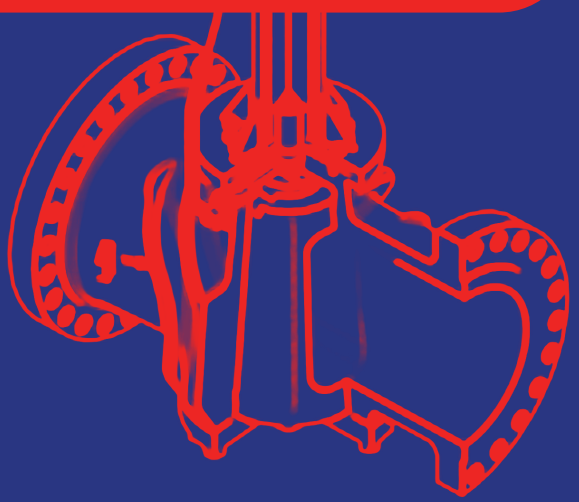
GAZAR
Sadra Mahan Parsian

Pressure Balance Plug Valve



use a tapered or
cylindrical plug
to stop or start flow

About Pressure Balance Plug Valve

A Plug Valve is a quarter-turn rotational motion Valve that use a tapered or cylindrical plug to stop or start flow. In the open position, the plug-passage is in one line with the inlet and outlet ports of the Valve body. If the plug 90° is rotated from the open position, the solid part of the plug blocks the port and stops flow. Plug valves are similar to Ball valves in operation.

Types of Plug valves

GAZAR Plug valves are available in a non-lubricated or lubricated design and with several styles of port openings. The port in the tapered plug is generally rectangular, but they are also available with round ports and diamond ports. Plug valves are also available with cylindrical plugs. The cylindrical plugs ensure greater port openings equal to or larger than the pipe flow area. GAZAR Lubricated Plug valves are provided with a cavity in the middle along there axis. This cavity is closed at the bottom and fitted with a sealant-injection fitting at the top. The sealant is injected into the cavity, and a Check Valve below the injection Fitting prevents the sealant from flowing in the reverse direction. The lubricant in effect becomes a structural part of the Valve, as it provides a flexible and renewable seat. No lubricated Plug valves contain an elastomeric body liner or a sleeve, which is installed in the body cavity. The tapered and polished plug acts like a wedge and presses the sleeve against the body. Thus, the nonmetallic sleeve reduces the friction between the plug and the body.

GAZAR Pressure Balance Plug Valve	
Size	2" - 24 "
Pressure Class	ASEM 150-2500
API Standard	API 6D, API 599
ASME	B16.10 & B16.5 & B 16.34
IGS	M-PL-02

Installation, Operating Instruction and Stress Analysis

Storage

1. Valves must be stored in a dry and ventilate room and placed orderly. The stem can't bear any strength.
2. During the period of storage, the valve should be always on and inlet and outlet should be blocked.
3. During the period of storage, the outside portion of the stem and the machined surface should be covered by an easily cleaned antirust.

Installation

1. The valve can be installed freely, but it should be convenient to maintenance, inspection and operation.
2. Before installation, operators must review whether the contents on the marking and nameplate conform to the practical requirements.
3. Before installation, operators must clean the internal chamber and inspect whether studs between the body and the bonnet are fastened symmetrically, and pickings are dropped tightly symmetrically and the stem is bearing strength.
4. The flowing direction of the media is not restricted.
5. Mustn't take the worm gear box as the lifting eye to use.
6. After installation, valves must be blowed and tested by the system pressure.
7. The practical condition intending to use valves must conform to the requirements specified on nameplate and in the operation instruction.
8. The valve only works for getting or shutting off media. Mustn't take it as the regulation valve.
9. The plug is turned through the hand wheel. Mustn't use any other assistant levers or drives to operate the valve.
10. During the period of using valves, the following projects must be inspected at an expected time. Once any noncompliance is found, please correct it right now.
a. Whether fasteners become less crowded or not.
b. Whether packing is worn out and gaskets are mangled or not. (Inspection without work)
c. Whether the actuator is flexible and there is the phenomena that valves can't turned.

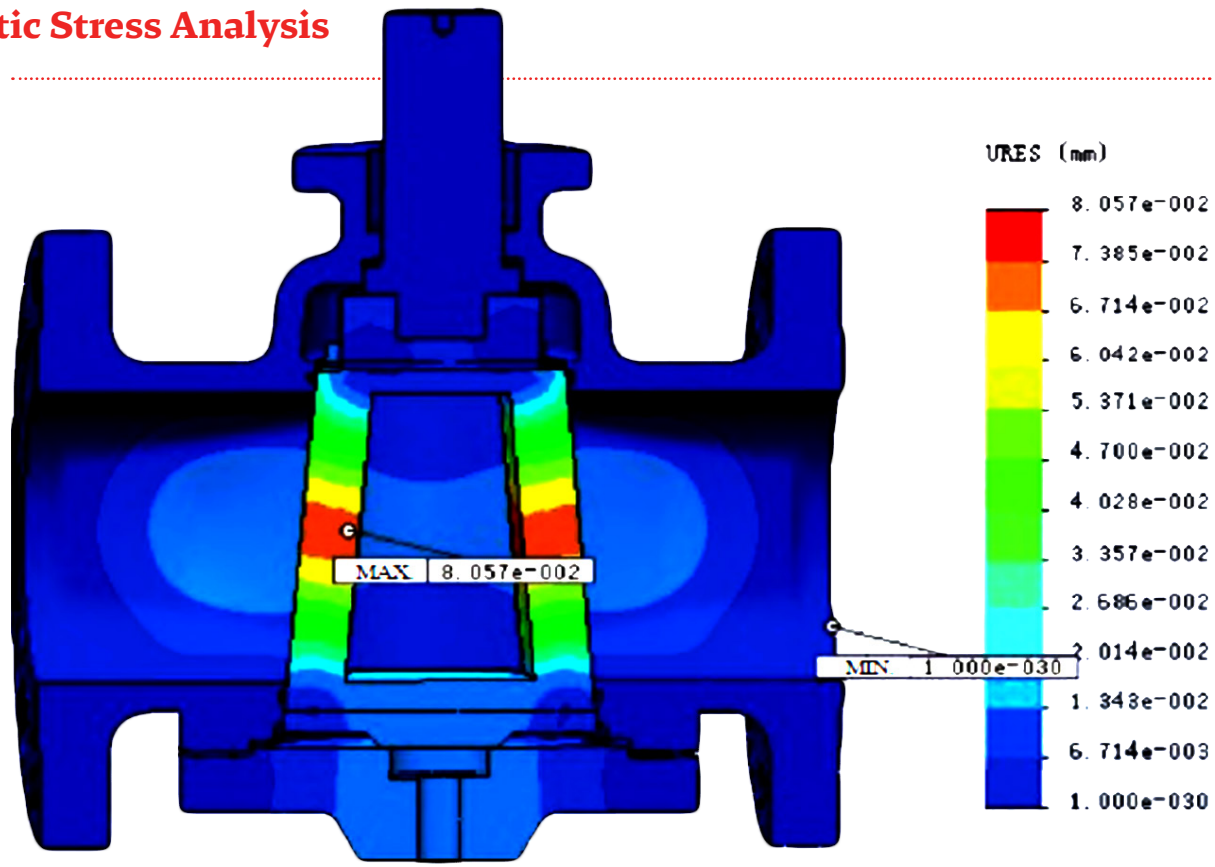
d. Whether the seal surface are mangled or worn out. (Inspection without work).

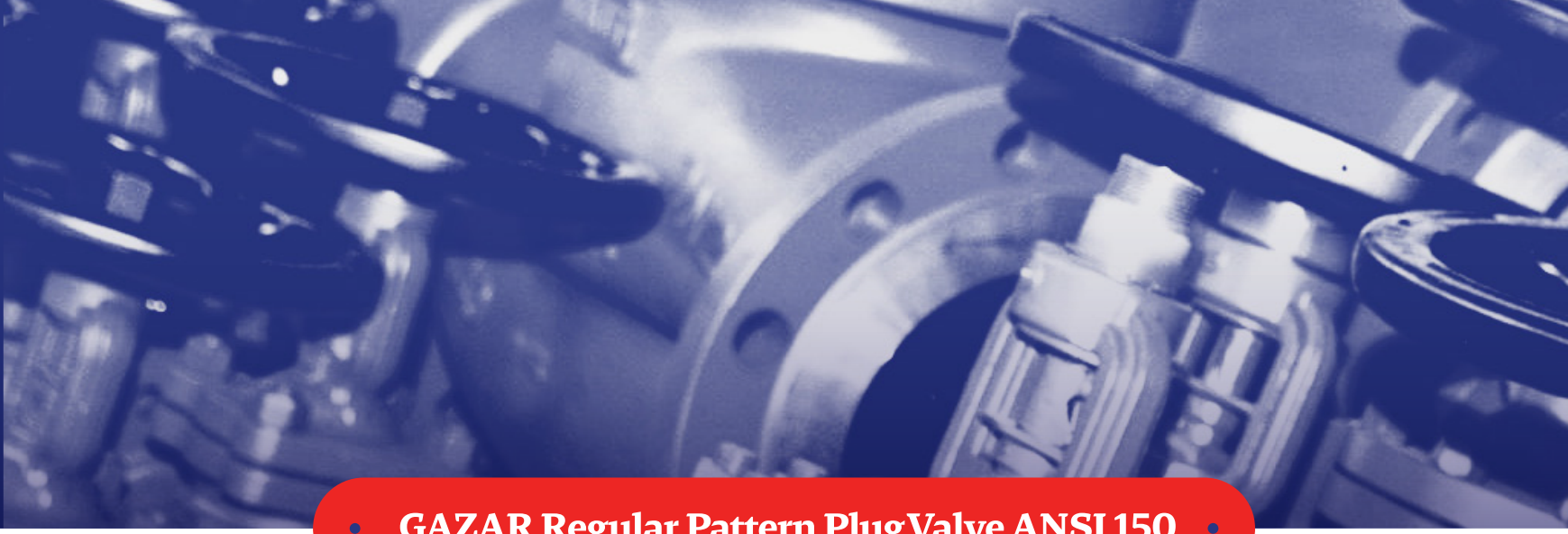
e. Whether leakage takes place at the cooperating position of the seat and the body or not. (Inspection without work)

f. Whether the wall thickness of valves becomes thin distinctly for corrosion or erosion or not. If the wall thickness is less than the net valuation only Satisfying the requirements of tensile strength or there exists a visually leakage, the valve must be scraped.

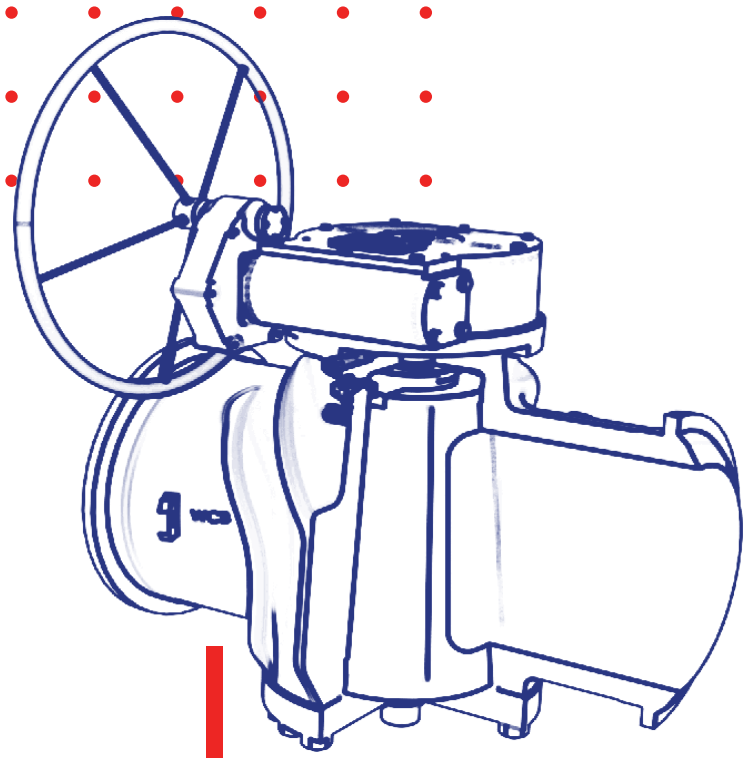
11. After valves are inspected and assembled, they are tested per responsible specifications and the records must be documented to refer to later.

The Static Stress Analysis





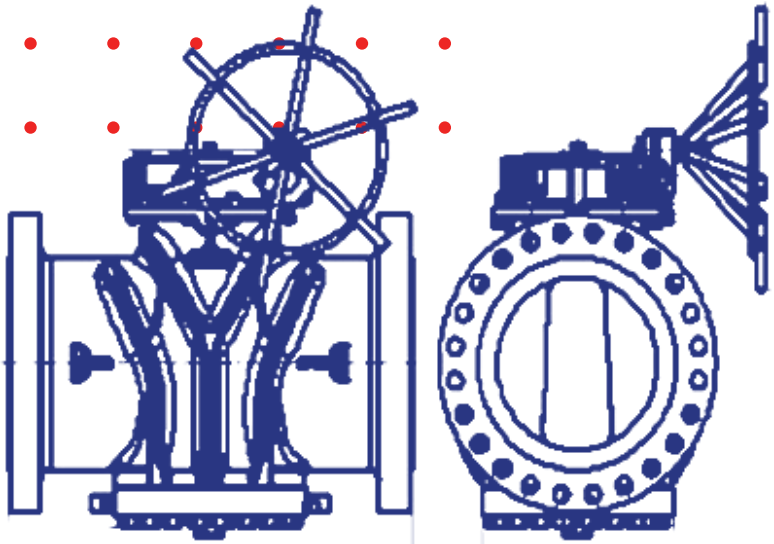
GAZAR Regular Pattern Plug Valve ANSI 150



Specifications: Reverse Type | Regular Pattern | Wrench Operated & Gear Operated | Lubricated taper Plug valve

S T A N D A R D	
Face to Face Dimension	ANSI B16.10
End Flange Dimension	ANSI B16.5, B16.34
Design	ANSI B16.10, API 599
Basic Design	ANSI API 6D
Test according	API 598 & MSS. SP78
Fire Test	API 6FA

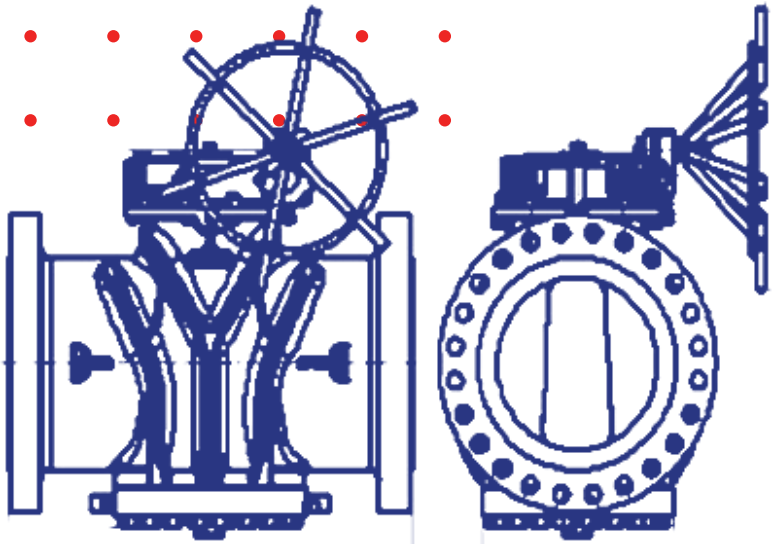
GAZAR Regular Pattern Plug Valve ANSI 300



Specifications: Reverse Type | Regular Pattern | Wrench Operated & Gear Operated | Lubricated taper Plug valve

S T A N D A R D	
Face to Face Dimension	ANSI B16.10
End Flange Dimension	ANSI B16.5, B16.34
Design	ANSI B16.10, API 599
Basic Design	ANSI API 6D
Test according	API 598 & MSS. SP78
Fire Test	API 6FA

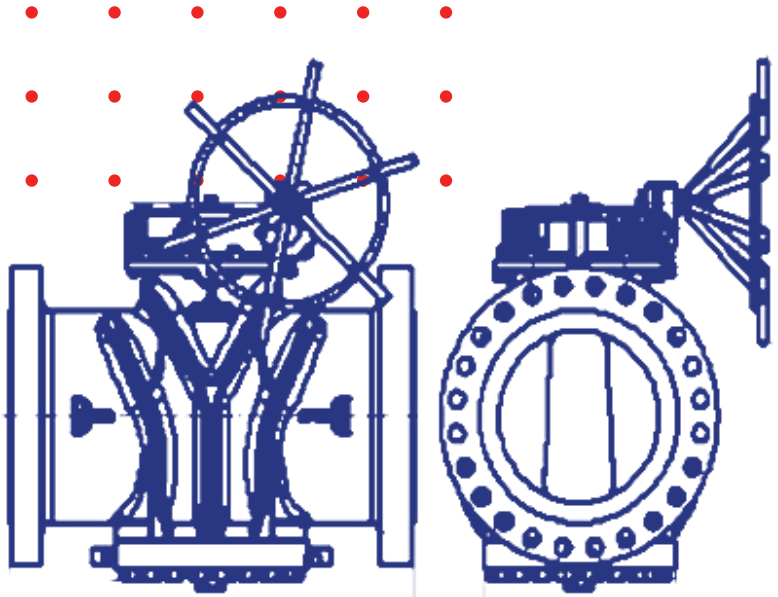
GAZAR Regular Pattern Plug Valve ANSI 600



Specifications: Reverse Type | Reduce Port; Regular | Lubricated taper Plug valve

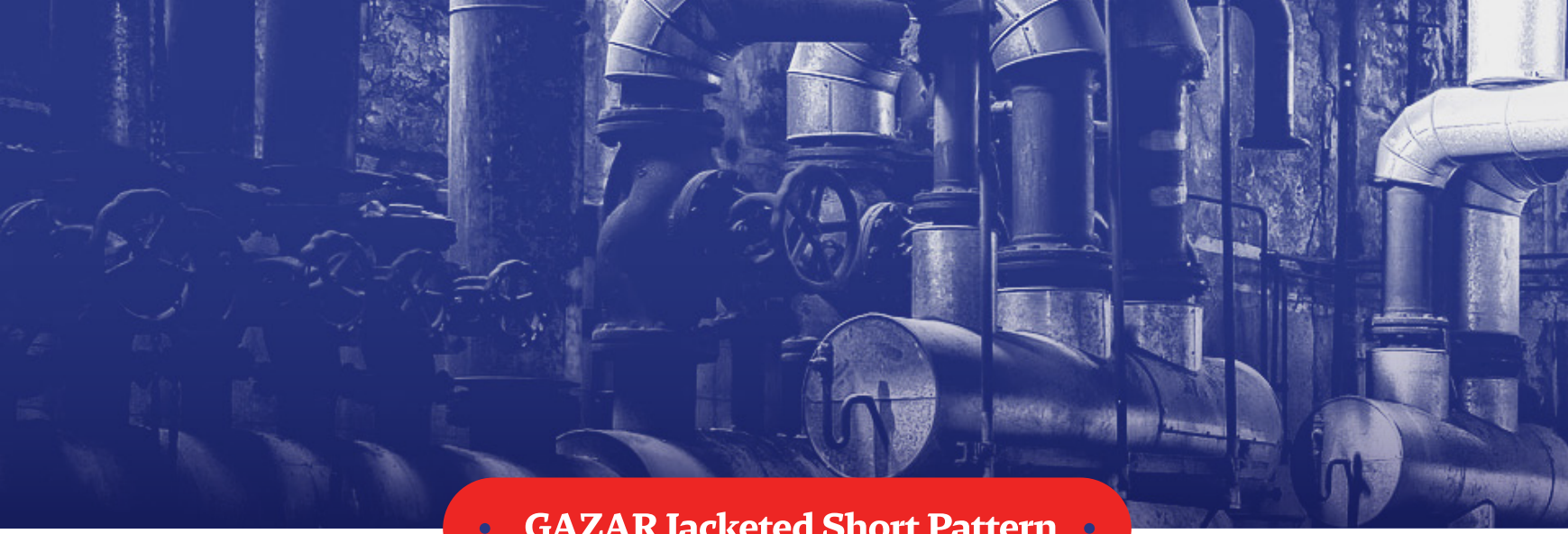
S T A N D A R D	
Face to Face Dimension	ANSI B16.10
End Flange Dimension	ANSI B16.5, B16.34
Design	ANSI B16.10,API 6D
Basic Design	ANSI API 6D
Fire Test	ANSI API 6FA

GAZAR Plug Valve Venturi Pattern ANSI 600

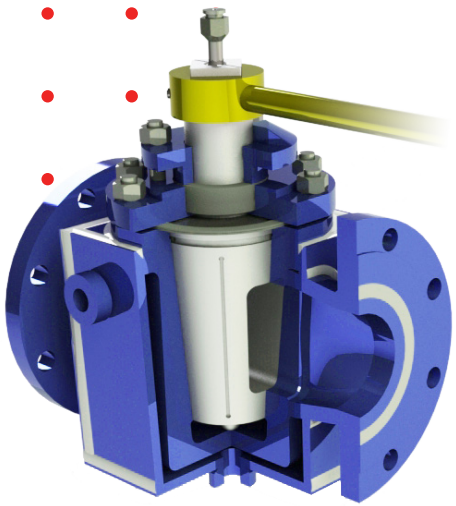


Specifications: Reverse Type | Reduce Port, Venturi | Lubricated taper Plug valve

S T A N D A R D	
Face to Face Dimension	ANSI B16.10
End Flange Dimension	ANSI B16.5, B16.34
Design	ANSI B16.10, API 6D
Basic Design	ANSI API 6D
Fire Safe Design	ANSI API 6FA



GAZAR Jacketed Short Pattern



Valves have face-to-face dimensions conforming to BS 5158 PN 10/16, BS 2080 class 150 Short, ANSI B16.10 & APR 6D Class 150 short. These valves are thus interchangeable with equivalent gate valves. Valves have pattern conforming to BS 5353, BS 5158, API 6D & API Short (with Steel Plug).

Valves are Normally supplied with drilled class 150 flange having serrated finish raised faces in accordance with ANSI B16.5 most valves on this page can be supplied with flange frillings to BS EN1092-1 PN16.

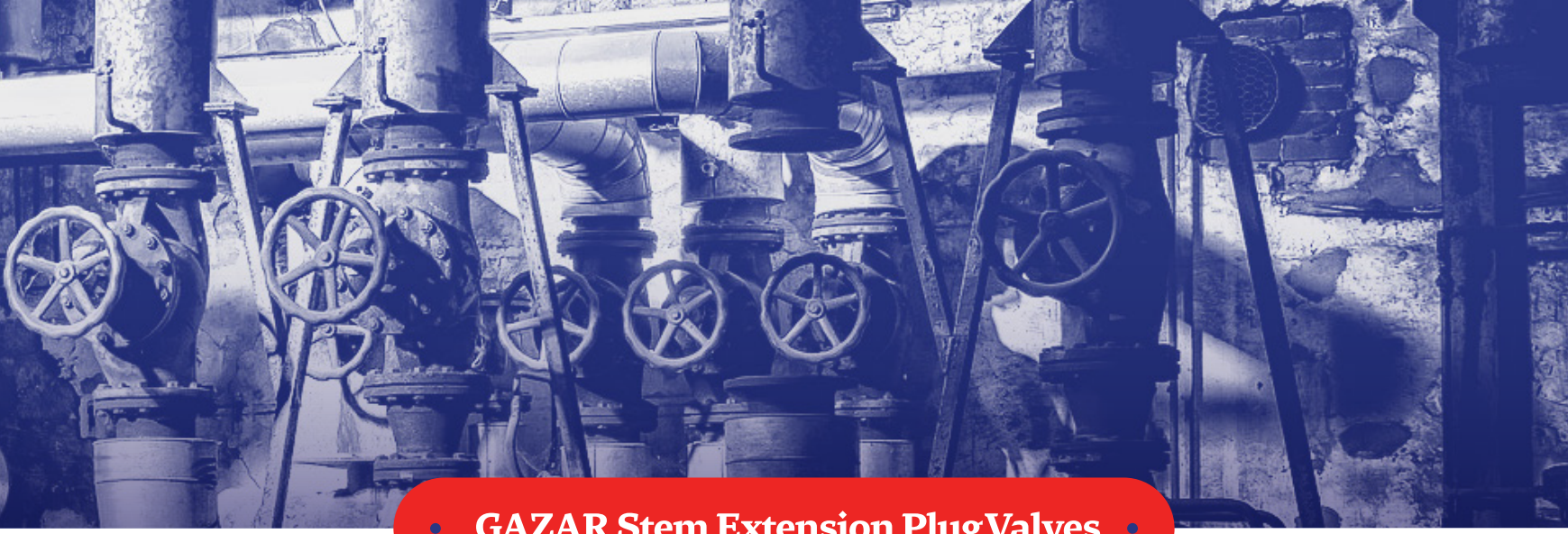
Maximum pressure in jacket 150 lbf/in2 .

Class 300 valves in size range 25mm to 100mm are available on request.

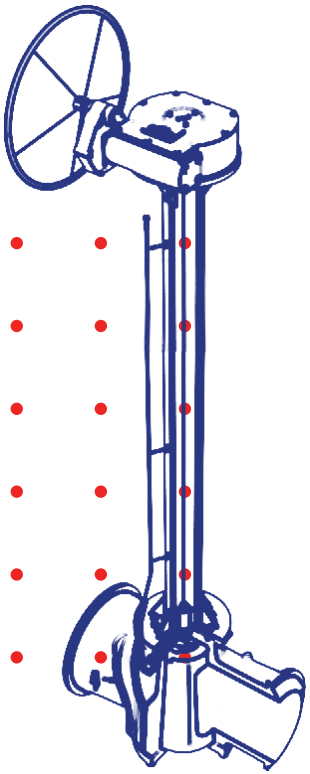
Jacketed valves with Oversize Flanges

Valves have face to-face dimension conforming to BS 5158 PN 10/16, BS 2080 class 150 short, ANSI B16.10 & API 6D class 150 short. These valves thus interchangeable with equivalent gate valves. Valves have conforming to BS 5353, BS5158, API 6D & API 599 short (with steel plug). Valves have face-to-face dimension confirming to BS EN 558 Basic Series-1.

Valves are normally Supplied with drilled class 150 flanges having serrated finish faces in accordance with ANSI B16.5. Maximum pressure in Jacket 150 lbf/in2.



GAZAR Stem Extension Plug Valves



Extended Stem are made to be installed on wrench operated standard stems, in case of buried installation of the plug valve or in case of installation of the valve in plant locations where a normal access of man over is not possible.
Valve extension for underground service include piping for lubrication and are supplied with water tight seals. Extension length should be advised by customer.

Part Name	QTY	Material	Part Name	QTY	Material
Body	1	Carbon Steel	Gland Packing	2	Grafoil
Plug	1	Carbon Steel	Gland	1	Stainless Steel
Stem	1	Stainless Steel	O-Ring (I)	1	Viton
Cover	1	Carbon Steel	O-Ring (II)	1	Viton
Cover Bolt	1S	Carbon Steel	Lock Nut	1	Carbon Steel
Lub. Nipple	1	Stainless Steel	Thrust Bearing	1	Stainless Steel
Gland Bolt	1S	Carbon Steel	Adjusting Bolt	1	Carbon Steel
Press. Button	1	Stainless Steel	Lock Bolt	1	Carbon Steel
Metal Diaphr'm (I)	1	Carbon Steel	Needle Valve	1	Carbon Steel
Metal Diaphr'm (II)	1	Stainless Steel	Gear Opertator	1S	Steel
Gasket	1	Grafoil	Check Valve	1	Stainless Steel
Check Valve	1	Stainless Steel	Pipe	1	Steel
Compensator	1	Carbon Steel	Adapter	1	Steel

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