



TYPE E5 MAIN VALVE

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## HIGH PRESSURE-HIGH LIFT LOW DIFFERENTIAL

SIZES 3/4" – 12"  
PRESSURES to 300 PSIG at 600°F

- Normally Closed
- Single Seat
- Balanced Hycar Diaphragm
- Protected Main Spring
- Long Main Spring Operates on 5 psi Minimum Differential
- Internal & External Condensation Chambers
- Fluid, Gas & Vapor Applications
- Accurate Regulation Unaffected by Service Conditions
- ANSI/FCI 70-2 Class IV Shutoff
- Virtually Frictionless for Long Service Life
- Packless Construction
- Easy In-line Maintenance
- Wide Variety of Pilots for Many Applications
- Lifetime Warranty against Wiredrawing of Seat & Disc \*

### APPLICATION DATA

- Pressure Regulating for Steam Distribution
- High Pressure/Low Differential Pressure Regulating
- Fluid Regulation
- For use with Self-contained, Pneumatic or Electronic Pilots
- Slow Start-up or Shutdown

SIZING INFO  
PAGE 108

### VALVE RATINGS

Valve Ends ASME/ANSI	Pressure PSIG (bar)	Temperature °F (°C)
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#### CAST IRON

Class 250 NPT	250 (17.2) @	450 (232)
B16.1 Class 125 Flanged	125 (8.6) @	450 (232)
B16.1 Class 250 Flanged	250 (17.2) @	450 (232)

#### CAST STEEL

B16.34 Class 300 NPT	300 (21.0) @	600 (315)
B16.34 Class 150 Flanged	150 (10.3) @	500 (260)
B16.34 Class 300 Flanged	300 (21.0) @	600 (315)

Other pressure/temperature ratings available; consult factory.

Maximum downstream pressure is 300 psi.

Canadian Registration # OC 0591.9C

*Installation Tip:* Add EZ Connections for ease of maintenance  
SEE PAGE 42

### OPTIONS *See page 42*

- Composition Disc for liquid, air or gas service
- Balanced Construction
- Integral Mount Pilot
- Secoweld
- EZ Connections

### TYPICAL CONFIGURATIONS

PRESSURE REDUCING .....	TYPE E5D
AIR ADJUSTED .....	TYPE E5A
BACK PRESSURE .....	TYPE E5Q
PUMP GOVERNOR .....	TYPE E5P
LOAD ALLOCATING .....	TYPE E5FD
AIR CONTROLLED .....	TYPE E5AP60
ELECTRONIC SLOW START .....	TYPE E5D208D
SOLENOID CONTROLLED .....	TYPE E5MD
SOLENOID ACTUATED .....	TYPE E5M
DIFFERENTIAL .....	TYPE E5N
TEMPERATURE CONTROL .....	TYPE E5T

### RATED FLOW COEFFICIENTS (Cv)

SEAT FACTOR	REGULATOR SIZE													
	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	
Full	7.6	11.7	18.9	27.4	43	67	95	159	258	350	665	1018	1611	
Normal	5.7	10.0	13.4	19.8	25	35	59	120	176	228	366	525	952	

\* When installed according to factory specifications.

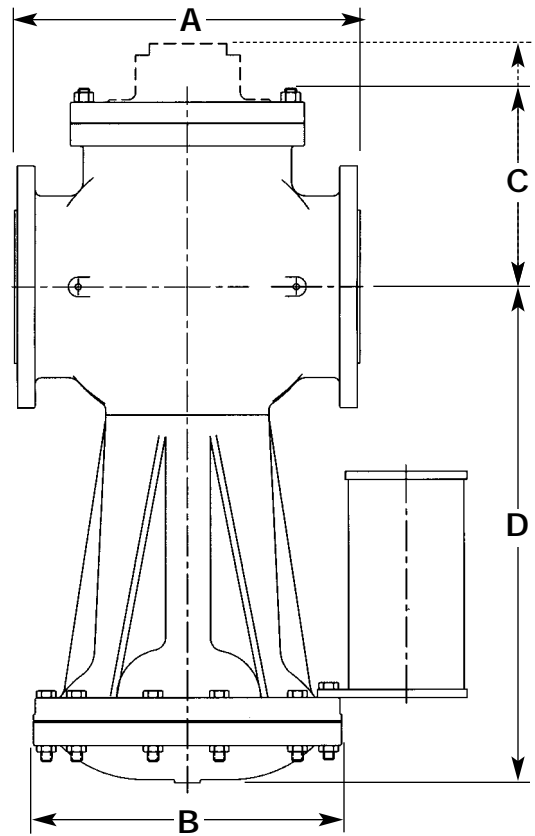
# TYPE E5 MAIN VALVE

## SPECIFICATION

The valve shall be self-operated, external pilot type, single seated, diaphragm actuated, normally closed design. The valve will function quickly and shut tight on dead end service. Internal parts including seats, discs and stems shall be of stainless steel. The diaphragm shall be a balanced Hycar material for high lift. There shall be an external condensation chamber supplied. The main valve spring shall operate on a 5 psi minimum differential. There shall be no springs in the steam flow path and no stuffing box. The valve shall be easy to maintain with all parts accessible without removal from the line.

## MATERIALS OF CONSTRUCTION

Body, Cast Iron .....ASTM A126 Cl. B  
 Body, Cast Steel .....ASTM A216 WCB  
 Stem .....303 St. Stl. ASTM A582  
 Disc 3/4 - 5" .....420 St. Stl. ASTM A582 Cond A  
 Disc 6 - 12" .....304 St. Stl. ASTM A167/A240  
 Seat 3/4 - 5" .....420 St. Stl. ASTM A582 Cond A  
 Seat 6 - 12" .....316 St. Stl. ASTM A743 CF-8M  
 Gasket .....Non-asbestos  
 Diaphragm .....Hycar  
 Spring .....Steel



TYPE E5  
MAIN VALVE

TYPE E5 MAIN VALVE

FITTINGS ON  
PAGE 46

### DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

SIZE	A			B	C			D*		APPROX. WT				
	ANSI NPT	ANSI 125	ANSI 250		Std. Mount	Integral Mount		ANSI 125	SCR 250	Iron, Brz. Stl. ANSI NPT	Iron		Steel	
						Cl	Stl.				ANSI 125	ANSI 250	ANSI 150	ANSI 300
3/4 (19)	4 3/4 (111)	—	—	6 7/8 (175)	2 7/8 (73)	3 5/8 (92)	3 1/2 (89)	11 1/4 (286)	11 1/4 (286)	23 (10)	—	—	—	—
1 (25)	5 3/8 (137)	5 1/2 (140)	6 (152)	6 7/8 (175)	3 5/8 (92)	4 3/8 (111)	4 3/8 (111)	11 5/8 (295)	11 5/8 (295)	24 (11)	30 (14)	33 (15)	35 (16)	39 (18)
1 1/4 (32)	6 1/2 (165)	6 3/4 (171)	7 1/4 (184)	9 1/8 (232)	4 1/8 (105)	4 (102)	4 5/8 (117)	13 1/2 (343)	13 1/2 (343)	49 (22)	46 (21)	49 (22)	58 (26)	63 (29)
1 1/2 (38)	7 1/4 (184)	6 7/8 (175)	7 3/8 (187)	9 1/8 (232)	4 3/8 (111)	4 1/2 (114)	5 (127)	13 5/8 (346)	13 5/8 (346)	53 (24)	58 (26)	68 (31)	67 (30)	74 (34)
2 (51)	7 1/2 (191)	8 1/2 (216)	9 (229)	11 1/8 (283)	5 1/4 (133)	5 (127)	5 5/8 (143)	16 1/4 (413)	16 1/4 (413)	84 (38)	90 (41)	97 (44)	113 (51)	120 (55)
2 1/2 (64)	—	9 3/8 (238)	10 (254)	11 1/8 (283)	5 3/4 (146)	5 3/8 (137)	6 (152)	16 1/2 (419)	16 1/2 (419)	—	97 (44)	112 (51)	130 (59)	135 (61)
3 (76)	—	10 (254)	10 3/4 (273)	13 1/2 (343)	6 5/8 (168)	6 3/8 (162)	7 (178)	19 1/4 (489)	19 1/4 (489)	—	148 (67)	170 (77)	210 (95)	226 (103)
4 (102)	—	11 7/8 (302)	12 1/2 (318)	13 1/2 (343)	7 5/8 (194)	6 5/8 (168)	8 (203)	18 3/8 (467)	23 3/8 (594)	—	208 (95)	293 (133)	307 (139)	330 (150)
5 (127)	—	13 5/8 (346)	14 1/2 (368)	13 1/2 (343)	8 1/2 (216)	7 3/8 (187)	8 3/4 (222)	18 3/4 (476)	23 3/4 (603)	—	240 (109)	333 (151)	335 (152)	366 (166)
6 (152)	—	15 1/8 (384)	16 (406)	16 3/4 (425)	10 (254)	7 (178)	—	23 1/2 (597)	27 3/8 (695)	—	348 (158)	616 (280)	560 (254)	503 (274)
8 (203)	—	19 (483)	20 (508)	16 3/4 (425)	11 1/2 (292)	9 1/4 (235)	—	23 3/4 (603)	29 5/8 (752)	—	650 (295)	814 (370)	795 (361)	862 (392)
10 (254)	—	23 5/8 (600)	25 (635)	20 (508)	13 3/4 (349)	—	—	30 3/4 (781)	35 3/8 (899)	—	910 (414)	1130 (513)	1345 (611)	1420 (645)
12 (305)	—	26 1/2 (673)	28 (711)	24 3/4 (629)	15 7/8 (403)	—	—	39 3/4 (1010)	39 3/4 (1010)	—	1580 (718)	1920 (872)	1990 (904)	2160 (982)