

Iron Taper Plug Valve



 **Serck Audco Valves**



Iron Taper Plug Valve






































































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Range and Index



mm Inches	15 ½	20 ¾	25 1	32 1¼	40 1½	50 2	65 2½	80 3	100 4	125 5	150 6	200 8	250 10	300 12	350 14	400 16	450 18	600 24	Pg
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MW 11F	MRW1FFGG	11	ML 13	MMW133GG	17	MUV 11F	MUW1FFGG	18
MW 13	MRW133GG	11	MT 12	MNW122GG	17	MUV 13	MUW133GG	18
BG 11	BRG1DDGG	12	MT 14	MNW144GG	17	BGUV 11	BUG1DDGG	18
BG 11F	BRG1FFGG	12	MT 11	MNW1DDGG	17	BGUV 11F	BUG1FFGG	18
BG 13	BRG133GG	12	MT 11F	MNW1FFGG	17	BGUV 13	BUG133GG	18
CG 11	BVG1DDGG	12	MT 13	MNW133GG	17			
LW 11	MSW1DDGG	13	BGLV 11	BLG1DDGG	17	60	LSW122GG	*
LW 13	MSW133GG	13	BGLV 11F	BLG1FFGG	17	MLV 11	MLW1DDGG	*
LG 11	MSG1DDGG	13	BGLV 13	BLG133GG	17	MLV 11F	MLW1FFGG	*
LG 13	MSG133GG	13	BGTV 11	BTG1DDGG	17	MLV 13	MLW133GG	*
MJ 11	MJW1DDGG	14	BGTV 11F	BTG1FFGG	17	MTV 11	MTW1DDGG	*
MJ 11F	MJW1FFGG	14	BGTV 13	BTG133GG	17	MTV 11F	MTW1FFGG	*
MJ 13	MJW133GG	14				MTV 13	MTW133GG	*

* Please consult Serck Audco Valves



Principles and Maintenance

Principles of Operation

The Audco Taper Plug Valve, manufactured in sizes from 1/2" to 12", is used on a wide variety of liquid, gaseous and slurry services.

The tapered plug is held firmly into its tapered seat but can be so adjusted that complete leaktightness is achieved together with smooth valve operation. The tapered seating surfaces of the plug and body are not exposed to the line fluid when the valve is in the open position, so that the effects of corrosion and erosion are confined to the less important parts of the valve. Also since there is a straight flowpath through the valve, there is very little resistance to flow and pressure loss is minimised.

Super LoMu Treatment

All Cast Iron taper plug valves, sizes 1 1/2" and above, have plugs with Audco Super LoMu treatment. In this unique process, low friction PTFE is incorporated in the surface structure of the valve plug metal. This gives easier operation and enhanced resistance to taper lock over thousands of operations or many years of service.

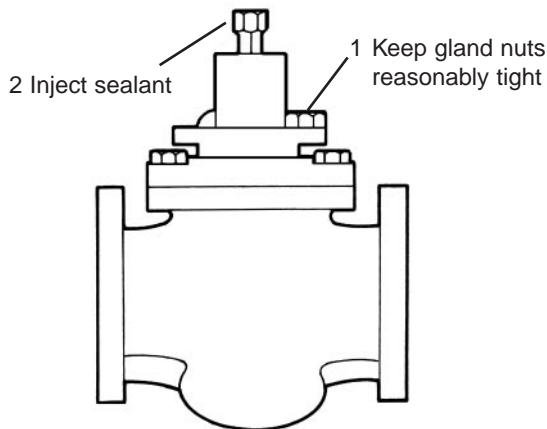
Sealant Type

Valves in this catalogue are normally filled with 733 sealant during assembly.

If you require a sealant different from normal, please state this at the ordering stage so that the valve can be assembled with the correct sealant.

In those cases where no previous experience exists regarding the suitability of the normal sealant for the line fluid on which the valve is to be used, please provide full service details so that we may ensure that the correct type of sealant is used in the assembly of the valve.

Maintenance



Consult SAV full Overhaul & Repair Manual, available on request, before attempting any maintenance operations other than those described here.

Sealant Injection

Lubrication of the seating surfaces is by means of a specially compounded valve sealant which is fed into the operating shank of the valve, either in the form of mastic sticks or by sealant gun. The sealant then passes through a non-return valve into a system of grooves and ducts on the plug and body.

As the valve is operated, a film of sealant is spread evenly between the seating surfaces and, if a valve should become difficult to turn, sealant pressure may be built up in the small end chamber underneath the plug, so that the plug is eased slightly in its seat and operability is restored.

The design of the sealant system ensures that any sealant groove which is exposed to the line fluid during operation, is isolated from the sealant supply. Thus loss of sealant into the pipeline is avoided.

As well as facilitating valve operation, the special sealant also perfects the seal between the accurately matched seating surfaces and so assures positive leaktightness.

Audco sealants are specially formulated for use in Audco valves. It is extremely important that only Audco sealant be used as they retain their properties over a wide temperature range, resist corrosive attack and have many other characteristics necessary for the efficient operation of Audco Valves. Similarly, Audco sealant should not be used for any purpose other than injecting into Audco taper plug valves in the way described in our operating instructions, except with our express recommendation.

The frequency of the sealant injection and the quantity of sealant needed will depend on many factors specific to the particular duty. The operating regime of the valve, the temperature and pressure of the fluid, the age and condition of the valve are all important factors. Most important of all is the composition and nature of the line fluid and especially its effect on the recommended sealant. All of these variables make it difficult to make positive recommendations which would apply to all circumstances, but the following table provides a useful starting point in determining the maintenance requirement of a particular requirement:-

Frequency of Valve Operation	On average valve should be lubricated	
	Not more than	Not less than
Over 100 times per shift.....	Each shift	Weekly
10 to 100 times per day.....	Daily	Weekly
1 to 10 times daily.....	Weekly	Monthly
1 to 30 times monthly.....	Monthly	Quarterly
Less frequently.....	Quarterly	Twice Annually

Audco sealants are formulated specially for use in Audco valves and no other types of sealant should be used, nor should Audco valve sealants be used for any purpose other than injecting into Audco plug valves without our express recommendation.

Multi-purpose Plug Sealants

Sealant	Form	Colour	Temperature Range*		Recommended for	Do not use on
			Min.	Max.		
731	Sticks (all sizes) Cartridges Bulk	Cream	-15°C -20°C -25°C	230°C 230°C 230°C	Most chemical plant services, water, aqueous solutions, dilute acids, all alkaline solutions, compressed air, tars, bitumens.	Strong acid solutions, petroleum products.
733	Sticks (all sizes) Cartridges Bulk	Cream	0°C -10°C -15°C	250°C 250°C 250°C	Most hydrocarbons, butane, propane, gasoline, kerosene, oils, fuel oils. Natural gas, manufactured gas (including gas with carbon dioxide, hydrogen sulphide, water and condensate), LPG, glycols.	Strong alkalis, high aromatic solvents.

* Temperature range is dependent upon nature of service.

Specialised Plug Sealants

A specialised range of sealants is available: see our publication 'Sealants and Injection Equipment' for full details. Our publication 'Chemical Resistance Chart' gives sealant recommendations for specific services.

Storage and Handling of Sealants

Sealants should be stored in clean, dry conditions away from heat and flame and strong oxidising agents. Keep containers closed and store sealants in their original containers until required for use.

All our sealants have flash points above 150°C but some will burn if subjected to sufficiently fierce flames. If any sealant is incinerated avoid breathing the fumes.

Normal hygiene procedures should be followed e.g. avoid prolonged skin contact, wash hands thoroughly after use, etc. Data sheets for each sealant are available on request.

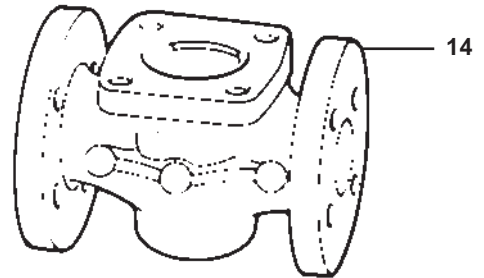
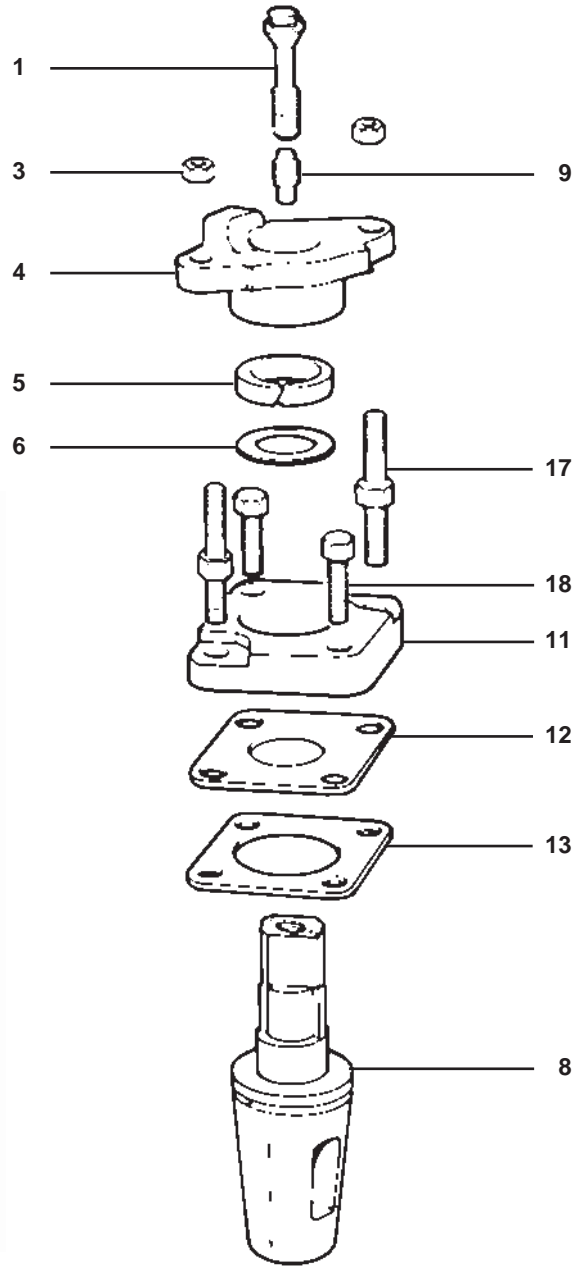
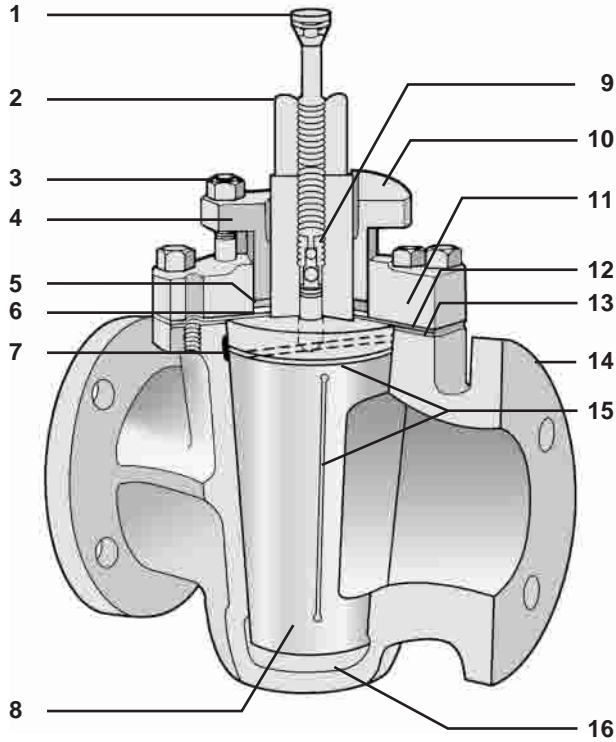


Standard Construction

Audco Standard Type Valve

The Audco Standard type valve has its integral operating shank at the large end of the taper plug. The plug is seated by means of forces applied through the gland packing housed in the cover which also seals the shank against leakage.

To prevent damage to the packing where it would otherwise rub on the top of the plug, it bears on a metal shim which is clamped between the body and the cover. This reduces friction between the plug and the packing and also acts as a separate and very effective seal against leakage of the line fluid into the packing space.



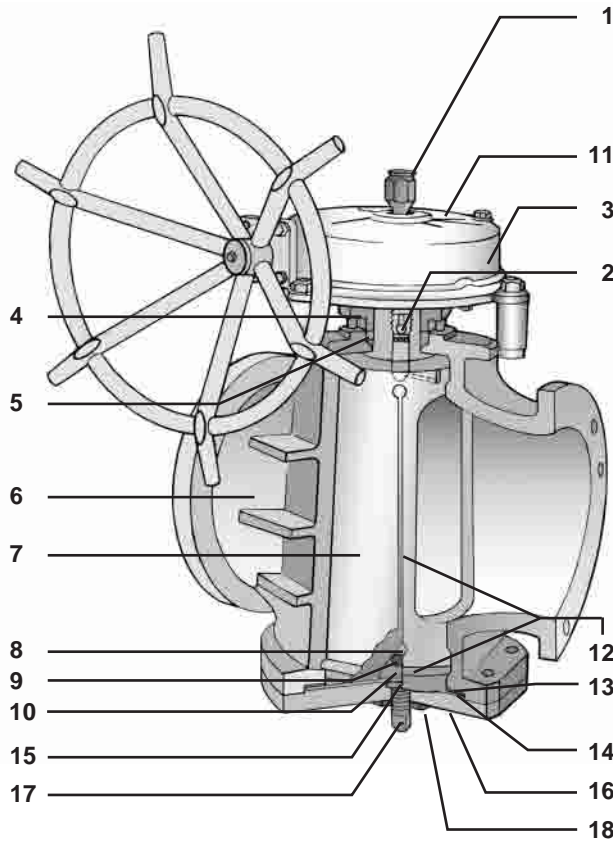
- | | |
|----------------------|--------------------|
| 1 Sealant Injector * | 10 Stop |
| 2 Indicator | 11 Cover |
| 3 Gland Nuts | 12 Shim |
| 4 Gland | 13 Gasket |
| 5 Gland Packing | 14 Body |
| 6 Packing Ring | 15 Sealant Grooves |
| 7 Sealant Duct | 16 Sealant Chamber |
| 8 Plug | 17 Gland Studs |
| 9 Check Valve | 18 Cover Bolts |

* Sealant Screw (up to 40mm)

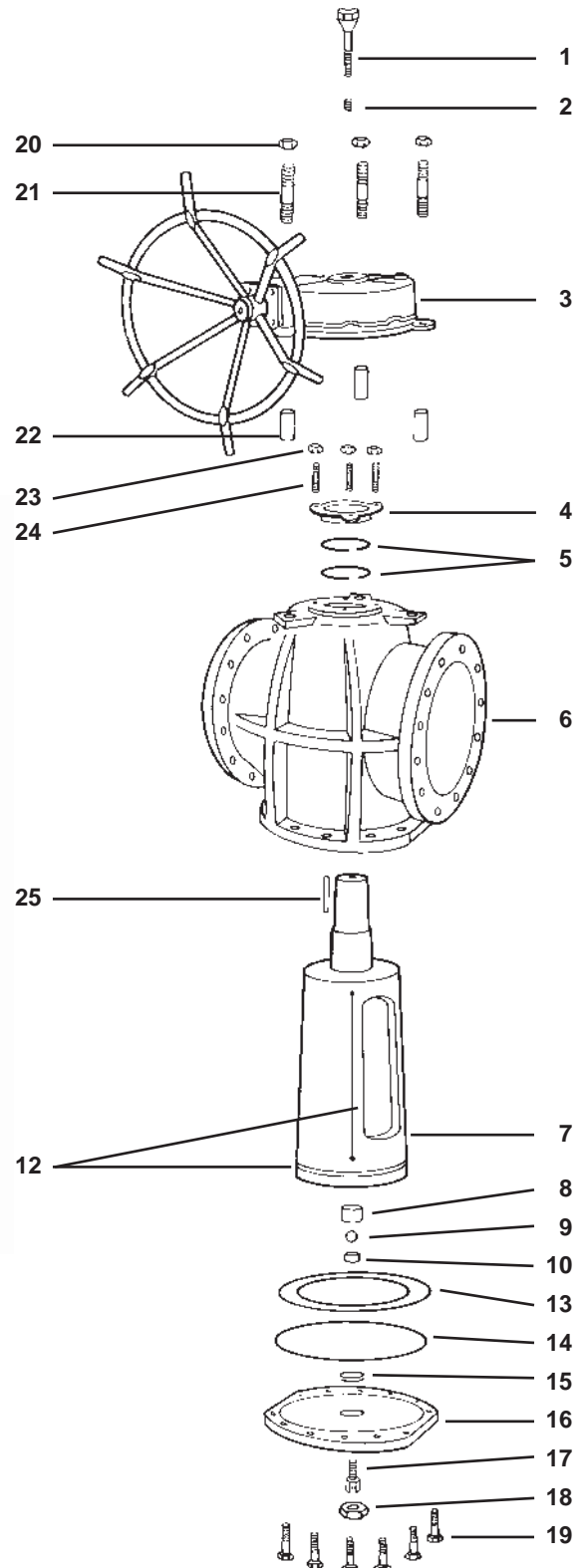
Audco Inverted Type Valve

The larger sizes of Audco Regular Pattern valves are of the INVERTED TYPE. In this design, the plug tapers towards its upper end and is firmly seated by means of a loading screw passing through the cover which seals the valve base.

The sealant chamber is at the upper end of the plug, and the plug seating is independent of the gland, which serves only to seal the plug shank against leakage to atmosphere. These large valves are normally operated by a worm gear unit and handwheel.



- | | |
|--------------------|-----------------------|
| 1 Sealant Injector | 14 Diaphragm |
| 2 Check Valve | 15 Pressure Plate |
| 3 Gear Unit | 16 Cover |
| 4 Gland | 17 Plug Loading Screw |
| 5 Gland Packing | 18 Locknut |
| 6 Body | 19 Cover Bolts |
| 7 Plug | 20 Gear Unit Nuts |
| 8 Plug Ball Seat | 21 Gear Unit Studs |
| 9 Ball | 22 Distance Pieces |
| 10 Ball Seat | 23 Gland Stud Nuts |
| 11 Indicator | 24 Gland Studs |
| 12 Sealant Grooves | 25 Key |
| 13 Joint Ring | |





Materials and Figure Numbers

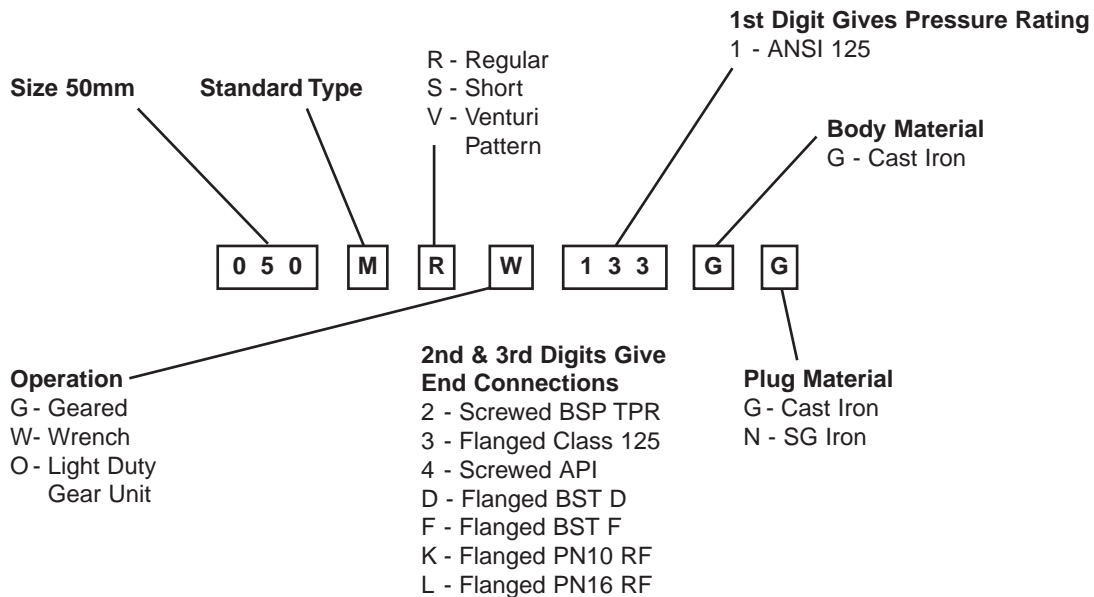
Body and Plug Materials

	SAV Specification	Used for	Comparable Specifications	
GREY IRON	BS 1452 Gr. 220	Body, Plug, Cover & Gland	ASTM A126 GR. B	DIN 1691 Gr. GG22 (0.6022)

Figure Numbering

A familiarity with our figure number system is not necessary when specifying or ordering our valves. Providing a full description of the valve is given, our Sales Office will translate this into a figure number. A full description of the valve would begin with "Audco Iron Plug Valve", and would then go on to give size, pressure rating, flanging details etc.

We give an example below in order to illustrate figure number, but if a fuller explanation is required please request Standards Sheet 0028-4001.



Standards and Patterns

Cast iron plug valves with threaded ends or with flanges, for general purposes, are covered in BS5158. Flanges conform to BS4504 or ANSI B16.1

The valves in this catalogue are shown as Regular, Short or Venturi Pattern. The different patterns vary as regards end-to-end dimensions and port area for a given size of valve and conform to BS5158 definitions.

Regular pattern valves have end-to-end dimensions in accordance with BS5158 Long and ANSI B16.10. The plug ports of these valves are rectangular in shape but are substantially full area giving the minimum flow restriction for a given size of valve.

Short pattern valves have end-to-end dimensions in accordance with BS5158 Short and ANSI B16.10. which make them interchangeable with Class 125 and Class 150 gate valves. As a consequence of this short end-to-end dimension, port area is reduced compared with regular pattern valves and the change in shape from circular pipe bore to rectangular plug port is more abrupt.

Venturi pattern valves have end-to-end dimensions in accordance with BS5158 Long and ANSI B16.10. The plug port area is reduced but the change in shape of the flow passage is sufficiently gradual to produce a venturi shape which allows significant pressure recovery. These valves are ideally suited for all normal pipeline applications, particularly in the larger sizes where there is a considerable saving in weight and cost.

Test Pressures



VALVE	ENDS	C.W.P.		TEST PRESSURES (Hydrostatic)			
		lbf/in ²	bar	Shell		Seat	
				lbf/in ²	bar	lbf/in ²	bar
ERW	BSP Tr	125	8.6	125	8.6	125	8.6
LSW	BSP Tr	232	16	348	24	255	17.6
MRW/O	BST D	100	6.9	225	15.5	165	11.4
	BST F	150	10.3				
	BSP Tr	150	10.3				
	ANSI 125	200	13.8	300	20.7	220	15.2
	NPT	200	13.8				
	PN 10	145	10				
	PN 16	232	16				
BRG ≤ DN 300	BST D	100	6.9	300	20.7	220	15.2
	BST F	150	10.3				
	ANSI 125	200	13.8				
	PN 10	145	10	218	15	160	11
	PN 16	232	16	348	24	255	17.6
BRG ≤ DN 350	BST D	100	6.9	225	15.5	165	11.4
	BST F	150	10.3				
	ANSI 125	150	10.3				
	PN 10	145	10				
BVG	BST D	100	6.9	225	15.5	165	11.4
	PN 10	145	10	218	15	160	11
MSW/G/O	BST D	100	6.9	300	20.7	220	15.2
	ANSI 125	200	13.8				
	PN 10	145	10	218	15	160	11
	PN 16	232	16	348	24	255	17.6
MJW/O	BST D	100	6.9	225	15.5	165	11.4
	BST F	150	10.3				
	ANSI 125	200	13.8	300	20.7	220	15.2
	PN 10	145	10	218	15	160	11
	PN 16	232	16	348	24	255	17.6
Multiports	BST D	100	6.9	250	17.2	250	17.2
	BST F	150	10.3				
	ANSI 125						
	PN 10	145	10	218	15	160	11

All of the above conform with BS 5158 and BS 6755 Part 1.

Test Duration



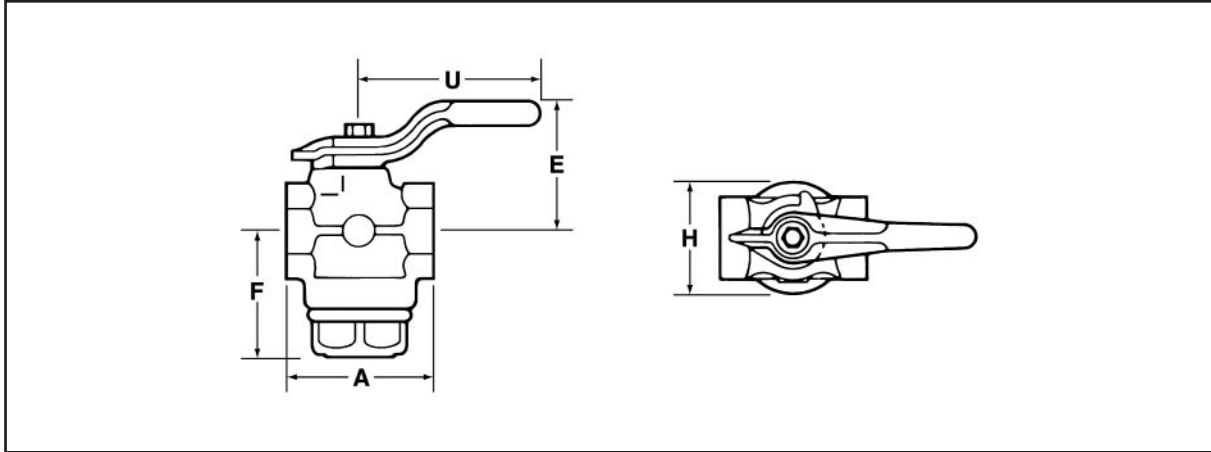
Each relevant standard defines the minimum length of time for which each test pressure is to be maintained and also the testing operations sequence.

These durations will be adhered to unless a different specification is required against a particular order. If, once fitted into the line, a valve is to be subjected to a greater test pressure or a longer duration of test, then this should be specified and this can be covered at the inspection stage of the finished valve before painting.



Regular Pattern, Inverted Type

ERW022GG Screwed BSP Taper 15-25mm



			15	20	25
A	End-to-end	mm	70	89	98
E	CL to top of wrench	mm	54	75	87
F	CL to bottom of body cap	mm	56	67	81
H	Maximum width of body	mm	45	57	67
U	Wrench length from CL	mm	83	116	140
	Weight (approx.)	kg	0.68	1.6	2.6

These valves require no regular maintenance as they have no gland and have a continuous sealant feed from an internal reservoir which is energised by a spring. The spring also serves to maintain the plug correctly in its seat.

The sealant used is soft grade 731 and only simple services, such as cold water, gases and compressed air are suitable applications, i.e. clean and non-corrosive. These valves are supplied complete with a fitted wrench and quarter stop. The wrench should not be removed.

In common with other spring seated valves, testing is carried out at the maximum working pressure only, with air under water, at 9 bar. Bodies are strong enough to withstand several times this pressure.

Regular Pattern, Standard Type

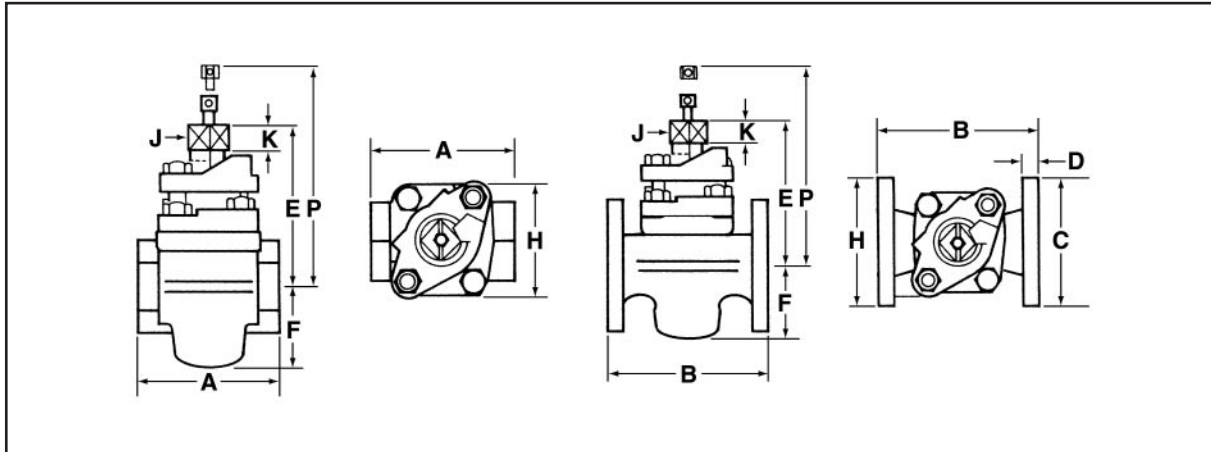


MRW122GG Screwed BSP Tr
MRW144GG Screwed NPT

15-100mm
 15-100mm

MRW1DDGG Flanged BST D
MRW1FFGG Flanged BST F
MRW133GG Flanged ANSI 125

15-200mm
 15-200mm
 12-200mm



			15	20	25	40	50	65	80	100	125	150	200
A	End-to-end screwed	mm	89	95	111	133	152	-	197	273	-	-	-
B	Face-to-face flanged	mm	121	121	140	165	203	222	241	305	356	394	457
C	Flange diameter BST D	mm	95.3	102	114	133	152	165	184	216	254	279	337
C	Flange diameter BST F	mm	95.3	102	146	140	165	184	203	229	279	305	368
C	Flange diameter ANSI 125	mm	88.9	98.4	108	127	152	178	190	229	254	279	343
D	Flange thickness BST D	mm	12.7	12.7	12.7	15.9	19	19	19	22.2	23.8	25.4	25.4
D	Flange thickness BST F	mm	12.7	12.7	12.7	15.9	19	19	19	23.8	25.4	25.4	28.6
D	Flange thickness ANSI 125	mm	12.7	12.7	12.7	15.9	19	19	19	23.8	23.8	25.4	28.6
E	CL to top of stem	mm	100	114	121	157	173	197	227	248	243	327	402
F	CL to bottom of body	mm	35	46	50	65	76	92	108	137	164	186	232
H	Maximum width of body	mm	86	101	91	110	127	145	152	220	260	290	350
J	Size of plug square	mm	19	22.2	22.2	27	31.8	38.1	41.3	47.6	50.8	50.8	58.7
K	Depth of plug square	mm	20.6	20.6	20.6	25.4	28.6	30.2	49.2	50.8	54	54	66.7
P	Clearance to remove sealant screw	mm	154	162	175	213	250	273	318	338	416	450	524
U	CL to end of fitted wrench	mm	152	229	229	330	381	457	559	711	1016	1016	1016
	Weight (approx) screwed	kg	1.6	2.7	3.8	7.3	11	-	23	41	-	-	-
	Weight (approx) flanged	kg	3	4.5	5.4	10	14	21	27	51	81	100	182
	Wrench number		2	3H	3H	4H	5H	6H	7H	8H	10H	10H	11H
	Sealant stick size		A	A	A	B	C	C	D	D	E	E	E



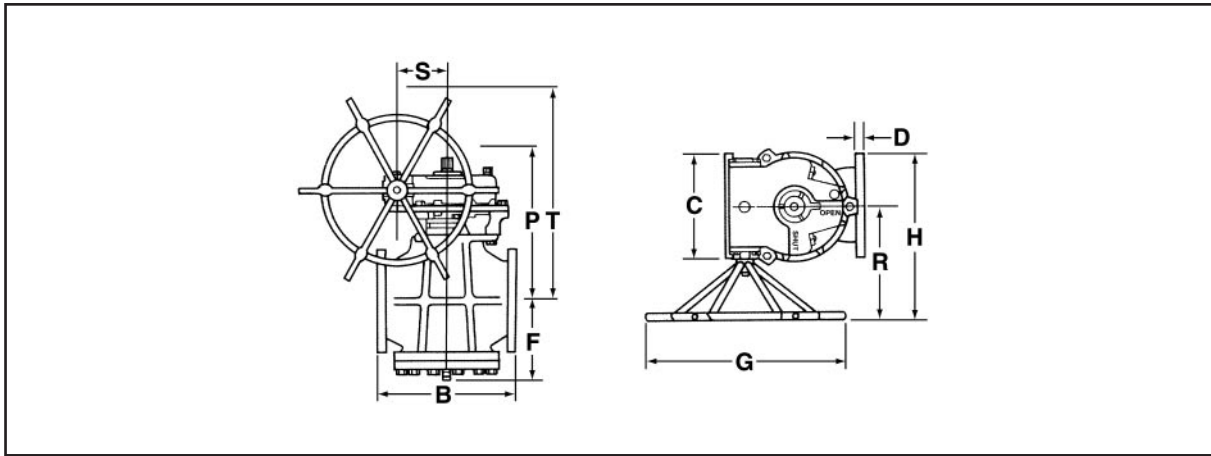
Regular Pattern, Inverted Type and Venturi Pattern, Inverted Type

Regular Pattern

BRG1DDGG	Flanged BST D	250-350mm	BRG1DDGN	Flanged BST D	400-450mm
BRG1FFGG	Flanged BST F	250-350mm	BRG1FFGN	Flanged BST F	400-450mm
BRG133GG	Flanged ANSI 125	250-350mm	BRG133GN	Flanged ANSI 125	400-450mm
BRG1KKGG	Flanged PN10 RF	250-350mm	BRG1KKGN	Flanged PN10 RF	400-450mm
BRG1LLGG	Flanged PN16 RF	250-350mm	BRG1LLGN	Flanged PN10 RF	400-450mm

Venturi Pattern

BVG1DDGN	Flanged BST D	600mm
BVG1KKGN	Flanged PN10 RF	600mm



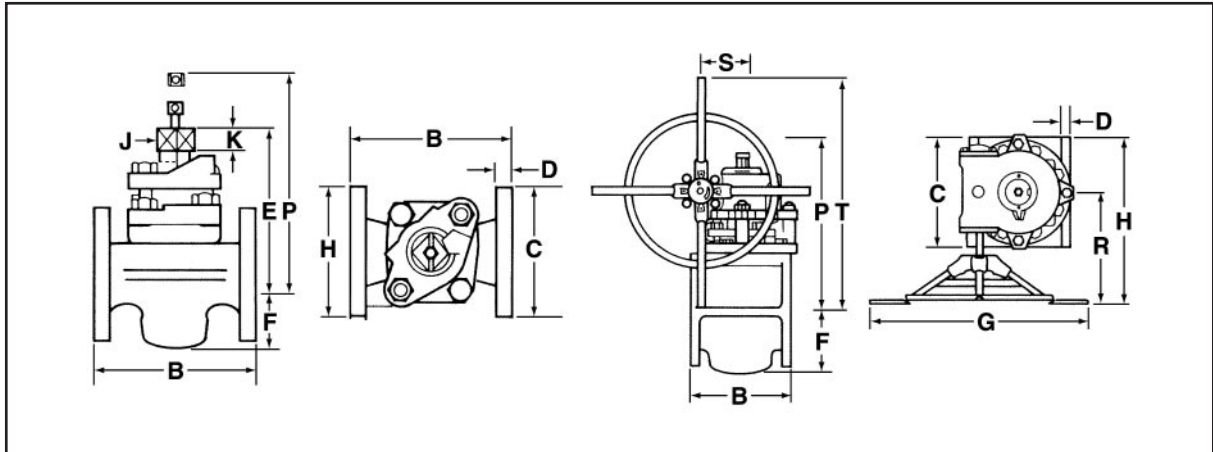
			250	300	350	400	450	600
B	Face-to-face flanged	mm	533	610	610	686	864	1067
C	Flange diameter BST D	mm	406	457	527	578	641	826
C	Flange diameter BST F	mm	432	489	552	610	673	-
C	Flange diameter ANSI 125	mm	406	483	533	597	635	-
C	Flange diameter PN10	mm	395	445	505	565	615	780
C	Flange diameter PN16	mm	405	460	520	580	640	-
D	Flange thickness BST D	mm	30.2	31.8	34.9	36.5	39.7	41.3
D	Flange thickness BST F	mm	30.2	31.8	34.9	36.5	39.7	-
D	Flange thickness ANSI 125	mm	30.2	31.8	34.9	36.5	39.7	-
D	Flange thickness PN10	mm	28	28	30	32	32	36
D	Flange thickness PN16	mm	32	32	36	38	40	-
F	CL to bottom of body	mm	311	350	375	416	490	549
G	Handwheel diameter	mm	578	787	787	787	787	787
H	Maximum width	mm	511	680	680	713	897	897
P	Clearance to remove sealant injector	mm	607	654	649	702	703	643
R	CL to face of handwheel	mm	308	437	437	437	529	529
S	CL valve to CL operating spindle	mm	105	195	195	195	195	195
T	CL valve to top of handwheel	mm	726	862	851	900	992	932
	Weight (approx)	kg	406	546	564	682	1078	1325
	Sealant stick size		E	E	E	E	E	E

Short Pattern, Standard Type



MSW1DDGG Flanged BST D 50-250mm
MSW133GG Flanged ANSI 125 50-250mm
MSW1KKGG Flanged PN10 RF 50-250mm
MSW1LLGG Flanged PN16 RF 50-250mm

MSG1DDGG Flanged BST D 250 & 300mm
MSG133GG Flanged ANSI 125 250 & 300mm
MSG1KKGG Flanged PN10 RF 250 & 300mm
MSG1LLGG Flanged PN16 RF 250 & 300mm



			50	65	80	100	150	200	250	250	300
B	Face-to-face	mm	178	191	203	229	267	292	330	330	356
C	Flange diameter BST D	mm	152	178	191	229	279	343	406	406	457
C	Flange diameter ANSI 125	mm	152	165	184	216	279	343	406	406	483
C	Flange diameter PN10	mm	152	178	191	229	279	343	395	395	445
C	Flange diameter PN16	mm	152	178	191	229	279	*	405	405	460
D	Flange thickness (all Standards)	mm	19.1	19.1	19.1	23.8	25.4	28.6	30.2	30.2	31.8
E	CL to top of stem	mm	156	173	202	227	294	327	364	-	-
F	CL to bottom of body	mm	71	87	101	114	175	180	220	220	290
G	Handwheel diameter	mm	-	-	-	-	-	-	-	578	578
H	Maximum width	mm	105	125	145	152	280	343	381	524	554
J	Size of plug square	mm	27	31.8	38.1	41.3	50.8	50.8	50.8	-	-
K	Depth of plug square	mm	25.4	28.6	30.2	33.3	54	54	54	-	-
P	Clearance to remove sealant injector	mm	213	252	278	318	416	450	483	537	597
R	CL to face of handwheel	mm	-	-	-	-	-	-	-	308	308
S	CL valve to CL operating spindle	mm	-	-	-	-	-	-	-	105	105
T	CL valve to top of handwheel	mm	-	-	-	-	-	-	-	680	718
U	CL to end of fitted wrench	mm	330	381	457	559	1016	1016	-	-	-
	Weight (approx)	kg	13	18	25	34	82	112	168	186	270
	Wrench number		4H	5H	6H	7H	10H	10H	-	-	-
	Sealant stick size		B	C	C	D	E	E	E	E	E
	Number of tapped holes in each flange	BST D	0	0	0	0	2	4	2	2	8
	Number of tapped holes in each flange	ANSI 125	0	0	0	0	2	2	4	4	8
	Number of tapped holes in each flange	PN10	0	0	0	0	2	2	4	8	8
	Number of tapped holes in each flange	PN16	0	0	0	0	2	*	4	8	8

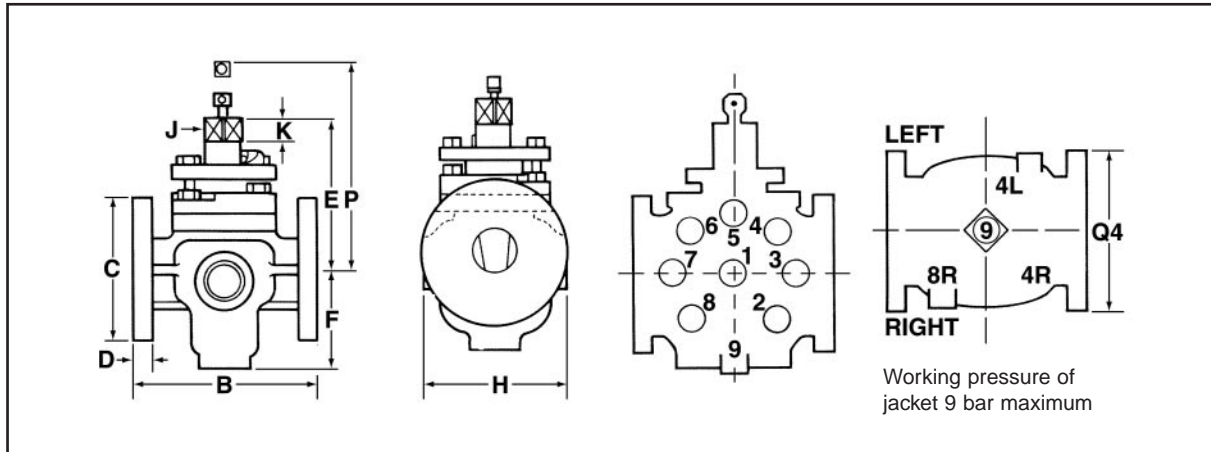
* Consult Serck Audco Valves



Regular Pattern Standard Type Jacketted

MJW1DDGG Flanged BST D 25-100mm
MJW1FFGG Flanged BST F 25-100mm
MJW133GG Flanged ANSI 125 25-100mm

MJW1KKGG Flanged PN10 RF 25-100mm
MJW1LLGG Flanged PN16 RF 25-100mm



			25	40	50	80	100	
B	Face-to-face	mm	140	165	203	241	356	
C	Flange diameter BST D	mm	114	133	152	184	216	
C	Flange diameter BST F	mm	121	140	165	203	229	
C	Flange diameter ANSI 125	mm	108	127	152	191	229	
C	Flange diameter PN10	mm	121	140	165	203	229	
C	Flange diameter PN16	mm	121	140	165	203	229	
D	Flange thickness (all Standards)	mm	12.7	15.9	19.1	19.1	23.8	
E	CL to top of stem	mm	121	156	173	227	248	
F	CL to bottom of body	mm	75	97	114	143	178	
H	Maximum width	mm	105	130	162	183	229	
J	Size of plug square	mm	22.2	27	31.8	41.3	47.6	
K	Depth of plug square	mm	20.6	25.4	28.6	49.2	50.8	
P	Clearance to remove sealant injector	mm	175	213	249	318	338	
	Jacket connection size BSP Tr	in	¾	1	1¼	1¼	1½	
	Number of jacket connections		3	3	3	3	5	
	Position of connections		1R 9	1L 9	1R 9	1L 9	1R 9	1L 9
Q4	Maximum width between connections	mm	105	130	162	183	229	
U	CL to end of fitted wrench	mm	229	330	381	559	711	
	Weight (approx)	kg	6.8	12	20	34	69	
	Wrench number		3H	4H	5H	7H	8H	
	Sealant stick size		A	B	C	D	D	

Multiport Valves



Features

- Reduction in the number of valves used
- Simplification of pipe layout
- Economy of pipework and fittings
- Less risk of product intermixing
- No risk of incorrect valve operation
- Quicker and easier operation

Quick Operation

Two of three multiport valves can often be inter-coupled in the same piping layout to permit fast multiple operation in the simplest possible way and with the minimum of manpower.

Foolproof

A further advantage of multiport valves is that ports and stops can be arranged to give the required flow positions and at the same time make it impossible for undesired positions to be obtained.

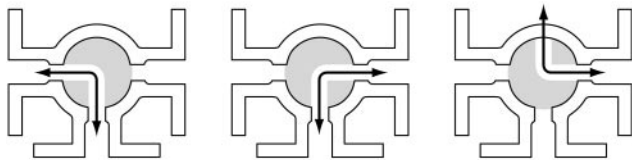
Typical Applications

Threeway valve - alternate connection of two supply lines to a common delivery; diversion of a flow to either of two directions; isolation of one of a pair of safety valves for maintenance purposes; operation of a cylinder with a single acting piston.

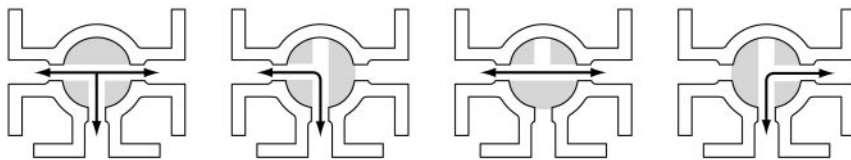
Multiport valves save operating time and maintenance costs. Study of these diagrams will suggest more economical layouts than could be obtained with a complicated system of straightway valves.

Flow Positions

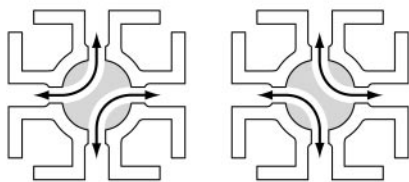
Positions of threeway
L-ported valves



Positions of threeway
T-ported valves



Positions of
fourway valves





Positive and Negative Shut Off

Positive and Negative Shut Off

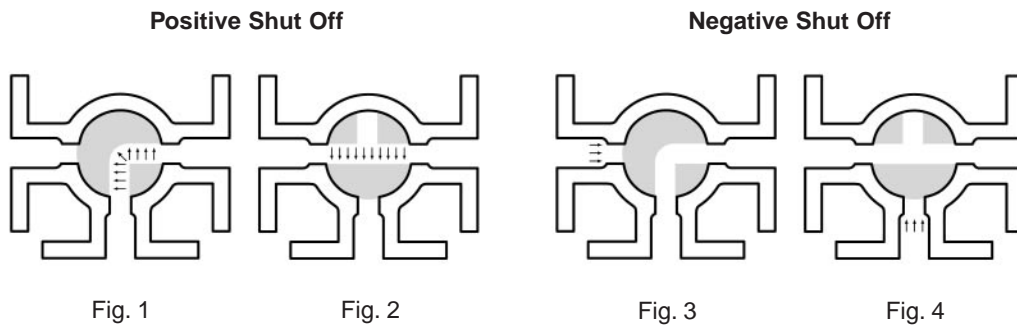
Multiport valves of the various pressure ratings listed are built to the same standards of quality and strength as the corresponding straightway valves. However, multiport valves can only be expected to provide shut off against full rated working pressure in the positive direction, that is with the line pressure to hold the plug against the body port which is to be shut off from the higher pressure, as illustrated in Figs. 1 and 2.

In Fig. 1 the flow is between the right-hand and centre connections with the left-hand connection shut off.

In Fig. 2 the flow is straight through with the centre connection shut off.

In both cases the pressure inside the valve tends to force the plug against the body port that is to be shut off. Multiport valves should not be expected to shut off high differential pressures when the line pressure is in a negative direction as illustrated in Figs. 3 and 4. In these examples pressure applied in the direction as shown, tends to force the plug away from the body port which is to be shut off. Multiport valves are designed for flow diversion and should not be expected to provide a positive shut-off in intermediate positions.

NOTE - For vacuum applications care should be taken to ensure that the vacuum tends to hold the plug against the body port which is to be shut off.



Transflow

When the plug of a transflow valve is rotated from one flow position to another, the second flow position starts to open before the first flow position is completely closed.

This form of valve is essential when momentary interruption of flow is not permissible, for example on the outlet from a positive displacement pump.

When the plug of a non-transflow valve is rotated from one flow position to another, the first flow position is isolated before the second flow position starts to open. The midway position, however, is not intended to be used as a shut off.

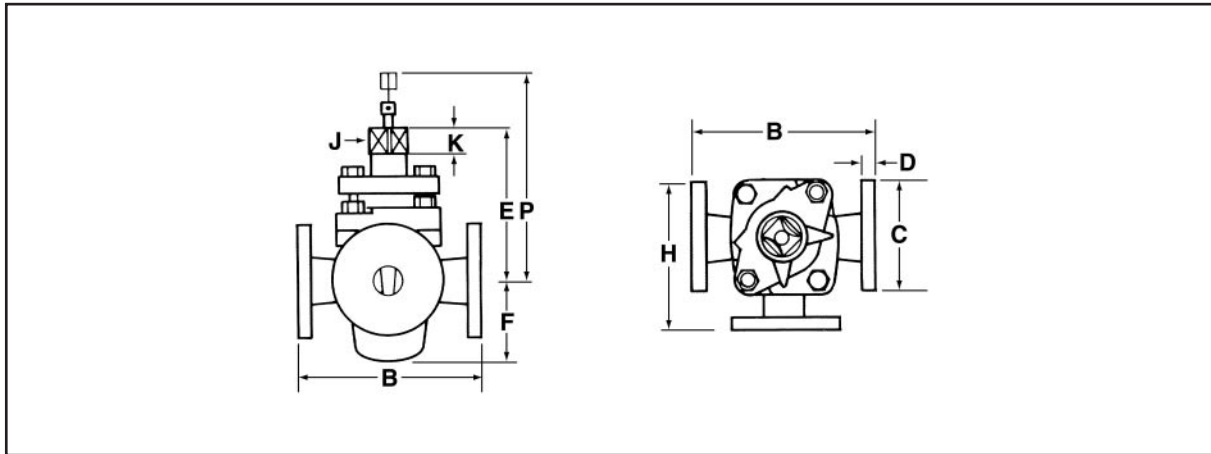
This form of valve is essential when momentary flow into one port from two others is not permissible; for example, on the outlet of a measuring vessel and on certain types of tank manifold.

Transflow valves have L or T in the second digit of the Figure Number.

Threeway Valves



MMW122GG	L Port	Screwed BSP Tr	15-80mm	BLG1DDGG	L Port	Flanged BST D	150mm
MNW122GG	T Port			BTG1DDGG	T Port		
MMW144GG	L Port	Screwed NPT	15-80mm	BLG1FFGG	L Port	Flanged BST F	150mm
MNW144GG	T Port			BTG1FFGG	T Port		
MMW1DDGG	L Port	Flanged BST D	15-100mm	BLG133GG	L Port	Flanged ANSI 125	150mm
MNW1DDGG	T Port			BTG133GG	T Port		
MMW1FFGG	L Port	Flanged BST F	15-100mm	BLG1KKGG	L Port	Flanged PN 10 RF	150mm
MNW1FFGG	T Port			BTG1KKGG	T Port		
MMW133GG	L Port	Flanged ANSI 125	15-100mm	BLG1LLGG	L Port	Flanged PN 16 RF	150mm
MNW133GG	T Port			BTG1LLGG	T Port		
MMW1KKGG	L Port	Flanged PN 10 RF	15-100mm				
MNW1KKGG	T Port						
MMW1LLGG	L Port	Flanged PN 10 RF	15-100mm				
MNW1LLGG	T Port						



			15	20	25	40	50	80	100	150*
A	End-to-end	mm	127	127	133	175	197	-	-	-
B	Face-to-face	mm	152	152	165	222	241	305	356	475
C	Flange diameter BST D	mm	95.3	102	114	133	152	184	216	279
C	Flange diameter BST F	mm	95.3	102	121	140	165	203	229	305
C	Flange diameter ANSI 125	mm	88.9	98.4	108	127	152	191	229	279
C	Flange diameter PN10	mm	95	102	114	140	165	203	220	305
C	Flange diameter PN16	mm	95	102	114	140	165	203	220	305
D	Flange thickness BST D	mm	12.7	12.7	12.7	15.9	19.1	19.1	22.2	22.2
D	Flange thickness BST F	mm	12.7	12.7	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness ANSI 125	mm	12.7	12.7	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness PN10	mm	12.7	12.7	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness PN16	mm	12.7	12.7	12.7	15.9	19.1	19.1	23.8	25.4
E	CL to top of stem	mm	138	138	154	189	214	257	284	-
F	CL to bottom of body	mm	50	50	60	76	92	137	148	232
H	Maximum width Screwed	mm	110	110	114	152	168	-	-	-
H	Maximum width Flanged	mm	120	120	130	175	191	262	308	553
J	Size of plug square	mm	22.2	22.2	27	31.8	38.1	47.6	50.8	-
K	Depth of plug square	mm	22.2	22.2	25.4	28.6	30.2	49.2	49.2	-
P	Clearance to remove sealant injector	mm	192	192	211	265	291	348	402	503
U	CL to end of fitted wrench	mm	229	229	330	381	457	711	1016	-
	Weight (approx) Screwed	kg	4.1	4.1	5.5	13	16	-	-	-
	Weight (approx) Flanged	kg	5.9	5.9	8.6	18	24	50	73	200
	Wrench number		3H	3H	4H	5H	6H	8H	10H	-
	Sealant stick size		A	A	B	C	C	D	E	E

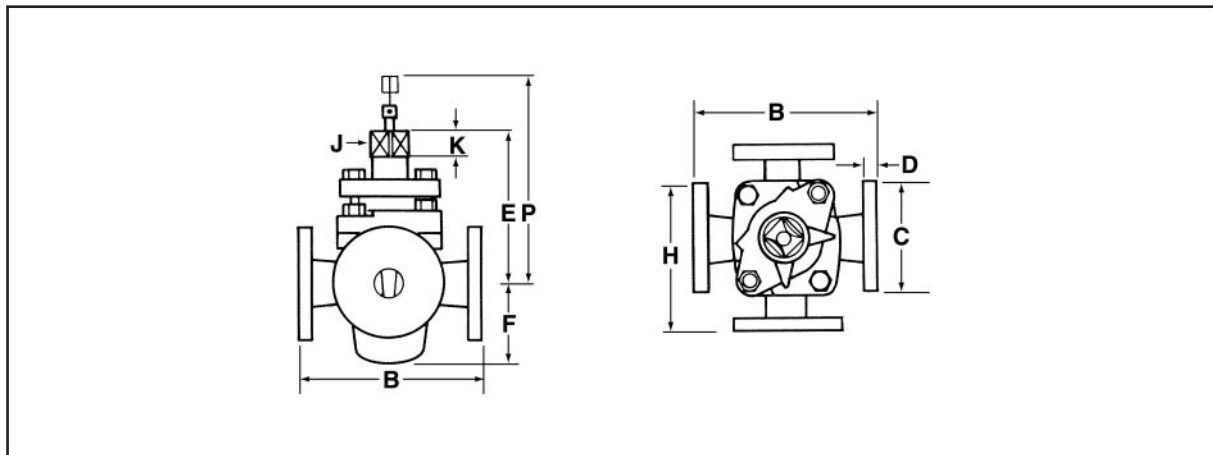
* This valve is an Inverted Type geared valve which is not illustrated. If you require any further information please contact Serck Audco Valves



Fourway Valves

MWW122GG	Screwed BSP Tr	15-50mm
MWW144GG	Screwed	15-50mm
MWW1DDGG	Flanged BST D	25-100mm
MWW1FFGG	Flanged BST F	25-100mm
MWW133GG	Flanged ANSI 125	25-100mm
MWW1KKGG	Flanged PN10 RF	25-100mm
MWW1LLGG	Flanged PN16 RF	25-100mm

BUG1DDGG	Flanged BST D	150mm
BUG1FFGG	Flanged BST F	150mm
BUG133GG	Flanged ANSI 125	150mm
BUG1KKGG	Flanged PN10 RF	150mm
BUG1LLGG	Flanged PN16 RF	150mm



			15	20	25	40	50	80	100	150*
A	End-to-end	mm	127	127	133	175	197	-	-	-
B	Face-to-face	mm	-	-	165	222	241	305	356	475
C	Flange diameter BST D	mm	-	-	114	133	152	184	216	279
C	Flange diameter BST F	mm	-	-	121	140	165	203	229	305
C	Flange diameter ANSI 125	mm	-	-	108	127	152	191	229	279
C	Flange diameter PN10 RF	mm	-	-	114	140	165	203	220	305
C	Flange diameter PN16 RF	mm	-	-	114	140	165	203	220	305
D	Flange thickness BST D	mm	-	-	12.7	15.9	19.1	19.1	22.2	22.2
D	Flange thickness BST F	mm	-	-	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness ANSI 125	mm	-	-	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness PN10 RF	mm	-	-	12.7	15.9	19.1	19.1	23.8	25.4
D	Flange thickness PN16 RF	mm	-	-	12.7	15.9	19.1	19.1	23.8	25.4
E	CL to top of stem	mm	138	138	154	189	214	257	284	-
F	CL to bottom of body	mm	50	50	60	76	92	137	148	232
J	Size of plug square	mm	22.2	22.2	27	31.8	38.1	47.6	50.8	-
K	Depth of plug square	mm	22.2	22.2	25.4	28.6	30.2	49.2	49.2	-
P	Clearance to remove sealant injector	mm	192	192	211	265	291	348	402	503
U	CL to end of fitted wrench	mm	229	229	330	381	457	711	1016	-
	Weight (approx) Screwed	kg	4.5	4.5	6.4	14	18	-	-	-
	Weight (approx) Flanged	kg	7.3	7.3	16	20	26	52	84	226
	Wrench number		3H	3H	4H	5H	6H	8H	10H	-
	Sealant stick size		A	A	B	C	C	D	E	E

* This valve is an Inverted Type geared valve which is not illustrated. If you require any further information please contact Serck Audco Valves

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