

**CIRCUIT BALANCING VALVES | FLANGED PN16
STRAIGHT | SIZES 2½" - 12" | SUBMITTAL**

File No: 36.57UK
Date: APRIL 18, 2014
Supersedes: NEW
Date: NEW

Job: _____ Representative: _____
 _____ Ordered by: _____ Date: _____
 Engineer: _____ Submitted by: _____ Date: _____
 Contractor: _____ Approved by: _____ Date: _____

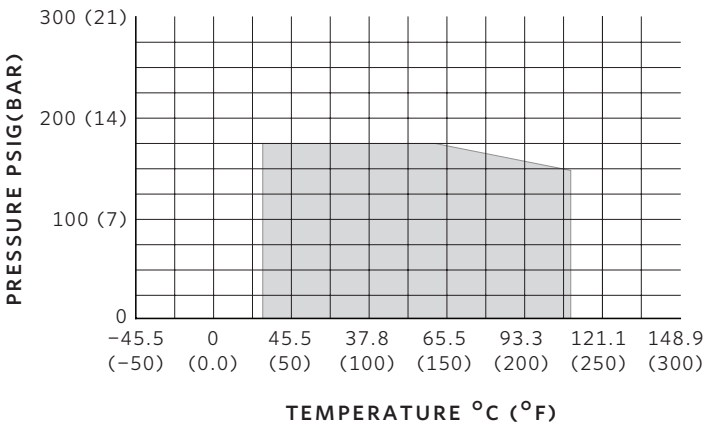
| MODEL NUMBER | PART NUMBER | QTY | IDENTIFICATION | MODEL NUMBER | PART NUMBER | QTY | IDENTIFICATION |
|--------------|-------------|-----|----------------|--------------|-------------|-----|----------------|
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MATERIALS OF CONSTRUCTION

- Valve body:** Cast iron ASTM A48 Class 30B/
Ductile iron ASTM A536 grade 65-42-12
- Disc:** Bronze (B584-844)
- Seat:** Ultra - High strength engineered resin
- Stem:** Brass - ASTM B - 16
- Spring:** Stainless steel ASTM A313 type 302
- O rings:** BUNA (STEM) and EPDM^①
(body gasket) ELASTOMERS
- Meter ports (2):** Brass body with EPDM check
and Gasket cap
- Drain tappings:** ¼" NPT with Brass plug

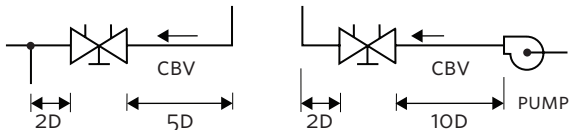
① EPDM not suitable for oil service.

OPERATING PARAMETERS PRESSURE/TEMPERATURE



INSTALLATION

Generally locate the valve five pipe diameters downstream from a fitting; with two diameters downstream from the balancing valve free from fittings. If a balancing valve is located downstream from a circulation pump, allow a distance of ten (10) diameters between the pump and balancing valves (as illustrated below). To save space, the valve may be used in the angled configuration as an elbow.



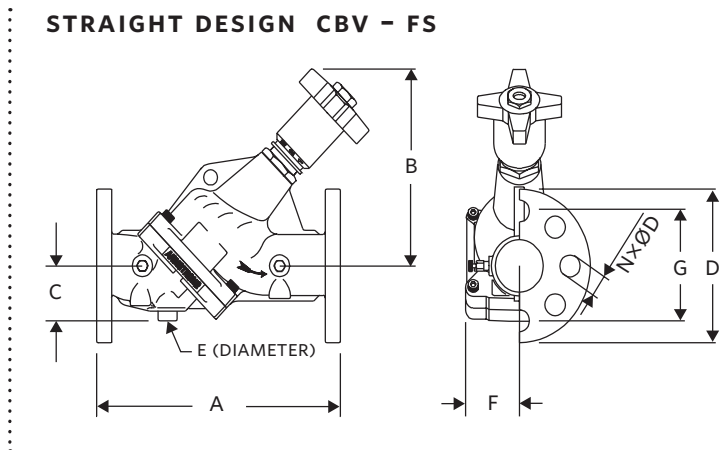
DIMENSIONS

| PN16 | DIMENSIONS mm (inches) | | | | | | | |
|------------------------|------------------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| | 2½" | 3" | 4" | 5" | 6" | 8" | 10" | 12" |
| A | 305 (12.00) | 305 (12.00) | 356 (14.00) | 445 (17.50) | 526 (20.69) | 711 (28.00) | 762 (30.01) | 967 (38.09) |
| B (FULLY OPEN) | 244 (9.62) | 267 (10.50) | 268 (10.56) | 332 (13.06) | 349 (13.75) | 625 (24.62) | 673 (26.50) | 722 (28.43) |
| C | 70 (2.75) | 62 (2.44) | 76 (3.00) | 92 (3.63) | 113 (4.44) | 145 (5.69) | 167 (6.56) | 194 (7.63) |
| D | 178 (7.00) | 191 (7.50) | 356 (14.00) | 254 (10.00) | 279 (11.11) | 343 (13.50) | 406 (16.00) | 483 (19.00) |
| E | 25 (1.00) | 25 (1.00) | 32 (1.25) | 32 (1.25) | 51 (2.00) | 57 (2.25) | 57 (2.25) | 57 (2.25) |
| F | 65 (2.56) | 76 (3.00) | 87 (3.44) | 125 (4.94) | 149 (5.88) | 200 (7.88) | 241 (9.47) | 321 (12.63) |
| G | 145 (5.70) | 160 (6.30) | 180 (7.09) | 210 (8.27) | 240 (9.45) | 295 (11.61) | 355 (13.98) | 410 (16.14) |
| N X ØD | 4x19 (0.75) | 8x19 (0.75) | 8x19 (0.75) | 8x19 (0.75) | 8x23 (0.91) | 12x23 (0.91) | 12x28 (1.10) | 12x28 (1.10) |
| WEIGHT kg (lbs) | 15 (33) | 17.7 (39) | 26.8 (59) | 49 (108) | 75.7 (167) | 156 (344) | 273 (603) | 456 (1006) |

DESIGN DATA

| CONNECTION SIZE | STEM: NO. OF 360° TURNS | MAX. WORKING TEMP |
|-----------------|-------------------------|------------------------------------|
| 2.5 | 5 | Standard material 110°C (230°F) |
| 3 | 5 | |
| 4 | 6 | |
| 5 | 6 | |
| 6 | 6 | |
| 8 | 12 | |
| 10 | 12 | |
| 12 | 14 | |

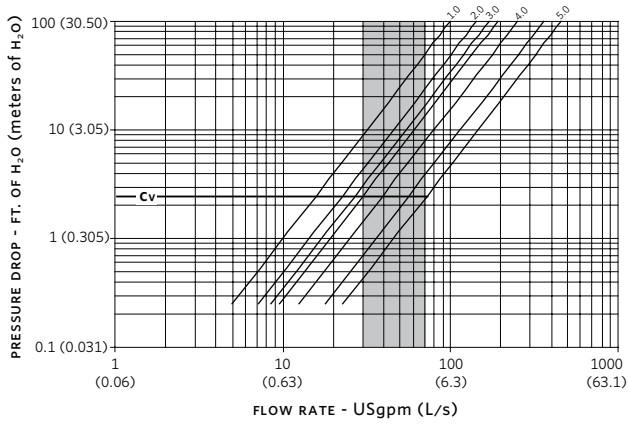
STRAIGHT DESIGN CBV - FS



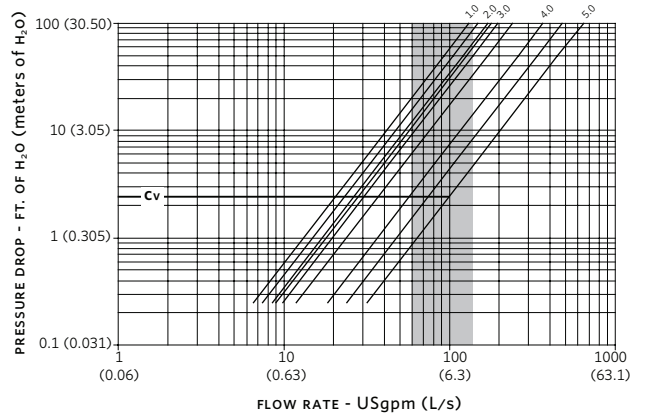
FLOW RATE RANGES

| MODEL | PIPE SIZE | KV | CV | MIN. FLOWRATE | MAX. FLOWRATE | PART NUMBER |
|---------------|-----------|------|------|---------------|---------------|-------------|
| | | | | L/s (USgpm) | | |
| CBV-2½FS-PN16 | DN 65 | 60 | 70 | 1.9 (30) | 4.4 (71) | 570109-546 |
| CBV-3FS-PN16 | DN 80 | 85 | 100 | 3.8 (60) | 8.8 (140) | 570109-547 |
| CBV-4FS-PN16 | DN 100 | 239 | 280 | 8.2 (130) | 17.0 (270) | 570109-548 |
| CBV-5FS-PN16 | DN 125 | 281 | 330 | 15.8 (250) | 31.6 (500) | 570109-549 |
| CBV-6FS-PN16 | DN 150 | 392 | 460 | 25.2 (400) | 50.5 (800) | 570109-550 |
| CBV-8FS-PN16 | DN 200 | 1024 | 1200 | 50.5 (800) | 107.3 (1700) | 570109-551 |
| CBV-10FS-PN16 | DN 250 | 1877 | 2200 | 94.7 (1500) | 189.3 (3000) | 570109-552 |
| CBV-12FS-PN16 | DN 300 | 2815 | 3300 | 151.4 (2400) | 315.5 (5000) | 570109-553 |

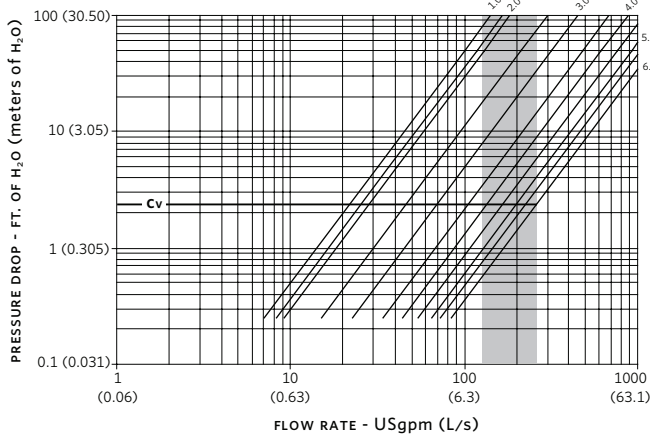
CBV-2½FS-PN16



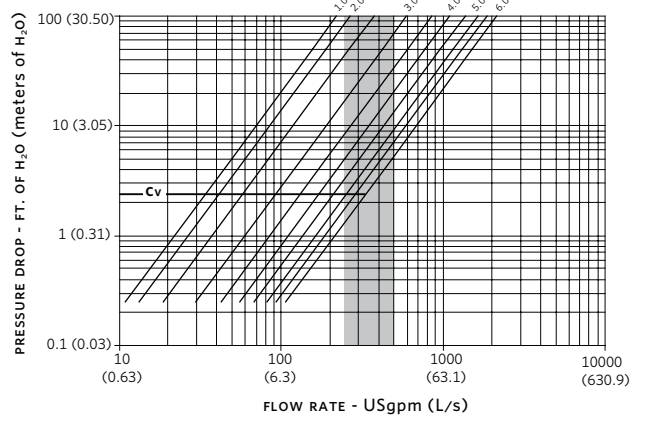
CBV-3FS-PN16



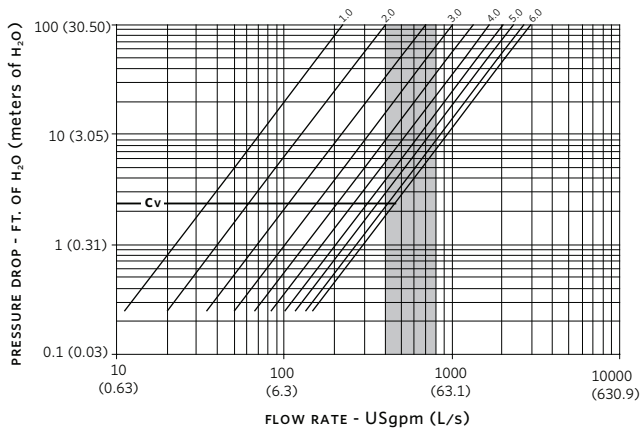
CBV-4FS-PN16



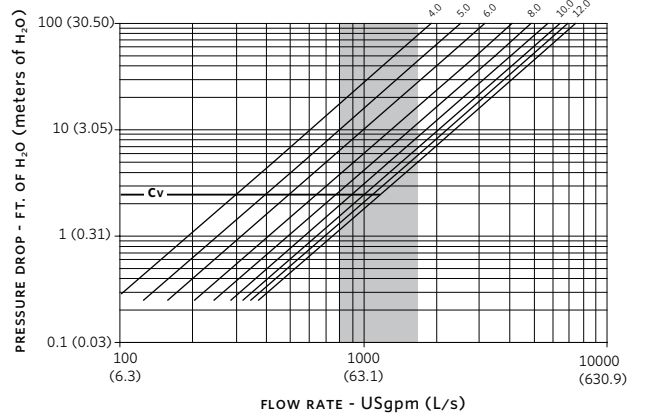
CBV-5FS-PN16



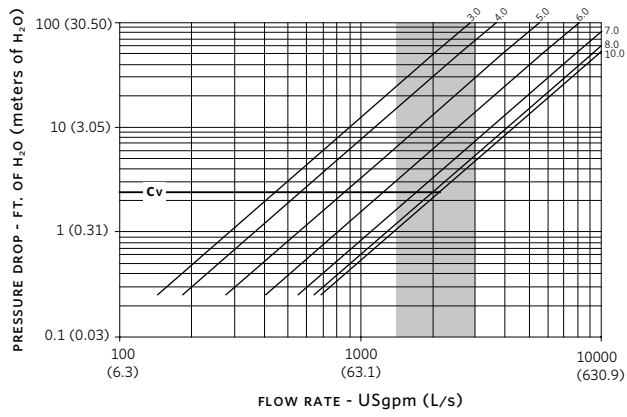
CBV-6FS-PN16



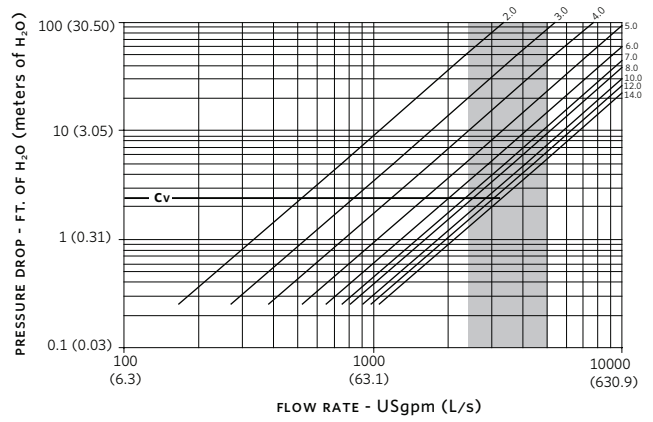
CBV-8FS-PN16



CBV-10FS-PN16



CBV-12FS-PN16



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