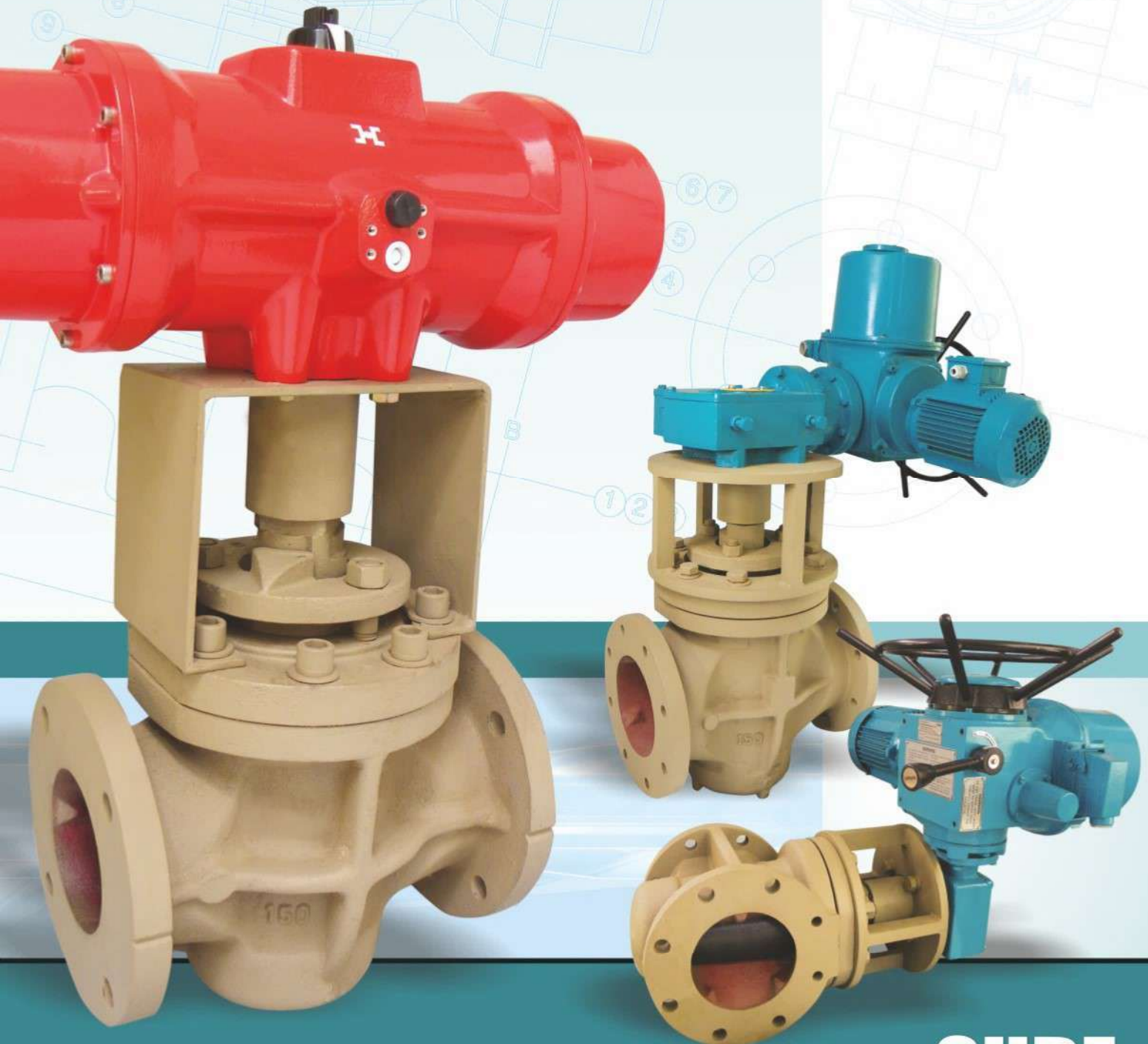


2 Way Plug Valve Fitted with  
Electrical Reversible Stayput Type Actuator in  
Single Phase/Three Phase Actuator Construction

**1450**SERIES

2 Way Plug Valve Fitted with  
Pneumatic Double Acting / Spring Return Actuator

**1460**SERIES



YES WE CARE

SIDE

# 2 Way Plug Valve Fitted with Electrical Reversible Stayput Type Actuator in Single Phase/Three Phase Actuator Pneumatic Double Acting / Spring Return Actuator

## Index

<b>Product Introduction .....</b>	<b>01</b>
<b>Principles and Maintenance .....</b>	<b>03</b>
<b>Sealants .....</b>	<b>03</b>
<b>Storage and Handling of Sealants .....</b>	<b>04</b>
<b>Standard Construction .....</b>	<b>05</b>
<b>Standard &amp; Pattern .....</b>	<b>07</b>
<b>Flow Characteristics .....</b>	<b>07</b>
<b>Inherent Flow Characteristics .....</b>	<b>08</b>
<b>Applications .....</b>	<b>09</b>
<b>2 Way Plug Valve fitted with Pneumatic Actuator .....</b>	<b>10</b>
<b>Specifications .....</b>	<b>10</b>
<b>Tests .....</b>	<b>11</b>
<b>2 Way Plug Valve fitted with Electrical Actuator .....</b>	<b>12</b>
<b>Actuator Construction .....</b>	<b>13</b>
<b>GA Drawings .....</b>	<b>15</b>

## Introduction

Sude is totally committed for providing highest quality valves and outstanding service to our customers. Complete customer satisfaction is our goal.

Incorporating the latest in valve technologies Sude assures a consistent, high quality valve that will provide years of trouble-free service

The plug valve is the oldest of the valves. Plug valves have been in use for over many years. This valve has been in continuous development over recent years. The plug valve is basically a on-off valve based on a plug with a rectangular hole through which the fluid flows. The plug is either tapered or cylindrical and is located in the valve body and can be rotated through a quarter turn to line the hole up with the pipe when open or across the pipe when closed.

The plug can be adapted for multi-port use allows the valve to be used for diverting flow. The valve can be engineered with a lubricated plug which uses the lubricant to enable convenient operation over a wide range of pressures. The lubrication film also provides a seal.

The unlubricated design includes seals in the plug and requires plastic bearing systems. The valve can include a cage between the plug and the body and the remote maintenance e.g. the nuclear industry.

Plug Valves- are valves with cylindrical or conically tapered "Plugs" which can be rotated inside the valve body to control flow through the valve. The plugs in plug valves have one or more hollow passageways going sideways through the plug. So that fluid can flow through the plug when the valve opens. Plug valves are simple and often economical.

When the plug is conically-tapered, the stem/Actuators are typically attached to the larger diameter end of the plug and without actuator they are exposed to the outside since they do not have the bonnet.

The simplest and most common general type of plug valve is a 2-port valve, which has two positions, opens to allow flow and shut (closed) to stop flow. Ports are openings in the valve body through which includes the bearing sealing systems and allow convenient maintenance. These valves have been specially developed for use in industries.



In quarter turn Plug valve in which you can decide which fluid has to enter or leave, in such valves the plug has one passage way going through it. The ports are typically at opposite ends of the body; therefore the plug is rotated a fourth of a full turn to change from open to shut positions.

Slightly conically-tapered metal (often brass) plug valves are often used as simple shut-off valves in household natural gas lines.

## Flow Positions

It is also possible for a plug valve to have more than three ports. In a three way plug valve, flow from one port could be directed to either the second or third port. A 3-way plug valve could also be designed to shift flow between ports 1 and 2, 2 and 3 or 1 and 3 and possibly even connect all three ports together. The flow-directing possibilities in multi-port plug valves are similar to the one in which plug valve will have one port on one side of the plug valve and two ports on the other side, with two diagonal and parallel fluid pathways inside the plug. In this case the plug can be rotated 180° to connect the port on the one side to either of the two ports on the other side (Refer figure 1)

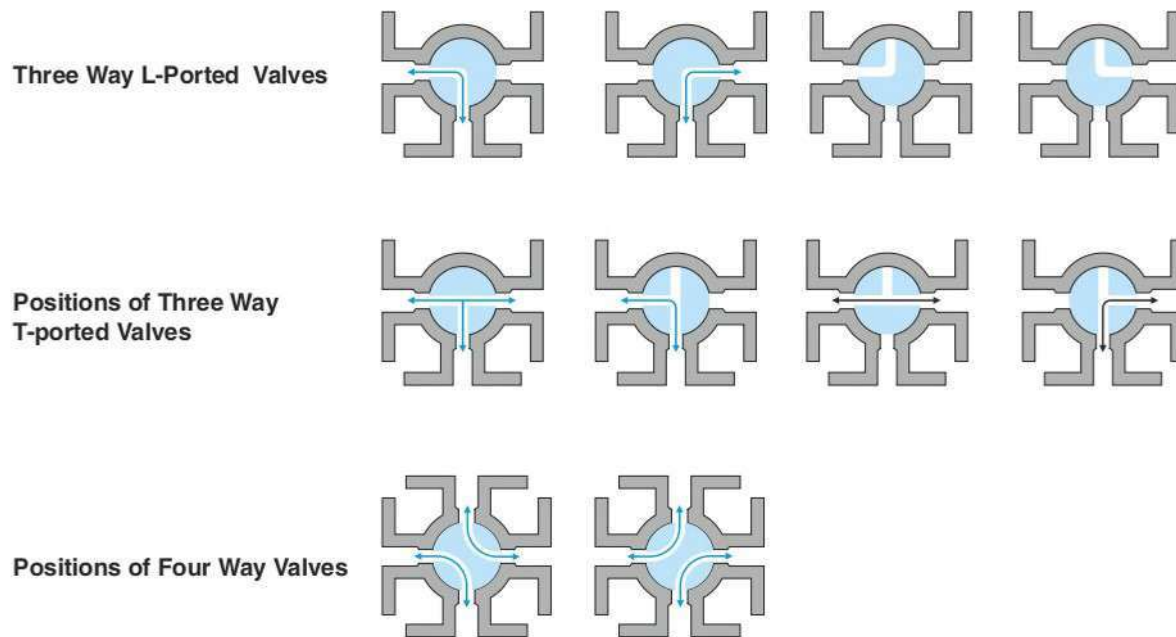


Figure 1

## Why an Eccentric Plug Valve ?

Installed in thousands of applications, the eccentric plug valve has proven itself as the valve of choice in wastewater applications. Unlike a multi-turn gate valve, the eccentric plug valve is a quarter turn valve allowing cost effective, low torque actuation for shut-off and throttling service. And while the gate valve leaves its operating stem exposed to the flow, the plug valve shaft and gear are both removed from the flow and protected from the media. Slurries and sewage are easily handled without clogging and with minimal head loss due to the valve's linear flow path. The valve's eccentric action rotates the plug in and out of the seat without scraping or binding. The combination of the eccentric action and heavy duty nickel seat assures long life with minimal maintenance.

## Increased Port Area For Increased Flow

Plug valves are designed to provide low head loss to maximize flow and reduce operating costs. 100% port areas are standard on valves size up to 4 inches and smaller optional on valves 6 inches and larger. Standard port areas for 6 inch and larger valves are larger than traditional rectangular ported valves.

## Principles of Operation

The Taper Plug Valve, manufactured in sizes from ½" 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.

## Sealant Type

Plug Valves they are normally filled with sealant, Refer figure 2, for detail refer Sude since they are applied based on the application

## Maintenance

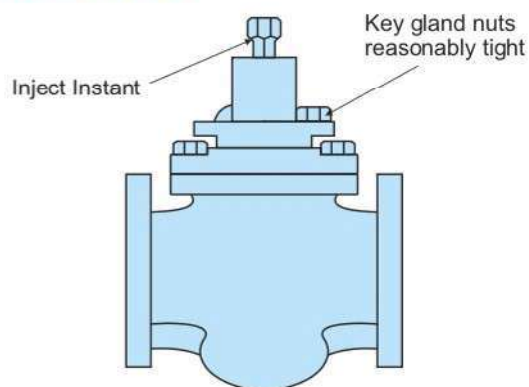


Fig. 2

Consult Sude for 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 valves 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.

The sealants are specially formulated for use in Plug Valves. It is extremely important that only instructed 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 Plug Valves. Similarly, other without factory instruction sealant should not be used which may damage the plug of the Plug Valve.

The frequency of the sealant injection and the quality 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 useful tips on the lubrication of Plug valves indicating when the same should apply considering the frequency and the times the lubrication required (Refer table 1 and 2)

Table 1

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

Note: Valve with Actuator Assembly has direct provision for applying sealant without disturbing the assembly.

## Multi-purpose Plug Sealants

Table 2

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 alkalies, high aromatic solvents.

\*Temperature range is dependent upon nature of service.

## Storage and Handling of Sealants

Sealants should be stored in clean, dry conditions away from heat and flame and strong oxidising agents. Keep 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.

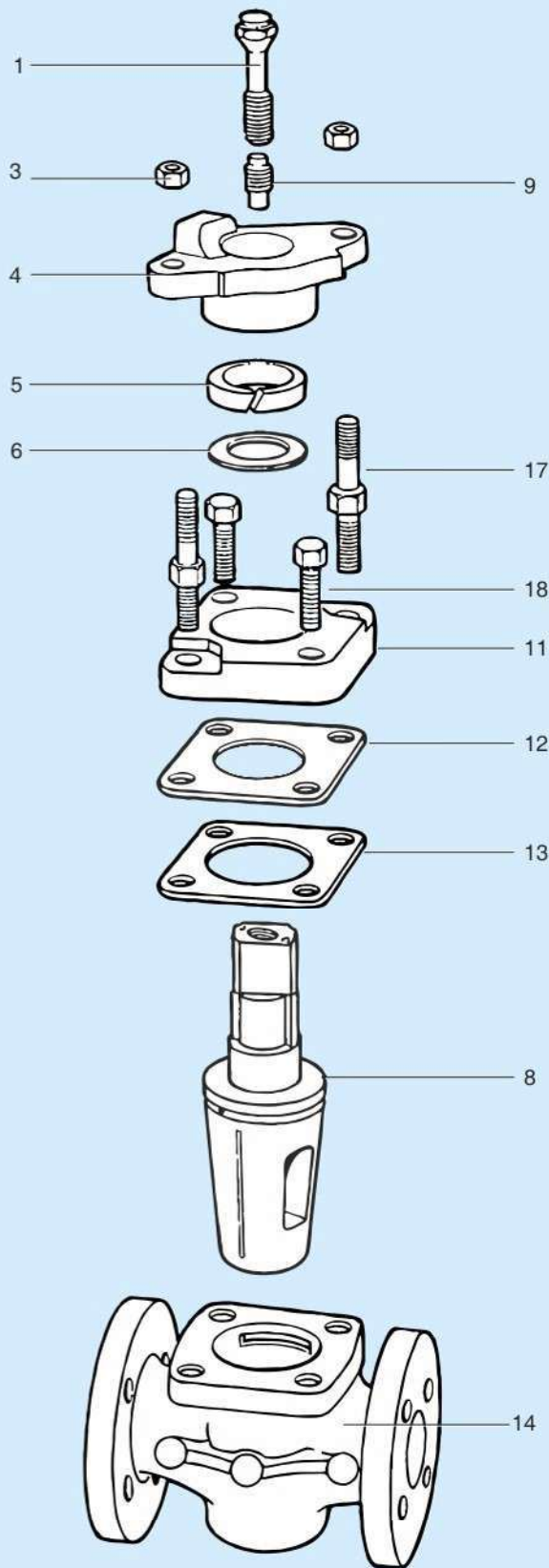
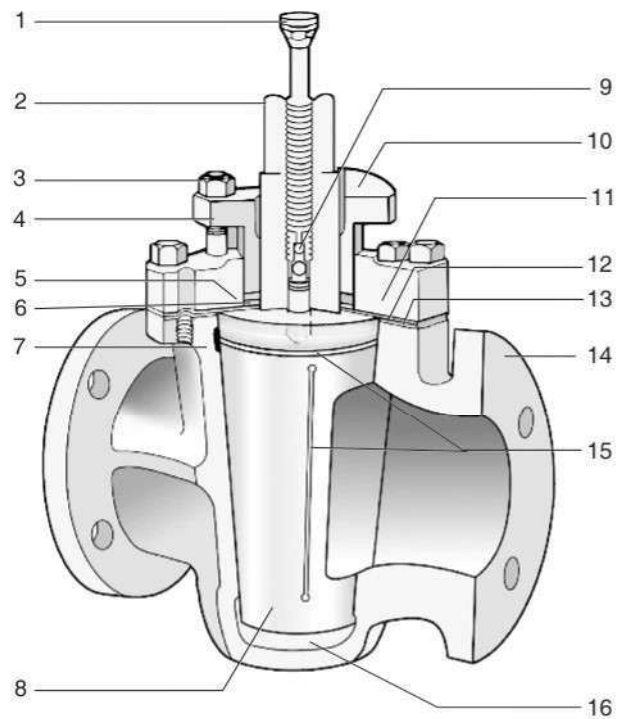


Fig. 3

### Standard Type Valve

The Standard type valve has its integral operating shank at the large end of the taper plug. (Refer Fig. 3) 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.



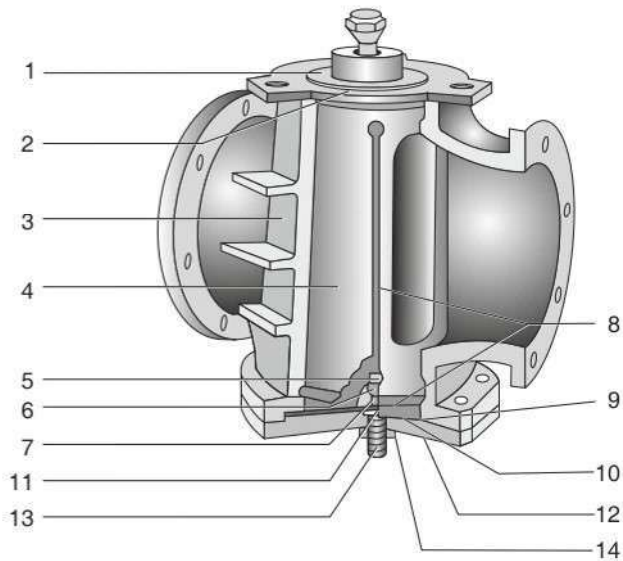
### Parts

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)			

## Inverted Type Valve

The larger sizes of the Regular Pattern valves are of the INVERTED TYPE (Refer Fig. 4). 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 actuators.



### Parts

1	Gland	10	Diaphragm
2	Gland Packing	11	Pressure Plate
3	Body	12	Cover
4	Plug	13	Plug Loading Screw
5	Plug Ball Seat	14	Locknut
6	Ball	15	Cover Bolts
7	Ball Seat	16	Gland Stud Nuts
8	Sealant Grooves	17	Gland Studs
9	Joint Ring	18	Key

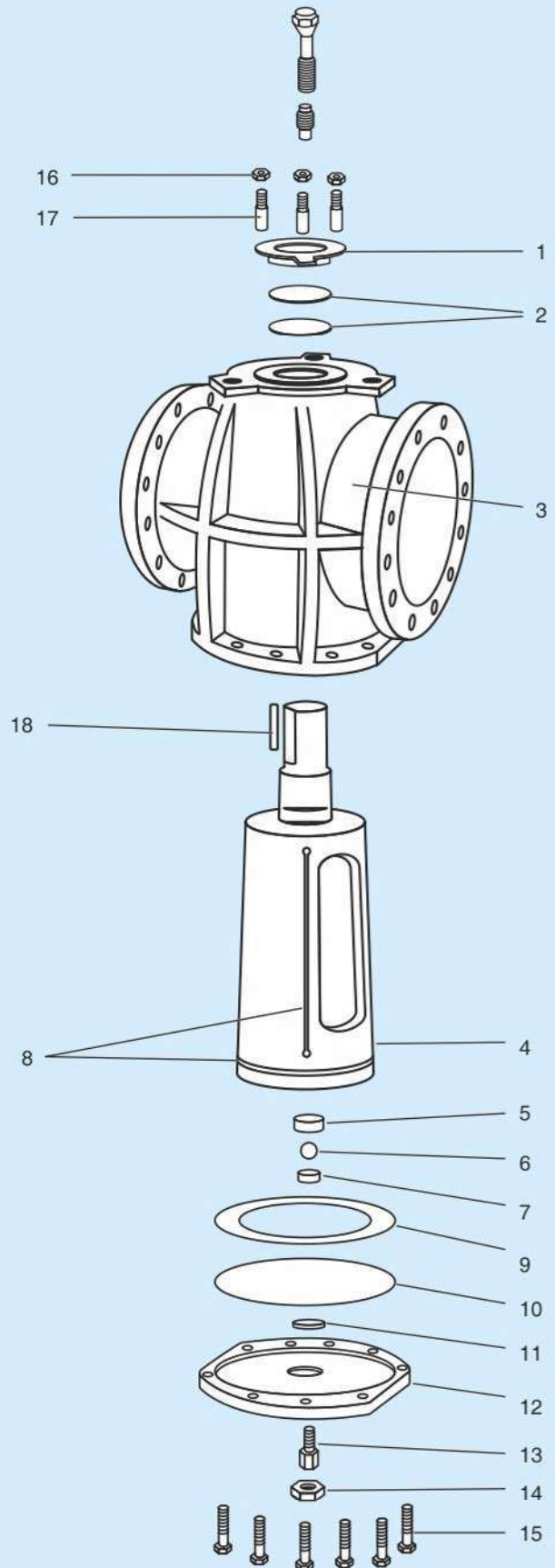


Fig. 4

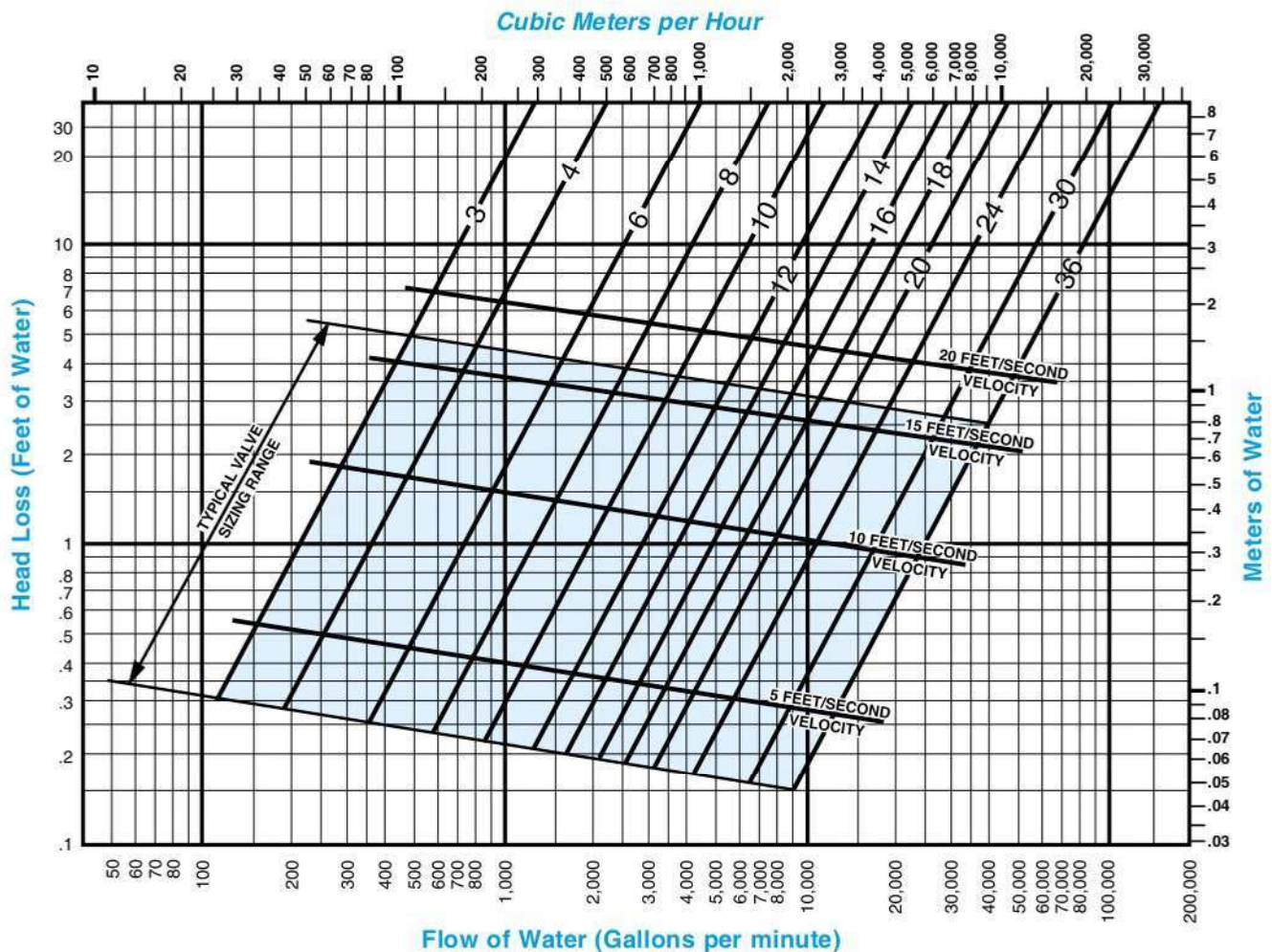
Cast iron plug valves with threaded ends or with flanges, for general purposes, are covered in BS5158. Flanges conform to BS4504 or ANSI B16.1

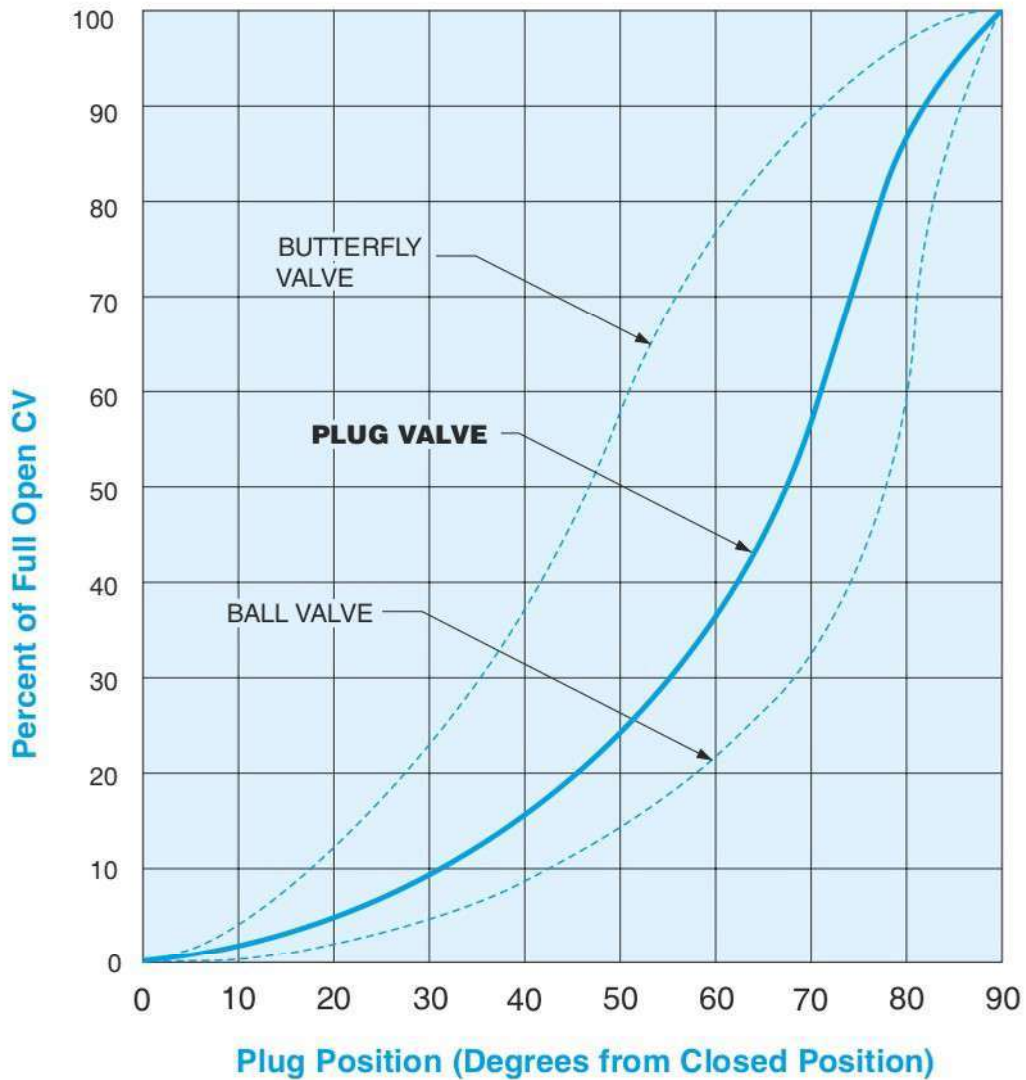
The plug valves are available in Regular, Short Pattern. The different patterns vary as regards end-to-end dimensions and port area for a given size of valve and conform to BS5158 definitions.

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. 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.

## Flow Characteristics





To control pressure surges and provide good controllability, the flow characteristics of valves should be considered.

The graph shown above is inherent flow characteristics at a constant Pressure drop for various valves.

The Plug valve has an inherent flow characteristic similar to a ball valve. When installed in a pipeline, the plug valve will approximate a linear flow characteristic because the piping system pressure losses will shift the flow curve to the left. A linear installed flow characteristic will help control surges and provide a wide range of controllability.



# 2 Way Plug Valve fitted with Pneumatic Double Acting / Spring Return Actuator

SUDE

## Types Available :

Regular Pattern and short pattern Cast Iron Lubricated Taper Plug valves supplied with square stems Valves 4" and above can be offered with Light duty construction. Valves 6" and above can be offered with Heavy duty Pneumatic Actuators & should be selected as determined by the service conditions, which influence the operating torque.

## Specifications :

Valve Size	: Ranging From ½" to 10"
End Connection	: Screwed / Flanged
Type of Construction	: Regular Pattern, Standard
Body Material	: Cast Iron to IS210 Gr. FG220,
Plug Material	: Cast Iron to IS210 Gr. FG220 <b>OR</b> Carbon Steel ASTM A 216 Gr. WCB
Action of Valve	: Normally Opened / Normally Closed
Characteristic	: On, Off / Linear Control Up to 60 degree opening.



## Assembled With :

- Pneumatic Rotary Double Acting Stay put type Actuator OR
- Spring Return Actuator available for Fail safe Operation.

The piston incorporation racks and end covers are die casted in Aluminum alloy. Barrel is extruded, Aluminum alloy hardened and treated, further finished with deep anodized process to form a protective layer to resist atmospheric corrosion.

Application : For control of Air, Water, Oil, Gas, Steam, Power generation, Atomic energy Pulp & Paper, Chemical, Petrochemicals, Printing, Plastic Processing, Food & beverages, Wood Industries, Tea & Coffee plant and others.

The Actuators are also available in Stainless steel 316 & Nylon plastic construction for Food grade and Chemical Industries application

The internal materials of the Aluminum, SS316 & Nylon plastic actuator are having pinion which is made up of steel, precision cut, heat treated and ground & also has a high grade of synthetic seals. The Actuators before assembly is lubricated with high temperature resistant smooth grease. The Actuators are with compact design operates through 90 degree angle of actuation.

## Air Pressure Requirement :

- For Double Acting Actuator - 3.5 kg / cm<sup>2</sup> (Minimum) & 8.5kg / cm<sup>2</sup> (Maximum)
- For Spring Return Actuator - 4.8 kg / cm<sup>2</sup> (Minimum) & 8.5 kg / cm<sup>2</sup> (Maximum)

However Air Pressure Requirement is much dependent on size of the valve, working pressure, quality of Plug valve and many other factors.

- a) For Double Acting Actuator - 4 way 5 Port Single Coil / Double Coil solenoid valve in General purpose or Flame proof and explosion coils.
- b) For Spring Return Actuator - 3 way Single Coil / Double Coil Solenoid valve in General purpose or Flame proof and explosion coils.
- f) I to P Converter.
- g) Electro pneumatic positioners
- h) Position Indicator
- i) Position Transmitter
- j) Cyclic Timer OR Sequential Timer
- k) 3 Way / 4 Way Key operated valves
- l) Stimulator
- m) Travel Stops
- n) Closing Limiter
- o) Silencers with flow reducers

The Actuators are also available for High Temp Application :

### Common Accessory for Double Acting / Spring Return Actuator :

- a) Pressure Regulator
- b) Limit Switches
- c) Filter Regulator with Lubricator
- d) Gear Box with hand wheel for manual operation
- e) Valve Positioner for characteristic controlled application.

### Optional :

- a) PID Controller along with PT - 100 Senso supplied with panel.
- b) Pressure Transmitter supplied with panel.

## Tests

Plug Valves of highly reputed makers are standardized by SUDE for fitment with the Actuators. The valves are tested according to their respective standards for hydrostatic, seat leakage and working pressure tests. Unless and otherwise specified plug valves are constructed and tested for 10 kg / cm<sup>2</sup> working pressure.

Any other special attachment they are available on Request.





## Single Phase

Single Phase SDTORK Actuator is provided with Stall duty Motor used for quarter turn application. Actuators are suitable for inching operation too and they can be supplied with extra Limit switches for remote position indication. The Actuators are available in General Purpose, Dust Proof, Flame Proof & Explosion Proof Housing.

## Three Phase

SDTORK Actuator is basically a worm gear type reduction gear box. A single stage grease bath worm gear gives quietness and reliability in operation. The valve can be fully opened, fully closed or adjusted to any intermediary position. The rectory force on the worm shaft which is a 'Floating one' is directly proportional to the output torque and is absorbed by a set of disc springs. The lateral movement of the worm shaft under load, trip closes the torque switch. The driving motor is a TEFC /TESC squirrel cage class Induction motor combining low inertia with a high starting and stalling torque. The output sleeve is provided with suitable coupling arrangement and fixing holes as per DIN 3210 for wall mounting. Actuators with IP67 / 68 class of protection are available on demand.

Three phase Actuators are fitted with Torque Limit switches & Travel Limit switches & also in built with Manual Hand wheel used for operating the Actuator in case of power failure. Actuator is supplied with various shaft designs to suit Rising & Non-rising stem valve.



- a) Travel Limit Switches - 2 nos
- b) Auxiliary Limit Switches - 2 nos
- c) Hand wheel for Manual operation
- d) Local position indicator
- e) Potentiometer for feed back
- f) Torque limit switches

**The Actuators can be supplied with a panel having Auto Calibration facility.**

### **Actuator can also be supplied with :**

Single Phase OR Three phase Panel for switching the valve On / Off through Push Buttons for local operation under manual mode OR through PLC under Auto mode. through 4-20 mA, 0 to 10 V DC or up / down pulses. All this can also be supplied in integral mode.

### **Common Accessory for Single Phase / Three Phase Actuator :**

- a) Honeywell / any other make PID Controller along with PT 100 sensor with built in panel as an option.
- b) Honeywell / any other make pressure Transmitter where based on setting pressure valve will open & close through PID with built in panel as a option.
- c) Sequential timer 0 to 30 channel for sequence operation.
- d) Cyclic timer having On time - 1 to 60 seconds & Off time - 1 to 60 min for sequencing operation. (Other options available on demand)
- e) Stimulator - Panel mounting type having two knobs used for generating 4-20 m A OR Zero to 10 V DC current (against a supply voltage of 230 V AC) for operating the main valve Proportionately.

## **Control Panel Specification :**

- a) Input : Single Phase 230 V AC OR 3 Phase 415 V AC, 4 wire supply.
- b) Output supply: Single Phase 230 V AC OR 3 phase 415 V AC Reversible supply.
- c) Auto / Manual selection : Selector switch provided. In Auto mode open & close operation is controlled by 4-20mA Input & under Manual mode operation is through Push buttons.
- d) Indications : Zero to a100% valve position display, R, Y, B Phase Indication [applicable only for 3 phase] Open & Close, Fully open & Fully close indication.
- e) Main switch - Single Phase OR 3 Phase MCB for mains On / Off.
- f) Phase fail / error protection provided.
- g) Fuse protection provided for each phase.
- h) Protection from over torque - If Actuator gets over torque the torque switch trips & the system protects the motor. Also provided with 10 metres cable for Motor & Feed back with connectors.



Wall mounted control panel.



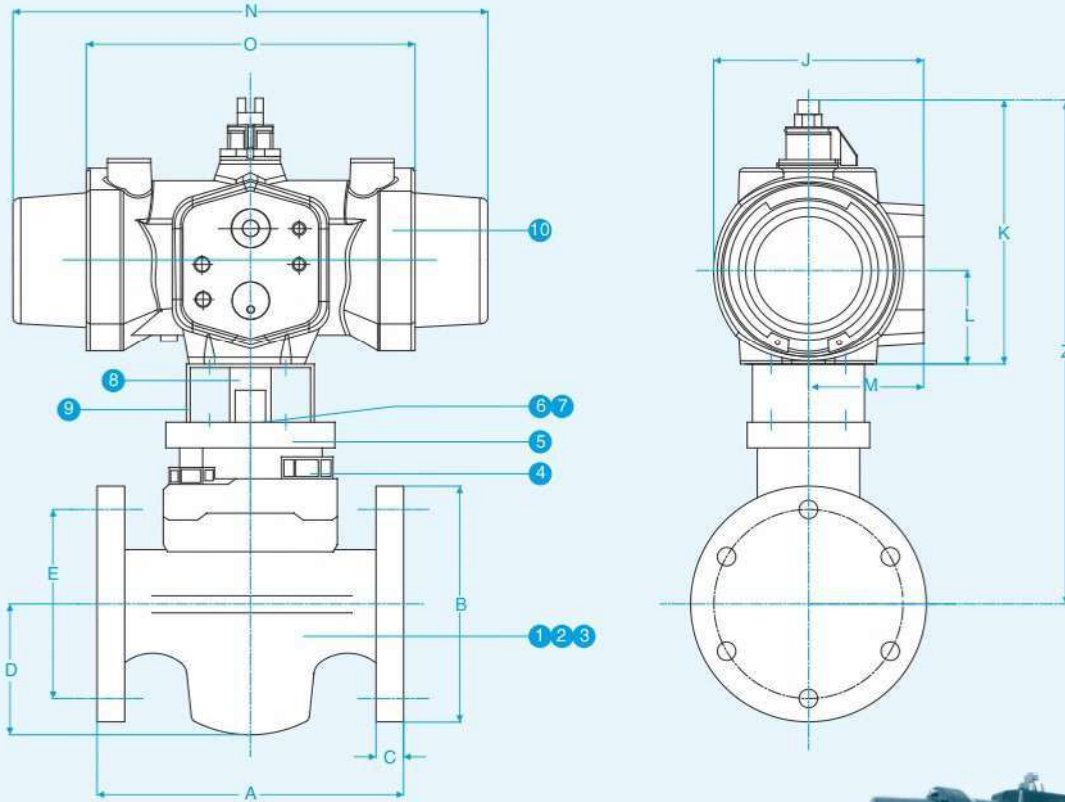
Integral Starter

Pneumatically Operated

**2 Way Plug Valve** Flange End - Class 300

SUDE

**PV1460**



SL NO.	PART	MATERIAL
1	BODY	CAST IRON
2	COVER AND GLAND	IS 210 Gr. FG220
3	PLUG	CAST IRON IS 210 Gr. FG220 OR CARBON STEEL ASTM A216 Gr. WCB
4	BOLTING	CARBON STEEL STUDS : BS970 220 M07 HEX. SCREW : ANSI B1 8.2.1 HEX NUT: ANSI B1 8.2.2
5	SHIM	MILD STEEL, NICKEL PLATED
6	GLAND PACKING	RUBBERISED ASBESTOS
7	GASKET	COMPRESSED ASBESTOS
8	COUPLER	IS
9	MOUNTING BRACKETS	IS2062
10	ACTUATOR	ALUMINIUM

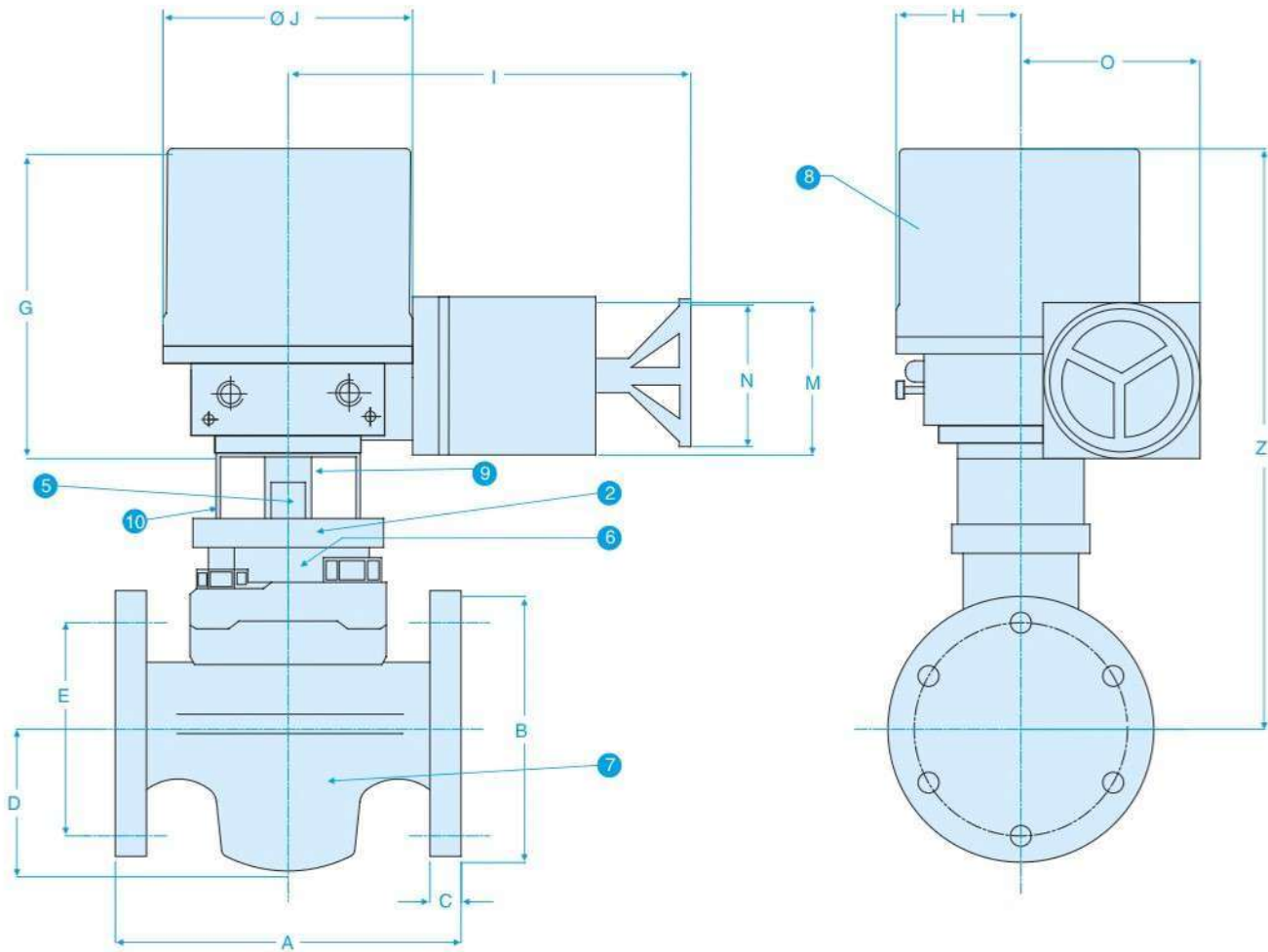
VALVE SIZE	MODEL NUMBER	A	B	C	D	E	J	K	L	M	N	O	Z	Wt. Of Assy In Kgs.	Cv	Operating Time		Air Consumption In Ltr	
																Open (sec.)	Close (sec.)	To Open	To Close
15	1462RP/15/DA00	120.27	95.3	12.7	46	66.67	80	110	45	44	-	125	290	5	8	0.15	0.15	0.15	0.1
	1462RP/15/SA00	120.27	95.3	12.7	46	66.67	80	110	45	44	160	125	290	5.5	8	0.2	0.2	0.15	-
20	1462RP/20/DA05	120.27	101.6	12.7	46	73	98	122	47	53	-	146	290	8	12	0.2	0.2	0.28	0.25
	1462RP/20/SA05	120.27	101.6	12.7	46	73	98	122	47	53	194	146	290	9.5	12	0.25	0.25	0.28	-
25	1462RP/25/DA05	139.70	114	12.7	49	82.5	98	122	47	53	-	146	325	10	33	0.2	0.2	0.28	0.25
	1462RP/25/SA10	139.70	114	12.7	49	82.5	102	127	50.5	53	236	182	325	15	33	0.3	0.3	0.35	-
40	1462RP/40/DA10	165.10	133.4	15.7	65	98.4	102	127	50.5	55	-	182	380	11.2	83	0.25	0.25	0.35	0.32
	1462RP/40/SA10	165.10	133.4	15.7	65	98.4	102	127	50.5	55	236	182	438	12	83	0.3	0.3	0.35	-
50	1462RP/50/DA15	202.32	152.4	19.1	76	114.3	115	148	63	60	-	203	462	21.6	122	0.3	0.3	0.65	0.55
	1462RP/50/SA20	202.32	152.4	19.1	76	114.3	127	161	71	67	312	234	450	25	122	0.5	0.5	0.8	-
65	1462RP/65/DA20	222.30	165.1	19.1	102	127	127	161	71	67	-	234	475	25	243	0.4	0.4	0.8	0.7
	1462RP/65/SA25	222.30	165.1	19.1	102	127	152	191	86	78	362	276	560	27.25	243	0.8	0.8	1.5	-
80	1462RP/80/DA25	241.30	184.2	19.1	108	146	152	191	86	78	-	276	580	37.5	324	0.5	0.5	1.5	1.2
	1462RP/80/SA30	241.30	184.2	19.1	108	146	177	211	96	94	479	349	625	48	324	1.2	1.2	2.05	-
100	1462RP/100/DA30	304.50	215.9	22.4	137	177.8	177	211	96	94	-	349	685	65.7	587	0.6	0.6	2.05	1.9
	1462RP/100/SA40	304.80	215.9	22.4	137	177.8	226	272	116	120	598	444	798	93	587	2	2	5.3	-
150	1462RP/150/DA40	393.70	279.4	25.4	186	235	226	272	116	120	-	444	840	124.5	829	1.2	1.2	5.3	5.3
	1462RP/150/SA50	393.70	279.4	25.4	186	235	257.5	313	133	135	694	524	912	162	829	6	6	10.5	-
200	1462RP/200/DA50	457.20	336.6	28.4	232	292	257.5	313	133	135	-	524	912	221	2100	2	2	10.5	7
	1462RP/200/SA70	457.20	336.6	28.4	232	292	402.50	428	191	216	742.5	625	1027	270	2100	6	6	31	-

# 2-way Plug Valve Flanged End

With **Single Phase Electrical Actuator**

SUDE

PV1450



SL.NO.	PART	MATERIAL
1	BODY	CAST IRON
2	COVER AND GLAND	IS 210 Gr. FG220
3	PLUG	CAST IRON IS 210 Gr. FG220 OR CARBON STEEL ASTM A216 Gr. WCB
4	BOLTING	CARBON STEEL STUDS : BS970 220 M07 HEX. SCREW : ANSI B18.2.1 HEX NUT, ANSI B18.2.2
5	STEM	MILD STEEL, NICKEL PLATED
6	GLAND PACKING	RUBBERISED ASBESTOS
7	GASKET	COMPRESSED ASBESTOS
8	ELECTRICAL ACTUATOR (SDTORK) MAKE	FOR DETAIL REFER MANUFACTURE
9	COUPLER	EN8
10	MOUNTING BRACKET	IS 2062

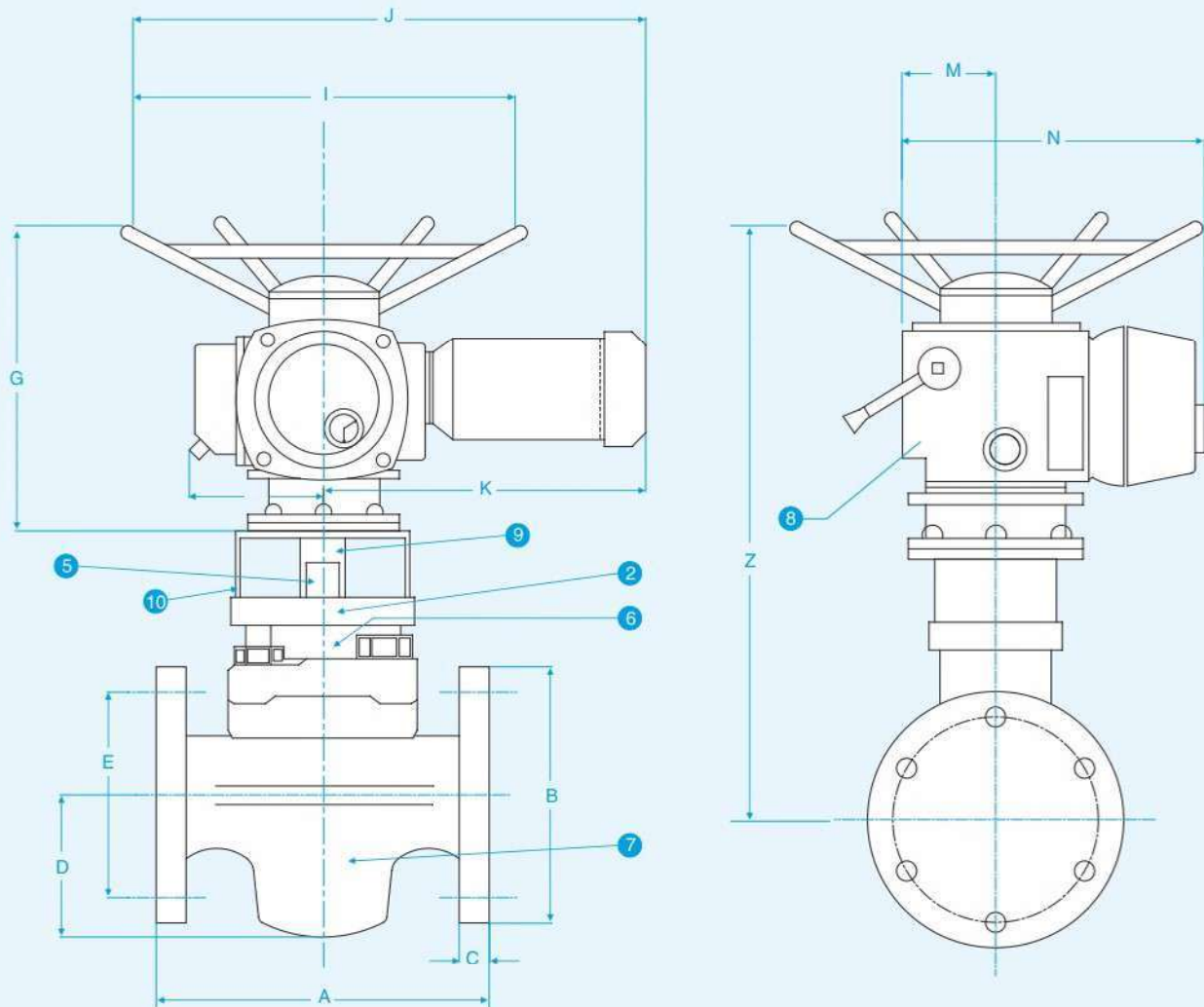
VALVE SIZE	MODEL NUMBER	A	B	C	D	E	Z	G	H	I	J	M	N	O	WT. OF ASSY IN KGS.	Cv	OPERATING TIME IN SEC
15	1452RP/15/SD05	120.7	95.3	12.7	46	66.67	380	175	68	225	138	110	100	117	13	8	17
20	1452RP/20/SD05	120.7	101.6	12.7	46	73	387	175	68	225	138	110	100	117	15.5	12	17
25	1452RP/25/SD10	139.7	120.7	12.7	49	82.5	475	250	95	270	195	110	100	148	20.5	33	20
40	1452RP/40/SD10	165.1	133.4	15.7	65	98.4	513	250	95	270	195	110	100	148	21.33	83	20
50	1452RP/50/SD20	203.2	152.4	19.1	76	114.3	550	250	95	285	195	110	100	148	32	122	20
65	1452RP/65/SD20	222.3	165.1	19.1	102	127	575	250	95	285	195	110	100	148	35	243	20
80	1452RP/80/SD30	241.3	184.2	19.1	108	146	630	261	123	355	134	110	100	182	56.6	324	26

# 2-way Plug Valve Flanged End

With **Three Phase Electrical Actuator**

SUDE

PV1450



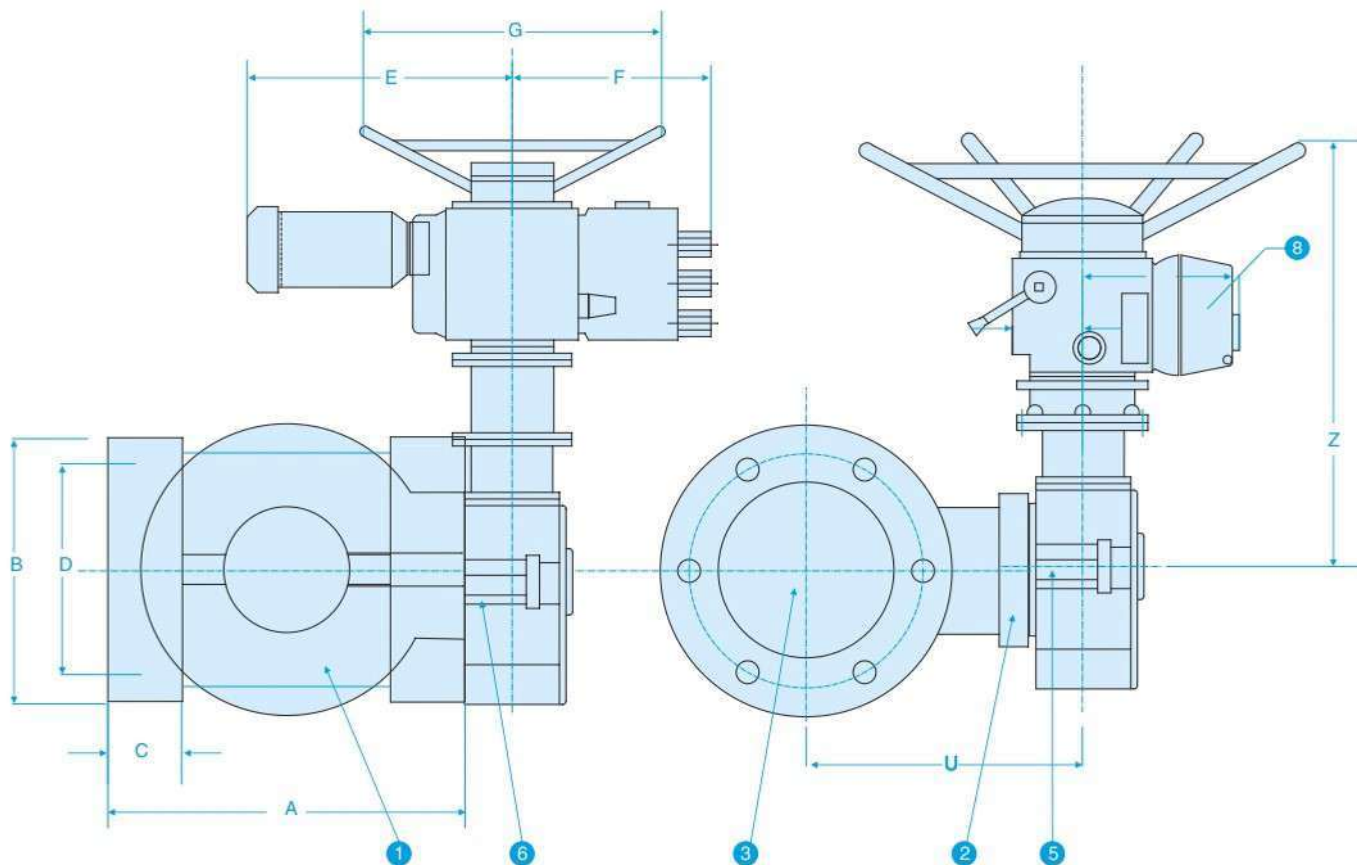
SL NO.	PART	MATERIAL
1	BODY	CAST IRON
2	COVER AND GLAND	IS 210 Gr. FG220
3	PLUG	CAST IRON IS 210 Gr. FG220 OR. CARBON STEEL ASTM A216 Gr. WCB
4	BOLTING	CARBON STEEL STUDS : BS970 220 M07 HEX. SCREW : ANSI B18.2.1 HEX NUT: ANSI B18.2.2
5	STEM	MILD STEEL, NICKEL PLATED
6	GLAND PACKING	RUBBERISED ASBESTOS
7	GASKET	COMPRESSED ASBESTOS
8	ELECTRICAL ACTUATOR (SDTORK) MAKE	FOR DETAIL REFER MANUFACTURE
9	COUPLER	EN8
10	MOUNTING BRACKET	IS 2062

VALVE SIZE	MODEL NUMBER	A	B	C	D	E	Z	I	J	K	L	M	G	WT. OF ASSY IN KGS.	Cv	OPERATING TIME IN SEC
15	1452RP/15/SD4000-20	120.7	95.3	12.7	46	66.67	605	485	685	440	225	85	400	54	8	3.5 TO 24
20	1452RP/20/SD4000-20	120.7	101.6	12.7	46	73	615	485	685	440	225	85	400	56,5	12	3.5 TO 24
25	1452RP/25/SD4000-20	139.7	120.7	12.7	49	82.5	625	485	685	440	225	85	400	58,5	33	3,5 TO 24
40	1452RP/40/SD4000-20	165.1	133.4	15.7	65	98.4	665	485	685	440	225	85	400	59,33	83	3.5 TO 24
50	1452RP/50/SD4000-20	203.2	152.4	19.1	76	114.3	700	485	685	440	225	85	400	69	122	3,5 TO 24
65	1452RP/65/SD4000-20	222.3	165.1	19.1	102	127	723	485	685	440	225	85	400	72	243	3.5 TO 24
80	1452RP/80/SD4000-20	241.3	84.2	19.1	108	146	768	485	685	440	225	85	400	81.6	324	3.5 TO 24

# 2-way Plug Valve Flanged End With Three Phase Electrical Actuator

SUDE

PV1450



SL NO.	PART	MATERIAL
1	BODY	CAST IRON
2	COVER AND GLAND	IS 210 Gr. FG220
3	PLUG	CAST IRON IS 210 Gr. FG220 OR CARBON STEEL ASTM A216 Gr. WCB
4	BOLTING	CARBON STEEL STUDS : BS970 220 M07 HEX. SCREW : ANSI B18.2.1 HEX NUT: ANSI B18.2.2
5	STEM	MILD STEEL, NICKEL PLATED
6	GLAND PACKING	RUBBERISED ASBESTOS
7	GASKET	COMPRESSED ASBESTOS
8	ELECTRICAL ACTUATOR (SDTORK) MAKE	FOR DETAIL REFER MANUFACTURE



VALVE SIZE	MODEL NUMBER	A	B	C	D	E	F	G	H	I	U	V	Z	WT. OF ASSY IN KGS.	Cv	OPERATING TIME IN SEC
100	1452RP/100/SD4000-08-WG40	304.8	216	22.4	1778	440	270	485	85	315	476	80	450	116,7	587	1,6 To 60
150	1452RP/150/SD4000-20-WG60	393.7	279	25.4	235	440	270	485	85	315	618	120	580	191,9	829	7,5 To 94
200	1452RP/200/SD4000-20-WG60	457.2	336.6	28.4	292	440	270	485	85	315	692	120	580	275,3	2100	7,5 To 94



## OUR OTHER PRODUCTS



- Solenoid valves.
- Pneumatically operated control valves.
- Motorised valves.
- Pneumatic & Electric Operated Ball / Butterfly valves.
- Pneumatic & Motorised Dampers.
- Pneumatic & Motorised VIV Dampers.
- Motorised Rising & Non-rising Sluice valve.

- Heavy duty – Single phase & Three phase actuators for operating Gates & Chutes.
- Pneumatic & Motorised pinch valve.
- Pneumatic & Motorised Flush Bottom valve.
- Entire range of Electrical Actuator.
- And Instrumentation Product likes Pressure Transmitter, PID Controller, Flow meter etc., for System Integration.

**NOTE :** TECHNICAL SPECIFICATIONS, DETAILS & DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. DIMENSIONS IN THE TABLE ARE APPROXIMATE SUBJECT TO FINAL CONFIRMATION BY SUDE.



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**SUDE**