

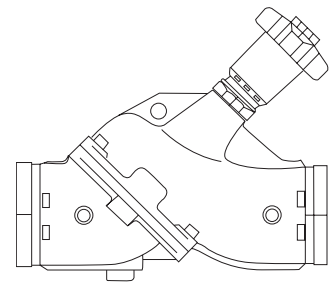
CIRCUIT BALANCING VALVES | GROOVED, STRAIGHT AND ANGLED | SIZES 8" - 12" | SUBMITTAL

File no: 36.53
Date: JUNE 22, 2023
Supersedes: 36.53
Date: DECEMBER 19, 2019

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

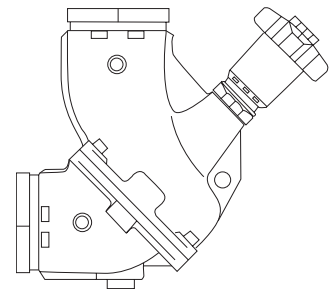
STRAIGHT DESIGN CBV-GS

VALVE SIZE	QUANTITY REQUIRED	IDENTIFICATION	GROOVED	FITTINGS REQUIRED			
				125 LB FLANGE		250 LB FLANGE	
				ONE	TWO	ONE	TWO
CBV - GS							
CBV - GS							
CBV - GS							
CBV - GS							
CBV - GS							
CBV - GS							



ANGLE DESIGN CBV-GA

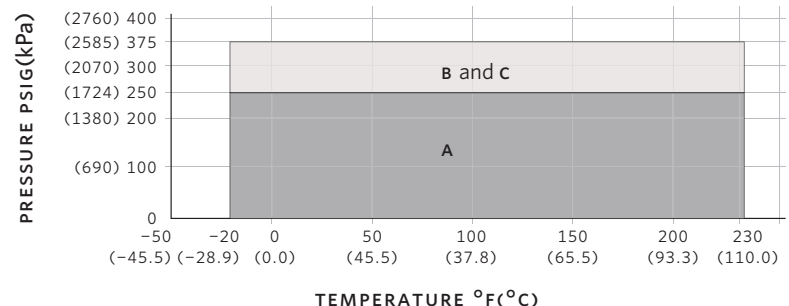
VALVE SIZE	QUANTITY REQUIRED	IDENTIFICATION	GROOVED	FITTINGS REQUIRED			
				125 LB FLANGE		250 LB FLANGE	
				ONE	TWO	ONE	TWO
CBV - GA							
CBV - GA							
CBV - GA							
CBV - GA							
CBV - GA							
CBV - GA							



MATERIALS OF CONSTRUCTION

- Body:** Ductile iron ASTM A536 GR 65-45-12
- Disc:** Bronze ASTM B584 C-84400
- Seat:** EPDM
- Stem:** Stainless steel
- Memory lock:** Brass - ASTM B-16
- O rings:** BUNA N.
- Meter ports:** NPT brass body with EPT check
- Drain tappings:** 1/4" quantity 2 with Brass Plug
- Flange adapters:** Ductile iron
- Flange gaskets:** EPDM
- Insulation:** Fiberglass

OPERATING PARAMETERS - PRESSURE/TEMPERATURE



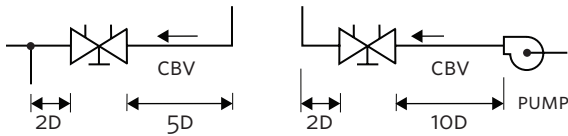
- **A:** Armgrip™ ductile iron flange adapter for ANSI 150# flanges
 - **B:** Armgrip™ ductile iron flange adapter for ANSI 300# flanges
 - **C:** Grooved end with 275 psi rated pipe coupling
- NOTE:** For temperatures from 230°F to 300°F (110°C to 150°C) use EPDM.

SUBMITTAL

2

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 pipe and balancing valves (as illustrated below).



OPTIONAL FEATURES

If checked, CBV valve pre-formed insulation to be provided to meet code requirement of flame spread rating of 25 or less and a smoke development rating of 50 or less according to ASTM E-84.

Viton elastomer for temperature above 230°F

DIMENSIONS

MODEL	CBV - GS STRAIGHT inches (mm)			CBV - GA ANGLE inches (mm)		
	8	10	12	8	10	12
CONNECTION SIZE						
A	28.19 (716)	30.00 (762)	38.10 (967)	18.93 (481)	20.30 (516)	24.10 (611)
B OPEN	24.62 (625)	26.50 (673)	28.40 (722)	24.62 (625)	26.50 (673)	28.40 (722)
C	5.69 (144)	6.60 (167)	7.60 (194)	5.69 (144)	6.60 (167)	7.60 (194)
D	—	—	—	9.19 (233)	9.80 (248)	14.00 (356)
E	2.00 (51)	2.00 (51)	2.00 (51)	2.00 (51)	2.00 (51)	2.00 (51)
F	7.88 (200)	9.47 (241)	12.63 (321)	7.88 (200)	9.47 (241)	12.63 (321)
G (FLANGE O. D. 125#)	13.50 (343)	16.00 (406)	19.00 (486)	13.50 (343)	16.00 (406)	19.00 (486)
G (FLANGE O. D. 250#)	15.00 (381)	17.50 (445)	20.50 (521)	15.00 (381)	17.50 (445)	20.50 (521)
WEIGHT LBS (KG)	310 (141)	460 (209)	870 (395)	310 (141)	460 (209)	870 (395)

TORONTO
 +1 416 755 2291

BUFFALO
 +1 716 693 8813

DROITWICH SPA
 +44 121 550 5333

MANCHESTER
 +44 161 223 2223

BANGALORE
 +91 80 4906 3555

SHANGHAI
 +86 21 5237 0909

BEIJING
 +86 21 5237 0909

SÃO PAULO
 +55 11 4785 1330

LYON
 +33 4 26 83 78 74

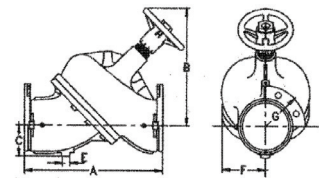
DUBAI
 +971 4 887 6775

JIMBOLIA
 +40 256 360 030

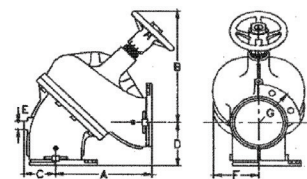
FRANKFURT
 +49 6173 999 77 55

Cv Values for 1/2" to 2" CBVs (Usgpm)

NO. OF TURNS	2.5"	3"	4"	5"	6"	8"	10"	12"
1.0	16	20	22	35	35			
2.0	24	26	28	42	62			520
3.0	27	31	70	92	160		440	840
4.0	40	58	140	170	260	300	580	1200
5.0	62	100	200	260	360	400	880	1700
6.0			270	320	480	490	1400	2050
7.0						640	1700	2400
8.0						780	1990	2600
9.0						890		
10.0						1000	2200	2800
11.0						1100		
12.0						1200		3100
14.0								3300



STRAIGHT DESIGN CBV - GS



ANGLE DESIGN CBV - GA