure long life on valve seats. Heavy duty "rolled style" stem design is shown below.

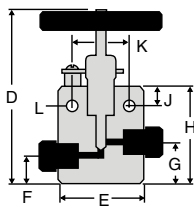
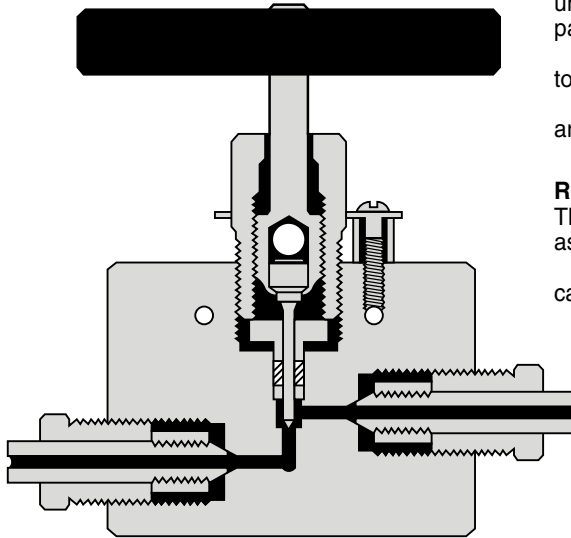
Glands and collars for tubing are supplied with each valve unless otherwise requested (glands and collars are shown on page 5.A).

Materials include 17-4 PH for valve bodies with tool steel lower section stems. Valve packing is teflon.

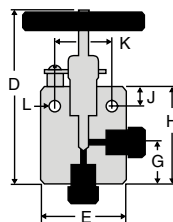
Corresponding fittings (elbows, tees, crosses, etc.) are shown on page 5.4.

Replaceable Seat Valves are available for $\frac{3}{8}$ " O.D. tubing. These valves feature the same body style and dimensions as the two way valves (shown below).

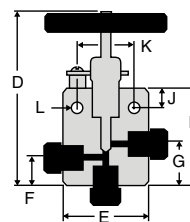
To order add "R" to the corresponding two way valve catalog number (eg. 150-12XF6R).



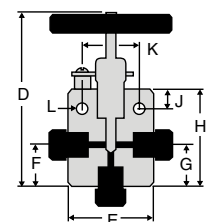
Two Way Straight



Two Way Angle



Three Way Two Inlets



Three Way One Inlet

Manual Shutoff Valves

Body Pattern	Tubing	Catalog No.	psi	Connection	Orifice	D	E	F	G	H	J	K	L	Thickness
2-Way Straight	$\frac{3}{8}$ " O.D.	150-11XF6	150,000	XF6	$\frac{1}{16}$ "	5"	$3\frac{1}{2}$ "	$\frac{7}{8}$ "	$1\frac{3}{16}$ "	$2\frac{5}{8}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
2-Way Angle	$\frac{3}{8}$ " O.D.	150-12XF6	150,000	XF6	$\frac{1}{16}$ "	$5\frac{7}{8}$ "	$3\frac{1}{2}$ "	—	$2\frac{1}{16}$ "	$3\frac{1}{2}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
3-Way/2 Inlets	$\frac{3}{8}$ " O.D.	150-13XF6	150,000	XF6	$\frac{1}{16}$ "	$5\frac{7}{8}$ "	$3\frac{1}{2}$ "	$1\frac{3}{4}$ "	$2\frac{1}{16}$ "	$3\frac{1}{2}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "
3-Way/1 Inlet	$\frac{3}{8}$ " O.D.	150-14XF6	150,000	XF6	$\frac{1}{16}$ "	$5\frac{7}{8}$ "	$3\frac{1}{2}$ "	$2\frac{1}{16}$ "	$2\frac{1}{16}$ "	$3\frac{1}{2}$ "	$\frac{1}{2}$ "	$1\frac{5}{8}$ "	$\frac{7}{32}$ "	$1\frac{1}{2}$ "



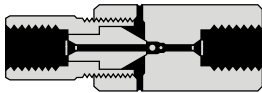
High Pressure Equipment

Fittings/Check Valves

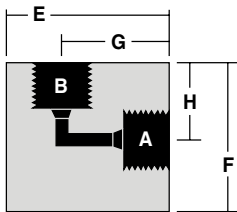
We have developed check valves, elbows, tees and crosses for both the 100,000 and 150,000 psi systems.
 *Material is high tensile 316 stainless steel. Standard tubing glands and collars are furnished unless otherwise specified.

* **Note:** Material for 150,000 psi check valve is 17-4 PH.

Ultra High Pressure Check Valves

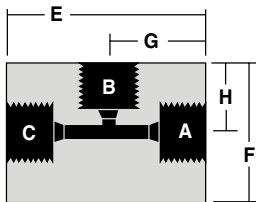


Catalog No.	psi	Connections	Length	Hex
100-41XF4	100,000	1/4" ULTRA PRESSURE	3 ⁹ / ₁₆ "	1 1/2"
150-41XF6	150,000	3/8" ULTRA PRESSURE	4 1/2"	1 1/2"



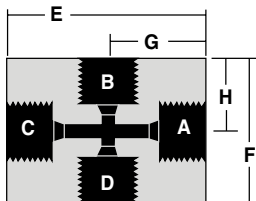
Ultra High Pressure Elbows

Catalog No.	Pressure Rating psi	Connections	A-B-C-D	E	F	G	H	Thickness
100-22XF4	100,000	1/4" O.D. TUBE	XF4	1 ³ / ₄ "	1 ³ / ₄ "	1 ¹ / ₄ "	1 ¹ / ₄ "	1"
150-22XF6	150,000	3/8" O.D. TUBE	XF6	2 ⁵ / ₈ "	2 ⁵ / ₈ "	1 ³ / ₄ "	1 ³ / ₄ "	1 1/2"



Ultra High Pressure Tees

Catalog No.	Pressure Rating psi	Connections	A-B-C-D	E	F	G	H	Thickness
100-23XF4	100,000	1/4" O.D. TUBE	XF4	2 1/2"	1 ³ / ₄ "	1 ¹ / ₄ "	1 ¹ / ₄ "	1"
150-23XF6	150,000	3/8" O.D. TUBE	XF6	3 1/2"	2 ⁵ / ₈ "	1 ³ / ₄ "	1 ³ / ₄ "	1 1/2"



Ultra High Pressure Crosses

Catalog No.	Pressure Rating psi	Connections	A-B-C-D	E	F	G	H	Thickness
100-24XF4	100,000	1/4" O.D. TUBE	XF4	2 1/2"	2 1/2"	1 ¹ / ₄ "	1 ¹ / ₄ "	1"
150-24XF6	150,000	3/8" O.D. TUBE	XF6	3 1/2"	3 1/2"	1 ³ / ₄ "	1 ³ / ₄ "	1 1/2"



Ultra High Pressure Tubing

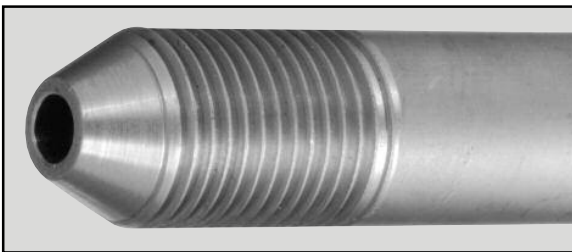
Tubing is cold drawn, seamless, and is supplied in the $\frac{1}{8}$ hard condition (not annealed). Tensile strength is approximately 40 percent higher than that of annealed tubing. All tubing is manufactured in strict accordance with High Pressure Equipment Company specifications to insure tolerances and bore quality. Tubing is stocked in lengths of 18 to 22 feet but may be ordered in shorter lengths with **no additional cutting charge**.



	Tubing Size	Working Pressure psi	Type of Connection Used	Material	Catalog Order Number
$\frac{1}{4}$"	$\frac{1}{4}$ " O.D. x $\frac{1}{16}$ " I.D.	100,000	$\frac{1}{4}$ " ULTRA HIGH PRESSURE (XF4)	316 SS	100-9X4-316
				304 SS	100-9X4-304
$\frac{3}{8}$"	$\frac{3}{8}$ " O.D. x $\frac{1}{16}$ " I.D.	150,000	$\frac{3}{8}$ " ULTRA HIGH PRESSURE (XF6)	304 SS	150-9X6

Nipples

Nipples in lengths other than those shown are supplied upon request. Nipples are not furnished with collars and glands, unless specified at time of order.



Coned and Threaded Nipples

Length ↓	Tubing Size (O.D. x I.D.)		
	$\frac{1}{4}$ " O.D. x $\frac{1}{16}$ " I.D. (316 SS)	$\frac{1}{4}$ " O.D. x $\frac{1}{16}$ " I.D. (304 SS)	$\frac{3}{8}$ " O.D. x $\frac{1}{16}$ " I.D. (304 SS)
psi →	100,000 psi	100,000 psi	150,000 psi
$2\frac{3}{4}$"	100-XM4-2.75	100-XM4-2.75	
4"			150-XM6-4
6"	100-XM4-6	100-XM4-6	150-XM6-6
8"	100-XM4-8	100-XM4-8	150-XM6-8
10"	100-XM4-10	100-XM4-10	150-XM6-10
12"	100-XM4-12	100-XM4-12	150-XM6-12



High Pressure Equipment

Ultra High Pressure Connections

(Coned and Threaded)
100,000 and 150,000 psi service

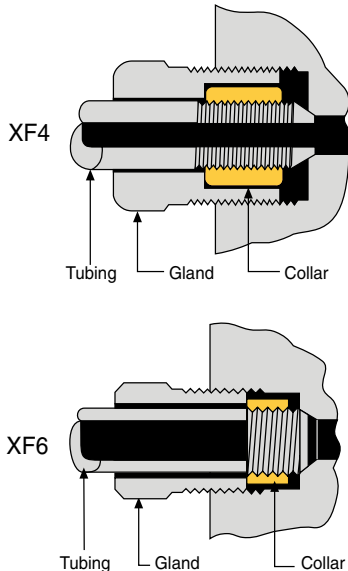
The Ultra High Pressure tubing connection is available for 1/4" and 3/8" O.D. tubing. The tubing may be prepared with the use of tooling (see tooling section 9.0) or prepared at the factory to specified lengths. Additionally, standard length coned and threaded nipples are available from stock, see page 5.5.

This connection has become an industry standard for use at elevated pressures and temperatures in both liquid and gas applications. It may be disassembled and retightened indefinitely.

The threads of the gland are right-hand while the threads of the collar and tubing are left-hand to prevent rotation of the collar during assembly.

Materials. All of the components required for make-up of a Ultra High Pressure connection (glands, collars and plugs) are produced in Type 316 stainless steel.

Necessary glands and collars are provided with all valves and fittings (except nipples) unless otherwise requested (see chart on the right for size details and catalog numbers).



100,000 psi XF4 1/4" O.D. Tubing	150,000 psi XF6 3/8" O.D. Tubing
Female Opening Detail 	
Gland 	
Collar 	
Plug 	
Tube End Prep 	



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