# EAGLE

# 3 - WAY ROTARY PLUG CONTROL VALVE | TR - SERIES |







#### OUTLINE

TR-Series 3-Way Rotary Plug Control valves require relatively low operating force due to the extended arm which links the valve stem and actuator stem in such a way that the linear movement of the actuator stem could be converted into rotary movement of the valve stem. This is distinctively contrasted with the linear motions of the globe type valves and because of this mechanism the necessity for larger actuators is reduced to a great extent. These valves boast relatively higher flow capacities compared to the globe types, nearly double the Cv of the same size TG-Series globe types, and offers the advantage in overall system design with lower initial costs. Typical applications of this valve in shipbuilding are temperature control of the Main Engine Jacket Water, Main Engine Lubrication Oil, Fresh Water for central cooling system and etc.. The actuator, either diaphragm or cylinder type, can be provided upon requests.

#### FEATURES .

- · Smoother throttling with greater accuracy
- · Both converging and diverging flow configurations are available.
- · The rotary plug is designed to prevent from being stuck by fine particulates or fouling material in the fluid.
- · Air Failure Position can be easily reversed by re-installing the arm upside-down without taking out the valve body from the line.
- Handwheel and positioner are provided as an option. Any other accessories such as air filter regulators, I/P transducers, pressure
  / temperature transmitters, solenoid valves, limit switches can be provided when required.
- The actuator normally installed perpendicular to the valve stem could be installed at any horizontal angle (360 degrees) in accordance
  with the site conditions where the valve is located.

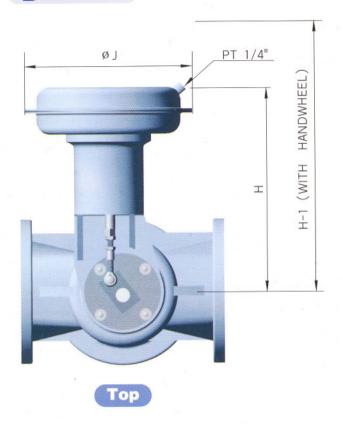
#### GENERAL SPECIFICATION

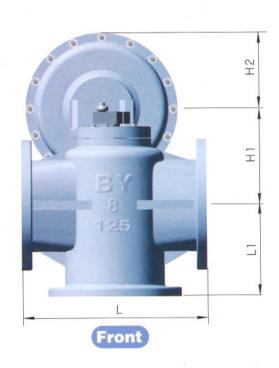
Valve Body Type & Style	3-way rotary plug					
Pressure Rating	ANSI 125~150 or JIS 5~10K					
Valve Size	4 "~ 24 " (100 ~ 600 mm)					
Temperature Range	- 32 ~ 212° F (0 ~ 100° C)					
	ASTM A126 CL.B (FC20)					
Body Material	ASTM A216 Gr. WCB (SC49)					
	ASTM A536 Gr. 65-45-12 (FCD45)					
Flow Coefficient (Rated Cv)	145 ~ 5500					
Flow Characteristics	Linear					
Leakage Class	1.8% of the rated Cv					
Rangeability	30 : 1					
Spring Range	$6 \sim 30 \text{ psi } (0.4 \sim 2.0 \text{ kg/cm}^2)$					

#### FLOW COEFFICIENTS (CV)

Valve Size - mm (inch)	100	125	150	200	250	300	350	400	450	500	550	600
Port Size	(4)	(5)	(6)	(8)	(10)	(12)	(14)	(16)	(18)	(20)	(22)	(24)
Full Port	290	393	645	1150	1800	2590	3500	4300	5000	4700	5100	5500
Reduced Port	145	195	325	575	900	1295	1750	2150	2500			

### DIMENSION





NOMINAL BORE									
mm	inch	L	L1	Н	H-1	H1	H 2	øJ	
100	4	324 (12.8)	162 (6.38)	366 (14.4)	612 (24.1)	162 (6.38)	152 (5.98)	304 (12.0	
125	5	381 (15.0)	161 (7.52)	366 (14.4)	612 (24.1)	177 (6.97)	152 (5.98)	304 (12.0)	
150	6	398 (15.7)	199 (7.83)	366 (14.4)	612 (24.1)	190 (7.48)	152 (5.98)	304 (12.0	
200	8	454 (17.9)	227 (8.94)	446 (17.6)	692 (27.2)	236 (9.29)	189 (7.44)	379 (14.9	
250	10	556 (21.9)	278 (10.9)	446 (17.6)	692 (27.2)	263 (10.4)	189 (7.44)	379 (14.9)	
300	12	606 (23.9)	303 (11.9)	446 (17.6)	692 (27.2)	293 (11.5)	189 (7.44)	379 (14.9	
350	14	706 (27.8)	353 (13.9)	446 (17.6)	692 (27.2)	317 (12.5)	189 (7.44)	379 (14.9	
400	16	706 (27.8)	381 (15.0)	446 (17.6)	692 (27.2)	345 (13.6)	189 (7.44)	379 (14.9	
450	18	864 (34.0)	432 (17.0)	571 (22.5)	869 (34.2)	429 (16.9)	233 (9.17)	466 (18.3	

## Components

