

E P4E 10k Choke 5CB

10000 psig / Max Cv 205 / Max Bean Size 216



VALVE SPECIFICATIONS ▶

Valve Model	P4E 10k
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	Balanced
Flow Characteristic	Equal Percentage
Trim Material	see 'Trim Options'
Design Cv	see 'Trim Options'
Leakage Class	Class V (Standard)

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; Clean or Abrasive *	Liquid, Gas, Multiphase	Liquid, Gas, Multiphase
Cv	205	54	35
Turns	20	15	15
Travel	3.35"	2.55"	2.55"

* For abrasive service, tungsten carbide is recommended.

STANDARD END CONNECTIONS ▶

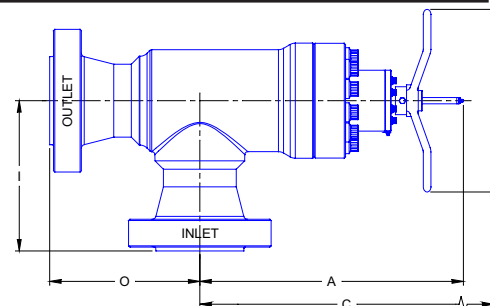
Connection Size ▶	Standard Dimensions & Estimated Weights											
	4" Nominal				5" Nominal				6" Nominal			
	'I' or 'O'		Weight		'I' or 'O'		Weight		'I' or 'O'		Weight	
Connection Type ▼	inch	mm	lbs.	kg	inch	mm	lbs.	kg	inch	mm	lbs.	kg
ASME 150 RF	10.50	267	495	225	11.00	279	505	230	11.00	279	515	235
ASME 300 RF	10.88	276	515	235	11.38	289	535	245	11.38	289	555	250
ASME 600 RF	11.75	298	545	245	12.25	311	495	270	12.38	314	620	280
ASME 600 RTJ	11.81	300	545	245	12.31	313	495	270	12.44	316	620	280
ASME 900 RF	12.25	311	565	255	12.75	324	630	285	13.25	337	680	310
ASME 900 RTJ	12.31	313	565	255	12.81	325	630	285	13.31	338	680	310
ASME 1500 RF	12.62	321	605	275	13.88	352	730	330	14.50	368	790	360
ASME 1500 RTJ	12.69	322	605	275	13.94	354	730	330	14.62	371	790	360
ASME 2500 RTJ	15.44	392	730	330	17.00	432	910	415	18.75	476	1155	525
2 000 API 6B	11.81	300	545	245	12.31	313	595	270	12.44	316	620	280
3 000 API 6B	12.31	313	570	260	12.81	325	635	290	13.31	338	690	315
5 000 API 6B	12.69	322	605	275	13.94	354	730	330	14.62	371	790	360
10 000 API 6BX	14.00	356	640	290	14.81	376	720	325	n/a	n/a	n/a	n/a

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	26.00	660
B	18.00	457
C	37.62	956

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
Body	AISI 8620	AISI 8620	UNS S31803	AISI 8620 / Inconel 625
Bonnet	AISI 4130	AISI 4130	AISI 4130 / UNS S31803	AISI 4130 / Inconel 625
Stem	UNS S17400	UNS S17400	UNS S17400	Inconel 718
Bolting	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M
Retaining Sleeve	ASTM A743 CF8M	ASTM A743 CF8M	ASTM A743 CF8M	Inconel 625
Balance Sleeve	UNS S42400	UNS S31803	UNS S31803	Inconel 625
Seals	Buna - N	Viton	Viton	Teflon

Other materials available upon request.

OTHER VALVE OPTIONS

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

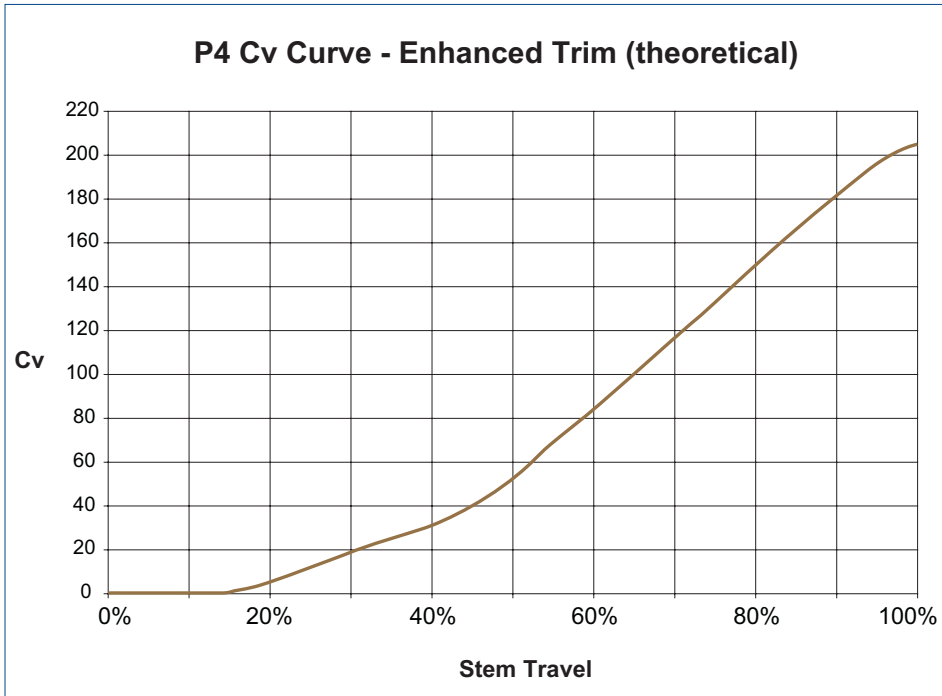
Some limitations may apply.

ACTUATION OPTIONS

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

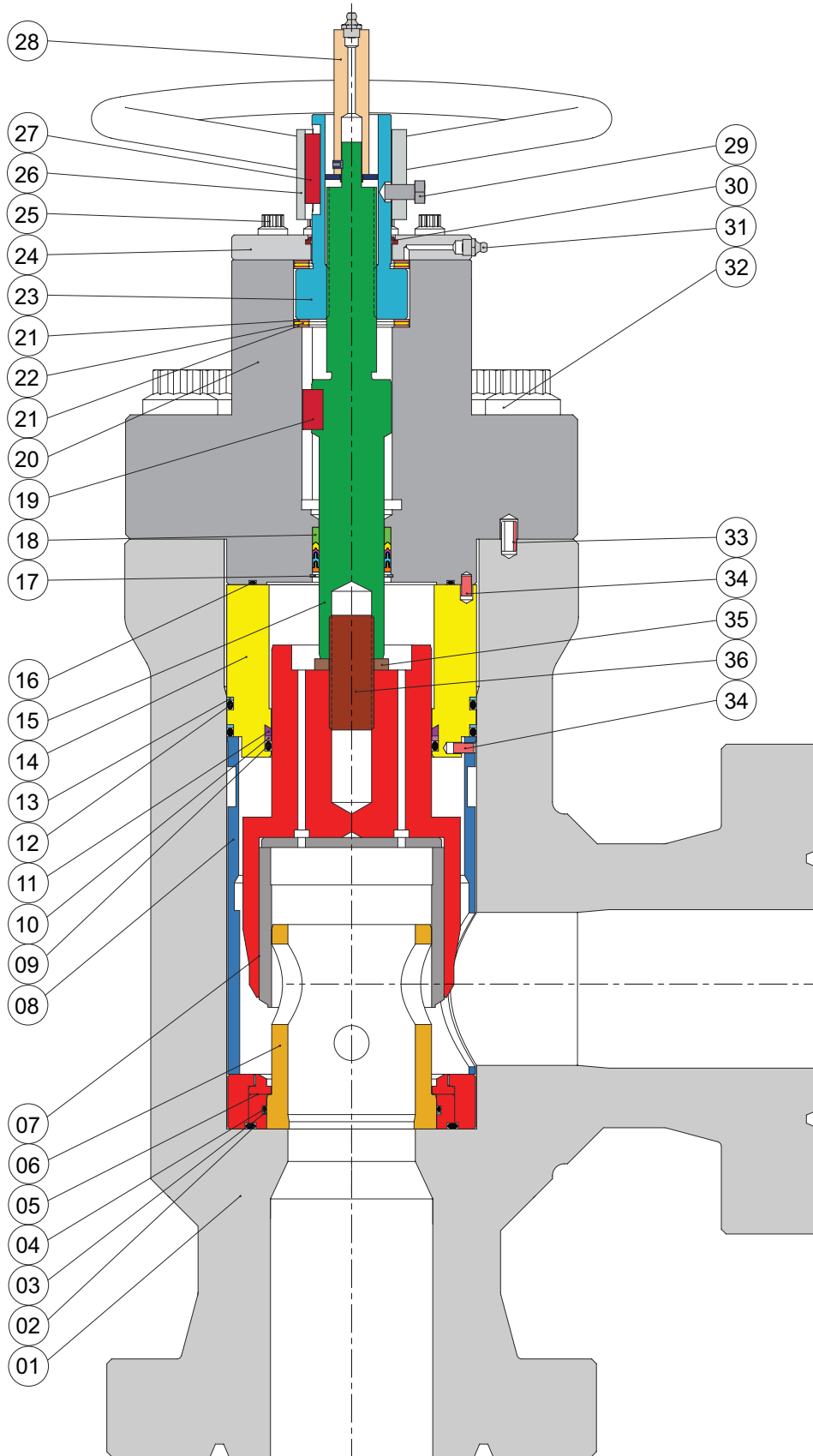
Other actuators available upon request.

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

P4 Product Family

Standard:
 • P4E - Bolted Bonnet; 6000 PSI

Other Options:
 • P4E 10k - Bolted Bonnet; 10000 PSI
 • C4E - Bolted Bonnet; 3600 PSI; Inline

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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