

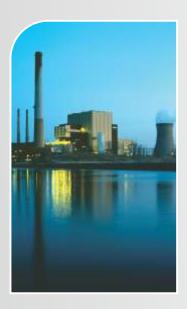


# MIL 25000 - Compact Globe **Control Valves**













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### Introduction

MIL 25000 series self draining compact globe valves are specially designed for burner trip applications in fossil fired boilers. The burner trip applications are quite demanding due to very fast closing time (less than 1 sec), slower and adjustable opening times and tight shut-off capability.



### **Features**

MIL 25000 series single ported, self-draining, shank guided valve is designed with built-in versatility that makes it well suited to handle burner trip applications.

### **Stream Lined Design**

The streamlined design without cavities allows higher flow capacity with low pressure drop.

# **Compact and Lightweight Construction**

Unique compact design, makes the mounting of the valves possible in cramped locations like burner station areas where mounting space is a constraint.

### **Shank Guiding**

Rugged, shank guiding provides support to ensure plug stability.

### **Self Draining**

Elimination of cavities provides self-draining feature which prevents sedimentation.

### **Reduced Capacity**

In addition to full area trim, reduced trim options are also available to provide a wider flow range capability.





#### **Trim Type**

Standard construction offers a threaded seat ring. Contoured plugs are available with equal percentage or linear characteristics.

#### **High Shut-off Pressure Capability**

High allowable shut-off pressure shown in the actuator selection tables reflect actuator capability for the leakage class.

#### **Tight Shut-off**

Class IV leakage as per FCI 70.2 is standard. Optional construction meets Class V & VI seat leakage rates as per FCI 70.2.

## **Typical Applications**

Self draining control valves are used in burner trip applications and scavenging process.

Pneumatically actuated burner trip valves are used to control the atomizing medium (air & steam) and fuel (light fuel oil & heavy fuel oil) flow to the oil guns which are used to initiate the boiler furnace firing during startup and low loads. Valve's instantaneous closing and tight shut-off capability will reduce the wastage of fuel and atomizing medium during the change over and normal loads. The slow opening will assure a reduced pressure dip of fuel oil and atomizing medium during opening and ensures gradual fine control of temperature during startups.

The burner station is located near each oil gun outside the furnace area. It consists of separate lines for air, LFO, HFO and steam. Air and steam are used as atomizing (process of increasing the velocity and surface area of the fuel medium for effective combustion) medium for LFO and HFO burners respectively. Separate burner trip valves are provided in each line.

Scavenging is a process of purging out the oil or any other impurity that is locked up in the oil gun tips when they are taken out of service, for which scavenging trip valves are used. During normal firing and no scavenging conditions, the scavenging trip valves shall be in closed position.

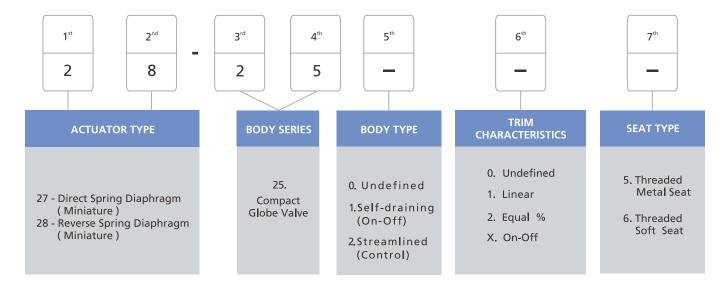
Streamlined control valves are extensively used in Pharmaceutical, chemical and bio-medical industries. The principal requirement in these industries is to accurately monitor and control the position of valves as slightest variation affects the product quality. Most of the valves are used on pure steam generators and primary process plants that produce active ingredients in batches via chemical synthesis, fermentation or extraction. Valve monitoring and control has to be accurate and reliable in order to ensure consistent standards of product purity and quality.





### **Technical Information**

### **Model Decodification**



### **Standard Size / Ratings / End Connection**

VALVE SIZE (inch)	RATING ( ASME CLASS )	END CONNECTION
0.5 - 1	150# & 300#	Flanged

#### **General Data**

		BODY	BONNET			
Type Recommended Flow direction	:	Globe Flow to open	Type Temperature range	:	Stud bolted -27 ℃ to 427 ℃	
		GLAND SEAL			TRIM	
Туре	:	Adjustable packing box with PTFE or Graphite moulded split rings	Plug Type Options	:	Unbalanced contoured  • Disc type  • Plug with PTFE insert for Class VI leakage (Cv > 6)	
Temperature Range	:	• ≤ 180 °C : PTFE, • > 180 °C : Graphite	Seat Type Option	:	Threaded metal or Soft seat Seat ring with Carbon Filled PTFE insert for Class VI leakage ( $Cv \le 6$ )	
			Guiding	:	Heavy Shank Guiding	
			Rangeability	:	1:30	
			Characteristics	:	Linear, Equal %, On-Off	

### **Seat Leakage Class / Temperature Range**

VALVE SIZE	ALVE SIZE RATING (inch) (ASME CLASS)	SEAT TYPE	TEMPERATI	JRE RANGE (°C)	SEAT LEAKAGE CLASS
(inch)		SME CLASS)		MAX	( FCI 70.2 )
1	150# & 300#	Metal Seat	-27	427	Class IV / Class V (Optional)
1 150	150# & 500#	Soft Seat	-27	232	Class VI (Optional)

### Flow Coefficients - Rated Cv

VALVE SIZE	RATING	STROKE (inch) 0.125	ORIFICE DIA (inch) Vs RATED Cv				
(inch)	(ASME CLASS)		0.125	0.38	0.50	0.813	
0.5 -1	150# & 300#	0.50	1, 1.7	3.8	6	10, 12	

(Critical flow factor  $C_f$  or  $F_L = 0.90$ )

### **Actuator Selection (Spring - Diaphragm Actuator)**

	VALVE SIZE STROKE Cv A			SEAT LEAKAGE CLASS (FCI 70.2)				
		ACTUATOR SIZE	CLASS IV	CLASS V	CLASS VI			
				SHUT-OFF PRESSURE (kg/cm²)				
	1	1.7	5		52	52	52	
1		3.8			52	50	52	
1 0.5	0.5	6		50	25	40		
		12		30	18	25		

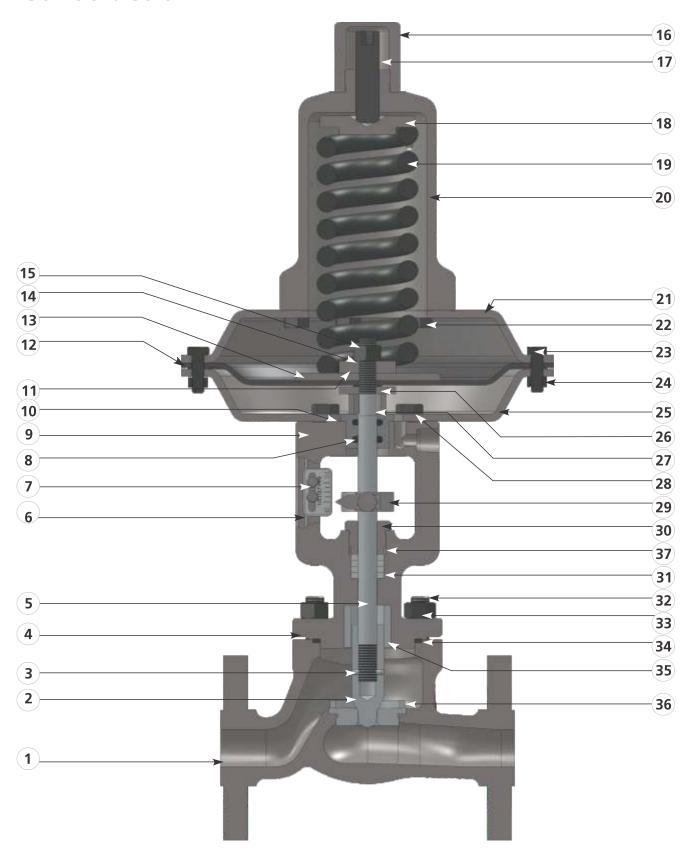
 $<sup>^{\</sup>star}$  Pneumatic supply pressure 35 psig for Class IV & VI and 45 psi for Class V

<sup>\*</sup> Maximum shut-off pressure should not exceed maximum body rated pressure

<sup>\*</sup> Pneumatic connection to actuator is 3/8" NPT



# Construction



MIL 25000 Trip Valve

### **Material of Construction**

1 Valve Body Carbon Steel: ASTM A 216 Gr, WCC 2 Valve Plug A10 ST / 316 SST 3 Plug Pln 316 SST 4 Integral Bonnet Yoke ASTM A 216 Gr, WCC 5 Stem 316 SST 6 Stroke Scale 304 SST 7 Screw (Stroke Scale) 304 SST 8 O-Ring Nitrile Rubber 9 Yoke Gasket HAF - 9020 (Aramid Fibre) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 Zn Passivated 12 Diaphragm Neoprene + Nylon Invert 13 Diaphragm Neoprene + Nylon Invert 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr, 260 17 Spring Adjuster En 8 Zn Passivated 18 Upper Spring Seat En 8 Zn Passivated 19 Actuator Spring Seat En 8 Zn Passivated 20 Spring Barrel IS 210 Gr, 260 21 Upper Diaphragm Case IS 206 2 Gr. A Powder coated 22 Spring Barrel Srew ISO 898-1 Grade 8.8 24 Nut ISO 898-1 Grade 8.8 25 Lower Diaphragm Case IS 206 2 Gr. A Powder coated 26 Washer ISO 898-1 Grade 8.8 27 Diaphragm Case IS 206 2 Gr. A Powder coated 28 Actuator Spring Srew ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 30 Packing Nut 304 SST 31 Packing All ST 304 SST 31 Packing All ST 304 SST 31 Packing All ST 305 SST	DRAWING REF. NO	PART NAME	STANDARD MATERIAL*
Sear	1	Valve Body	Carbon Steel: ASTM A 216 Gr. WCC
4 Integral Bonnet Yoke ASTM A 216 Gr.WCC  5 Stem 316 SST  6 Stroke Scale 304 SST  7 Screw (Stroke Scale) 304 SST  8 O-Ring Nitrile Rubber  9 Yoke Gasket HAF - 9020 (Aramid Fibre)  10 Actuator Blind Brass  11 Lower Spring Seat EN 8 ZP Passivated  12 Diaphragm Neoprene + Nylon Insert  13 Diaphragm Ise IS 2062 Gr. A. Powder Coated  14 Spring Washer Spring Steel  15 Stem Lock Nut ISO 898-2 Grade 8  16 Spring Barrel Cap IS 210 Gr. 260  17 Spring Adjuster En8 Zn Passivated  19 Actuator Spring  Spring Steel  19 Actuator Spring  Spring Steel  20 Spring Barrel  10 Spring Barrel  11 Spring Adjuster En8 Zn Passivated  12 Upper Spring Seat En8 Zn Passivated  13 Upper Spring Seat En8 Zn Passivated  14 Spring Adjuster En8 Zn Passivated  15 Spring Actuator Spring Spring Steel  16 Spring Barrel  17 Spring Adjuster En8 Zn Passivated  18 Upper Spring Seat En8 Zn Passivated  20 Spring Barrel  20 Spring Barrel  21 Spring Actuator Spring Spring Steel  22 Spring Barrel  23 Case Mounting Screw ISD 898-1 Grade 8.8  24 Nut ISO 898-1 Grade 8.8  25 Lower Diaphragm Case IS 2062 Gr. A. Powder coated  26 Washer EN 8 Zn Passivated  27 Diaphragm Stop EN 8 Zn Passivated  28 Actuator Mounting Screw ISD 898-1 Grade 8.8  29 Stroke Indicator 304 SST  30 Packing Nut 304 SST  31 Packing ≤ 180°C PTFE / >180°C Graphite  32 Body Nut ASTM A 193 Gr. 2H  33 Body Nut ASTM A 193 Gr. 2H  34 Body Gasket 316 LSST - Graphite  35 Guide Bush 440 CSST Heat Treated  36 Seat Ring 410 SST / 316 SST	2	Valve Plug	410 SST / 316 SST
5 Stem 316 SST 6 Stroke Scale 304 SST 7 Screw ( Stroke Scale ) 304 SST 8 O-Ring Nitrile Rubber 9 Yoke Gasket HAF - 9020 (Aramid Fibre) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 Zn Passivated 12 Diaphragm Neoprene + Nylon Insert 13 Diaphragm Plate IS 2062 Gr. A. Powder Coated 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr. 260 17 Spring Adjuster En 8 Zn Passivated 18 Upper Spring Seat En 8 Zn Passivated 19 Actuator Spring Seat En 8 Zn Passivated 20 Spring Barrel Screw ISO 898-1 Grade 8.8 21 Upper Diaphragm Case ISO 2062 Gr. A. Powder coated 22 Spring Barrel Screw ISO 898-1 Grade 8.8 23 Case Mounting Screw ISO 898-1 Grade 8.8 24 Nut ISO 898-2 Grade 8 25 Lower Diaphragm Case IS 2062 Gr. A Powder coated 26 Washer EN 8 Zn Passivated 27 Diaphragm Stop EN 8 Zn Passivated 28 Actuator Mounting Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 STT 30 Packing Nut 304 SST 31 Packing ≤ 180 °C PTEF / >180 °C Graphite 32 Body Stud ASTM A 193 Gr. 27 33 Body Nut ASTM A 193 Gr. 27 34 Body Gasket 316 LSST - Graphite 35 Guide Bush 440 CSST Heat Treated 36 Seat Ring 410 SST / 316 SST	3	Plug Pin	316 SST
6 Stroke Scale 304 SST 7 Screw ( Stroke Scale ) 304 SST 8 O-Ring Nitrile Rubber 9 Yoke Gasket HAF - 9020 (Aramid Fibre ) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 Zn Passivated 12 Diaphragm Neoprene + Nylon Insert 13 Diaphragm Plate IS 2062 Gr. A, Powder Coated 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr. 260 17 Spring Adjuster EN 8 Zn Passivated 18 Upper Spring Seat EN 8 Zn Passivated 19 Actuator Spring Seat EN 8 Zn Passivated 19 Actuator Spring Seat EN 8 Zn Passivated 20 Spring Barrel Screw ISO 898-1 Grade 8.8 21 Upper Diaphragm Case IS 2062 Gr. A. Powder coated 22 Spring Barrel Screw ISO 898-1 Grade 8.8 23 Case Mounting Screw ISO 898-1 Grade 8.8 24 Nut ISO 898-2 Grade 8 25 Lower Diaphragm Case IS 2062 Gr. A Powder coated 26 Washer EN 8 Zn Passivated 27 Diaphragm Stop EN 8 Zn Passivated 28 Actuator Mounting Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 30 Packing Nut 304 SST 31 Packing ≤ 180° C PTEF / >180° C Graphite 32 Body Stud ASTM A 193 Gr. 27 33 Body Nut ASTM A 193 Gr. 27 34 Body Gasket 316 LSST + Graphite 35 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST	4	Integral Bonnet Yoke	ASTM A 216 Gr.WCC
7 Screw (Stroke Scale ) 8 O-Ring Nitrile Rubber 9 Yoke Gasket HAF - 9020 (Aramid Fibre ) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 Z Passivated 12 Diaphragm Neoprene + Nylon Insert 13 Diaphragm Plate IS 2062 Gr. A. Powder Coated 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr. 260 17 Spring Adjuster En 8 Z Passivated 18 Upper Spring Seat En 8 Z Passivated 19 Actuator Spring Seat En 8 Z Passivated 20 Spring Barrel IS 210 Gr. 260 21 Upper Diaphragm Case IS 2062 Gr. A. Powder coated 22 Spring Barrel Screw ISO 898-1 Grade 8.8 23 Case Mounting Screw ISO 898-1 Grade 8.8 24 Nut ISO 898-2 Grade 8 25 Lower Diaphragm Case IS 2062 Gr. A. Powder coated 26 Washer EN 8 Z Passivated 27 Diaphragm Case IS 2062 Gr. A Powder coated 28 Actuator Mounting Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 30 Packing Nut 304 SST 31 Packing Strew ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 31 Packing Strew ISO 898-1 Grade 8.8 31 Packing Strew ISO 898-1 Grade 8.8 33 Body Nut 304 SST 34 Packing Strew ISO 898-1 Grade 8.8 35 Gaide Bush 440 C SST Heat Treated 36 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST	5	Stem	316 SST
8 O-Ring Nitrile Rubber 9 Yoke Gasket HAF - 9020 (Aramid Fibre) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 zn Passivated 12 Diaphragm Neoprene + Nylon Insert 13 Diaphragm Plate IS 2062 Gr. A. Powder Coated 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr. 260 17 Spring Adjuster En8 Zn Passivated 18 Upper Spring Seat En8 Zn Passivated 19 Actuator Spring Spring Steel 20 Spring Barrel Spring Seat En8 Zn Passivated 21 Upper Diaphragm Case IS 210 Gr. 260 21 Upper Diaphragm Case IS 2062 Gr. A. Powder coated 22 Spring Barrel Screw ISO 898-1 Grade 8.8 23 Case Mounting Screw ISO 898-1 Grade 8.8 24 Nut ISO 898-2 Grade 8 25 Lower Diaphragm Case IS 2062 Gr. A Powder coated 26 Washer EN 8 Zn Passivated 27 Diaphragm Stop EN 8 Zn Passivated 28 Actuator Mounting Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 30 Packing Nut 304 SST 31 Packing ≤ ISO 898-1 Grade 8.8 33 Bødy Nut ASTM A 193 Gr. 27 34 Bødy Gasket 316 LST + Graphite 35 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST	6	Stroke Scale	304 SST
9 Yoke Gasket HAF - 9020 (Aramid Fibre) 10 Actuator Blind Brass 11 Lower Spring Seat EN 8 Zn Passivated 12 Diaphragm Neoprene + Nylon Insert 13 Diaphragm Plate IS 2062 Gr. A. Powder Coated 14 Spring Washer Spring Steel 15 Stem Lock Nut ISO 898-2 Grade 8 16 Spring Barrel Cap IS 210 Gr. 260 17 Spring Adjuster En 8 Zn Passivated 18 Upper Spring Seat En 8 Zn Passivated 19 Actuator Spring Sparrel IS 210 Gr. 260 21 Upper Diaphragm Case IS 2062 Gr. A. Powder coated 22 Spring Barrel Screw ISO 898-1 Grade 8.8 23 Case Mounting Screw ISO 898-1 Grade 8.8 24 Nut ISO 898-2 Grade 8 25 Lower Diaphragm Case IS 2062 Gr. A. Powder coated 26 Washer En 8 Zn Passivated 27 Diaphragm Stop En 8 Zn Passivated 28 Actuator Mounting Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 30 Packing Nut 304 SST 31 Packing Screw ISO 898-1 Grade 8.8 29 Stroke Indicator 304 SST 31 Packing Screw ISO 898-1 Grade 8.8 31 Packing Screw ISO 898-1 Grade 8.8 32 Body Stud ASTM A 193 Gr. B7 33 Body Nut ASTM A 193 Gr. B7 34 Body Gasket 316 L SST + Graphite 35 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST	7	Screw ( Stroke Scale )	304 SST
10         Actuator Blind         Brass           11         Lower Spring Seat         EN 8 Zn Passivated           12         Diaphragm         Neoprene + Nylon Insert           13         Diaphragm Plate         IS 2062 Gr. A. Powder Coated           14         Spring Washer         Spring Steel           15         Stem Lock Nut         ISO 898-2 Grade 8           16         Spring Barrel Cap         IS 210 Gr. 260           17         Spring Adjuster         En 8 Zn Passivated           18         Upper Spring Seat         En 8 Zn Passivated           19         Actuator Spring         Spring Steel           20         Spring Barrel         IS 210 Gr. 260           21         Upper Diaphragm Case         IS 2062 Gr. A. Powder coated           22         Spring Barrel Screw         ISO 898-1 Grade 8.8           23         Case Mounting Screw         ISO 898-2 Grade 8           24         Nut         ISO 898-2 Grade 8           25         Lower Diaphragm Case         IS 2062 Gr. A Powder coated           26         Washer         EN 8 Zn Passivated           27         Diaphragm Stop         EN 8 Zn Passivated           28         Actuator Mounting Screw         ISO 898-1 Grade 8.8     <	8	O-Ring	Nitrile Rubber
11 Lower Spring Seat	9	Yoke Gasket	HAF - 9020 (Aramid Fibre)
12	10	Actuator Blind	Brass
13 Diaphragm Plate 15 2062 Gr. A. Powder Coated 14 Spring Washer 15 Stem Lock Nut 15 Stem Lock Nut 15 Spring Steel 16 Spring Barrel Cap 17 Spring Adjuster 18 Upper Spring Seat 19 Actuator Spring 19 Actuator Spring 20 Spring Barrel 20 Spring Barrel 21 Upper Diaphragm Case 22 Spring Barrel Screw 23 Case Mounting Screw 24 Nut 25 Lower Diaphragm Case 26 Washer 27 Diaphragm Stop 28 Actuator Mounting Screw 29 Stroke Indicator 29 Stroke Indicator 29 Stroke Indicator 30 Packing Nut 30 Packing Nut 30 Packing Nut 30 Seat Ring 31 Body Nut 36 Seat Ring 36 Seat Ring 410 SST / 316 SST Heat Treated 36 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST	11	Lower Spring Seat	EN 8 Zn Passivated
14         Spring Washer         Spring Steel           15         Stem Lock Nut         ISO 898-2 Grade 8           16         Spring Barrel Cap         IS 210 Gr. 260           17         Spring Adjuster         En8 Zn Passivated           18         Upper Spring Seat         En8 Zn Passivated           19         Actuator Spring         Spring Steel           20         Spring Barrel         IS 210 Gr. 260           21         Upper Diaphragm Case         IS 2062 Gr. A. Powder coated           22         Spring Barrel Screw         ISO 898-1 Grade 8.8           23         Case Mounting Screw         ISO 898-2 Grade 8           24         Nut         ISO 898-2 Grade 8           25         Lower Diaphragm Case         IS 2062 Gr. A Powder coated           26         Washer         EN 8 Zn Passivated           27         Diaphragm Stop         EN 8 Zn Passivated           28         Actuator Mounting Screw         ISO 898-1 Grade 8.8           29         Stroke Indicator         304 SST           30         Packing Nut         304 SST           31         Packing Nut         304 SST           32         Body Stud         ASTM A 193 Gr. 2H           33 <td< td=""><td>12</td><td>Diaphragm</td><td>Neoprene + Nylon Insert</td></td<>	12	Diaphragm	Neoprene + Nylon Insert
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16       Spring Barrel Cap       IS 210 Gr. 260         17       Spring Adjuster       En8 Zn Passivated         18       Upper Spring Seat       En8 Zn Passivated         19       Actuator Spring       Spring Steel         20       Spring Barrel       IS 210 Gr. 260         21       Upper Diaphragm Case       IS 2062 Gr. A. Powder coated         22       Spring Barrel Screw       ISO 898-1 Grade 8.8         23       Case Mounting Screw       ISO 898-2 Grade 8         24       Nut       ISO 898-2 Grade 8         25       Lower Diaphragm Case       IS 2062 Gr. A Powder coated         26       Washer       EN 8 Zn Passivated         27       Diaphragm Stop       EN 8 Zn Passivated         28       Actuator Mounting Screw       ISO 898-1 Grade 8.8         29       Stroke Indicator       304 SST         30       Packing Nut       304 SST         31       Packing Nut       ≤ 180 °C PTFE / >180 °C Graphite         32       Body Stud       ASTM A 193 Gr. B7         33       Body Stud       ASTM A 193 Gr. 2H         34       Body Gasket       316 L SST + Graphite         35       Guide Bush       440 C SST Heat Treated         <	14	Spring Washer	Spring Steel
17 Spring Adjuster En8 Zn Passivated  18 Upper Spring Seat En8 Zn Passivated  19 Actuator Spring Spring Steel  20 Spring Barrel IS 210 Gr. 260  21 Upper Diaphragm Case IS 2062 Gr. A. Powder coated  22 Spring Barrel Screw ISO 898-1 Grade 8.8  23 Case Mounting Screw ISO 898-1 Grade 8.8  24 Nut ISO 898-2 Grade 8  25 Lower Diaphragm Case IS 2062 Gr. A Powder coated  26 Washer EN 8 Zn Passivated  27 Diaphragm Stop EN 8 Zn Passivated  28 Actuator Mounting Screw ISO 898-1 Grade 8.8  29 Stroke Indicator 304 SST  30 Packing Nut 304 SST  31 Packing ≤ 180 °C PTFE / >180 °C Graphite  32 Body Stud ASTM A 193 Gr. 2H  34 Body Gasket 316 L SST + Graphite  35 Guide Bush 440 C SST Heat Treated  36 Seat Ring 410 SST / 316 SST	15	Stem Lock Nut	ISO 898-2 Grade 8
18 Upper Spring Seat  19 Actuator Spring  Spring Steel  20 Spring Barrel  21 Upper Diaphragm Case  22 Spring Barrel Screw  15 2062 Gr. A, Powder coated  22 Spring Barrel Screw  150 898-1 Grade 8.8  23 Case Mounting Screw  150 898-2 Grade 8  24 Nut  150 898-2 Grade 8  25 Lower Diaphragm Case  15 2062 Gr. A Powder coated  26 Washer  EN 8 Zn Passivated  27 Diaphragm Stop  EN 8 Zn Passivated  28 Actuator Mounting Screw  150 898-1 Grade 8.8  29 Stroke Indicator  30 Packing Nut  30 Packing Nut  30 STT  31 Packing  Sel 180 °C PTFE / >180 °C Graphite  32 Body Stud  ASTM A 193 Gr. B7  33 Body Nut  ASTM A 193 Gr. 2H  34 Body Gasket  36 Seat Ring  410 SST / 316 SST	16	Spring Barrel Cap	IS 210 Gr. 260
19       Actuator Spring       Spring Steel         20       Spring Barrel       IS 210 Gr. 260         21       Upper Diaphragm Case       IS 2062 Gr. A. Powder coated         22       Spring Barrel Screw       ISO 898-1 Grade 8.8         23       Case Mounting Screw       ISO 898-2 Grade 8         24       Nut       ISO 898-2 Grade 8         25       Lower Diaphragm Case       IS 2062 Gr. A Powder coated         26       Washer       EN 8 Zn Passivated         27       Diaphragm Stop       EN 8 Zn Passivated         28       Actuator Mounting Screw       ISO 898-1 Grade 8.8         29       Stroke Indicator       304 SST         30       Packing Nut       304 SST         31       Packing Nut       304 SST         32       Body Stud       ASTM A 193 Gr. 2F         33       Body Stud       ASTM A 193 Gr. 2H         34       Body Gasket       316 L SST + Graphite         35       Guide Bush       440 C SST Heat Treated         36       Seat Ring       410 SST / 316 SST	17	Spring Adjuster	En8 Zn Passivated
Spring Barrel	18	Upper Spring Seat	En8 Zn Passivated
21 Upper Diaphragm Case  22 Spring Barrel Screw  23 Case Mounting Screw  24 Nut  25 Lower Diaphragm Case  26 Washer  27 Diaphragm Stop  28 Actuator Mounting Screw  29 Stroke Indicator  30 Packing Nut  30 Packing Nut  31 Packing  32 Body Stud  34 Body Gasket  35 Guide Bush  36 Seat Ring  15 2062 Gr. A. Powder coated  15 2062 Gr. A Powder coated  26 Washer  EN 8 Zn Passivated  15 2062 Gr. A Powder coated  27 Diaphragm Stop  EN 8 Zn Passivated  28 AS TN 8 2n Passivated  29 Stroke Indicator  30 ASST  30 Packing Nut  30 ST ST  31 Packing  410 SST + Graphite  35 Guide Bush  440 C SST Heat Treated  36 Seat Ring  410 SST / 316 SST	19	Actuator Spring	Spring Steel
22   Spring Barrel Screw   ISO 898-1 Grade 8.8     23	20	Spring Barrel	IS 210 Gr. 260
Case Mounting Screw  So 898-1 Grade 8.8  Lower Diaphragm Case  So Washer  EN 8 Zn Passivated  RN 8 Zn Passivated  Packing Nut  Packing  Body Stud  Body Stud  Body Stud  Body Stud  Body Gasket  BIS 0898-1 Grade 8.8  IS 2062 Gr. A Powder coated  EN 8 Zn Passivated  EN 8 Zn Passivated  EN 8 Zn Passivated  ISO 898-1 Grade 8.8  ISO 898-1 Grade 8.8  EN 8 Zn Passivated  EN 8 Zn Passivated  ISO 898-1 Grade 8.8  EN 8 Zn Passivated	21	Upper Diaphragm Case	IS 2062 Gr. A. Powder coated
24       Nut       ISO 898-2 Grade 8         25       Lower Diaphragm Case       IS 2062 Gr. A Powder coated         26       Washer       EN 8 Zn Passivated         27       Diaphragm Stop       EN 8 Zn Passivated         28       Actuator Mounting Screw       ISO 898-1 Grade 8.8         29       Stroke Indicator       304 SST         30       Packing Nut       304 SST         31       Packing Nut       ≤ 180 °C PTFE / >180 °C Graphite         32       Body Stud       ASTM A 193 Gr. B7         33       Body Stud       ASTM A 193 Gr. 2H         34       Body Gasket       316 L SST + Graphite         35       Guide Bush       440 C SST Heat Treated         36       Seat Ring       410 SST / 316 SST	22	Spring Barrel Screw	ISO 898-1 Grade 8.8
Lower Diaphragm Case    S 2062 Gr. A Powder coated	23	Case Mounting Screw	ISO 898-1 Grade 8.8
26WasherEN 8 Zn Passivated27Diaphragm StopEN 8 Zn Passivated28Actuator Mounting ScrewISO 898-1 Grade 8.829Stroke Indicator304 SST30Packing Nut304 SST31Packing≤ 180 °C PTFE / >180 °C Graphite32Body StudASTM A 193 Gr. B733Body NutASTM A 193 Gr. 2H34Body Gasket316 L SST + Graphite35Guide Bush440 C SST Heat Treated36Seat Ring410 SST / 316 SST	24	Nut	ISO 898-2 Grade 8
27Diaphragm StopEN 8 Zn Passivated28Actuator Mounting ScrewISO 898-1 Grade 8.829Stroke Indicator304 SST30Packing Nut304 SST31Packing≤ 180 °C PTFE / >180 °C Graphite32Body StudASTM A 193 Gr. B733Body NutASTM A 193 Gr. 2H34Body Gasket316 L SST + Graphite35Guide Bush440 C SST Heat Treated36Seat Ring410 SST / 316 SST	25	Lower Diaphragm Case	IS 2062 Gr. A Powder coated
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29       Stroke Indicator       304 SST         30       Packing Nut       304 SST         31       Packing       ≤ 180 °C PTFE / >180 °C Graphite         32       Body Stud       ASTM A 193 Gr. B7         33       Body Nut       ASTM A 193 Gr. 2H         34       Body Gasket       316 L SST + Graphite         35       Guide Bush       440 C SST Heat Treated         36       Seat Ring       410 SST / 316 SST	27	Diaphragm Stop	EN 8 Zn Passivated
30 Packing Nut 304 SST  31 Packing ≤ 180 °C PTFE / >180 °C Graphite  32 Body Stud ASTM A 193 Gr. B7  33 Body Nut ASTM A 193 Gr. 2H  34 Body Gasket 316 L SST + Graphite  35 Guide Bush 440 C SST Heat Treated  36 Seat Ring 410 SST / 316 SST	28	Actuator Mounting Screw	ISO 898-1 Grade 8.8
31 Packing ≤ 180°C PTFE / >180°C Graphite  32 Body Stud ASTM A 193 Gr. B7  33 Body Nut ASTM A 193 Gr. 2H  34 Body Gasket 316 L SST + Graphite  35 Guide Bush 440 C SST Heat Treated  36 Seat Ring 410 SST / 316 SST	29	Stroke Indicator	304 SST
31 Packing ≤ 180°C PTFE / >180°C Graphite  32 Body Stud ASTM A 193 Gr. B7  33 Body Nut ASTM A 193 Gr. 2H  34 Body Gasket 316 L SST + Graphite  35 Guide Bush 440 C SST Heat Treated  36 Seat Ring 410 SST / 316 SST	30	Packing Nut	304 SST
32       Body Stud       ASTM A 193 Gr. B7         33       Body Nut       ASTM A 193 Gr. 2H         34       Body Gasket       316 L SST + Graphite         35       Guide Bush       440 C SST Heat Treated         36       Seat Ring       410 SST / 316 SST			
Body Nut ASTM A 193 Gr. 2H  Body Gasket 316 L SST + Graphite  Guide Bush 440 C SST Heat Treated  Seat Ring 410 SST / 316 SST			·
34 Body Gasket 316 L SST + Graphite 35 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST		·	
35 Guide Bush 440 C SST Heat Treated 36 Seat Ring 410 SST / 316 SST		·	
36 Seat Ring 410 SST / 316 SST			
304 SST	37	Packing Washer	304 SST

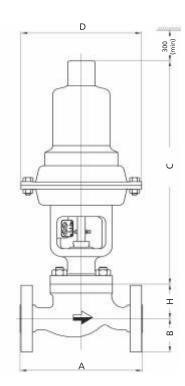
<sup>\*</sup> Material indicated above are for reference only. MIL reserves the right to supply alternate material due to constant product upgradation. Other specific material are available on request.



### **Dimensions and Weight**

VALVE SIZE	RATING	DIMENSIONS (mm)					UNPACKED	
(inch)		Α	В	С	D	н	WEIGHT (kg)	
1	150	185.5	55	415	250	71	17	
1	300	197	62	415	250	71	,,	

- The unique construction of body provides compactness
- Streamlined design provides increased flow capacity
- Elimination of cavities allows efficient flow with low pressure drop
- Different types of characteristics are available
- Value engineered product
- Closing time less than 1 sec (On-Off)



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