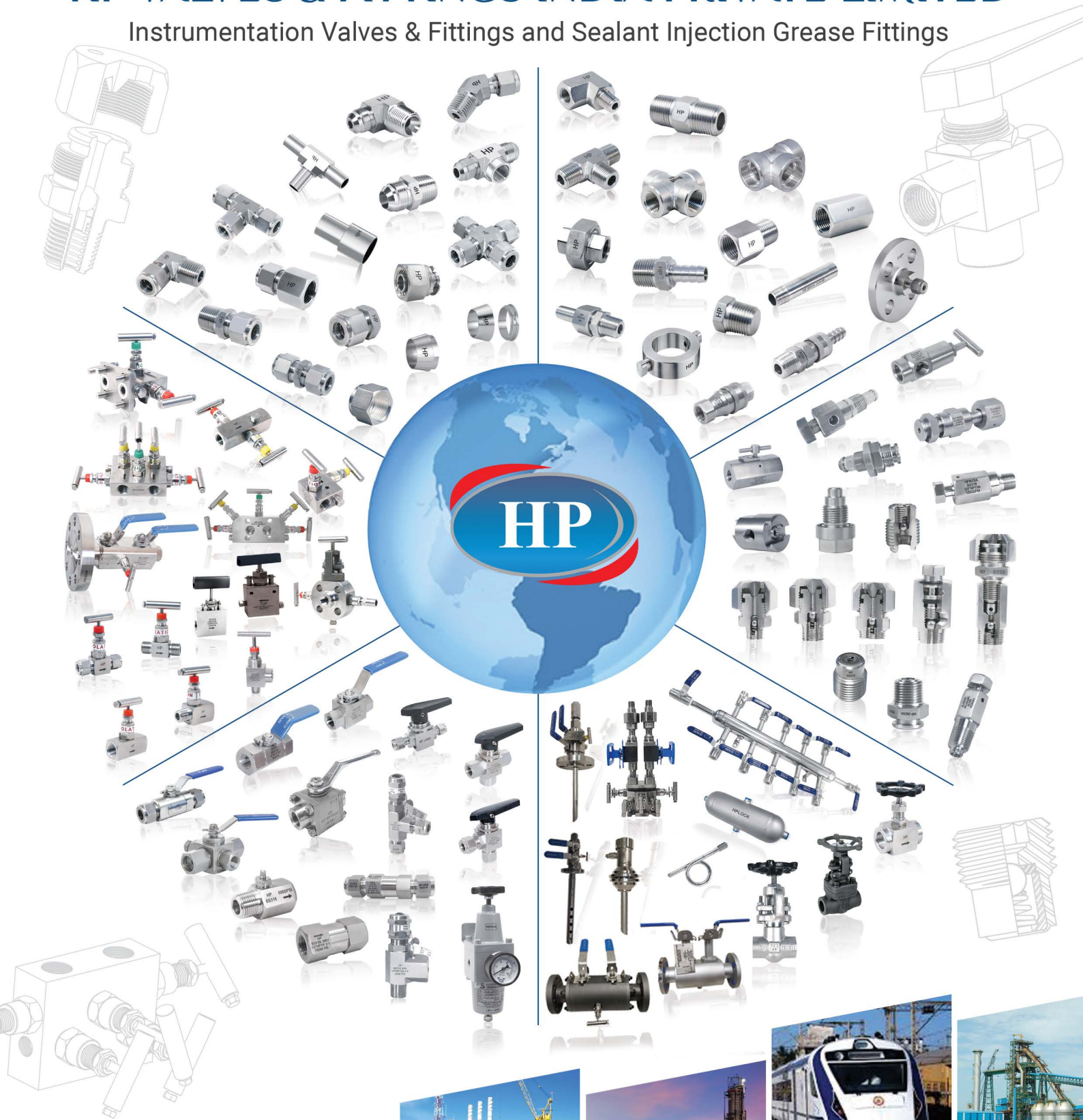


# HP VALVES & FITTINGS INDIA PRIVATE LIMITED

Instrumentation Valves & Fittings and Sealant Injection Grease Fittings



INTEGRATED MANAGEMENT SYSTEM  
ISO 9001:2015 ISO 14001:2015 ISO 45001:2018  
AN IMS CERTIFIED COMPANY

IRIS Certification

## ABOUT US

HP VALVES & FITTINGS INDIA PRIVATE LIMITED, was established in the year of 2000, We are Integrated Management System (IMS) Certified Company (ISO 9001:2015, ISO 14001:2015, ISO 45001:2018) for the scope of Design, Manufacture, Testing and Supply of Instrumentation Valves & Fittings i.e. Tube Compression Fittings, Threaded & Welded Pipe Fittings, Sealant Injection Grease Fittings, Instrument Valve Manifolds, Needle Valves, Ball Valves, DBB Valves, Check Valves, Globe Valves, Gate Valves, Relief Valves, Air Filter Regulators, Pressure Regulators, Air Headers, Condensate Pot, Injection Quills, Syphon, Instrument Hook - Ups and Custom Build/Specialized Engineering Components

**Mr. S. Harichandran** – Managing Director, founder of this business with an aim to become a leader in this Field of Instrumentation System Solutions. He has wide experience of 25 years in this field. With his sharp business acumen and constant efforts, he has earned a reputation for his business. Our aims towards achieving the highest level of business efficiency with integrity and honesty in order to create benchmark globally in quality of valves and fittings industry.

**Our Brand Name : HPLOK / HP / HP INDIA / HP VALVES / HP VALVES & FITTINGS**

## FACILITIES

To ensure the timely and efficient accessibility of premium quality products, we have established with

- Latest Modern Machineries.
- Modern Inspection Equipments.
- 8 Axis Multi Axis Machining Centre
- In-House Research & Development Centre
- Latest Design Applications
- In-House state of the art lab facility
- Industry 4.0 Shop Floor Digitization
- In-House Sophisticated Testing Facilities like low emission, Vacuum Test, Cryogenic Test, High Pressure Hydro & High Pressure Gas Test

## INTERNATIONAL CODES & STANDARDS

We are following below latest codes & standards for Design & Materials,

### FOR DESIGN



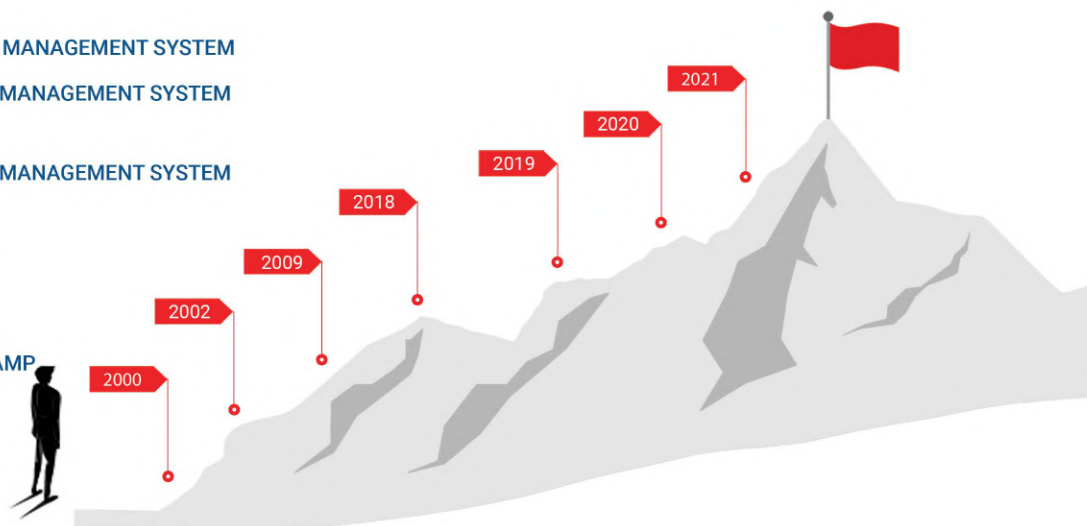
### FOR MATERIAL



## CONTINUOUS IMPROVEMENT

Since 2000 HP has capitalized of the importance of continuous improvement and introduced the concept of lean Manufacturing within the company. Under the leadership and guidance of our senior management who have encouraged everyone in HP to participate in all Kaizen events, this has proved to be a great success. HP is continually improving their technical capabilities, product quality and lead time by learning from these events and practices.

- 2000 • FOUNDATION
- 2002 • ISO 9001 : 2000 - QUALITY MANAGEMENT SYSTEM
- 2009 • ISO 9001 : 2008 - QUALITY MANAGEMENT SYSTEM
- 2012 • IBR APPROVAL
- 2018 • ISO 9001 : 2015 - QUALITY MANAGEMENT SYSTEM
- 2019 • ISO 14001 : 2015 - EMS
- 2019 • ISO 45001 : 2018 - OHSAS
- 2020 • IRIS - ISO/TS:22163-2017
- 2021 • ASME 'U' DESIGNATOR
- 2021 • NATIONAL BOARD 'NB' STAMP





## TUBE FITTINGS INSTALLATION PROCEDURE

In installations that may require occasional disassembly or partial removal for maintenance purpose, Ferrule fittings plays key functional role here. As these joints can be broken and remade without affecting the integrity of the joint.

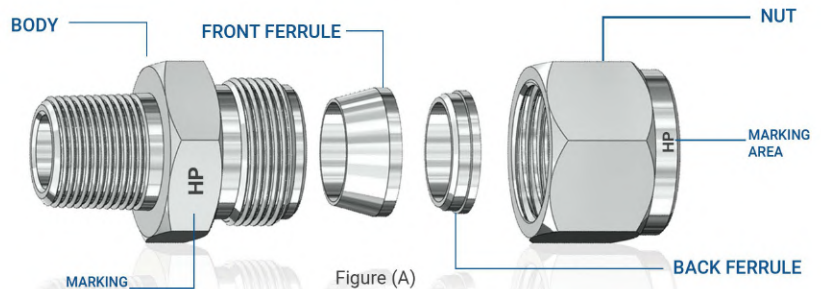
As the ferrule(s) moves axially into the fitting body, the body's angled shape radially compresses the end of the ferrule onto the outer diameter of the tubing. It is this radial compression that creates the leak tight seal between the fitting, ferrule and tubing.

### TECHNICAL STANDARDS

The following two standards applicable for Single Compression Fittings, can also be used for Double Compression Fittings,

- (a). BS 4368; Part IV, 1984
- (b). IS 10103: 1982;

as because there is no separate standard for Double Ferrules Compression.



In the above fig.(A) we have Body, Front Ferrule, Back Ferrule & Nut to show the assembly the tube, nut & ferrules into the body of the fitting and hold the fitting in a rigid vice then tighten the nut upto hand tight as per fig.(C) to fig.(F)

- A. Mark 6'o clock position on the nut using a marker
- B. Using a wrench tighten the nut as described in the fig.(B)
- C. If the nut is overtightened the ferrule will deform improperly causing the joint to fail (so tighten the nut as per the given parameters)

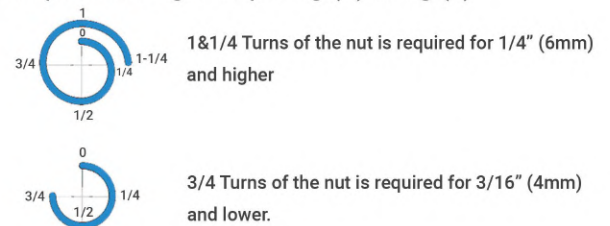


Figure (B)

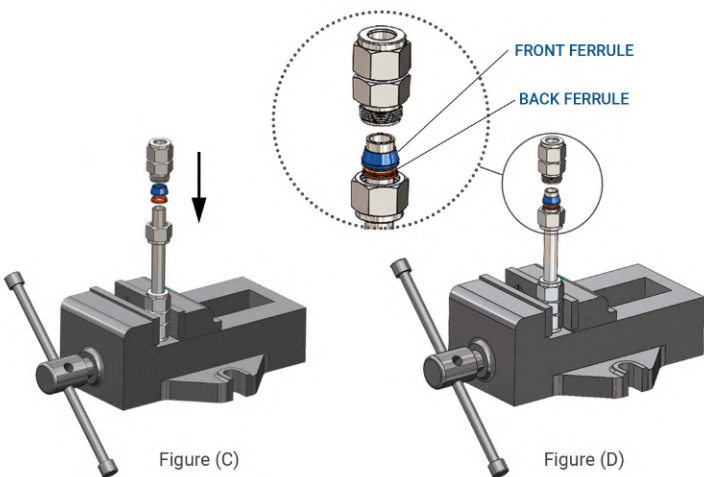
### DISASSEMBLY & REASSEMBLY

The ease of assembly and disassembly is one of the reasons why compression fittings are so widely used. Disassembly involves simply loosening the compression nut. Reassembly can be accomplished in a similar manner to the initial assembly, although typically fewer turns of the nut are required, since the ferrule is already swaged to the tubing.

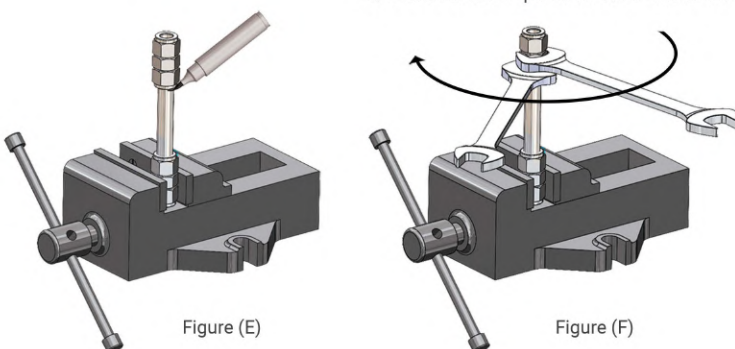
### TUBE SELECTION

Tube OD & wall thickness should be as given in ASTM A269/213 standard. Tube End should be squarely cut, to allow the tubing to sit symmetrically in the fitting body & remove burr using burr tool Fig.(G). Hardness of tube should not be more than Rockwell HRB 90 for SS316 MOC for other MOC contact to HP Valves.

Note : The hardness & the required fittings varies with respect to change in MOC & its hardness of tube.



1-1/4 Turns of nut required for 1/4" and higher  
3/4 Turns of nut required for 3/16" and lower



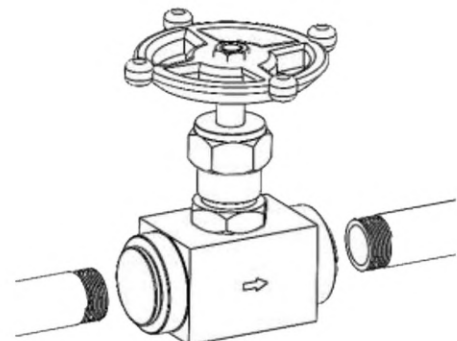
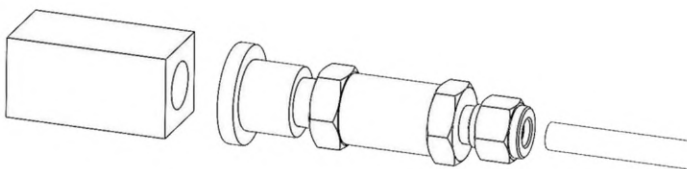
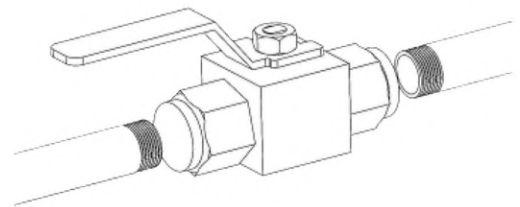
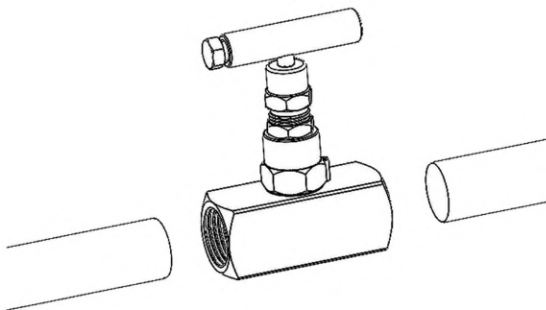
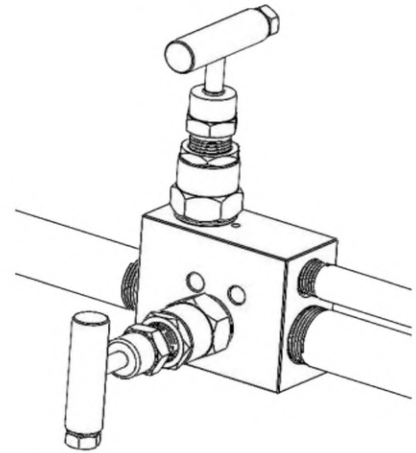
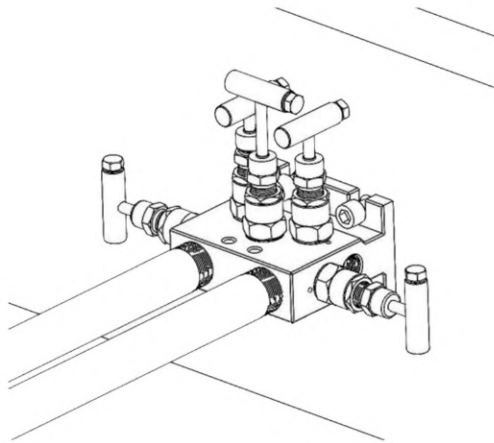
## VALVES INSTALLATION PROCEDURE

### THE FOLLOWING POINTS MUST BE OBSERVED BEFORE INSTALLATION:

- Pipe must be strong enough safely bear the valve and its accessories. Pipework must be cleaned before installation.
- There must be sufficient clearance above and to the side of the valve and/or attachments to permit maintenance, inspection or repair work without any risk.
- Extension and attachments that used for heat removal or heating must be insulated.

### THE FOLLOWING POINTS MUST BE OBSERVED DURING INSTALLATION:

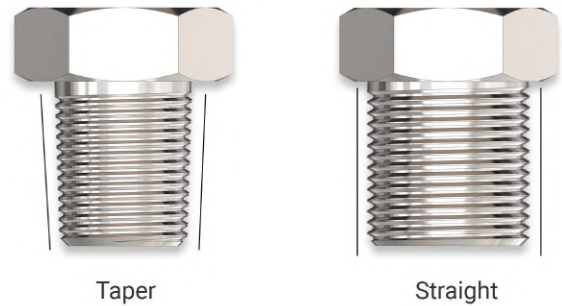
- Remove the protective caps.
- Clean the pipework end, connection-sealing surfaces.
- Tighten the pipe in clockwise direction.



## PIPE FITTINGS INSTALLATION PROCEDURE

### PIPE

Pipe, is a hollow elongated metallic structure used to carry fluids. Wall thickness of pipe is designated by a Schedule Number. The greater the wall thickness, the higher the schedule number and the higher the pressure rating of the pipe. The most common method of joining pipe with threads. There are in general only two primary types of thread, Straight Thread and Taper Thread

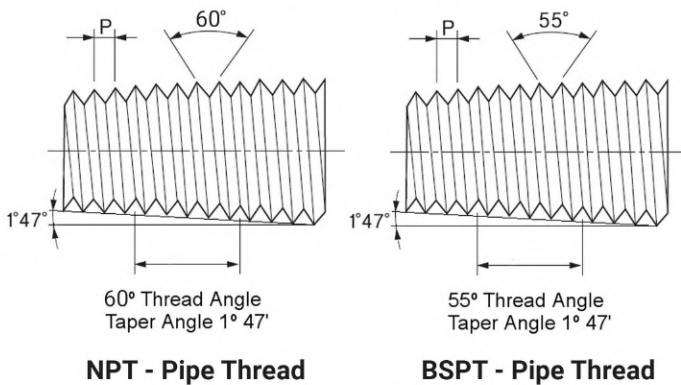


Taper

Straight

### IDENTIFYING THREAD

#### ISO 7-1 Tapered Pipe Thread



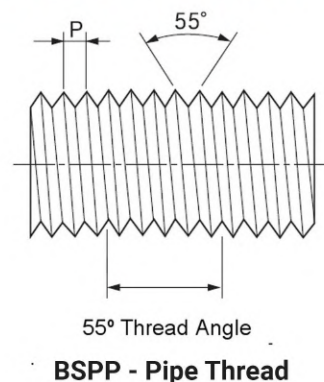
#### TAPERED THREAD

Tapered threads are the most common type of thread used in Pipe Fittings and Tube Fittings. As the name implies, they have a slight taper. When mated together and tightened, the threads compress and may form a seal with the application of thread sealant. The most widely used pipe taper threads are NPT and BSPT.

#### STRAIGHT THREAD

Straight Threads are used for joining purpose only. Sealing is accomplished by means of a gasket or O-Ring. As the name implies, they are Straight or parallel. The most widely used pipe parallel threads are BSPP, Metric and UNF.

#### ISO 228-1 Parallel Pipe Thread



#### PROCEDURE OF THREAD IDENTIFICATION

- A. Determine if the thread is tapered or straight (parallel).
- B. Measure the thread diameter and thread pitch
- C. Determine the thread standard
- D. Identify the end connection

Threads can be inspected by using thread gauges (GO & NOGO), Thread Profile Gauges and Profile Projector. Inspection by using thread gauges (GO & NOGO) is the most simple and effective method of inspection.



# THREAD INSPECTION

Types of Thread Gauges,

- Plug Gauge - For Female Threads
- Ring Gauge - For Male Threads

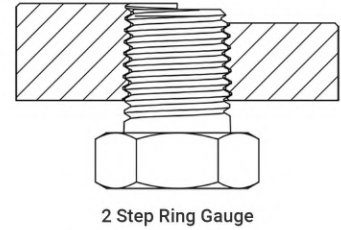
## INSPECTION OF TAPER THREAD

### FOR 2 STEP GAUGE

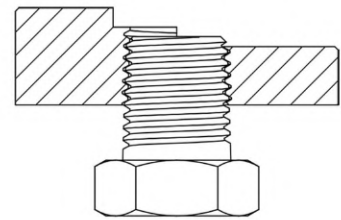
The Taper Thread can be inspected using 2 step & 3 step gauges. The initial thread level should be between the first and last step of the gauge.

### FOR 3 STEP GAUGE

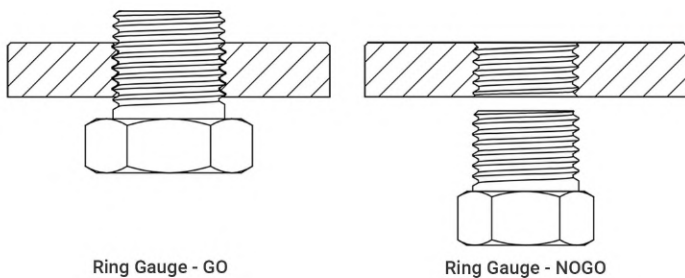
The Initial thread level should be in line with the middle step of the gauge which is the nominal position.



2 Step Ring Gauge



3 Step Ring Gauge



Ring Gauge - GO

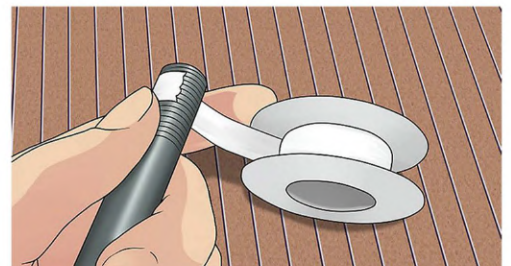
Ring Gauge - NOGO

## INSPECTION OF STRAIGHT THREAD

There are separate GO and NO-GO Gauges. To inspect straight thread check using both GO and NO-GO Gauges. GO Gauge should mate fully and the NO-GO Gauge should not answer beyond one turn.

## SEALING FOR TAPER THREAD

A sealant/lubricant is highly recommended. First, it enhances sealing by filling any gaps in the threads. Second, it reduces the potential for galling or seizing if the threads are forced together by over-tightening. If galling occurs, the threads are damaged and may not seal. This damage also prevents disassembly and reassembly. Recommended sealant/lubricants are graphite impregnated Teflon tape.



If using tape, wrap the tape in the thread direction so it does not come unwrapped during installation. Ensure, at a minimum, one complete wrap of the tape around the thread. Be sure the tapes does not overhang the first thread otherwise the tape could deteriorate and contaminate the fluid system.

# TUBE FITTINGS - DOUBLE FERRULES TYPE

Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS / PTFE

**Size** : 1/8" to 2" ; 3mm to 50mm OD

**End Connections** : NPT / BSP / BSPT / UNF / METRIC / SW / Plain

**Pressure Rating** : Upto 9000 psi

<p><b>MALE CONNECTOR</b></p>  <p>HPTDFMC</p>	<p><b>FEMALE CONNECTOR</b></p>  <p>HPTDFFC</p>	<p><b>BULKHEAD MALE CONN.</b></p>  <p>HPTDFMBH</p>	<p><b>BULKHEAD FEMALE CONN.</b></p>  <p>HPTDFFBH</p>
<p><b>EQUAL UNION</b></p>  <p>HPTDFEU</p>	<p><b>UNEQUAL UNION (REDUCING)</b></p>  <p>HPTDFRU</p>	<p><b>BULKHEAD UNION</b></p>  <p>HPTDFBHU</p>	<p><b>EQUAL UNION CROSS</b></p>  <p>HPTDFEUC</p>
<p><b>MALE ELBOW</b></p>  <p>HPTDFME</p>	<p><b>FEMALE ELBOW</b></p>  <p>HPTDFFE</p>	<p><b>UNION ELBOW</b></p>  <p>HPTDFUE</p>	<p><b>BULKHEAD UNION ELBOW</b></p>  <p>HPTDFBUE</p>
<p><b>45° MALE ELBOW</b></p>  <p>HPTDF45ME</p>	<p><b>45° FEMALE ELBOW</b></p>  <p>HPTDF45FE</p>	<p><b>45° UNION ELBOW</b></p>  <p>HPTDF45UE</p>	<p><b>45° BULKHEAD UNION ELBOW</b></p>  <p>HPTDF45BUE</p>
<p><b>EQUAL TEE</b></p>  <p>HPTDFET</p>	<p><b>UN EQUAL TEE</b></p>  <p>HPTDFUET</p>	<p><b>MALE BRANCH TEE</b></p>  <p>HPTDFMBT</p>	<p><b>FEMALE BRANCH TEE</b></p>  <p>HPTDFFBT</p>
<p><b>MALE RUN TEE</b></p>  <p>HPTDFMRT</p>	<p><b>FEMALE RUN TEE</b></p>  <p>HPTDFFRT</p>	<p><b>MALE ADAPTOR</b></p>  <p>HPTDFMA</p>	<p><b>FEMALE ADAPTOR</b></p>  <p>HPTDFFA</p>
<p><b>TUBE ADAPTOR</b></p>  <p>HPTDFAD</p>	<p><b>PLAIN CONNECTOR</b></p>  <p>HPTDFPC</p>	<p><b>TUBE CAP</b></p>  <p>HPTDFCA</p>	<p><b>TUBE PLUG</b></p>  <p>HPTDFPL</p>
<p><b>DIELECTRIC UNION</b></p>  <p>HPTDFDEU</p>	<p><b>NUT</b></p>  <p>HPTDFN</p>	<p><b>DOUBLE FERRULES</b></p>  <p>HPTDFFF &amp; HPTDFBF</p>	



# TUBE FITTINGS - SINGLE FERRULE TYPE

Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS / PTFE

**Size** : 1/8" to 2" ; 3mm to 50mm OD

**End Connections** : NPT / BSP / BSPT / UNF / METRIC / SW / Plain

**Pressure Rating** : Upto 9000 psi

<p><b>MALE CONNECTOR</b></p>  <p>HPTSFMC</p>	<p><b>FEMALE CONNECTOR</b></p>  <p>HPTSFFC</p>	<p><b>BULKHEAD MALE CONN.</b></p>  <p>HPTSFMBH</p>	<p><b>BULKHEAD FEMALE CONN.</b></p>  <p>HPTSFFBH</p>
<p><b>EQUAL UNION</b></p>  <p>HPTSFEU</p>	<p><b>UNEQUAL UNION (REDUCING)</b></p>  <p>HPTSFRU</p>	<p><b>BULKHEAD UNION</b></p>  <p>HPTSFBHU</p>	<p><b>EQUAL UNION CROSS</b></p>  <p>HPTSFEUC</p>
<p><b>MALE ELBOW</b></p>  <p>HPTSFME</p>	<p><b>FEMALE ELBOW</b></p>  <p>HPTSFFE</p>	<p><b>UNION ELBOW</b></p>  <p>HPTSFUE</p>	<p><b>BULKHEAD UNION ELBOW</b></p>  <p>HPTSFBUE</p>
<p><b>45° MALE ELBOW</b></p>  <p>HPTSF45ME</p>	<p><b>45° FEMALE ELBOW</b></p>  <p>HPTSF45FE</p>	<p><b>45° UNION ELBOW</b></p>  <p>HPTSF45UE</p>	<p><b>45° BULKHEAD UNION ELBOW</b></p>  <p>HPTSF45BUE</p>
<p><b>EQUAL TEE</b></p>  <p>HPTSFET</p>	<p><b>UN EQUAL TEE</b></p>  <p>HPTSFUET</p>	<p><b>MALE BRANCH TEE</b></p>  <p>HPTSFMBT</p>	<p><b>FEMALE BRANCH TEE</b></p>  <p>HPTSFFBT</p>
<p><b>MALE RUN TEE</b></p>  <p>HPTSFMRT</p>	<p><b>FEMALE RUN TEE</b></p>  <p>HPTSFFRT</p>	<p><b>MALE ADAPTOR</b></p>  <p>HPTSFMA</p>	<p><b>FEMALE ADAPTOR</b></p>  <p>HPTSFFA</p>
<p><b>TUBE ADAPTOR</b></p>  <p>HPTSFAD</p>	<p><b>PLAIN CONNECTOR</b></p>  <p>HPTSFPC</p>	<p><b>TUBE CAP</b></p>  <p>HPTSFCA</p>	<p><b>TUBE PLUG</b></p>  <p>HPTSFPL</p>
<p><b>DIELECTRIC UNION</b></p>  <p>HPTSFDEU</p>	<p><b>NUT</b></p>  <p>HPTSFN</p>	<p><b>SINGLE FERRULE</b></p>  <p>HPTSF</p>	

# FLARE END FITTINGS

Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS / PTFE

**Size** : 1/8" to 2"

**End Connections** : NPT / BSP / BSPT / UNF / METRIC

**Pressure Rating** : Upto 10000 psi



# ORBITAL WELD FITTINGS

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/8" to 2"

**End Connections** : BW & SW

**Pressure Rating** : Upto 10000 psi



# ERMETO FITTINGS

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**End Connections** : NPT / BSP / BSPT / SW

**Size** : 1/8" NB OD to 2" NB OD & 6mm OD to 50mm OD & 1/8" to 2" Threaded

**Pressure Rating** : Upto 10000 psi



# VCO FITTINGS

Technical Information

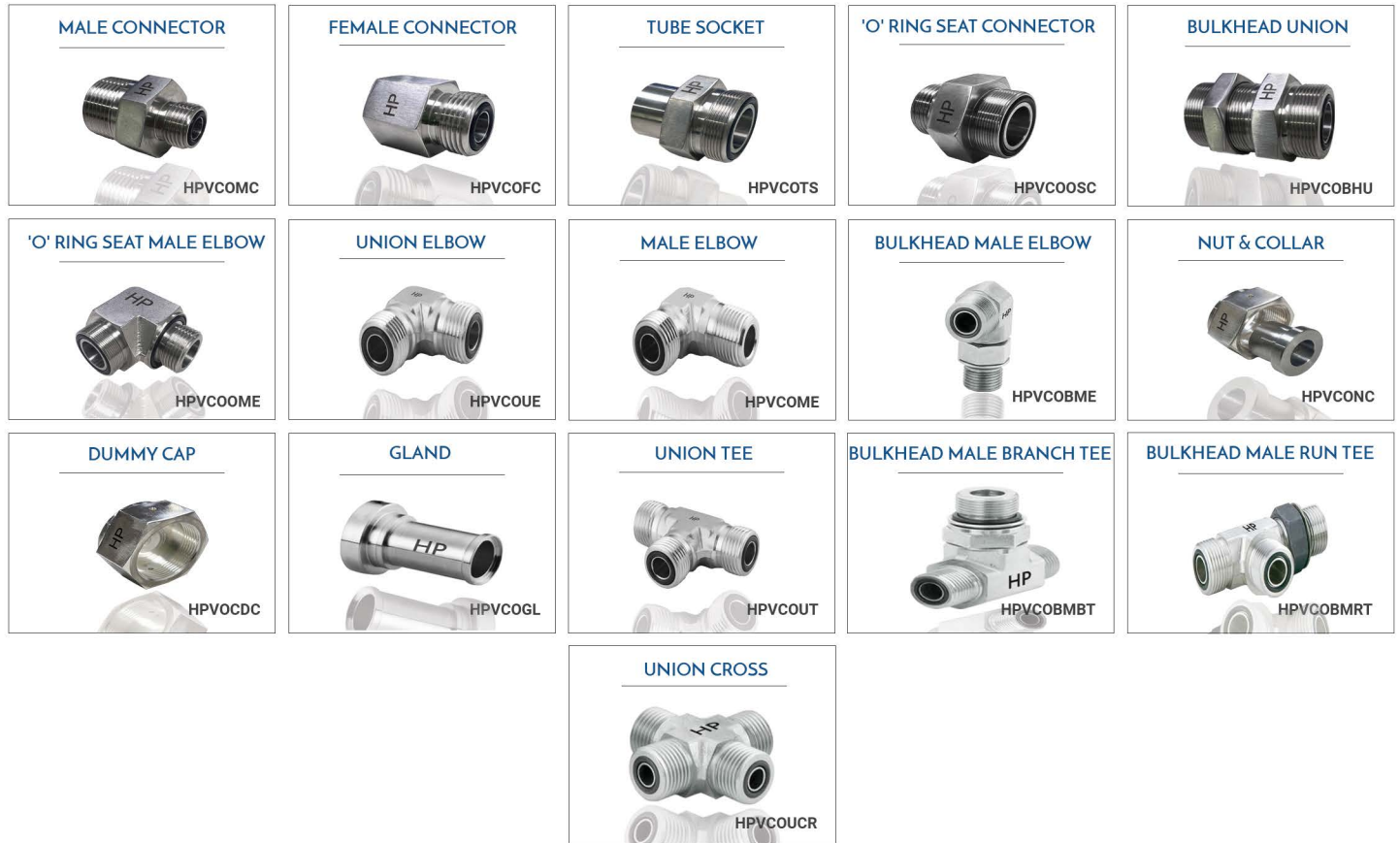


**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/8" to 2"

**End Connections** : NPT / BSP / BSPT / UNF / METRIC / BW / SW

**Pressure Rating** : Upto 10000 psi



# VCR FITTINGS

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/8" to 2"

**End Connections** : NPT / BSP / BSPT / UNF / METRIC / BW / SW

**Pressure Rating** : Upto 10000 psi



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS / PTFE

**End Connections** : NPT / BSP / BSPT / METRIC / SW / BW

**Size** : 1/8" to 2"

**Pressure Rating** : Upto 9000 psi

**NOTE** : All Fittings are available in both Round and Hex as per standard ASME B16.11

<p><b>MALE TEE</b></p> <p>HPPMT</p>	<p><b>MALE RUN TEE</b></p> <p>HPPMRT</p>	<p><b>FEMALE RUN TEE</b></p> <p>HPPFRT</p>	<p><b>MALE BRANCH TEE</b></p> <p>HPPMBT</p>	<p><b>FEMALE BRANCH TEE</b></p> <p>HPPFBT</p>
<p><b>HEX-TH</b></p> <p>HPPFTH</p>	<p><b>FEMALE TEE</b></p> <p><b>ROUND-TH</b></p> <p>HPPFTR</p>	<p><b>ROUND-SW</b></p> <p>HPPFTR</p>	<p><b>MALE ELBOW</b></p> <p>HPPME</p>	<p><b>45° MALE ELBOW</b></p> <p>HPP45ME</p>
<p><b>90° FEMALE ELBOW</b></p> <p>HPPFEH</p>	<p><b>90° FEMALE ELBOW</b></p> <p>HPPFER</p>	<p><b>45° FEMALE ELBOW</b></p> <p>HPP45FE</p>	<p><b>90° STREET ELBOW</b></p> <p>HPPSE</p>	<p><b>45° STREET ELBOW</b></p> <p>HPP45SE</p>
<p><b>FEMALE CROSS</b></p> <p><b>HEX-TH</b></p> <p>HPPCRFH</p>	<p><b>FEMALE CROSS</b></p> <p><b>ROUND-TH</b></p> <p>HPPCRFR</p>	<p><b>PIPE PLUG</b></p> <p>HPPPL</p>	<p><b>PIPE CAP</b></p> <p>HPPCA</p>	<p><b>BREATHER</b></p> <p>HPPBR</p>
<p><b>FULL COUPLING</b></p> <p><b>HEX-TH</b></p> <p>HPPFCOH</p>	<p><b>FULL COUPLING</b></p> <p><b>ROUND-TH</b></p> <p>HPPFCOR</p>	<p><b>FULL COUPLING</b></p> <p><b>ROUND-SW</b></p> <p>HPPFCOR</p>	<p><b>HALF COUPLING</b></p> <p><b>ROUND-TH</b></p> <p>HPPHCOR</p>	<p><b>HALF COUPLING</b></p> <p><b>ROUND-SW</b></p> <p>HPPHCOR</p>
<p><b>REDUCING COUPLING</b></p> <p>HPPRCO</p>	<p><b>REDUCING BUSHING</b></p> <p>HPPRB</p>	<p><b>PIPE UNION 3PC</b></p> <p><b>HEX-TH</b></p> <p>HPP3PUH</p>	<p><b>PIPE UNION 3PC</b></p> <p><b>ROUND-SW</b></p> <p>HPP3PUR</p>	<p><b>BULKHEAD UNION</b></p> <p><b>HEX-SW</b></p> <p>HPPBHUH</p>
<p><b>BULKHEAD UNION</b></p> <p><b>ROUND-TH</b></p> <p>HPPBHUR</p>	<p><b>HEX NIPPLE</b></p> <p>HPPHN</p>	<p><b>PIPE NIPPLE PL X TH</b></p> <p>HPPNPNT</p>	<p><b>PIPE NIPPLE PL X PL</b></p> <p>HPPNPNP</p>	<p><b>PIPE NIPPLE TH X TH</b></p> <p>HPPNNT</p>
<p><b>REDUCER SWAGE NIPPLE</b></p> <p><b>ROUND-BW</b></p> <p>HPPRSNP</p>	<p><b>REDUCER SWAGE NIPPLE</b></p> <p><b>ROUND-TH</b></p> <p>HPPRSNT</p>	<p><b>MALE ADAPTOR (REDUCER)</b></p> <p>HPPMA</p>	<p><b>FEMALE ADAPTOR (REDUCER)</b></p> <p>HPPFA</p>	<p><b>WELDABLE MALE CONNECTOR</b></p> <p>HPPWMC</p>
<p><b>NUT &amp; TAIL ADAPTOR(MALE)</b></p> <p>HPPMNTA</p>	<p><b>NUT &amp; TAIL ADAPTOR(FEMALE)</b></p> <p>HPPFNTA</p>			

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/8" to 2"

**End Connections** : NPT / BSP / BSPT / UNF / METRIC / TAPER SEAL

**Pressure Rating** : Upto 60000 psi

<p><b>HP ADAPTOR MALE TAPER SEAL</b></p>  <p>HPHPA101</p>	<p><b>HP ADAPTOR FEMALE TAPER SEAL</b></p>  <p>HPHPA102</p>	<p><b>HP ADAPTOR MALE TAPER SEAL TO HOSE</b></p>  <p>HPHPA103</p>	<p><b>HP PLUG MALE TAPER SEAL</b></p>  <p>HPHPA104</p>
<p><b>MP ADAPTOR MALE TAPER SEAL TO HOSE</b></p>  <p>HPMPA101</p>	<p><b>MP ADAPTOR MALE TAPER SEAL TO FEMALE</b></p>  <p>HPMPA102</p>	<p><b>MP ADAPTOR MALE TO MALE TAPER SEAL</b></p>  <p>HPMPA103</p>	<p><b>MP ADAPTOR MALE TAPER SEAL TO HOSE</b></p>  <p>HPMPA104</p>
<p><b>MP ADAPTOR MALE TO HOSE MALE</b></p>  <p>HPMPA105</p>	<p><b>HP ADAPTOR HOSE TO HOSE MALE</b></p>  <p>HPHPA105</p>	<p><b>HP BLEED VALVE</b></p>  <p>HPHPBV</p>	<p><b>CONED NIPPLE</b></p>  <p>HPHPCN</p>
<p><b>GLAND</b></p>  <p>HPMPGL</p>	<p><b>COLLAR</b></p>  <p>HPMPCL</p>	<p><b>MP PLUG</b></p>  <p>HPMPPL</p>	<p><b>HP PLUG</b></p>  <p>HPHPPL</p>
<p><b>ELBOW HOCKEY PUCK TYPE</b></p>  <p>HPHOPFE</p>	<p><b>TEE HOCKEY PUCK TYPE</b></p>  <p>HPHOPFT</p>	<p><b>CROSS HOCKEY PUCK TYPE</b></p>  <p>HPHOPFCR</p>	<p><b>ELBOW (BLOCK TYPE)</b></p>  <p>HPBLMFE</p>
<p><b>TEE (BLOCK TYPE)</b></p>  <p>HPBLFT</p>	<p><b>CROSS (BLOCK TYPE)</b></p>  <p>HPBLFCR</p>	<p><b>MP NEEDLE VALVE STRAIGHT TYPE</b></p>  <p>HPMPNV124</p>	<p><b>HP NEEDLE VALVE STRAIGHT TYPE</b></p>  <p>HPHPNV109</p>
<p><b>HP NEEDLE VALVE (WITH GLAND &amp; COLLAR)</b></p>  <p>HPHPNV119</p>	<p><b>MP NEEDLE VALVE ANGLE TYPE</b></p>  <p>HPMPNV125</p>	<p><b>HP NEEDLE VALVE - ANGLE (WITH GLAND &amp; COLLAR)</b></p>  <p>HPHPNV126</p>	<p><b>MP NEEDLE VALVE - M X F STRAIGHT TYPE</b></p>  <p>HPMPNV127</p>
<p><b>HP NEEDLE VALVE STRAIGHT TYPE</b></p>  <p>HPHPNV111</p>	<p><b>HP NEEDLE VALVE (INTEGRAL MOUNTING)</b></p>  <p>HPHPNV114</p>	<p><b>HP CHECK VALVE</b></p>  <p>HPHPCV809</p>	<p><b>HP CHECK VALVE (WITH GLAND &amp; COLLAR)</b></p>  <p>HPHPCV810</p>

# THREDOLET & WELDOLET

Technical Information



- M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM
- Size** : 1/2" to 2"
- End Connections** : NPT / BSP / BSPT / SW
- Pressure Rating** : Upto 9000 psi



## BUTT WELD FITTINGS

Technical Information

- M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL
- Size** : 1/2" to 4"
- End Connections** : BW
- Schedule** : SCH 10 to SCH XXS



## HOSE FITTINGS & QRC

Technical Information

- M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS
- Size** : 1/8" to 2"
- End Connections** : NPT / BSP / BSPT / SW
- Pressure Rating** : Upto 10000 psi



## THERMOWELLS

Technical Information

Thermowells are tubular fittings used to protect temperature sensors installed in industrial processes. A thermowell consists of a tube closed at one end and mounted in the process stream. A temperature sensor such as a thermometer, thermocouple or resistance temperature detector is inserted in the open end of the tube, which is usually in the open air outside the process piping or vessel and any thermal insulation

Available in different materials & sizes with threaded, welded & flanged connections.

- Female End** : 1/2"
- Male End** : 3/4"
- Immersion Length** : Specified by customer

HPTW



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/4" to 2"

**End Connections** : NPT / BSP / BSPT / UNF / METRIC

**Pressure Rating** : Upto 10000 psi

## VENTED BODY GREASE FITTINGS

STANDARD TYPE



HP-BG10

STANDARD TYPE  
(GIANT BUTTON HEAD)



HP-BH10

FREE FLOW TYPE



HP-BG22

FREE FLOW TYPE  
(GIANT BUTTON HEAD)



HP-BH22

## GIANT BUTTON HEAD

SINGLE BALL



HP-GB10

DOUBLE BALL



HP-GB11

AUTOCLAVE GREASE FITTING  
WITH VENTED CAP



HP-AGF10

## GREASE FITTINGS

MULTI LOCK SEAL



HP-LS10

## LUBRICANT FITTINGS

SINGLE BALL



HP-CL10

DOUBLE BALL



HP-CL11

## INTERNAL CHECK VALVE

SOFT SEAT



HP-IC10

METAL SEAT



HP-IC11

## BODY VENT FITTINGS

STANDARD HEX HEAD



HP-BV10

SOCKET HEX HEAD



HP-BV10-T1

VENT PLUG



HP-VP11

FREE FLOW



HP-PF22

FLOATING BALL



HP-PF10

## LEAK LOCK FITTINGS

COMBINATION LUBE ADAPTOR



HP-LA10-T2

NYLON INSERT LEAK LOCK



HP-LL1-NL

SAFE VENT COUPLER



HP-SV22

## FITTING ACCESSORIES

PRESSURE RELIEF TOOL



HP-PR11

PRESSURE RELIEF TOOL  
WITH BLEEDER



HP-PR12

GREASE GUN LUBE ADAPTOR



HP-LA10

GIANT BUTTON HEAD COUPLER



HP-BHC78

CAVITY PLUG



HP-CP

AUTOCLAVE GLAND PLUG



HP-AGP

AUTOCLAVE FITTINGS



HP-AF10

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/4" to 1/2"

**End Connections** : NPT / BSP / BSPT / SW / METRIC

**Pressure Rating** : 3000 / 6000 / 9000 psi

**2 VALVE MANIFOLD**

2 VALVE "F" TYPE WITH DRAIN  
(BLOCK & BLEED)



2VM/F

HPMF201BB

2 VALVE "T" TYPE WITH DRAIN  
(INTEGRAL MOUNTING)



2VM/T

HPMF202DM

2 VALVE ANGLE TYPE WITH DRAIN



2VM/A

HPMF204AT

2 VALVE - GAUGE TYPE WITH DRAIN  
(F)X(F)



2VM/G

HPMF203GV

2 VALVE - GAUGE TYPE WITH DRAIN  
(F)X(M)



2VM/G

HPMF205GV

2 VALVE - GAUGE TYPE WITH DRAIN  
(M)X(F)



2VM/G

HPMF206GV

**3 VALVE MANIFOLD**

3 VALVE "F" TYPE WITHOUT DRAIN  
(SEPARATE MOUNTING)



3VM/F

HPMF301RM

3 VALVE "F" TYPE WITH DRAIN  
(SEPARATE MOUNTING)



3VM/F

HPMF302RM

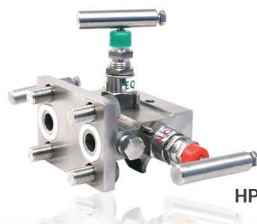
3 VALVE "T" TYPE WITHOUT DRAIN  
(INTEGRAL MOUNTING)



3VM/T

HPMF303DM

3 VALVE "T" TYPE WITH DRAIN  
(INTEGRAL MOUNTING)



3VM/T

HPMF304DM

3 VALVE - "H" TYPE WITHOUT DRAIN  
(INTEGRAL MOUNTING)



3VM/H

HPMF305FF

**5 VALVE MANIFOLD**

5 VALVE "F" TYPE WITH DRAIN  
(SEPARATE MOUNTING)



5VM/F

HPMF501RM

5 VALVE "T" TYPE WITH DRAIN  
(INTEGRAL MOUNTING)



5VM/T

HPMF502DM

5 VALVE "H" TYPE WITH DRAIN  
(INTEGRAL MOUNTING)



5VM/H

HPMF503FF



# COPLANAR MANIFOLD VALVES

Technical Information

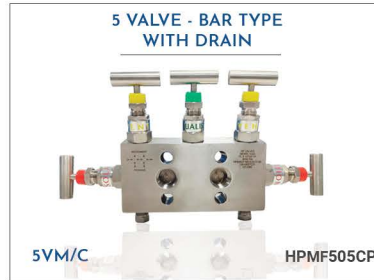
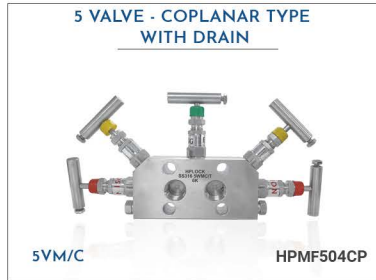
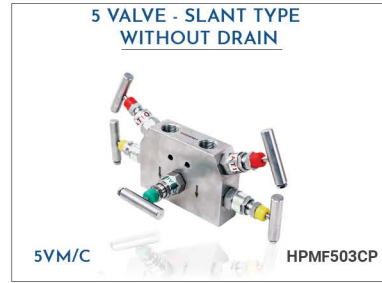
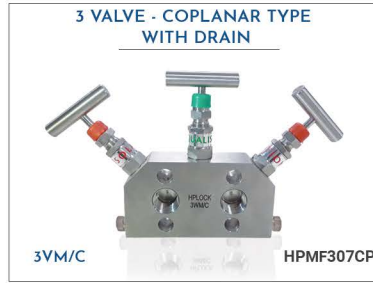
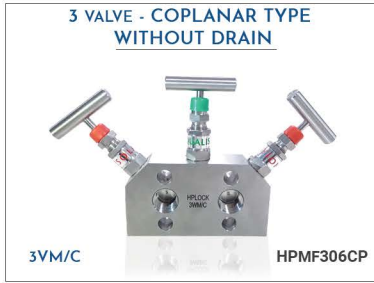


**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**End Connections** : NPT / BSP / BSPT

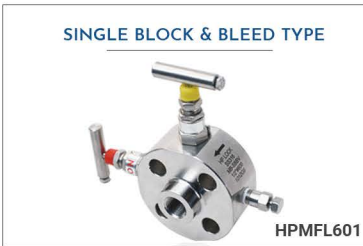
**Size** : 1/4" to 1/2"

**Pressure Rating** : 3000 / 6000 / 9000 psi



# MONOFLANGE MANIFOLD VALVES

Technical Information

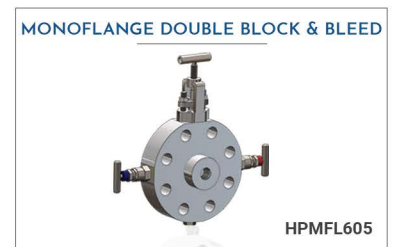
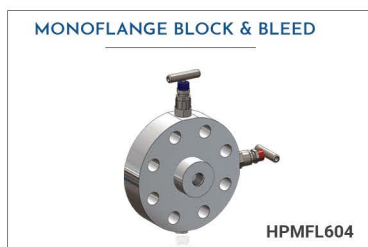
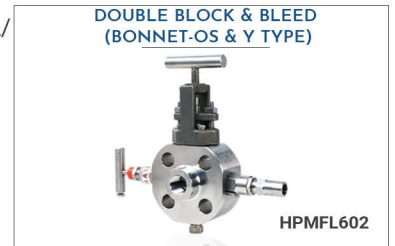


**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**End Connections** : NPT / BSP / BSPT

**Size** : 1/2" to 3"

**Pressure Rating** : Class 800# to 2500#

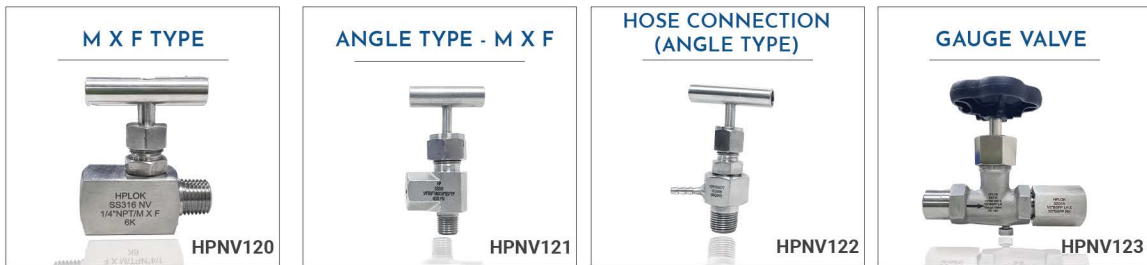
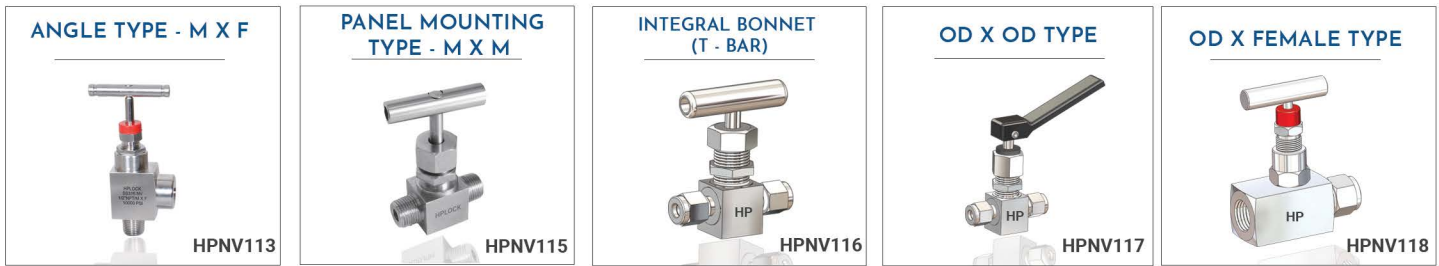


# CUSTOMIZED MANIFOLD VALVES

Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS  
**Size** : 1/8" to 2" ; 1/8" to 1" OD & 4mm to 25mm OD (Suitable for Tube Conn.)  
**End Connections** : NPT / BSP / BSPT / SW / Tube OD / UNF / METRIC  
**Pressure Rating** : Upto 15000 psi



## SNUBBER & GAUGE COCK

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS  
**Size** : 1/4" to 1/2"  
**End Connections** : NPT / BSP / BSPT / SW  
**Pressure Rating** : Upto 6000 psi for Snubber ; Upto 3000 psi for Gauge Cock



# CHECK VALVE (NRV) & PISTON

Technical Information



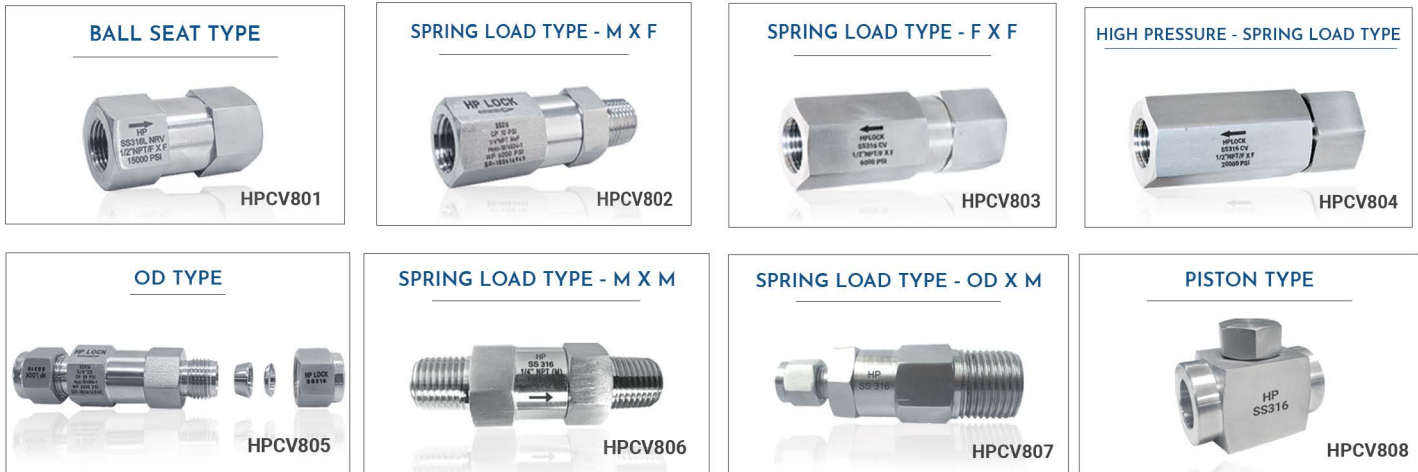
**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANDULAM / BRASS

**Size** : 1/4" to 2"

**Pressure Rating** : Upto 20000 psi

**End Conn.** : NPT / BSP / BSPT / Tube OD / SW

**Cracking Pressure** : 1.5 kg/cm<sup>2</sup>



## PRESSURE RELIEF VALVE

Technical Information



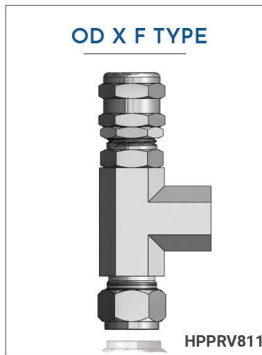
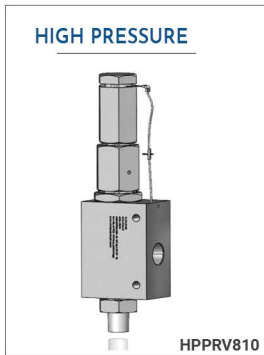
**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**Size** : 1/4" to 1/2"

**End Connections** : NPT / Tube OD

**Pressure Rating** : Upto 20000 psi

**Opening Set Pressure** : 20 psi to 3000 psi and as per customer requirements



## PRESSURE REGULATORS

Technical Information

**M.O.C** : AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**Pressure Rating** : upto 10000 psi

**End Size** : 1/4" / 1/2" / 3/4" / 1"

**Pressure Control Ranges** : 0 to 500 psig(34.4Bar) through 100 to 10000 psig (6.8 to 689 Bar)

**End Connections** : NPT(F) / BSP(F)

**Max. Temperature** : 212 \*F (100°C)



# BALL VALVES

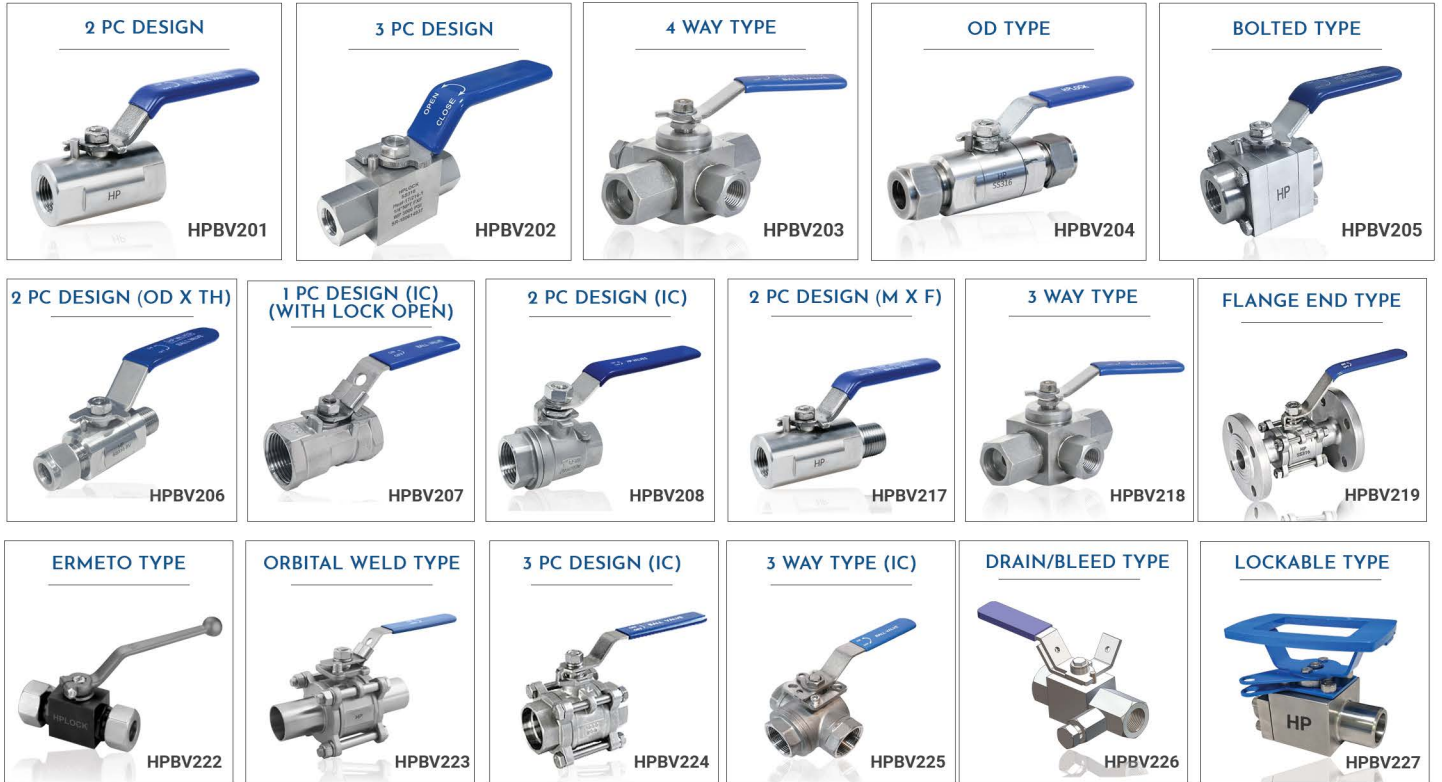
Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS / IC

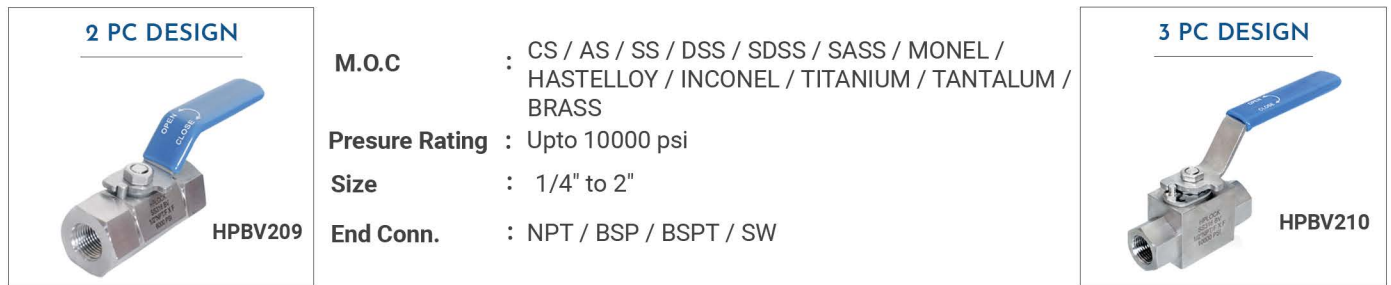
**Pressure Rating** : Upto 6000 psi (Upto 1000 psi For IC BV)

**End Conn.** : NPT / BSP / BSPT / Tube OD & SW



## HIGH PRESSURE BALL VALVES

Technical Information



## PANEL MOUNTING BALL VALVES

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / BRASS

**End Connections** : NPT / BSP / BSPT / Tube OD & SW

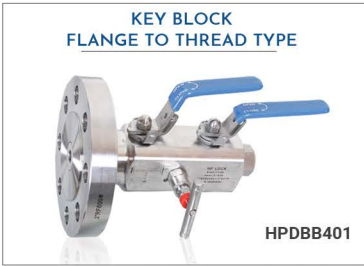
**Size** : 1/4" to 1"

**Pressure Rating** : Upto 3000 psi



# DBB VALVES (DOUBLE BLOCK & BLEED)

Technical Information

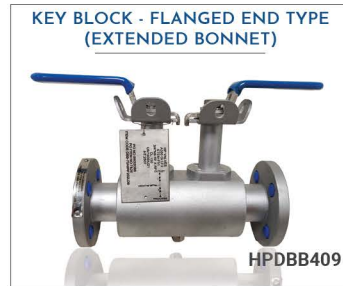
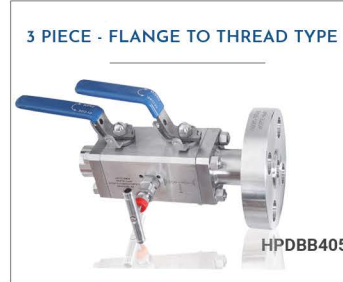
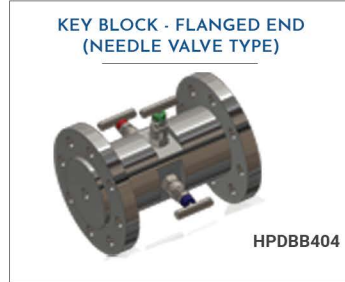
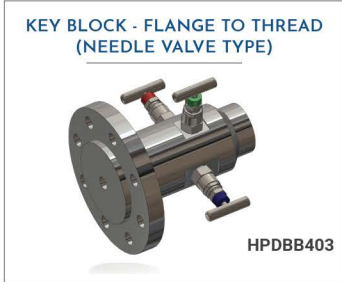
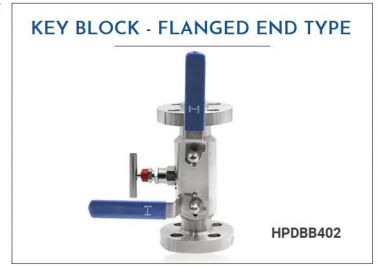


**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**End Connections** : NPT / BSP / BSPT

**Size** : 1/2" to 3"

**Pressure Rating** : Class 800# to 2500#



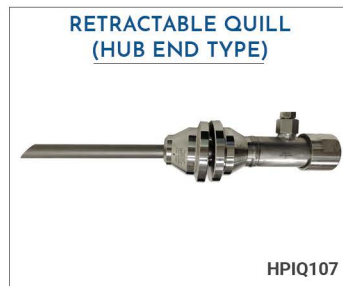
## INJECTION QUILLS

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**End Connections** : Screwed, Socket Welded, Flanged Ends

**Size** : Upto 2"



## INJECTION QUILL / SAMPLING PROBE WITH DBB VALVE

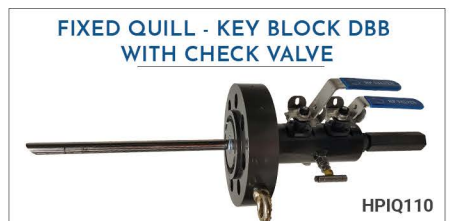
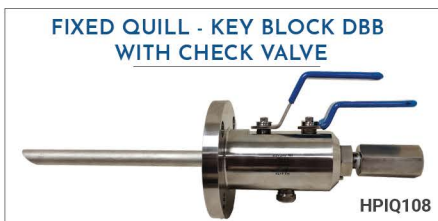
Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**End Conn** : Screwed, Socket Welded, Flanged Ends

**Size** : Upto 2"

**Pressure Rating** : Class 800# to 2500#



**FORGED STEEL GLOBE / GATE VALVE (INSTRUMENTATION APPLICATION)**

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL  
**End Conn.** : Screwed, Socket Welded, Butt Welded, Flanged Ends

**Size** : 15 NB to 50 NB  
**Pressure Rating** : Class 800# to 4500#  
**Max Temp** : 1300°C

**GLOBE VALVE  
OS & Y - SCREWED TYPE**



HPGB701

**GLOBE VALVE  
SCREWED BONNET**



HPGB702

**GATE VALVE  
OS & Y - BOLTED TYPE**



HPGT603

**BARSTOCK GLOBE VALVE (FOR GAS APPLICATION)**

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**Size** : 25 NB to 150 NB

**End Conn.** : Flanged Ends, Threaded Ends, Butt Weld, Socket Weld

**Pressure Rating** : 280 to 850 psi

**Temp** : 110 to 400° C

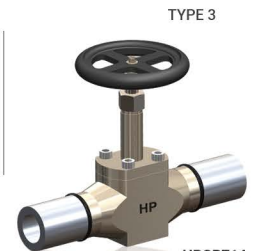
**BOLTED BONNET TYPE**



HPGB712



HPGB713



HPGB714

**CRYOGENIC BALL VALVE**

Technical Information

**CRYOGENIC BALL VALVE  
WITHOUT BELLOW**



HPCRV201

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**Size** : 15 NB to 50 NB

**End Conn.** : Threaded / Welded / Flanged Ends

**Pressure Rating** : Class 800# to 2500#

**Temp** : -50° C to -196° C

**CRYOGENIC BALL VALVE  
WITH BELLOW**



HPCRV202

**BELLOW SEAL VALVE**

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL

**Size** : 15 NB to 50 NB

**End Conn.** : Threaded / Welded

**Pressure Rating** : Class 800# to 1500#

**Temp** : 300° C



**GLOBE TYPE  
HPGB706**

# CONDENSATE POT / SAMPLING PORT

Technical Information

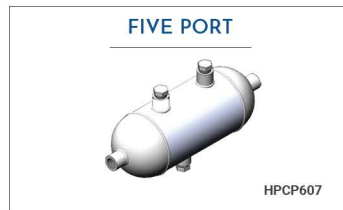


**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 2" to 6"

**End Connections** : NPT / BSP / BSPT / SW

**Pipe Schedule** : SCH 40 to SCH XXS



## PRESSURE VESSELS

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 2" to 12"

**End Connections** : NPT / BSP / BSPT / SW

**Pipe Schedule** : SCH 40 to SCH XXS



# AIR DISTRIBUTION HEADERS

Technical Information



- M.O.C** : Stainless Steel / Carbon Steel
  - Inlet Size** : 1/4" to 2" Threaded / Socket Welded / Flanged - Needle Valve / Ball Valve
  - Outlet Size** : 1/4" to 1" Threaded / Socket Welded - Needle Valve / Ball Valve
  - Drain Size** : 1/4" to 2" Threaded / Socket Welded / Flanged - Needle Valve / Ball Valve with Plug
  - Pipe Schedule** : SCH 40 to SCH XXS
- No. of Ways:** 4 to 24 ways.



## SYPHONS

Technical Information

- M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY tt/ INCONEL / TITANIUM / TANTALUM
- End Connections** : NPT / BSPT / BSP / PL / SW
- Size** : 1/4" to 1/2"
- Pipe Schedule** : SCH 40 to SCH XXS



## AIR FILTER REGULATOR

Technical Information

- Ranges** : 0 to 150 psi (30, 60, 100, 150)
- End Size** : 1/4" / 1/2" / 3/4" / 1"
- End Connections** : NPT(F) / BSP(F)
- Body & Bowl Mtrl.** : Aluminum Die Cast
- Filterization** : 5 to 40 micron
- Bowl Capacity** : 130cc (Approx.)
- Drain** : Manual Type
- Accuracy** : ± 5% FSR



## FLUSHING RINGS

Technical Information

- M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM
- Size** : 1/2" to 3"
- Pr. Rating** : Upto 2500#





## FLANGES

Technical Information



**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : 1/2" NB to 24" NB

**PR. Rating** : Class 150#, 300#, 600#, 900#, 1500# & 2500#

**End Connection** : NPT / BSP / BSPT / UNF / METRIC / SW / BW / TUBE OD.



## TUBES

Technical Information



HPSTUBE

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM / COPPER / PP / PU / PTFE

**Size** : 1/8" to 2" ( Seamless ) & 6mm OD to 50mm OD

**Pressure** : Upto 9000 psi

**Type** : Seamless

## PIPES

Technical Information

**M.O.C** : CS / AS / SS / DSS / SDSS / SASS / MONEL / HASTELLOY / INCONEL / TITANIUM / TANTALUM

**Size** : Upto 24" NB

**Pipe Schedule** : SCH 10 to SCH XXS

**Type** : Seamless



HPPIPE

## PIPE / TUBE / 'U' CLAMP

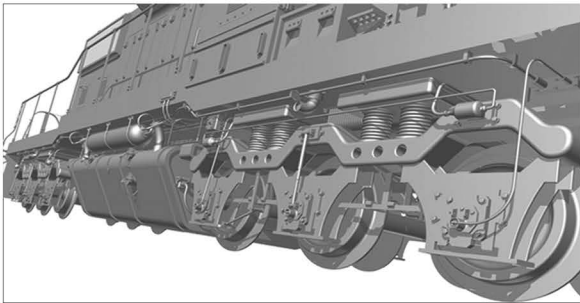
Technical Information

Clamps are available in sizes ranging from 1/8" to 2" & 6mm to 50mm which eliminate vibrations with its unique construction. HDPE body with top and bottom steel plates are supplied in SS & CS plated.





LOCOMOTIVE - SUPPLY, INSTALLATION & COMMISSIONING



CUSTOMIZED ITEMS

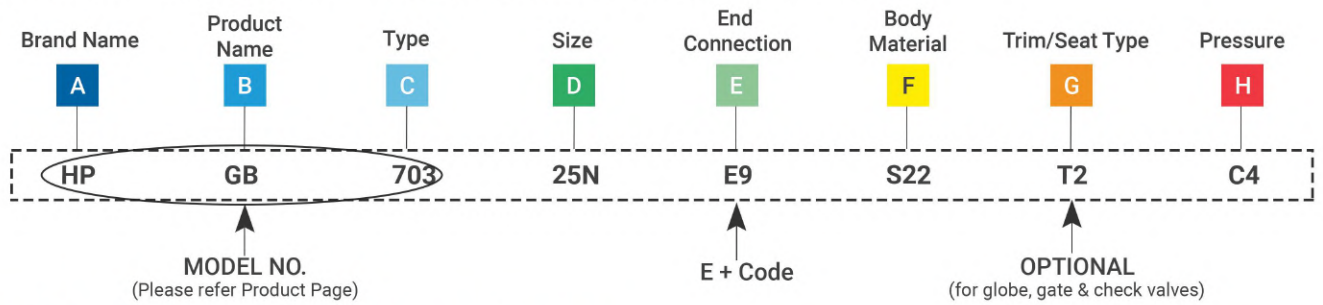
We also manufacture the custom design components as per customer drawing or sample.





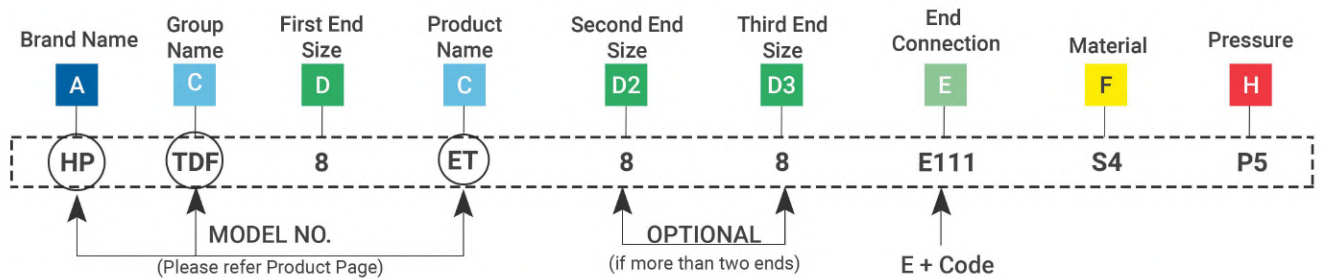
## VALVES - PART NO. ORDERING SYSTEM

Example: Globe Valve (Forged Steel - OS & Y), 25NB SW, SS CF8M, Trim-2, Class 800#



## FITTINGS - PART NO. ORDERING SYSTEM

Example: Equal Tee, 1/2"OD X 1/2"OD X 1/2"OD, SS316, 3000 psi



D	SIZE	
6m	6mm	INCH
8m	8mm	1 1/16"
10m	10mm	2 1/8"
12m	12mm	3 3/16"
16m	16mm	4 1/4"
18m	18mm	5 5/16"
20m	20mm	6 3/8"
25m	25mm	8 1/2"
28m	28mm	10 5/8"
<b>METRIC</b>		12 3/4"
M10	M10	14 7/8"
M12	M12	16 1"
M14	M14	20 1-1/4"
M16	M16	24 1-1/2"
M18	M18	26 1-5/8"
M20	M20	28 1-3/4"
<b>NOMINAL BORE</b>		32 2"
15N	15 NB	40 2-1/2"
20N	20 NB	48 3"
25N	25 NB	56 3-1/2"
32N	32 NB	64 4"
40N	40 NB	96 6"
50N	50 NB	- -
80N	80 NB	- -
100N	100 NB	- -
150N	150 NB	- -
200N	200 NB	- -
250N	250 NB	- -
300N	300 NB	- -

E	END CONN.
1	OD
2	NPT
3	BSPP
4	BSPT
5	UNF
6	METRIC
7	NB(PL) or NB
8	OD(PL)
9	SW
10	Tube Ends
11	Flanged Ends (Raised Face)
12	Flanged Ends (Ring Type Joint)
13	Flanged Ends (Flat Face)
14	Butt Weld Ends
15	Screwed Ends
16	Lugged Ends
17	Wafer Ends

G	SEAL TYPE
GL	Grafoil
PE	PTFE
PK	PEEK

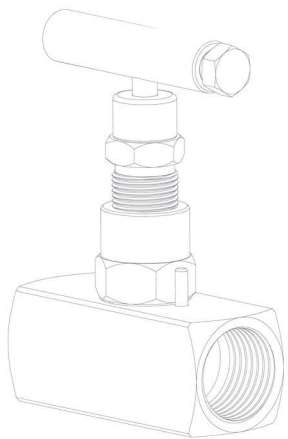
G	TRIM
T1	1
T2	2
T3	5
T4	8
T5	10
T6	12
T7	15
T8	16

F	BODY MATERIAL		
<b>Carbon Steel</b>		<b>High Nickel Alloy Steel</b>	
C1	ASTM A105	N1 Monel K400	
C2	ASTM A106	N2 Monel K500	
C3	ASTM A350 Gr.LF2	N3 Inconel 600	
C4	EN 1215	N4 Inconel 625	
C5	EN 4140	N5 Inconel 718	
C6	ASTM A216 Gr.WCB	N6 Inconel 750	
C7	ASTM A352 Gr. LCB	N7 Inconel 825	
C8	ASTM A216 Gr.WCC	N8 Hastelloy C276	
<b>Stainless Steel</b>		N9 ASTM A484 CU5MCuC	
S1	ASTM A182/A479/A312/A213/A269 Gr.304	N10 ASTM A494 CY40	
S2	ASTM A182/A479/A312/A213/A269 Gr.304L	N11 ASTM A494 M35-1	
S3	ASTM A182/A479/A312/A213 Gr.304H	<b>Alloy Steel</b>	
S4	ASTM A182/A479/A312/A213/A269 Gr.316	A1	ASTM A182 Gr.F11
S5	ASTM A182/A479/A312/A213/A269 Gr.316L	A2	ASTM A335 Gr.P11
S6	ASTM A182/A479/A312/A213/A269 Gr.316/316L	A3	ASTM A182 Gr.F22
S7	ASTM A182/A479/A312/A213 Gr.316H	A4	ASTM A335 Gr.P22
S8	ASTM A182 Gr.316Ti	A5	ASTM A182 Gr.F91
S9	ASTM A182/479 Gr.317	A6	ASTM A335 Gr.P91
S10	ASTM A182/479 Gr.321	A7	ASTM A182 Gr.F92
S11	ASTM A182 Gr. F347	A8	ASTM A335 Gr.P92
S12	ASTM A479 Gr.410	<b>Other Material</b>	
S13	ASTM A182 F44	MS	MS
S14	Duplex - F51	CU	Copper
S15	Super Duplex-F53	BR	Brass
S16	Super Duplex-F55	PE	PTFE
S17	Duplex - F60	TC	Tungsten Carbide
S18	ASTM A351 Gr.CF3	PE4	PTFE with SS304 Braided
S19	ASTM A351 Gr. CF3M	PE6	PTFE with SS316 Braided
S20	ASTM A351 CN7M	PP	Polypropylene
S21	ASTM A351 Gr.CF8	GI	Galvanized
S22	ASTM A351 Gr.CF8M	CP	CPVC
S23	ASTM A351 Gr. CF8C	UP	UPVC
S24	ASTM A351 Gr. CF10	PL	Plastic
S25	ASTM A995 Gr.1B (CD4MCuN)	AL	Aluminium
S26	ASTM A995 Gr. 4A	-	-
S27	ASTM A995 Gr. 5A	-	-
S28	ASTM CK3MCuN	-	-

H	PRESSURE
<b>PSI (Bar)</b>	
P1	150 (10)
P2	210 (15)
P3	1000 (70)
P4	2000 (140)
P5	3000 (200)
P6	6000 (400)
P7	9000 (630)
P8	10000 (700)
P9	15000 (1055)
P10	20000 (1400)
P11	30000 (2110)
P12	40000 (2800)
<b>Class Rating</b>	
C1	150
C2	300
C3	600
C4	800
C5	900
C6	1500
C7	2500
C8	2500SPL
C9	3000
C10	3000SPL
C11	4500
<b>Schedule</b>	
SC1	10
SC2	20
SC3	40
SC4	80
SC5	160
SC6	XXS

Note : Above ordering system doesn't include Sealant Injection Grease Fittings

# CLIENT LOCATIONS ACROSS THE WORLD



## HP VALVES & FITTINGS INDIA PRIVATE LIMITED

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