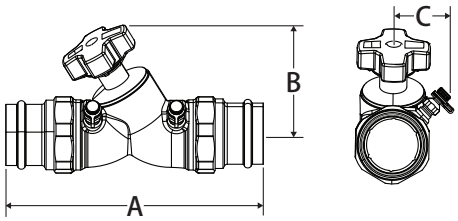
LEAD FREE

Domestic Hot Water Balancing Valve

Terminator G | Manual Balancing, Multi-Turn Globe, Y-Pattern, Variable Orifice, Press Connection, Memory Stop, PT Ports, 200 WOG

TGG - PRESS



FEATURES

Lead Free Dezincification Brass
"Y" Pattern Globe Style Design
Multi-Turn, 360° Handwheel with Vernier Scale and Digital Readouts
Offsetting Pressure/Temperature Ports
Positive Shutoff
Built-In Memory Stop
Precise Flow Measurement and Flow Balancing
Lead Free Compliant to NSF 372
Wetted Surfaces Contain Less than .25% Lead Content

PRESSURE/TEMPERATURE RATING

200 PSI
32°F to 200°F

SMART PART ORDERING GUIDE

TGG-AFF

TGG | **A** | **FF**

VALVE SIZE	
A	1/2"
B	3/4"
C	1"
D	1-1/4"
E	1-1/2"
F	2"

CONNECTION	
FF	FNPT
CC	SWT
PP	PRESS

MATERIALS

Part	Material
Body	Lead Free DZR Brass C69300
Bonnet	Lead Free DZR Brass C27453
Gasket	EPDM
Seat Seal	EPDM
Hand Wheel	PA6 GF30
Press O-Ring	EPDM
Press Nipple	Brass C46400
Press O-Ring	EPDM

DIMENSIONS

Part No	Size	A	B	C	Minimum Flow (GPM)	Nominal Flow (GPM)	Maximum Flow (GPM)
TGG-APP	1/2"	5.25"	3.74"	1.57"	0.14	0.50-3.08	12.10
TGG-BPP	3/4"	5.68"	3.74"	1.65"	0.26	3.80-5.50	17.40
TGG-CPP	1"	6.27"	3.78"	1.73"	0.37	5.50-9.50	30.00
TGG-DPP	1-1/4"	7.08"	3.78"	1.85"	0.60	9.50-14	44.60
TGG-EPP	1-1/2"	8.41"	4.25"	1.93"	0.91	14-20	66.40
TGG-FPP	2"	10.08"	4.37"	2.09"	1.52	20-33	107.20

CV VALUES

Handwheel Setting	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
1	0.21	0.39	0.56	0.92	1.39	2.32
1.5	0.29	0.56	0.75	1.28	1.97	3.25
2	0.37	0.70	0.89	1.53	2.38	4.18
2.5	0.44	0.82	1.04	1.80	2.78	5.10
3	0.52	0.96	1.19	2.09	3.25	6.03
4	0.72	1.31	1.74	3.13	4.76	8.82
5	1.00	1.80	2.67	4.76	7.19	13.80
6	1.36	2.44	4.18	6.84	10.30	19.40
7	1.88	3.36	5.80	9.05	13.90	24.60
8	2.96	4.47	7.54	11.30	17.10	29.00
9	3.65	5.22	9.16	13.30	19.80	33.20
10	4.12	5.92	10.2	15.2	22.6	36.5

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov.

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TGG

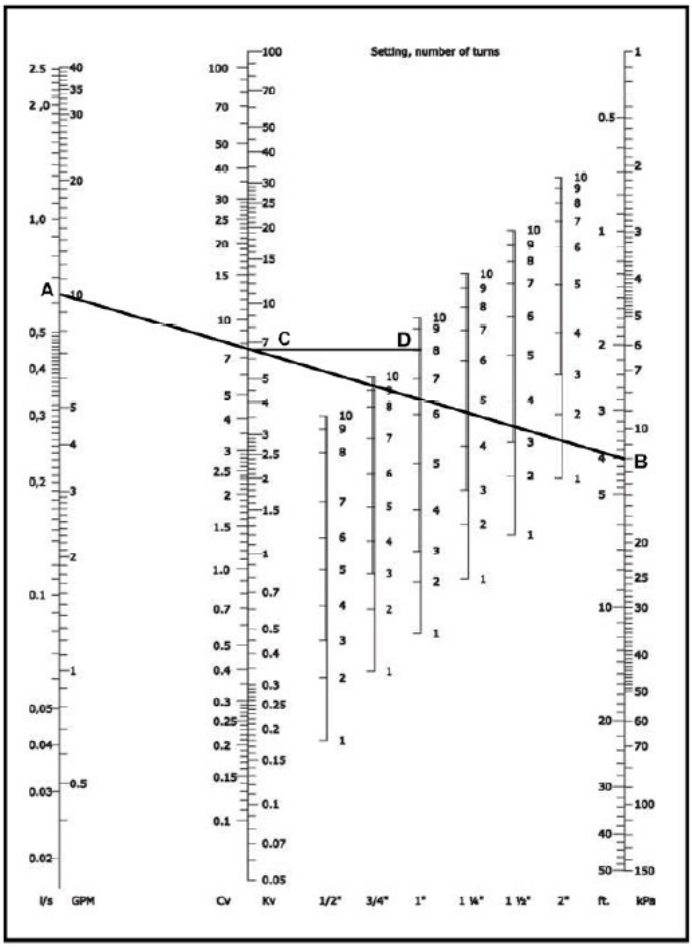
0.50” - 2.00”

This diagram details the relationship between flow, pressure drop and valve preset points. Use the diagram to select the correct valve size and corresponding handwheel setting to fulfill the application requirements.

Determine the required flow in the circuit (A) and the pressure drop (B). Draw a line between these two values. Read off the corresponding Cv value on the Cv scale.

Determine the valve setting, in handwheel turns, by drawing a horizontal line (D) from the intersection point on the Cv scale to the corresponding valve setting position.

For the highest level of accuracy, it is recommended to choose a valve that has at least 3 open turns.



EXAMPLE

A 1” valve is required to be open 8 turns for a Cv value of 7.5 at a flow rate of 10 gpm and a pressure drop of 4ft.

CV VALUES FOR TGG

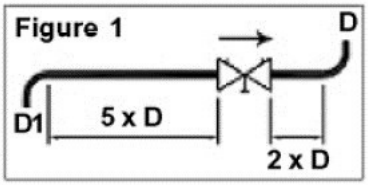
Flow coefficient values (CV’s) at various handwheel settings

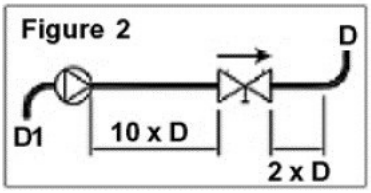
Handwheel Setting	1/2” DN 15	3/4” DN 20	1” DN 25	1-1/4” DN 32	1-1/2” DN 40	2” DN 50
1	0.21	0.39	0.56	0.92	1.39	2.32
1.5	0.29	0.56	0.75	1.28	1.97	3.25
2	0.37	0.70	0.89	1.53	2.38	4.18
2.5	0.44	0.82	1.04	1.80	2.78	5.10
3	0.52	0.96	1.19	2.09	3.25	6.03
3.2	0.56	1.02	1.28	2.26	3.48	6.50
3.4	0.59	1.09	1.39	2.44	3.71	6.96
3.6	0.63	1.16	1.51	2.67	4.06	7.54
3.8	0.67	1.23	1.62	2.90	4.41	8.12
4	0.72	1.31	1.74	3.13	4.76	8.82
4.2	0.77	1.39	1.91	3.42	5.10	9.74
4.4	0.81	1.48	2.09	3.71	5.57	10.70
4.6	0.87	1.58	2.26	4.06	6.03	11.70
4.8	0.93	1.68	2.44	4.41	6.61	12.80
5	1.00	1.80	2.67	4.76	7.19	13.80
5.2	1.07	1.91	2.90	5.16	7.77	15.00
5.4	1.14	2.03	3.19	5.57	8.35	16.00
5.6	1.21	2.16	3.48	5.97	8.93	17.20
5.8	1.28	2.30	3.83	6.38	9.63	18.30
6	1.36	2.44	4.18	6.84	10.30	19.40
6.2	1.44	2.60	4.47	7.25	11.00	20.40
6.4	1.52	2.76	4.76	7.66	11.80	21.50
6.6	1.62	2.96	5.10	8.12	12.50	22.50
6.8	1.74	3.16	5.54	8.58	13.20	23.50
7	1.88	3.36	5.80	9.05	13.90	24.60
7.2	2.06	3.60	6.15	9.51	14.60	25.50
7.4	2.26	3.83	6.50	9.98	15.30	26.40
7.6	2.49	4.06	6.84	10.40	15.90	27.40
7.8	2.73	4.27	7.19	10.80	16.50	28.20
8	2.96	4.47	7.54	11.30	17.10	29.00
8.2	3.13	4.63	7.89	11.70	17.60	29.90
8.4	3.29	4.78	8.24	12.20	18.20	30.70
8.6	3.42	4.93	8.58	12.60	18.80	31.60
8.8	3.54	5.08	8.87	13.00	19.40	32.40
9	3.65	5.22	9.16	13.30	19.80	33.20
9.2	3.77	5.36	9.40	13.70	20.30	33.90
9.4	3.87	5.50	9.63	14.20	20.90	34.60
9.6	3.98	5.64	9.86	14.50	21.50	35.30
9.8	4.06	5.78	10.00	14.80	22.00	36.00
10	4.12*	5.92*	10.2*	15.2*	22.6*	36.5*

*Valve is fully open

INSTALLATION RECOMMENDATIONS

Install the valve in the correct flow direction according to the arrow on the valve body and the distance parameters detailed in Figure 1.
(Note: D = pipe diameter).





When used with a pump, it is recommended to use a straight length of pipe totaling 10 x D (instead of 5 x D) upstream or downstream to avoid turbulence that will affect the measuring accuracy. See Figure 2.

Turbulence can influence the measurements by up to 20% if this recommendation is not followed.

FLOW MEASUREMENT & ACCURACY

Determined using the pressure drop diagram that is included in the operating instructions with each Jomar Balancing valve.

The accuracy is highest when the valve is fully open. Therefore, it is recommended to choose a valve that can be opened at least three turns at the calculated pre-setting value. Figure 3 represents the flow measurement deviation in relation to handwheel turns.

CORRECTION FOR LIQUIDS

Applies to liquids other than water. Correct the measured flow (q) by the density (Y) according to this formula. See Figure 4.

SIZING A BALANCING VALVE

When the differential pressure and design flow are known, use this formula to calculate Cv value. See Figure 5.

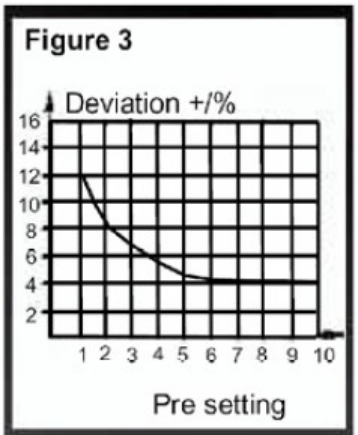


Figure 4

$$\textit{Actual Flow} = \frac{q_{CBI}}{\sqrt{\gamma}}$$

Figure 5

$$C_v = 1.52 \frac{q}{\sqrt{\Delta p}}$$

q in GPM, Δ p in Ft. of H2O

$$C_v = \frac{q}{\sqrt{\Delta p}}$$

q in GPM, √ p in PSI

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov.

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