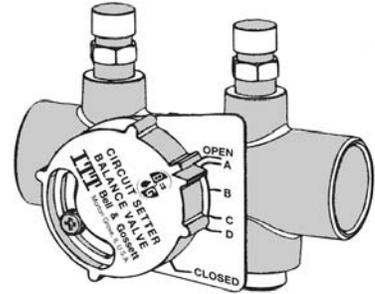


B&G Circuit Setter "RF" Balancing Valves

THE "RF" CIRCUIT SETTER BALANCING VALVES ARE FOR LOW-FLOW APPLICATIONS

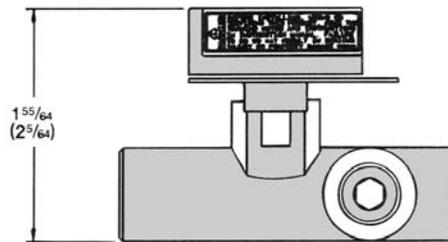
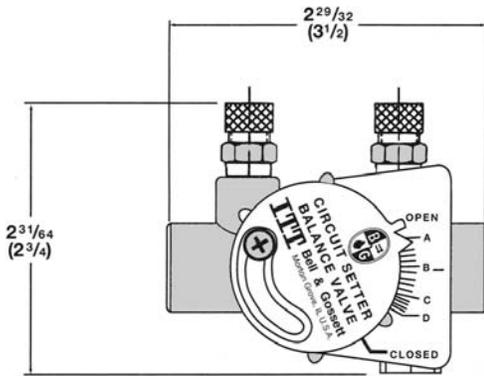
This Bell & Gossett valve is a triple-purpose balancing instrument with standard sweat (copper) connections. Designed specifically for pre-set or proportional system balance for use with terminal or fan-coil units. This system balancing method, developed by B&G, assures optimum system flow balance at minimum pump operating horsepower.



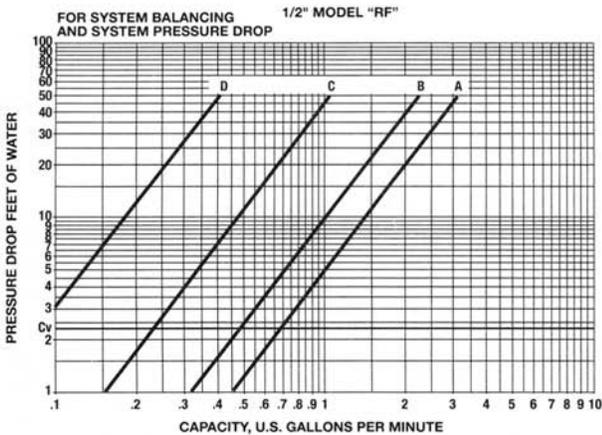
Terminal unit balance valves can be simply pre-set using the B&G circuit setter "curves" (provided with the valve) and the system piping plan. Using this balancing procedure, system balance and start-up time is reduced dramatically.

- **Proportional Balance:** Permits rapid, accurate balancing of the system.
- **Positive Shut-Off:** For isolation and servicing of the system.
- **Memory Stop:** Allows complete shut-off and return to the "set position" without readjustment for balancing.
- **Read-Out Valves:** Allows for differential pressure readings when balancing.

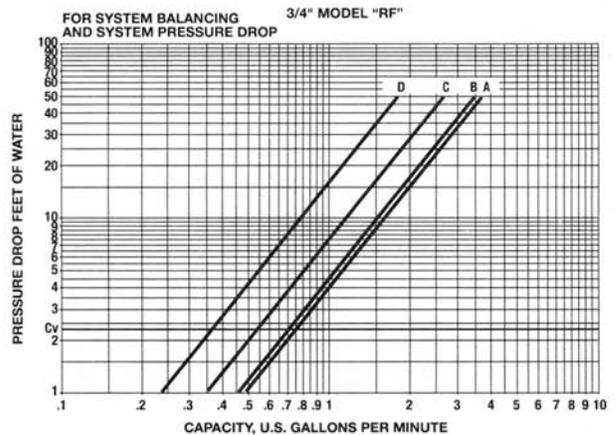
Maximum Working Pressure: 200 psig
Maximum Operating Temperature: 250° F.



PERFORMANCE CHARACTERISTIC CURVE



PERFORMANCE CHARACTERISTIC CURVE



Model No.	Part No.	Body Material	Connection Size (in.)	Connection Style	Operating Limits	Shipping Weight	Order No.
RF-1/2S	117410	Bronze Body	1/2	Copper Sweat	200 psig @ 250°F	1.5	BI1200
RF-3/4S	117411	Brass Ball	3/4		300 psig @ 200°F	2	BI1205

B&G Circuit Setter Plus Balancing Valves

THE CIRCUIT SETTER PLUS BALANCING VALVES ARE FOR STANDARD FLOW APPLICATIONS

These Bell & Gossett valves function as precise system balancing valves and highly accurate variable orifice flow meters. They are available in both sweat (1/2" to 2") and standard NPT pipe (1/2" to 3") connections and share the following features:

- **Proportional Balance:** Permits rapid, accurate balancing of the system.
- **Positive Shut-Off:** For isolation and servicing of the system.
- **Memory Stop:** Allows complete shut-off and return to the "set position" without readjustment for balancing.
- **Read-Out Valves:** Allows for differential pressure readings when balancing.
- **Drain Port Feature:** On the NPT and Sweat models.

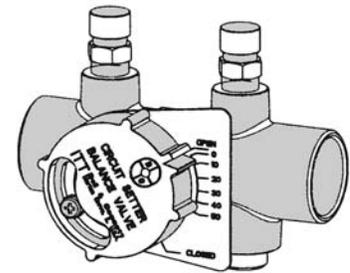
Maximum Operational Limits:

NPT Style: 300 psig @ 250° F

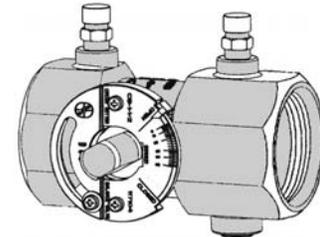
Sweat (using 95/5 solder): 200 psig @ 250° F

2½, 3 & 4" Flanged: 175 psig @ 250° F

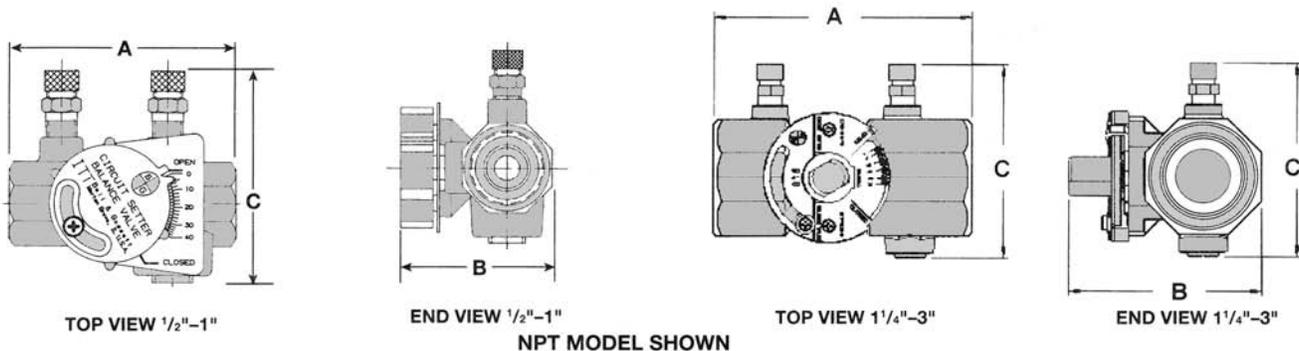
All these valves should be "balanced" by inserting B&G RP-250B readout probes into the readout valves (included with the Circuit Setter valves), and utilizing a B&G differential pressure readout kit (select from models RO-2, RO-3, RO-4 and RO-5) and the V91483 Circuit Setter Balance Valve Calculator.



1/2" - 1" SWEAT AND NPT
(SWEAT MODEL PICTURED ABOVE)



1 1/4" - 2" SWEAT
1 1/4" - 3" NPT
(NPT MODEL PICTURED ABOVE)



TOP VIEW 1/2"-1"

END VIEW 1/2"-1"

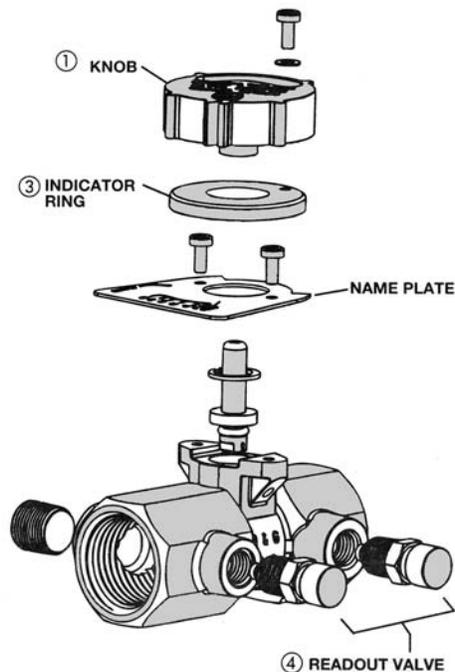
TOP VIEW 1 1/4"-3"

END VIEW 1 1/4"-3"

NPT MODEL SHOWN

Model No.	Size	Connection Style	Dimension (inches)			Ship Weight (lbs)	Order No.
			A	B	C		
CB-1/2S	1/2	Sweat	2-15/16	2-1/8	2-9/16	1	BI1215
CB-3/4S	3/4		3-1/2	2-1/4	2-3/4	1.25	BI1225
CB-1S	1		4-9/32	2-3/8	3-11/32	2	BI1235
CB-1¼S	1-1/4		4-29/32	3-3/16	3-3/8	3	BI1245
CB-1½S	1-1/2		5-7/32	3-9/32	4	3.5	BI1255
CB-2S	2		6-5/16	3-29/32	4-15/32	5.5	BI1265
CB-1/2	1/2	NPT Pipe	2-15/16	2-3/16	2-3/4	1.25	BI1210
CB-3/4	3/4		3-1/16	2-3/8	2-15/16	1.5	BI1220
CB-1	1		3-13/16	2-11/16	3-3/16	2	BI1230
CB-1¼	1-1/4		4-3/8	3-9/32	3-1/2	3.25	BI1240
CB-1½	1-1/2		4-7/16	3-15/32	3-13/16	3.75	BI1250
CB-2	2		5-1/8	4-1/32	4-1/4	5.5	BI1260
CB-2½	2-1/2		6	4-17/32	4-11/16	8.75	BI1270
CB-3	3		6-1/2	5-7/32	5-5/16	12.75	BI1275

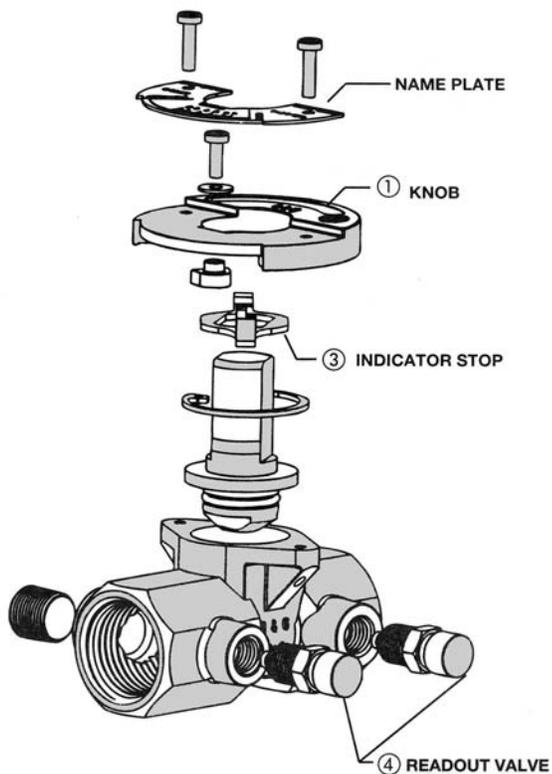
Repair Parts for Circuit Setter Balancing Valves



OLD DESIGN BALL STYLE VALVE

“Old Style” Circuit Setter Valve Repair Parts

Item No.		1	3	4	Readout Probe Set
Model No.	Assembly Part No.	Knob	Indicator Stop	Readout Valve Set	
RF-1/2S	117410	BG2300	—	BG2560	BG2562
RF-3/4S	117411	BG2300	—		
CB-1/2	117414	BG2493	BG2494		
CB-1/2S	117412	BG2493	BG2494		
CB-3/4	117415	BG2493	BG2494		
CB-3/4S	117413	BG2493	BG2494		
CB-1	117416	BG2493	BG2494		
CB-1S	117401	BG2493	BG2494		
CB-1 1/4	117103	BG2494	BG2491		
CB-1 1/4S	117402	BG2494	BG2491		
CB-1 1/2	117104	BG2494	BG2491		
CB-1 1/2S	117403	BG2494	BG2491		
CB-2	117105	BG2494	BG2491		
CB-2S	117404	BG2494	BG2491		
CB-2 1/2	117106	BG2494	BG2491		
CB-2 1/2F	117116	BG2494	BG2491		
CB-3	117107	BG2494	BG2491		
CB-3F	117117	BG2494	BG2491		



NEW DESIGN BALL STYLE VALVE

“New Style” Circuit Setter Valve Repair Parts

Item No.		1	3	4	Readout Probe Set
Model No.	Assembly Part No.	Knob	Indicator Stop	Readout Valve Set	
RF-1/2S	117410	BG2300	—	BG2560	BG2562
RF-3/4S	117411	BG2300	—		
CB-1/2	117414	BG2493	—		
CB-1/2S	117412	BG2493	—		
CB-3/4	117415	BG2493	—		
CB-3/4S	117413	BG2493	—		
CB-1	117416	BG2493	—		
CB-1S	117401	BG2493	—		
CB-1 1/4	117103	BG2494	BG2505		
CB-1 1/4S	117402	BG2494	BG2505		
CB-1 1/2	117104	BG2494	BG2505		
CB-1 1/2S	117403	BG2494	BG2505		
CB-2	117105	BG2494	BG2505		
CB-2S	117404	BG2494	BG2505		
CB-2 1/2	117106	BG2494	BG2505		
CB-2 1/2F	117116	BG2494	BG2505		
CB-3	117107	BG2494	BG2505		
CB-3F	117117	BG2494	BG2505		
CB-4	117035	BG2494	BG2505		

B&G Circuit Setter 4" to 12" Balancing Valves

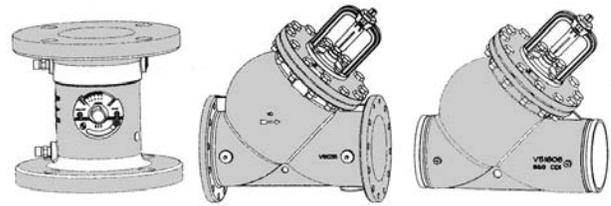
THESE CIRCUIT SETTER FLANGED and GROOVED BALANCING VALVES ARE FOR HIGH FLOW APPLICATIONS

These triple-purpose balancing valves are precisely calibrated for use as a pre-settable balance valve, variable orifice flow meter and positive shut-off service valve. The valves are furnished with a calibrated nameplate and memory stop indicator which permits pre-setting to a fixed open position, and then closed for service without disturbing the pre-set "open" valve setting. Valves are equipped with capped read-out valves fitted with internal check valves.

*The model CB4 has an NPT pipe thread connection, and is for balancing only — not for positive shut-off service.

Maximum Operational Limits: 250° F @ 175 psig

All these valves should be "balanced" by inserting B&G RP-250B readout probes into the integral readout valves, and utilizing a B&G differential pressure readout kit (select from models RO-2, RO-3, RO-4 and RO-5) and the V91483 Circuit Setter Balance Valve "Calculator" included with the valve.



CONSTRUCTION INFORMATION

Body and Bonnet: Flanged — Cast Iron;
Grooved — Ductile Iron.

Disc: Bronze with EDPM insert

Stem: Stainless Steel

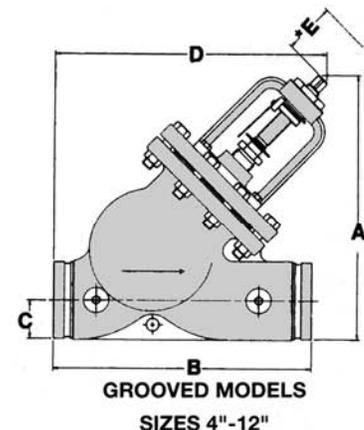
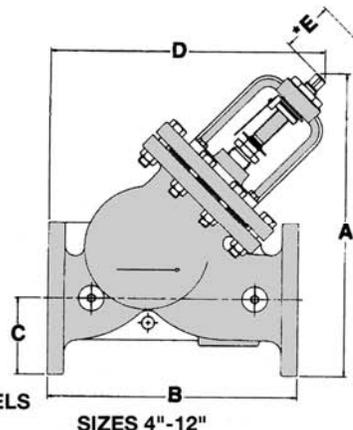
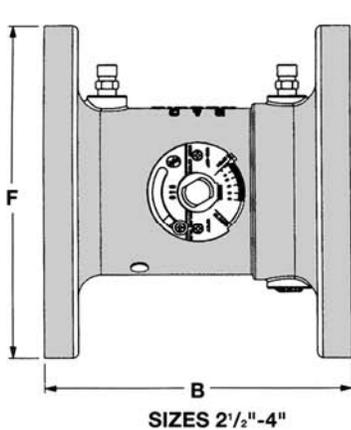
Packing: Teflon-Graphite

Gasket: Synthetic Fiber, Nitrile Binder

Seal Ring: EDPM

Bushing: Zinc Plated Steel

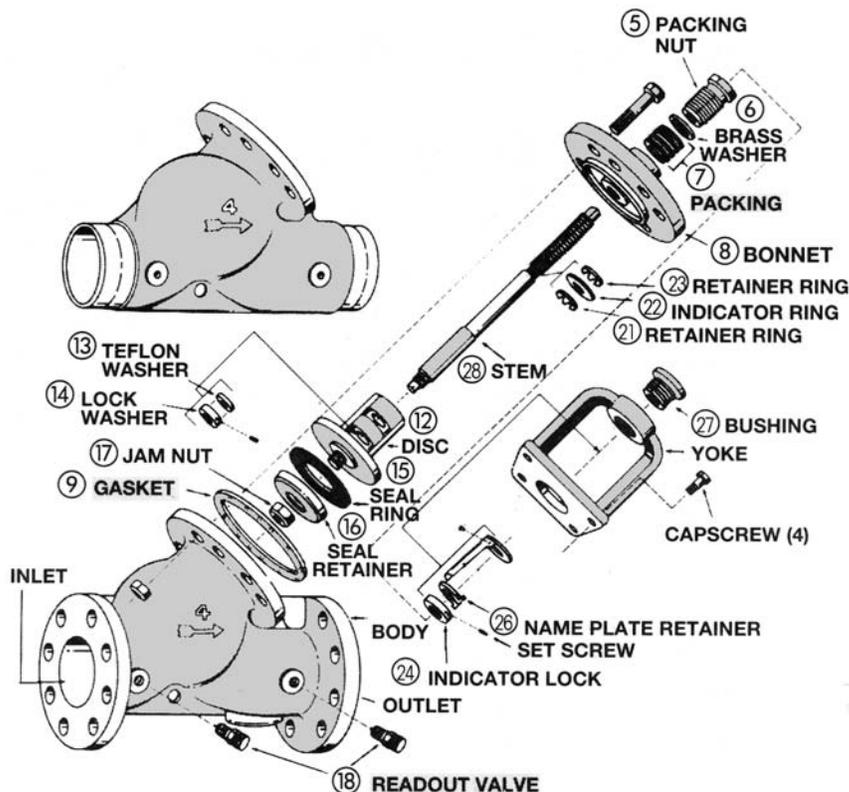
*The model CB4 has an NPT connection and is used for balancing only.



Model No.	Part No.	Pipe Size	Connection Style	Dimension (inches)						Weight (lbs)	Order No.	
				A open	B	C	D open	E	F			
CB-2½F	117116	2½"	Flanged	—	6-9/16	—	—	—	—	7	23	BI1285
CB-3F	117117	3"	Flanged	—	6-13/16	—	—	—	—	7-1/2	29	BI1290
*CB-4	117035	4"	NPT	—	8	—	—	—	—	9	52	BI1280
CB-4F	117112	4"	Flanged	18-7/8	14-1/2	4-1/2	17-1/8	7-5/8	—	—	100	BI1295
CB-4G	117118	4"	Grooved	16-5/8	15-1/8	2-1/4	17-1/8	7-5/8	—	—	76	BI1295B
CB-5F	117113	5"	Flanged	20-7/16	16	5	18-3/8	8-3/8	—	—	120	BI1295D
CB-5G	117119	5"	Grooved	18-7/32	17-1/8	2-3/4	18-7/8	8-3/8	—	—	92	BI1295F
CB-6F	117114	6"	Flanged	22-5/8	18	5-1/2	20-3/8	9-3/4	—	—	197	BI1295H
CB-6G	117120	6"	Grooved	20-7/16	19	3-5/16	20-7/8	9-3/4	—	—	171	BI1295K
CB-8F	117115	8"	Flanged	26-3/8	21-1/2	6-3/4	23-5/8	12-3/4	—	—	327	BI1295M
CB-8G	117121	8"	Grooved	24	22-1/2	4-5/16	23-5/8	12-3/4	—	—	281	BI1295P
CB-10F	117420	10"	Flanged	31-3/4	25-1/2	8	28-1/2	14-1/2	—	—	455	BI1295S
CB-10G	117422	10"	Grooved	29-1/8	26-1/2	5-3/8	28-1/2	14-1/2	—	—	302	BI1295U
CB-12F	117421	12"	Flanged	35-7/8	30	9-1/2	31-3/8	17-1/4	—	—	695	BI1295W
CB-12G	117423	12"	Grooved	32-3/4	31	6-3/8	31-7/8	17-1/4	—	—	470	BI1295X

Repair Parts for Circuit Setter Balancing Valves

**REPAIR PARTS for
the Flanged
and Grooved
Style
Circuit Setter
Balancing Valves**



Item No.	Description	Model Numbers													
		CB-4F	CB-4G	CB-5F	CB-5G	CB-6F	CB-6G	CB-8F	CB-8G	CB-10F	CB-10G	CB-12F	CB-12G		
9	Gasket	BG7800	BG7800	BG7900	BG7900	BG8000	BG8000	BG8100	BG8100	BG8200	BG8200	BG8200A			
8	Bonnet	BG2250	BG2293	BG2251	BG2293A	BG2252	BG2283B	BG2253	BG2293C	—	—	—	—		
28	Stem	BG2254	BG2254	BG2255	BG2255	BG2256	BG2256	BG2257	BG2257	—	—	—	—		
12	*Disc	BG2258		BG2259		BG2260		BG2261		V50992		V50993			
15	*Seal Ring	BG8516		BG8516A		BG8516B		BG8516C		BG8516D		BG8516E			
16	Seal Retainer	BG2262		BG2263		BG2264		BG2265		—	—	—	—		
17	*Jam Nut	BG2601						BG2602							
5	Packing Nut	BG2275						BG2283						—	—
6	Gland Washer	BG2281						BG2289						—	—
7	Packing (4 pieces)	BG2282						BG2290						—	—
18	Readout Valves (2)	BG2560						BG2560		—	—	—	—		
21	Retainer Ring	BG2691						BG2693						—	—
23	Retainer Ring	BG2692						BG2694						—	—
26	Retainer Ring	BG2695						BG2695						—	—
22	Retainer Ring	BG2278						BG2286						—	—
27	Bushing	BG2279						BG2287		—	—	—	—		
24	Indicator Lock	BG2277						BG2285							
14	*Lock washer	BG2276						BG2284							
13	*Teflon Washer	BG2280						BG2288							
19	*Set Screw	BG2650													

* When replacing the Disc: All parts shown with the asterisk (*) are needed.