

TYPE E8 MAIN VALVE

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## AIR LOADED

SIZES  $\frac{3}{8}$ " - 12"  
PRESSURES to 250 PSIG at 406°F

- Normally Closed
- Single Seat
- Balanced Metal Diaphragms
- ANSI/FCI 70-2 Class IV Shutoff
- No Minimum Operating Differential Pressure
- Packless Construction
- No Pilot Needed
- Maximum 50 PSI Air Delivery Pressure
- Permits Remote Operation and Control
- Economical Alternative to Control Valve

### APPLICATION DATA

- Pressure Regulating for Steam Distribution
- Regulating for Process Control (Temperature or Pressure)
- Maintain Back Pressure or Differential Pressure
- To use Air Load Pressure to Control Delivery Pressure
- Single Point or Multiple Use Applications
- Slow Start-up or Shutdown
- Use where "Dirty Steam" Conditions Exist

### 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)

Canadian Registration # OC 0591.9C

### OPTIONS *See page 42*

- Composition Disc
- Parabolic Disc
- Balanced Construction
- Dashpot
- Insulcap Insulating Jacket
- EZ Connections

### TYPICAL CONFIGURATIONS

- PRESSURE REDUCING .....TYPE E8 65A
- PRESSURE REDUCING .....TYPE E8 A PANEL
- PRESSURE REDUCING .....TYPE E8 B PANEL
- PRESSURE REDUCING .....TYPE E8EPC
- TEMPERATURE CONTROL .....TYPE E8T61
- TEMPERATURE CONTROL .....TYPE E8EPC

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

SIZING INFO  
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### RATED FLOW COEFFICIENTS (Cv)

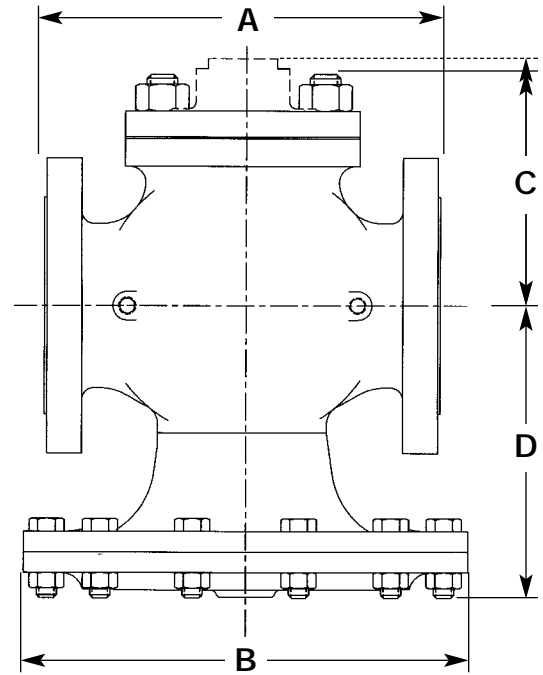
SEAT FACTOR	REGULATOR SIZE															
	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	4	5	6	8	10	12	
Full	1.5	2.8	5.4	8.8	14.1	19.8	31	44	74	109	169	248	444	706	1113	
Full 75 %	—	2.1	4.0	6.6	10.6	14.8	23.3	33	56	82	127	186	333	530	835	
Full 50 %	—	1.4	2.7	4.4	7.0	9.9	15.5	22	37	55	85	124	222	353	557	
Normal	.65	1.5	4.8	7.5	10.4	14.6	17.6	24	43	78	115	151	249	377	631	
Normal 75 %	—	—	—	—	—	—	—	18	33	59	87	114	187	283	474	
Normal 50 %	—	—	—	—	—	—	—	12	22	39	58	76	125	189	316	

# TYPE E8 MAIN VALVE SPECIFICATION

The valve shall be air operated, single seated, metal diaphragm actuated, normally closed design. The valve will function quickly and shut tight on dead end service. Internal parts including seats, discs, stems and diaphragms shall be of stainless steel. There shall be no springs in the steam space 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 Bronze .....ASTM B61 UNS C92200  
 Stem .....303 St. Stl. ASTM A582  
 Disc 3/4 - 5" .....420 St. Stl. ASTM A743 CA-40  
 Disc 6 - 12" .....304 St. Stl. ASTM A167/A240  
 Seat 3/4 - 5" .....420 St. Stl. ASTM A743 CA-40  
 Seat 6 - 12" .....316 St. Stl. ASTM A743-79 CF-8M  
 Gasket .....Non-asbestos  
 Diaphragm .....Stainless Steel MIL-S-5059C  
 Spring .....Steel



TYPE E MAIN VALVE

TYPE E8  
MAIN VALVE

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

SIZE	FACE TO FACE DIMENSIONS					OTHER DIMENSIONS					APPROX. WT.					
	A					B	C		D	E						
	ANSI NPT	ANSI 125,150	ANSI 250	ANSI 300	ANSI 600			ANSI 600			ANSI NPT	ANSI 125	ANSI 150	ANSI 250	ANSI 300	ANSI 600
3/8 (10)	4 3/8 (111)	—	—	—	—	5 7/8 (149)	2 3/4 (70)	—	5 1/4 (133)	7 3/8 (187)	14 (31)	—	—	—	—	—
1/2 (12)	4 3/8 (111)	—	—	—	6 (152)	5 7/8 (149)	2 3/4 (70)	2 3/4 (70)	5 1/4 (133)	7 3/8 (187)	14 (31)	—	—	—	—	20 (44)
3/4 (19)	4 3/8 (111)	—	—	—	6 3/8 (162)	6 1/2 (165)	2 7/8 (73)	3 7/8 (98)	5 1/2 (140)	7 7/8 (200)	18 (40)	—	—	—	—	28 (62)
1 (25)	5 3/8 (137)	5 1/2 (140)	6 (152)	6 1/2 (165)	6 1/2 (165)	7 (178)	3 5/8 (92)	4 1/4 (108)	6 1/4 (159)	8 7/8 (225)	23 (51)	24 (53)	26 (57)	27 (59)	31 (68)	32 (70)
1 1/4 (32)	6 1/2 (165)	6 3/4 (171)	7 1/4 (184)	7 7/8 (200)	7 7/8 (200)	7 7/8 (200)	4 1/8 (105)	4 5/8 (117)	6 1/2 (165)	9 1/8 (232)	33 (73)	36 (79)	37 (81)	40 (88)	41 (90)	45 (99)
1 1/2 (38)	7 1/4 (184)	6 7/8 (175)	7 3/8 (187)	8 (203)	8 (203)	8 3/4 (222)	4 3/8 (111)	5 1/8 (130)	7 1/8 (181)	9 3/4 (248)	43 (95)	45 (99)	47 (103)	51 (112)	55 (121)	58 (128)
2 (51)	7 1/2 (191)	8 1/2 (216)	9 (229)	10 1/4 (260)	10 1/4 (260)	9 7/8 (251)	5 1/4 (133)	5 3/4 (146)	7 5/8 (194)	11 1/4 (286)	62 (136)	67 (147)	73 (161)	72 (158)	78 (172)	83 (183)
2 1/2 (64)	—	9 3/8 (238)	10 (254)	11 1/4 (286)	11 1/4 (286)	10 7/8 (276)	5 3/4 (146)	7 7/8 (200)	8 3/8 (213)	12 1/8 (308)	—	82 (180)	95 (209)	100 (220)	100 (220)	130 (286)
3 (76)	—	10 (254)	10 3/4 (273)	12 1/4 (311)	12 1/4 (311)	11 3/4 (298)	6 5/8 (168)	9 1/8 (232)	9 1/4 (235)	14 5/8 (371)	—	110 (242)	125 (275)	130 (286)	140 (308)	175 (385)
4 (102)	—	11 7/8 (302)	12 1/2 (318)	12 1/2 (318)	14 1/2 (368)	14 3/4 (375)	7 5/8 (194)	10 5/8 (270)	11 7/8 (302)	18 1/4 (464)	—	200 (440)	210 (462)	235 (517)	230 (506)	310 (682)
5 (127)	—	13 5/8 (346)	14 1/2 (368)	14 1/2 (368)	16 1/2 (419)	16 7/8 (429)	8 1/2 (216)	12 1/2 (318)	12 1/2 (318)	20 1/8 (511)	—	280 (616)	295 (649)	315 (693)	310 (682)	490 (1078)
6 (152)	—	15 1/8 (384)	16 (406)	16 (406)	17 3/8 (441)	19 3/4 (502)	10 (254)	13 3/4 (349)	14 1/8 (359)	22 3/8 (568)	—	385 (847)	420 (924)	455 (1001)	470 (1034)	655 (1441)
8 (203)	—	19 (483)	20 (508)	20 (508)	21 5/8 (549)	22 1/2 (572)	11 1/2 (292)	15 5/8 (391)	17 1/4 (438)	27 3/4 (705)	—	657 (1445)	700 (1540)	735 (1617)	710 (1562)	1070 (2354)
10 (254)	—	23 5/8 (600)	25 (635)	25 (635)	—	28 (711)	13 3/4 (349)	—	23 3/8 (594)	36 1/4 (921)	—	1260 (2772)	1240 (2728)	1430 (3146)	1300 (2860)	—
12 (305)	—	26 1/2 (673)	28 (711)	28 (711)	—	33 (838)	15 7/8 (403)	—	25 1/4 (641)	41 1/2 (1054)	—	2070 (4554)	2060 (4532)	2145 (4719)	2140 (4708)	—