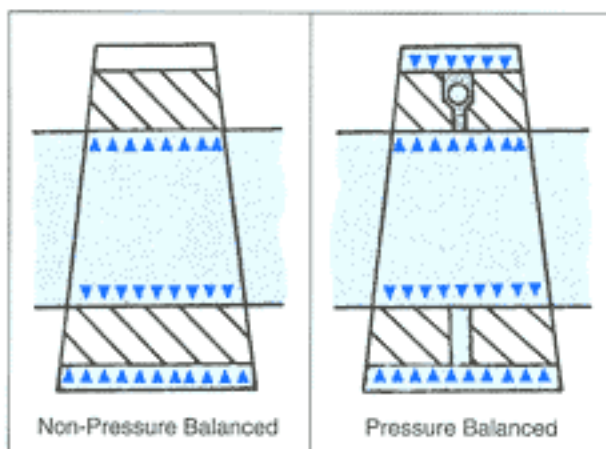


# SUPER-H - Class 1500 & 2500 - Regular & Venturi Patterns

AUDCO SUPER-H Pressure Balanced Plug Valves have been developed to reduce the operating torque in plug valves without compromising on the in-line maintenance capability. The plug and body seating surfaces, which are lapped and matched, are not exposed to the line fluid while valves are in open condition; this confines corrosion and erosion to less critical areas. Sealing is further enhanced by specially developed plug sealants charged evenly around the seating surfaces. The plug is impregnated with PTFE based anti-friction agent - 'SUPER LoMu' which provides greater wear resistance and ensures consistent operating torque.

## PRESSURE BALANCED PLUG

In a standard taper plug valve, the line fluid finds its way into the large end chamber of the plug. The resultant force pushes the plug into its taper seat causing taper locking and possibly valve seizure. This resultant force persists when the subsequent line pressure remains high or is reduced. To unseat the taper locking and keep the valve operational, frequent sealant injection is required. In pressure balanced plug valve pressure balancing is



achieved by providing two holes in the plug connecting the chambers at each end of the plug. The chambers, one fitted with a non-return valve act as a balancing mechanism for the plug. The pressure in the large end chamber always equals line pressure and the pressure in the small end chamber is always equal to or greater than the line pressure, minimising the resultant force. Pressure balancing eliminates out of balance forces and consequent taper locking. The Figure shows clearly how a balanced position is reached when line pressure is allowed to equalise the pressure acting on each of the plug.

## FIRE SAFE

Super-H Pressure Balanced Plug valves are designed to meet fire test standards. The features incorporated in the valve make the valves seal and operate effectively even after being subjected to fire of varying temperatures and duration resembling fire accidents.

## STANDARDS

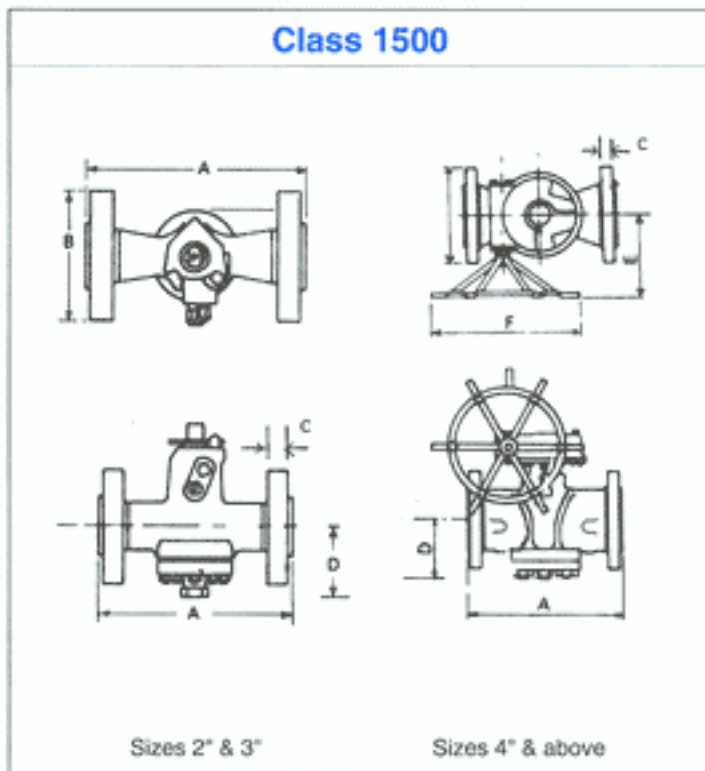
Valve Design	API 6D
Face to Face dimensions	ASME/ANSI B16.10 and BS 2080
End Flange dimensions and drilling	ASME/ANSI B16.5
Inspection & Testing	API 6D and BS 6755 Part 1
Fire tests	API 6FA

## OPERATION AND MAINTENANCE

SUPER-H Pressure Balanced Plug valves generally need very little attention on installation. However, for trouble free operation sealant injection as recommended is to be carried out. Please refer to "Installation, Operation & Maintenance Manual of Super-H Pressure Balanced Plug valves" for details.

As a standard, Super-H Pressure Balanced Plug valves are supplied with AUDCO 733 Plug Sealant suitable for most hydrocarbon services in a temperature range of -40 to 480° F. On request, plug sealant from a wide range offered, can be supplied to suit the nature of service. It is recommended that you consult us before selecting the plug sealant for a new service.

### Class 1500

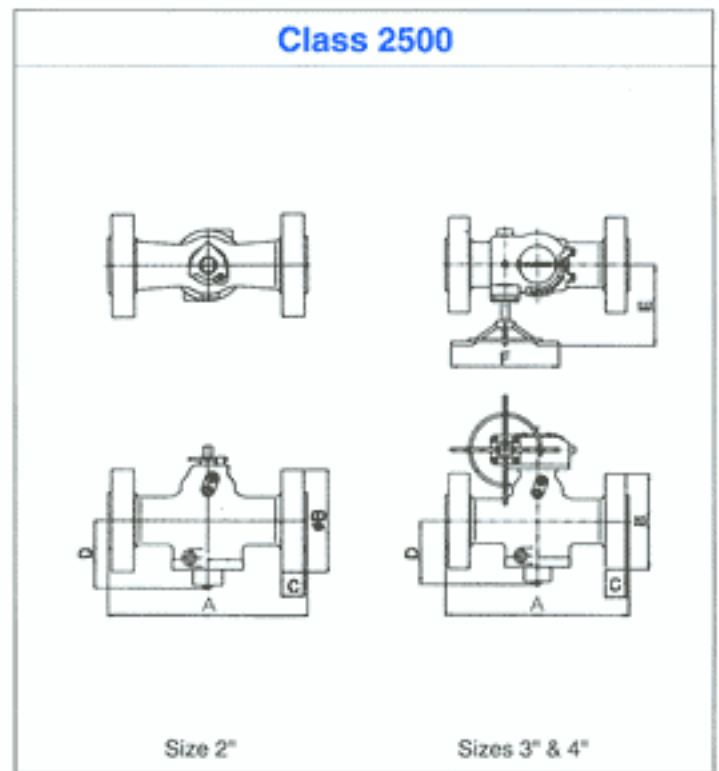


Sizes 2" & 3"

Sizes 4" & above

For ease of adjustment, it is desirable that 6" (150 mm) clearance be maintained around the pressure screw, located at the bottom of the valve.

### Class 2500



Size 2"

Sizes 3" & 4"

For ease of adjustment, it is desirable that 6" (150 mm) clearance be maintained around the pressure screw, located at the bottom of the valve.

### DIMENSIONS (mm)

### Class 1500

Size Inch mm	Pattern	A		B	C	D	E	Wrench	Wrench Length	Gear Unit	F
		RF	RTJ								
2 50	R	368	371	216	38.1	120	—	B5S	684	—	—
3 80	R	470	473	267	47.8	165	—	B7	933	—	—
4 100	R	546	549	311	53.8	190	307	—	—	27M3	578
6 150	V	705	711	394	82.6	205	338	—	—	G400M3	578
8 200	V	832	841	483	92	264	421	—	—	G400	700
12 300	V	1130	1146	673	124	350	636	—	—	3MS	787

RF height of 6.4 mm and RTJ face height of 7.9 mm for 2", 3" & 4", 9.5 mm 6", 11 mm for 8" and 14.3 mm for 12" excluded from flange thickness.

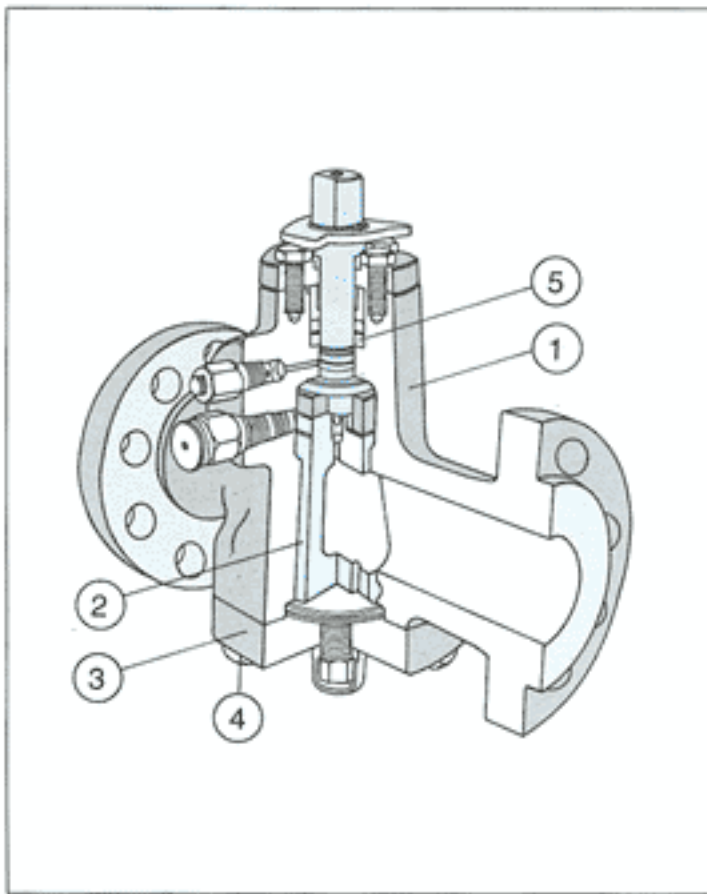
### DIMENSIONS (mm)

### Class 2500

Size Inch mm	Pattern	A		B	C	D	E	Wrench	Wrench Length	Gear Unit	F
		RF	RTJ								
2 50	R	451	454	235	50.8	185	—	B5S	684	—	—
3 80	R	578	584	305	66.5	218	307	—	—	27M3	578
4 100	R	673	683	356	76.2	218	338	—	—	G400M3	578

RF height of 6.4 mm and RTJ face height of 7.9 mm for 2" and 11 mm for 4" excluded from flange thickness.





## MATERIAL SPECIFICATION

Name of part	Specification
1. Body	ASTM A 216 Gr. WCB
2. Plug	ASTM A 216 Gr. WCB Case hardened & Super LoMu treated
3. Cover	ASTM A 216 Gr. WCB
4. Bolting Studs Nuts	ASTM A 193 Gr. B7 ASTM A 194 Gr. 2H
5. Packing	Graphite

## TEST PRESSURE

	Max. CWP at -20 to 100°F		Hydrostatic			
			Shell		Seat	
	psig	bar	psig	bar	psig	bar
Class 1500	3705	256	5575	384	4080	281
Class 2500	6170	426	9275	640	6790	468

## CATALOGUE NUMBER

A familiarity with our catalogue number is not necessary when specifying or ordering our valves. If full description of the valve could be provided we will translate this into a catalogue number formulated as per the following system.

<b>80</b>	<b>H</b>	<b>R</b>	<b>G</b>	<b>B 5 5</b>	<b>C</b>	<b>C</b>		
Size	Super-H	Pattern	Operation	1st digit Pressure Rating	2nd & 3rd Digit End Connection each ends	Body Material	Plug Material	Options
80 mm		R - Regular V - Venturi	W - Wrench G - Gear A - Actuator	A - Class 1500 B - Class 2500	3 - Flanged RF 5 - Flanged RTJ	C - Carbon Steel	C - Case Hardened Carbon Steel	Nil - Standard S - Slurry N - NACE

As we continuously endeavour to improve our products, the data given herein are subject to change.

Manufactured by



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