

# E P2E 10k Bolted-Bonnet Choke



10 000 psig / Max Cv 27 / Max Bean Size 81

## VALVE SPECIFICATIONS

This choke-valve option uses bolted bonnet to retain the flow trim in the valve body. Standard end connections range in size from 2" to 3".

Valve Model	P2E 10k BB
Body Type	Right Angle
Body Rating	10 000 PSIG (Maximum C.W.P.)
Inlet Connection	see 'Standard End Connections'
Outlet Connection	see 'Standard End Connections'
Bonnet Type	Bolted
Body / Bonnet Material	see 'Material Options'
Stem Material	see 'Material Options'
Seal Material	see 'Material Options'
Trim Style	Ported Cage with External Sleeve
Balanced / Unbalanced	Semi-Balanced
Flow Characteristic	Equal Percentage
Trim Material	see 'Trim Options'
Design Cv	see 'Trim Options'
Leakage Class	Class V (Standard)

Picture not available.

## TRIM OPTIONS

	Standard Trim Cage & External Sleeve 2 Row / 4 Hole	Multistage Trim	High-Pressure Multi-stage Trim
Material	UNS S17400, Stellite, Tungsten Carbide	Stellite, Tungsten Carbide	Stellite, Tungsten Carbide
Application	Liquid, Gas, Multiphase; Abrasive	Liquid, Gas, Multiphase	Liquid, Gas, Multiphase
Cv	27	7	6
Turns	11	8	8
Travel	1.35"	1.00"	1.00"

## STANDARD END CONNECTIONS

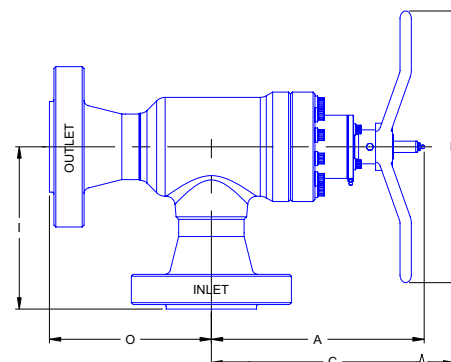
Connection Size	Standard Dimensions & Estimated Weights											
	2" Nominal				2-1/2" Nominal				3" Nominal			
	'I' or 'O'		Weight		'I' or 'O'		Weight		'I' or 'O'		Weight	
Connection Type	inch	mm	lbs.	kg	inch	mm	lbs.	kg	inch	mm	lbs.	kg
ASME 150 RF	7.00	178	127	58	7.25	184	136	62	7.25	184	138	63
ASME 300 RF	7.25	184	131	59	7.50	191	141	64	7.62	194	149	68
ASME 600 RF	7.62	194	135	61	7.88	200	145	66	8.00	203	151	69
ASME 600 RTJ	7.69	195	135	61	7.94	202	145	66	8.06	205	151	69
ASME 900 RF	8.75	222	163	74	8.88	225	184	84	8.75	222	173	79
ASME 900 RTJ	8.81	224	163	74	8.94	227	184	84	8.81	224	173	79
ASME 1500 RF	8.75	222	163	74	8.88	225	184	84	9.38	238	211	96
ASME 1500 RTJ	8.81	224	163	74	8.94	227	184	84	9.44	240	211	96
ASME 2500 RTJ	9.81	249	199	90	10.50	267	226	103	11.50	292	303	138
2 000 API 6B	7.69	195	135	20	7.94	202	145	66	8.06	205	151	69
3 000 API 6B	8.81	224	163	74	8.94	227	184	84	8.81	224	173	79
5 000 API 6B	8.81	224	163	74	8.94	227	184	84	9.44	240	211	96
10 000 API 6BX	8.81	224	159	72	9.38	238	183	83	10.75	273	230	104

## ENVELOPE DIMENSIONS

Dimensions 'A', 'B', and 'C' apply to manually operated chokes and are tabulated below. 'I' (inlet) and 'O' (outlet) dimensions depend on the end connections and are tabulated above. Special dimensions and other end connections are available upon request.

Dimensions		
	inch	mm
A	14.12	359
B	18.00	457
C	20.00	508

Note: "C" is the disassembly clearance.



**MATERIAL OPTIONS**

Temperature Class	Certification Level	API - 6A Material Class Designations						
		AA	BB	CC	DD	EE	FF	HH
PU -20F to 250F	STD / PSL-1	BB	BB	FF	EE	EE	FF	HH
	PSL-2	EE	EE	FF	EE	EE	FF	HH
	PSL-3	EE	EE	FF	EE	EE	FF	HH
LU -50F to 250F	STD / PSL-1	EE	EE	FF	EE	EE	FF	HH
	PSL-2	EE	EE	FF	EE	EE	FF	HH
	PSL-3	EE	EE	FF	EE	EE	FF	HH

	BB-General Service	EE-Sour Service	FF-Sour Service	HH-Sour Service
<b>Body</b>	AISI 8620	AISI 8620	UNS S31803	AISI 8620 / Inconel 625
<b>Bonnet</b>	ASTM A350 LF2 or AISI 4130	ASTM A350 LF2 or AISI 4130	UNS S31803	Inconel 625
<b>Stem</b>	UNS S17400	UNS S17400	UNS S17400	Inconel 718
<b>Bolting</b>	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M
<b>Retaining Sleeve</b>	ASTM A743 CF8M	ASTM A743 CF8M	ASTM A743 CF8M	Inconel 625
<b>Seals</b>	Buna - N	Viton	Viton	Teflon

Other materials available upon request.

**OTHER VALVE OPTIONS**

	Standard	Optional
<b>Calibration Head / Serial Plaque</b>	Aluminum	Stainless Steel
<b>Outlet Sleeve</b>	-	Tungsten Carbide
<b>Body Bleed Port</b>	-	API Autoclave

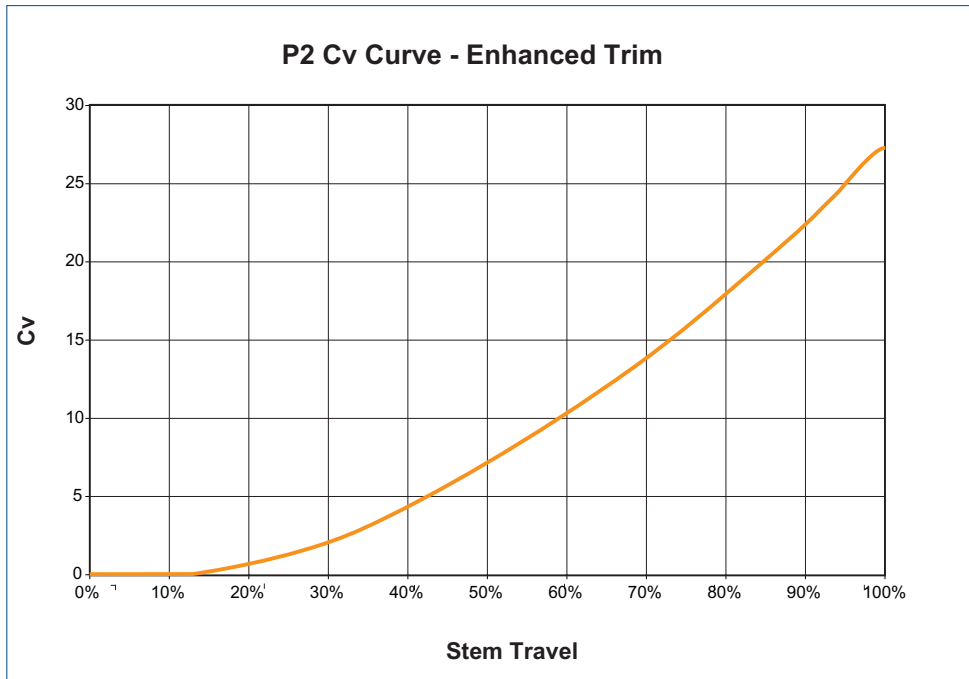
Some limitations may apply.

**ACTUATION OPTIONS**

Master Flo	Other
Manually Operated (Stemlock is optional)	Rotary Electric
Rotary Stepping (Pneumatic)	
Rotary Stepping (Hydraulic)	

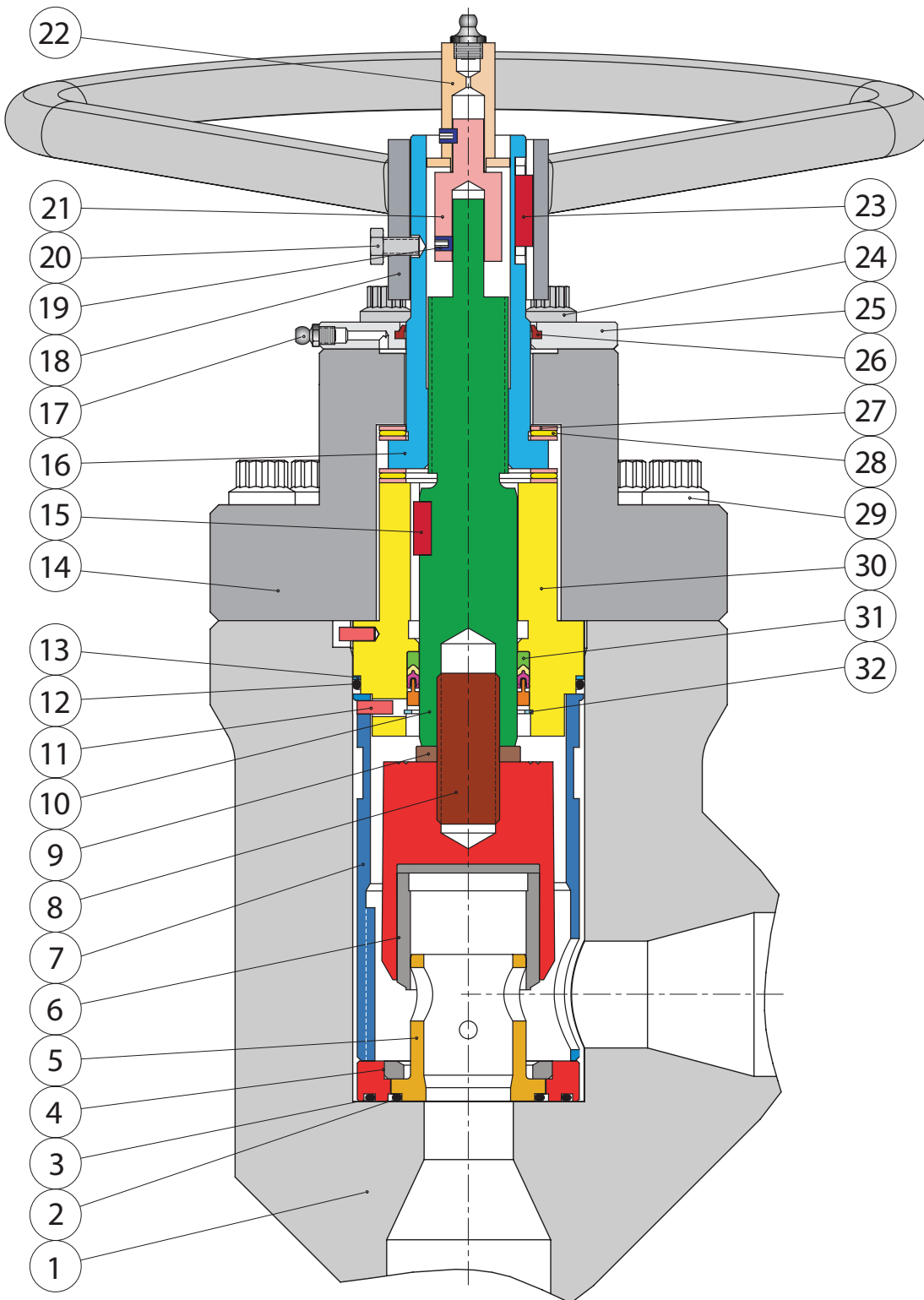
Other actuators available upon request.

**PERFORMANCE CHARACTERISTICS**



**LIQUID PRESSURE RECOVERY FACTOR (FL)**

Master Flo's trim geometry has been designed to achieve high  $F_L$  numbers. This results in a decreased cavitation potential, lower noise generation, increased flow capacity, and longer trim life. The high  $F_L$  numbers of Master Flo's trims have been verified experimentally as per the test procedures of ISA-S75.02-1996.



### PARTS LIST

1. Body
2. Seal: Cage - Body
3. Seal: Seat - Body
4. Seat
5. Cage
6. External Sleeve
7. Retaining Sleeve
8. Stud
9. Lockwasher
10. Stem
11. Pin
12. Seal: Bonnet - Body
13. B/U Ring: Bonnet - Body
14. Bonnet Flange
15. Key
16. Stem Nut
17. Grease Nipple
18. Handwheel
19. Set Screw
20. Capscrew
21. Stem Extension
22. Calibration Head
23. Key
24. Capscrew
25. Cover Plate
26. Wiper
27. Thrust Washer
28. Thrust Bearing
29. Capscrew
30. Bonnet
31. Seal Pack: Stem - Bonnet
32. Retaining Ring

### P2 Product Family

#### Standard:

- P2E - Hammer-Union Bonnet; 10 000 PSI

#### Other Options:

- P2E BB - Bolted Bonnet; 6 000 PSI
- **P2E 10k BB - Bolted Bonnet; 10 000 PSI**
- P2E HT - Hammer Union; 6 000 PSI; High-Temperature Service
- C2E - Hammer Union; 6 000 PSI; Inline
- C2E BB - Bolted Bonnet; 6 000 PSI; Inline
- C2E HT - Hammer Union; 6 000 PSI; Inline; High-Temperature Service

**chokes**  
for all applications

recycle lines



vent valves



manifold



production



blow down

glycol injection

overboard dumps



subsea



level controllers

water injection



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