



# Bell & Gossett



**OIL LUBRICATED  
CIRCULATORS**

**3-PIECE  
SERIES 100, PR, HV,  
2", 2-1/2",  
LD3, HD3, PD**

**COMPACT DESIGN  
SERIES LR**

**MAINTENANCE-FREE  
CIRCULATORS**

**WET ROTOR  
NRF/NBF**

**DRY MOTOR,  
PERMANENTLY  
LUBRICATED  
SERIES PL  
VARIABLE SPEED  
BOOSTERS  
PL-VS**

**VALVES/ZONE CONTROL  
FLO-CONTROL  
PRESSURE REDUCING  
ASME SAFETY RELIEF  
ZONE VALVES  
MONO-FLO  
ZONE PUMP CONTROLLERS  
ADD-A-ZONE PUMP CNTLR.**

## *Bell & Gossett Circulators and Hydronic Specialties for Heating and Potable Water Systems*

**AIR CONTROL  
PRODUCTS  
ENHANCED AIR  
SEPARATOR  
HYDRO-FLO  
AIRTROL FITTINGS  
IN-LINE AIR SEPARATOR  
COMPRESSION TANKS  
DIAPHRAGM EXPANSION  
TANKS**



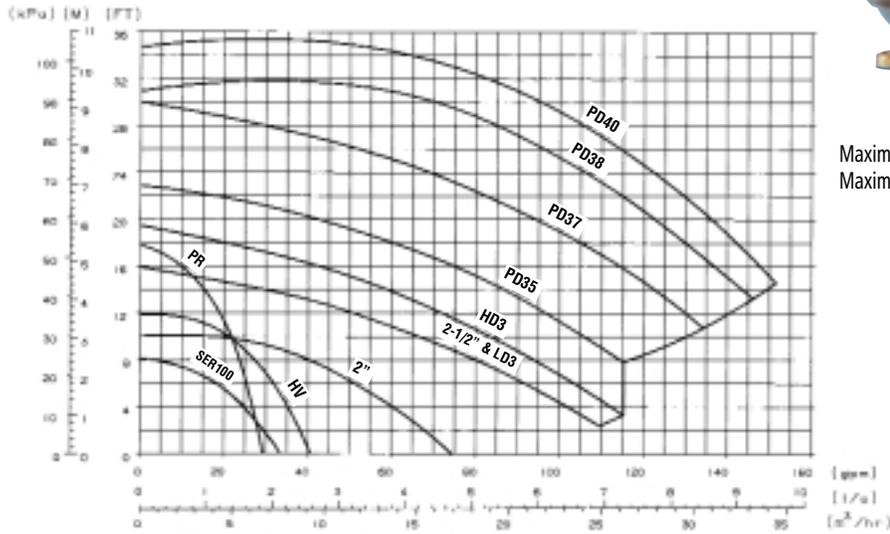
**HYDRONIC  
SPECIALTIES**

**Bell & Gossett**

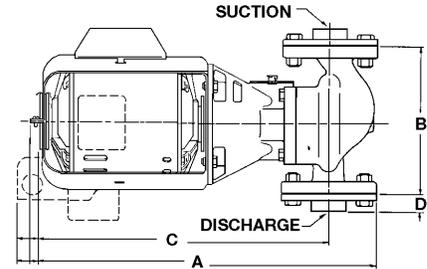


**ITT Industries**  
*Engineered for life*

# Oil Lubricated Circulators Three-Piece



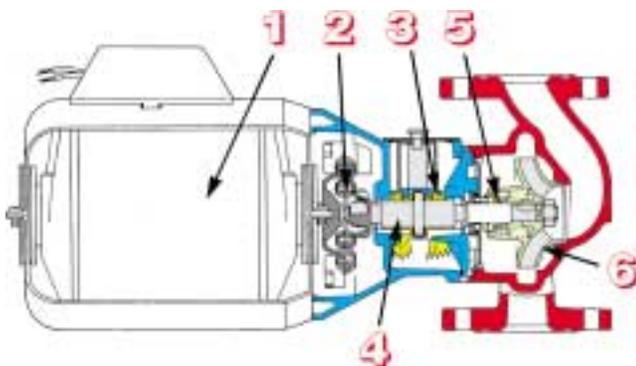
Maximum working pressure .....125 psi (8.6 bar)  
 Maximum operating temperature  
 Standard Seal ..... 225°F (107°C) continuous  
 Special Seals ..... 250°F (121°C) continuous



## Dimensions & Weights

Model No.	Cast Iron		Bronze		Flange Size Inches (NPT)	Motor Characteristics* @ 60 Hz			Dimensions in Inches (mm) (Open Drip-Proof)				Approximate Shpg. Wt. lbs. (Kg)	
	Model No.	Part No.	Model No.	Part No.		HP	Ø	Voltage	A	B	C	D	Cast Iron	Bronze
Series 100	100 NFI	106189	100 AB	106192	3/4	1/12	115	14 7/8 (378)	6 3/8 (162)	12 3/4 (324)	9/16 (14)	20 (9)	21 (10)	
	100 BI	106190	100 BNFI	106197	1 & 1/4						3/4 (19)			
Series PR	PR	102206	PR AB	102208	1 1/2	1/6	115 - with built-in overload protection	15 1/4 (387)	8 1/2 (216)	12 3/4 (324)	9/16 (14)	30 (14)	32 (15)	
	PR BI	102207			1 & 1/4						3/4 (19)			
					1 1/2						15/16 (24)			
Series HV	HV NFI	102210	HV AB	102231	1	1/6	115	15 3/8 (391)	8 1/2 (216)	13 (330)	5/8 (16)	28 (13)	30 (14)	
	HV BI	102230	HV BNFI	102213	1 & 1/4 & 1 1/2						3/4 (19)			
2"	2 NFI	102214	2 AB	102233	2	1/6	115	16 5/8 (422)	8 1/2 (216)	14 (356)	3/4 (19)	36 (16)	39 (18)	
	2 BI	102232	2 BNFI	102217	1 1/2						15/16 (24)			
2 1/2"	2 1/2	102218	2 1/2 AB	102220	2 1/2	1/4	115	17 1/4 (438)	10 (254)	14 (356)	5/8 (16)	54 (24)	58 (26)	
	2 1/2 BI	102219			1 1/2						3/4 (19)			
LD3	LD3	102222	LD3 AB	102224	3	1/4	115	17 1/4 (438)	10 (254)	14 (356)	1 1/16 (27)	53 (24)	57 (26)	
	LD3 BI	102223			1 1/2						3/4 (19)			
HD3	HD3	102226	HD3 AB	102228	3	1/3	115/230	17 1/2 (445)	10 (254)	14 1/4 (362)	1 1/16 (27)	55 (25)	59 (27)	
	HD3 BI	102227			1 1/2						3/4 (19)			
PD-35S	PD35S BI	105090	PDB35S	105092	3	1/2	115/230	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)	
	PD35T	105093	PDB35T	105096	3						1/2			3
PD-37S	PD37S BI	105098	PDB37S	105100	3	3/4	115/230	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)	
	PD37T	105101	PDB37T	105104	3						3/4			3
PD-38S	PD38T BI	105102	PDB38T	105104	3	1	115/230	24 (610)	14 1/2 (368)	19 1/2 (495)	1 1/4 (32)	128 (58)	138 (63)	
	PD38S BI	105122			1						1			115/230
PD-38T	PD38T BI	105134	PDB38T	105135	3	1	208-230/460	24 1/4 (616)	14 1/2 (368)	19 3/4 (502)	1 1/4 (32)	125 (57)	135 (61)	
	PD40S	105151	PDB40S	105153	3						1 1/2			1
PD-40S	PD40S BI	105152	PDB40S	105153	3	1 1/2	115/230	24 5/8 (625)	14 1/2 (368)	20 1/8 (511)	1 1/4 (32)	130 (59)	140 (64)	
	PD40T	105137			3						1 1/2			3
PD-40T	PD40T BI	105138	PDB40T	105139	3	1 1/2	3	208-230/460	25 1/8 (638)	14 1/2 (368)	20 5/8 (524)	1 1/4 (32)	127 (58)	137 (62)

\*Special motors available upon request. Dimensions are approximate and subject to changes. Contact factory for certified dimensions.



**1 B&G Motor** — The heart of the Booster. The finest circulator motor available. Sleeve bearing, oil lubricated with replaceable resilient motor mounts. B&G is the only pump company to manufacture its own oil lubricated motor. Two-piece bracket makes service a snap.

**2 Noise dampening coupler.** B&G's own flexible spring design adds to quiet operation. Do not accept a substitute.

**3 Long bronze sleeve bearings** maintain exact shaft alignment. Provides for constant circulation of oil over bearing surfaces.

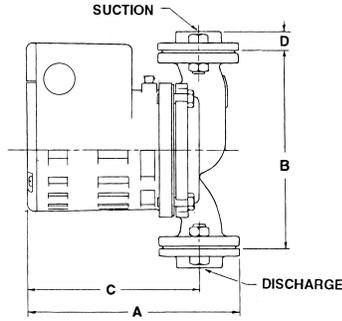
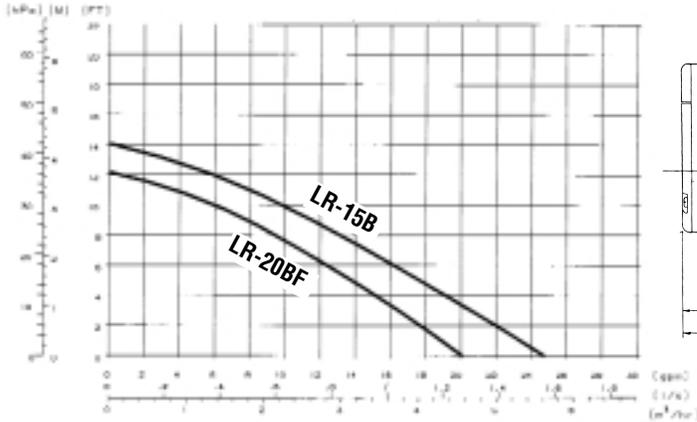
**4 Precision ground pump shaft** is oversized to provide large bearing surfaces. Hardened integral thrust collar minimizes end-thrust to ensure long seal and bearing life.

**5 The B&G mechanical seal** is designed to withstand the wide range of water temperatures, pressures, additives and dissolved solids common in hydronic systems.

**6 Centrifugal impeller** prevents accumulation of air at seal faces to assure long life. Close impeller/body tolerances minimize water slippage and maximize efficiency.



# Oil Lubricated Circulators Compact Design/Series LR



Maximum working pressure .....125 psi (8.6 bar)  
Maximum operating temperature ..... 225°F (107°C)

## Dimensions & Weights

Model No.	Part No.	Construction	Flange Size Inches (NPT)	Motor Characteristics* @ 60 Hz			Dimensions in Inches (mm)				Approx. Shpg. Wt. lbs. (Kg)
				HP	Ø	Voltage	A	B	C	D	
LR-20BF	106506	Cast Iron	3/4	1/20	1	115 - With Built-in Thermal Overload Protection	6 15/16 (176)	6 3/8 (162)	5 5/8 (143)	9/16 (14)	10.4 (4.7)
			1 & 1/4							3/4 (19)	
			1 1/2							15/16 (24)	
LR-15B	106513	Bronze	3/4	1/12	1	115 - With Built-in Thermal Overload Protection	7 15/16 (202)	6 3/8 (162)	6 5/8 (168)	9/16 (14)	13.1 (5.9)
			1 & 1/4							3/4 (19)	
			1 1/2							15/16 (24)	

230/60/1 motors available upon request. Dimensions are approximate and subject to change. Contact factory for certified dimensions.

## Flanges for Cast Iron Circulators

	Size (NPT)	Master Carton of 12 Part No.*	Individual Flange Part No.
Series 100, PR, NRF-22, NRF-9F/LW, NRF-33 PL-30, PL-36, PL-55	3/4"	101001	P00740
	1"	101002	P01510
	1-1/4"	101003	P03250
	1-1/2"	101004	P03430
Series HV, PL-45, PL-50	1"	101005	P00802
	1-1/4"	101006	P03300
	1-1/2"	101007	P03410

	Size (NPT)	Set of 2 Part No.*	Individual Flange Part No.
PL-75, PL-130	2"	101215	F14200

\*Includes Fasteners

## Flanges for Bronze Circulators

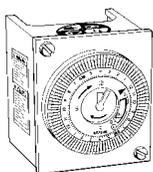
	Size (NPT)	Master Carton of 12 Part No.*	Individual Flange Part No.
Series 100B, PRAB, NBF-22, NBF-12F/LW, NBF-33, PL-30B PL-36B	3/4"	101011	P00789
	1"	101012	P00794
	1-1/4"	101013	P03251
	1-1/2"	101014	P00779
Series HVB, PL-45B, PL-50B	1"	101015	P00804
	1-1/4"	101016	P06660
	1-1/2"	101017	P06690

	Size (NPT)	Set of 2 Part No.*	Individual Flange Part No.
PL-75B, PL-130B	2"	101216	F54200

\*Includes Fasteners

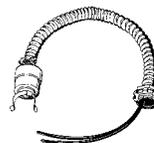
## Union Connection for NBF Circulators

	Union Connection	Set of Two	
		Model No.	Part No.
NBF-22U, NBF-12U/LW NBF-9U/LW	1/2" sweat	UC-1/2S	113203
	3/4" sweat	UC-3/4S	113201
	3/4" NPT	UC-3/4 NPT	113202



### TC-1 Automatic Timer Kit (part no. 113210)

To increase the overall efficiency of a hot water recirculation system, the TC-1 timer control kit can be installed for use on any B&G NBF circulator. The TC-1 timer control is programmable to turn the circulator ON and OFF automatically at preset times. This permits the user to have the pump circulate hot water only during those times when high usage can be expected throughout the day.



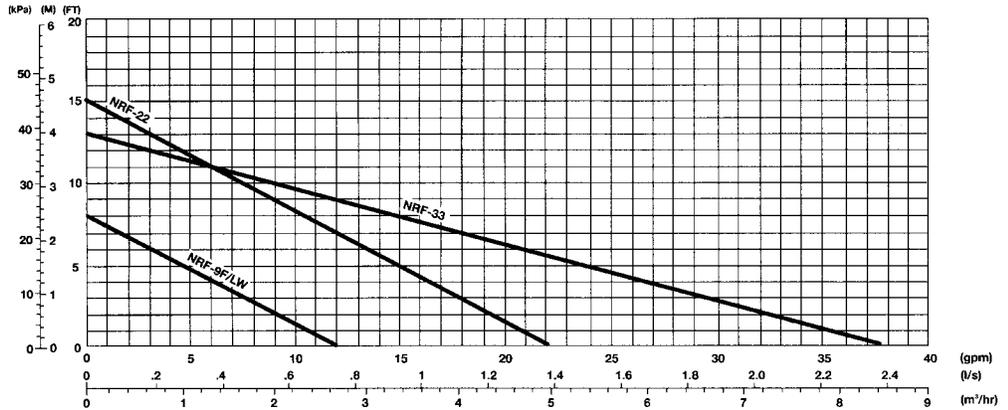
### AQ-1/2 (part no. 113220) and AQ-3/4 (part no. 113221) Aquastat

Aquastats are designed to thermostatically turn any B&G NBF circulator ON and OFF. The AQ-1/2 or AQ-3/4 will switch the pump OFF at 120°F (49°C) and ON at 100°F (38°C). The aquastats are available in separate models that will sense the temperature for either 1/2" or 3/4" copper pipe.

# Maintenance-Free Circulators Cast Iron Wet Rotor/NRF



Maximum working pressure. . . . . 150 psi (10.3 bar)  
 Maximum operating temperature  
 NRF-22 & NRF-9F/LW. . . . . 240°F (115°C)  
 NRF-33. . . . . 225°F (107°C)



## Cast Iron Circulators

Model No.	Part No.	Flange Sizes Inches - NPT	Approx. Shpg. Wt. lbs. (Kg)	Standard 60 Cycle Motor Characteristics*				
				Watts	Ø	Voltage	F.L. AMPS	RPM
NRF-22	103251	3/4, 1, 1-1/4, 1-1/2	9.3 (4.2)	92	1	115	.80	2940
NRF-9F/LW	103267		9.3 (4.2)	41		115	.40	2800
NRF-33	103350		10.4 (4.7)	125		115	1.10	2950

\*230/60/1 motors available upon request. Impedance protected.

**1** DuraGlide™ Bearing System (blue areas in cutaway illustration) incorporates several components working together to eliminate seasonal freeze-up

**2** Powerful Red Fox motor provides years of trouble-free operation

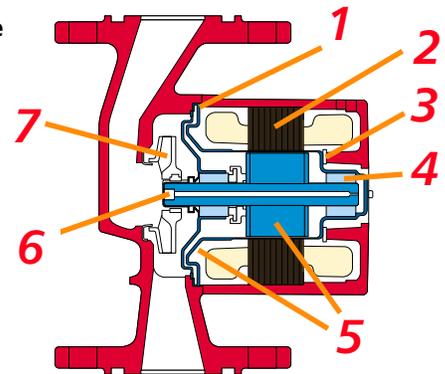
**3** One-piece, high-nickel stainless steel stator can isolate the stator from system fluid and maintains precision bearing alignment for longer bearing life

**4** Carbon bearings, diamond-like ceramic shaft and generous clearances are more resistant to lime, chloride and oxide build-up

**5** Face plate and rotor sleeve feature corrosion resistant stainless steel construction for longer life

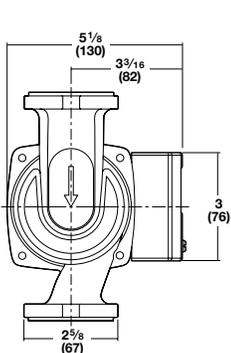
**6** Self-cleaning particle shield protects the shaft and bearings from system start-up debris

**7** Stabilized, heat resistant, non-ferrous impeller, its closed design improves operating efficiency

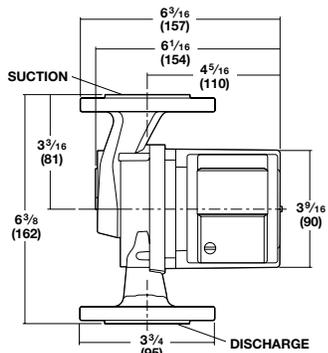


## Dimensions

Dimensions are approximate and subject to change. Contact factory for certified dimensions.



NRF-33



NRF-9F/LW or NRF-22

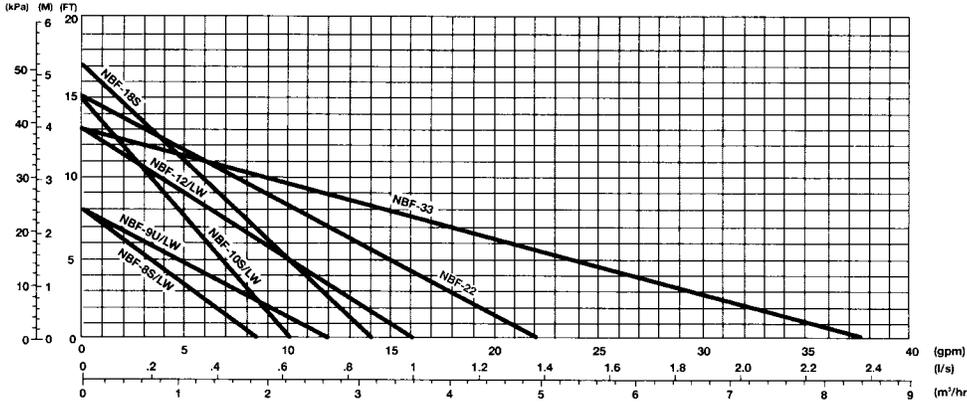
# Maintenance-Free Circulators

## 100% Lead-Free Bronze Wet Rotor/NBF



### Operating Data

Maximum working pressure .....150 psi (10.3 bar)  
 Maximum operating temperature  
 NBF-33 .....225°F (107°C)  
 All Others .....230°F (110°C)



### Bronze Circulators

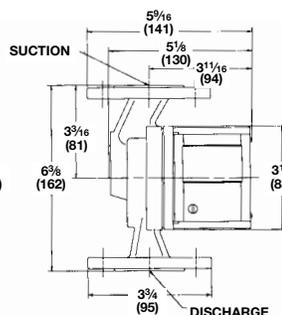
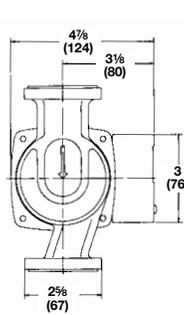
Model No.	Part No.	Connection	Standard 60 Hz Motor Characteristics*					Approx. Shpg. Wt. lbs (Kg)
			Watts	Ø	Voltage	F.L. Amps	RPM	
NBF-8S/LW	103257	1/2" Sweat	39	1	115	0.39	2800	9.0 (4.1)
NBF-9U/LW	103258	Union**	41			0.40		9.3 (4.2)
NBF-10S/LW	103259	1/2" Sweat	55			0.46		9.0 (4.1)
NBF-12F/LW	103260	Flange 3/4, 1, 1 1/4, 1 1/2	55			0.48	9.5 (4.3)	
NBF-12U/LW	103261	Union**	55			0.48	9.3 (4.2)	
NBF-18S	103316	1/2" Sweat	90			0.74	3000	9.0 (4.1)
NBF-22	103252	Flange 3/4, 1, 1 1/4, 1 1/2	92			0.80	2940	9.5 (4.3)
NBF-22U	103255	Union**	92			0.80		9.3 (4.2)
NBF-33	103351	Flange 3/4, 1, 1 1/4, 1 1/2	125			1.10		2950

\* 230/60/1 motors available upon request.

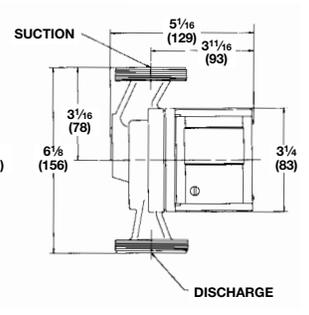
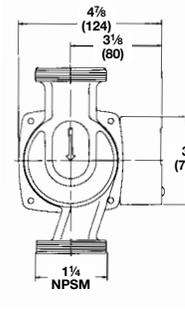
\*\* Union connections available in 3/4" NPT, 1/2" & 3/4" sweat.

### Dimensions

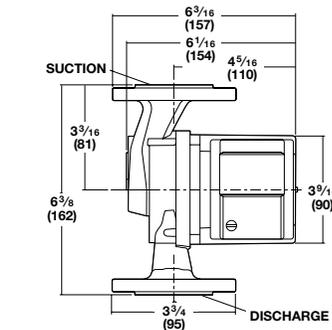
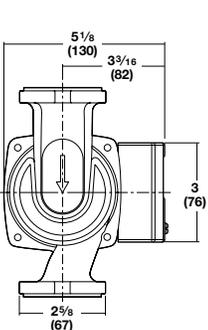
Dimensions are approximate and subject to change. Contact factory for certified dimensions.



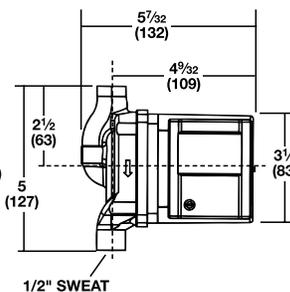
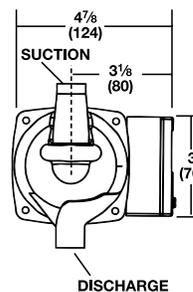
NBF-12F/LW or NBF-22



NBF-9U/LW, NBF-12U/LW or NBF-22U



NBF-33



NBF-8S/LW, NBF-10S/LW or NBF-18S

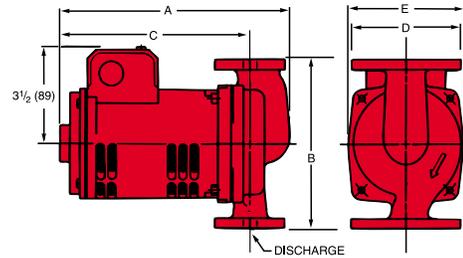
# Maintenance-Free Circulators

## SERIES PL™ a superior alternative to large wet rotor pumps.



### Operating Data

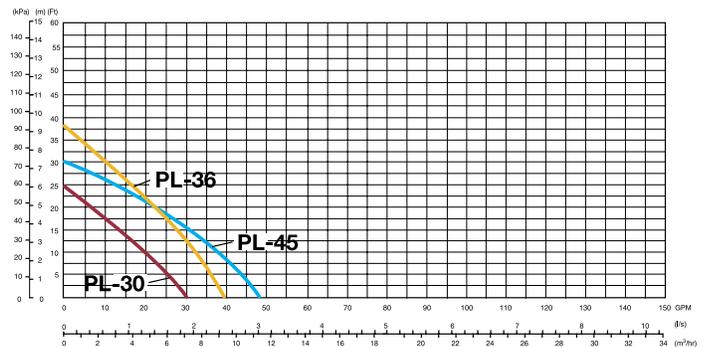
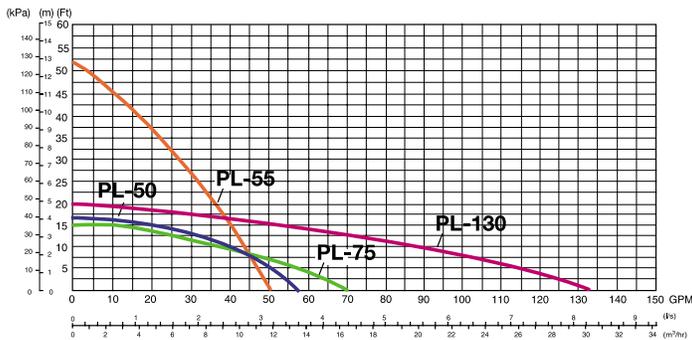
Maximum working pressure .....150 psi (10.3 bar)  
 Maximum operating temperature ..... 225°F (107°C)



### Dimension & Weights

Cast Iron		Bronze		Flange Size Inches - NPT	Motor Characteristics*		Dimensions in inches (mm) @ 60 Hz (Open Drip-Proof)					Approx. Shipg. Wt. lbs. (Kg)		
Model No.	Part No.	Model No.	Part No.		HP	Ø	A	B	C	D	E			
PL-30	1BL012	PL-30B	1BL013	3/4	1/12	1	115	2650	8 5/8 (219)	6 3/8 (162)	7 1/8 (181)	4 3/16 (106)	4 3/8 (111)	11.6 (5.3)
				1 & 1/4										
PL-36	1BL001	PL-36B	1BL003	1 1/2	1/6			3300	8 5/8 (219)	6 3/8 (162)	7 1/8 (181)	4 3/16 (106)	4 3/8 (111)	13.1 (6.0)
				3/4										
PL-45	1BL002	PL-45B	1BL004	1	1/6			3300	9 1/8 (232)	8 1/2 (216)	7 1/4 (184)	4 5/8 (117)	4 3/8 (111)	14.5 (6.6)
				1 1/4 & 1 1/2										
PL-50	1BL016	PL-50B	1BL017	1	1/6			3300	9 1/8 (232)	8 1/2 (216)	7 1/4 (184)	4 5/8 (117)	4 3/8 (111)	14.5 (6.6)
				1 1/4 & 1 1/2										
PL-55	1BL032	N/A	N/A	3/4	2/5			3250	9 9/16 (243)	6 3/8 (162)	7 15/16 (202)	4 3/16 (106)	4 3/4 (121)	13.1 (6.0)
				1 & 1/4										
PL-75	1BL034	PL-75B	1BL035	2	1/6	3400	9 15/16 (252)	8 1/2 (216)	7 3/8 (187)	5 3/16 (132)	4 5/8 (117)	18.5 (8.4)		
				1 1/2										
PL-130	1BL063	PL-130B	1BL065	2	2/5	3200	10 3/4 (273)	8 1/2 (216)	8 1/4 (210)	5 3/16 (132)	5 1/8 (130)	22 (10)		

\* 230/60/1 motors available upon request. Models PL-75 and PL-130 has a four bolt hole flange connection, all others have two bolt hole flange connectors. Dimensions are approximate and subject to changes. Contact factory for certified dimensions.



**1** B&G's powerful, dry-motor design delivers exceptional performance. . . . 25% more efficient than competition.

**2** Precision-machined and balanced alloy steel rotor for superior performance.

**3** Quick-connect wire nut leads and dual knock-outs make for fast, sure hook-ups.

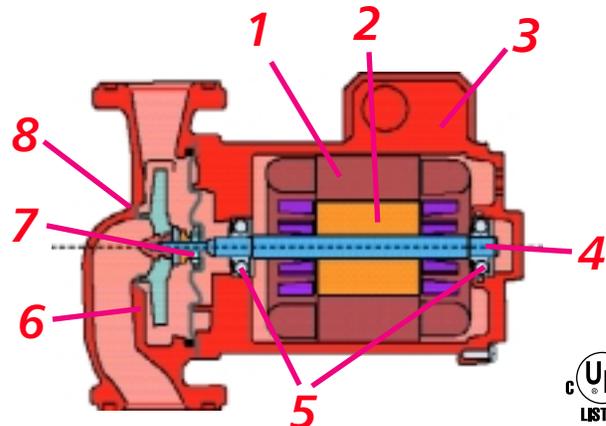
**4** Solid "Stiff-Shaft" design is constructed of high-strength alloy steel impervious to cracking caused by thermal stresses.

**5** XL-11™ Precision-Crafted Bearing System... is permanently oil lubricated... completely maintenance free... precisely positioned for long-life and isolated for quiet operation.

**6** Advanced close-coupled design increases pump life and efficiency, assures dependable seasonal start-ups and can easily handle difficult water conditions.

**7** Tough, durable seal system features a carbon/silicon carbide seal on a stainless steel shaft sleeve for long life and rugged operation.

**8** Double sided I-Seal™ design for optimum efficiency.



# Maintenance-Free Circulators

## SERIES PL-VS™

### Variable Speed, Maintenance-Free Boosters



#### Description

The Series PL-VS variable speed pumps feature permanently lubricated bearings, a range of available hydraulic performance levels, 115 volt single phase power input, 4-20 mA or (switchable) 0-10 VDC control input, a relay for external fault detection, manual speed override and built-in diagnostic indicator. The PL-VS pumps are available in either cast iron or bronze construction.

#### Operating Data

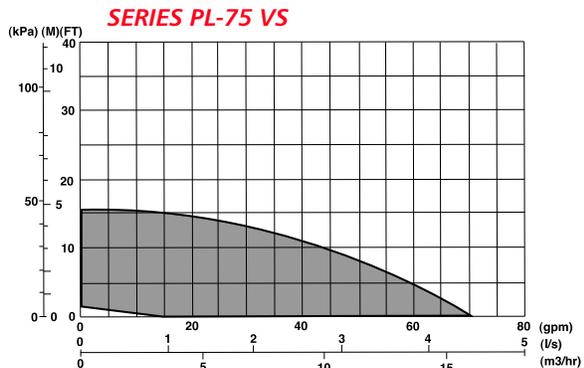
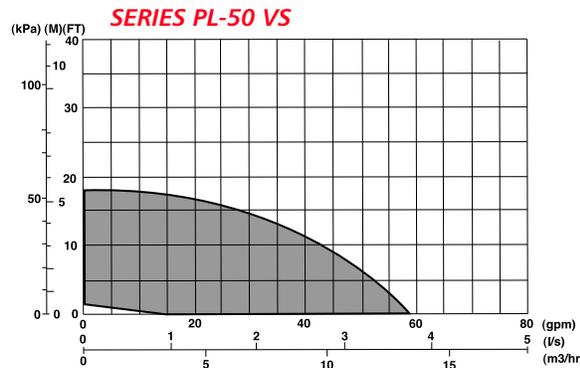
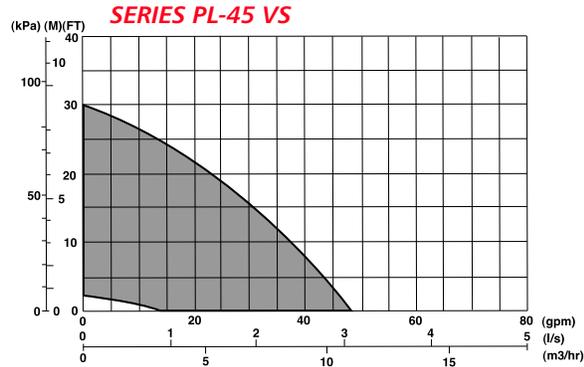
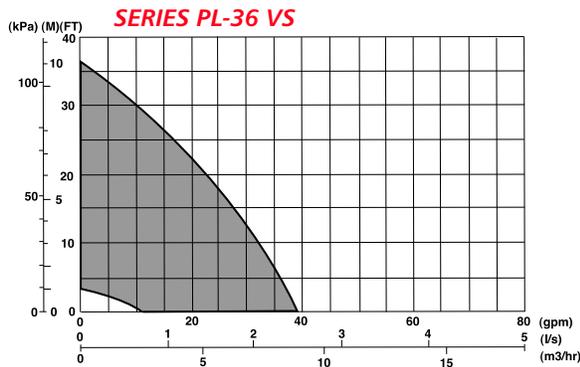
Input Signal. . . . . 4 - 20 mA or 0 - 10 VDC  
 Maximum working pressure. . . . . 150 psi (10 bar)  
 Maximum operating temperature. . . . . 225°F (107°C)

#### Dimensions & Weights

CAST IRON		BRONZE		FLANGE SIZE INCHES-NPT	MOTOR CHARACTERISTICS @ 60 HZ				DIMENSIONS IN INCHES (MM) OPEN DRIP-PROOF				APPROX. SHPG. WT. lbs. (Kg)
Model No.	Part No.	Model No.	Part No.		HP	Ø	VOLTAGE*	RPM	Flg - Flg	Height	Width	Length	
PL-36VS	1BL050	PL-36BVS	1BL051	3/4, 1, 1 1/4 & 1 1/2	1/6	1	115	3500 max.	6 3/8 (162)	7 13/16 (198)	4 5/8 (117)	9 1/4 (235)	13.1 (6.0)
PL-45VS	1BL052	PL-45BVS	1BL053	1, 1 1/4 & 1 1/2				to	8 1/2 (216)	8 7/8 (225)	4 5/8 (117)	9 3/4 (248)	14.5 (6.6)
PL-50VS	1BL054	PL-50BVS	1BL055	1, 1 1/4 & 1 1/2				750 min	8 1/2 (216)	8 7/8 (225)	4 5/8 (117)	9 3/4 (248)	14.5 (6.6)
PL-75VS	1BL056	PL-75BVS	1BL057	2				8 1/2 (216)	8 7/8 (225)	5 3/16 (132)	11 (279)	18.5 (8.4)	

Dimensions are approximate and subject to changes. Contact factory for certified dimensions.

\*Input Power



# Add-A-Zone™ Snap-on Pump Relay

## Features

- Snap-on design allows the Add-A-Zone to be quickly attached to any B&G wet rotor circulator, reducing your inventory investment (no need to carry "special" circulators with factory mounted controllers)
- Clearly marked terminals make for sure, fast wiring of the system
- Compact design fits in tight locations and presents a clean professional appearance
- 100% factory tested assures reliable operation
- 5 year warranty — the best in the industry
- Daisy-Chain the Add-A-Zone relays to form up to three zones
- Can be used on any B&G model NRF, NBF or 1/12 to 1/6 HP Series PL



The Add-A-Zone can be daisy-chained to form up to three zones with simplified wiring.

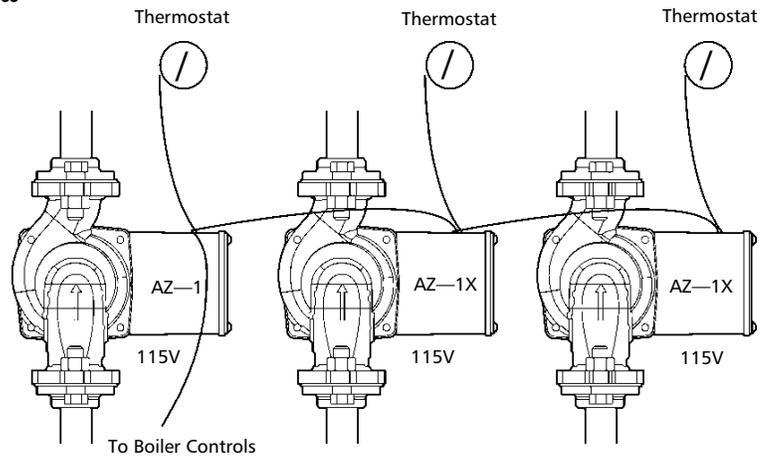
Low voltage wiring makes multiple relay connections a snap.

## Specifications

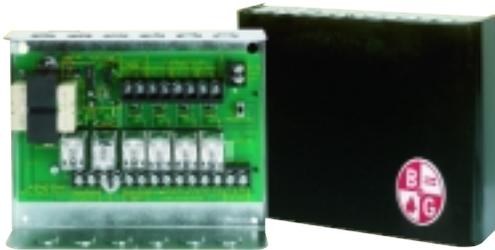
Model No.	Part No.	Transformer	Relay	Power Input
AZ-1	113077	2.5 VA	24 VAC / 5 amps	115 V, 60 Hz, 1Ø
AZ-1X	113078	NONE*	24 VAC / 5 amps	115 V, 60 Hz, 1Ø

\*Use with AZ-1

Dimensions (L x W x H) ..... 2-7/8" X 3-1/4" X 2-5/8"  
 Approximate Shipping Weight ..... 0.75 lbs



# Zone-Trol™ Switching Relays for Zoning with Pumps and Valves.



- 100% factory tested - guarantees operation
- Five year limited warranty - the best in the business
- Replaceable, standard "ice cube" type relays allow up to 10 amps, 1/3 HP per individual zone.
- Selectable priority for domestic hot water
- 30 minute built-in priority timer helps prevent house freeze up - no additional plug-in cards required
- Automatically resettable fuse protects controller from overload - eliminates "no heat" call backs due to blown fuse
- Powerful transformers operate up to six zones
- LED diagnostic lights installed internal to the box cover keeps the trouble shooting in the hands of the authorized heating professionals
- Can be used with "tankless coil" or "cold start" applications

## Zone Valve Specification Information

Model No.	Part No.	Zones	Priority Feature	Transformer Output at 24 Volts	Relay Switching Action	Each End Switch Contact Rating	Dimensions W x H x D (Inches)	Approx. Shpg. Wt. (lbs.)
ZTV-4	109407	4	yes	40 VA	DPDT	5A, 1/8 HP @ 120 VAC	9 1/4 x 7 1/4 x 2 3/4	4.6
ZTV-6	109408	6	yes	75 VA	DPDT		11 3/8 x 7 1/4 x 3 3/4	

## Pump Controllers Specification Information

Model No.	Part No.	Zones	Priority Feature	Transformer Voltage	Built-in Priority Timer	Auto. Resettable Fuse	Relay Switching Action	Thermostat Current	Single Phase Motor Rating (Each Relay)		Dimensions W x H x D (Inches)	Approx. Shpg. Wt. (lbs.)
									120 VAC	230 VAC		
ZT-1X	109401	1	no	120V, 60 HZ 15 VA	no	no	DPDT	0.18A	10A, 1/3 HP	10A, 1/2 HP	4 1/4 x 5 3/8 x 2 5/8	2.1
ZT-1XH	109402	1	no		no	no						2.1
ZT-2X	109409	2	no		no	no						4.5
ZT-2	109403	2	yes	120V, 60 HZ	yes	yes	DPST	0.085A	10A, 1/3 HP	10A, 1/2 HP	9 1/4 x 7 1/4 x 2 3/4	4.5
ZT-3	109404	3	yes		yes	yes						4.6
ZT-4	109405	4	yes	120V, 60 HZ	yes	yes	DPST	0.085A	10A, 1/3 HP	10A, 1/2 HP	9 1/4 x 7 1/4 x 2 3/4	4.7
ZT-6	109406	6	yes		yes	yes						6.2

# Flo-Control™ Valves

**Flo-Control Valves** prevent gravity flow in forced hot water systems, and permit summer/winter operation of indirect water heaters.

- Combination straight/angle configurations in sizes 3/4" to 2" for ease of installation.
- Removeable top cap allows easy cleaning and service without removing pipe connections.
- Manual operating position for vertical lift disc to permit gravity circulation.

Model No.	Part No.	Dimension in Inches (mm)					Approx Shpg. Wt. lbs. (Kg)
		A	B	C	D	E	
SA 3/4	107034	3 1/8 (79)	4 15/16 (125)	1 5/8 (41)	1 9/16 (40)	1 7/16 (37)	2 (0.9)
SA 1	107018	3 1/2 (89)	5 1/2 (140)	1 7/8 (48)	1 3/4 (44)	1 1/2 (38)	3 (1.4)
SA 1 1/4	107019	4 (102)	6 1/2 (165)	2 1/4 (57)	1 31/32 (50)	1 7/8 (48)	4 (1.8)
SA 1 1/2	107020	5 (127)	7 1/4 (184)	3 (76)	2 1/2 (64)	2 1/4 (57)	8 (3.6)
SA 2	107021	6 7/8 (175)	7 1/2 (191)	4 5/8 (117)	4 (102)	2 5/8 (67)	12 (5.5)
A 2 1/2	107006	7 1/4 (184)	7 5/8 (194)	5 3/8 (137)	4 1/2 (114)	4 1/8 (105)	20 (9.1)
A 3	107007	7 1/2 (191)	7 3/4 (197)	6 (152)	4 1/2 (114)	4 1/4 (108)	23 (10.5)
S 2 1/2	107014	9 5/16 (237)	8 11/16 (221)	5 3/8 (137)	4 3/4 (121)	2 11/16 (68)	22 (10.0)
S 3	107015	9 15/16 (252)	9 (229)	6 (152)	5 1/4 (133)	3 (76)	24 (10.9)
S 4	107004	13 (330)	12 1/2 (318)	7 3/4 (197)	7 (178)	3 7/8 (98)	58 (26.4)
SB 3/4	107024	3 1/4 (83)	3 7/8 (98)	1 7/16 (37)	1 5/8 (41)	23/32 (18)	1.2 (0.6)

Dimensions are approximate and subject to change. Contact factory for certified dimensions.  
**Maximum Operating Temperature: 250°F (121°C) - Maximum Working Pressure: 125PSIG (862KPa)**



**Angle Pattern**  
2-1/2", 3"



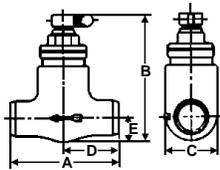
**Straight-Angle Pattern**  
3/4", 1", 1-1/4", 1-1/2", 2"



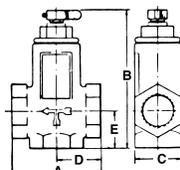
**Bronze Straight Pattern**  
3/4"



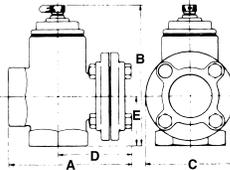
**Straight Pattern**  
2-1/2", 3", 4"



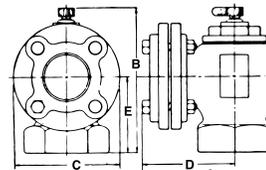
Sizes 3/4"  
**Bronze Straight Valve**



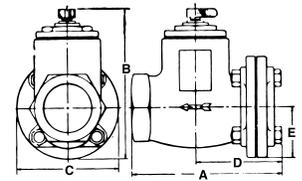
Sizes 3/4", 1", 1-1/4", 1-1/2"  
**Straight Angle Valves**



Sizes 2"  
**Straight Angle Valves**



Sizes 2-1/2", 3"  
**Angle Valves**



Sizes 2-1/2", 3", 4"  
**Straight Valves**

# Hydrotrol™ Flow Control Valves

## Description

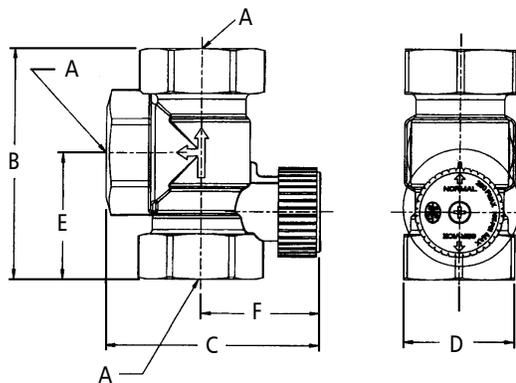
The Hydrotrol (HT) flow control valve is used to prevent overheating of zones due to gravity flow in hydronic heating systems and will permit summer-winter operation of indirect water heater. The HT valve allows fluid to pass when the system or zone pumps start. When the system or zone pumps are not operating, the HT valve remains closed, preventing gravity circulation. The HT valves are designed with a 1/2 turn knob that can be manually opened when draining the system or for bypass purposes. The HT valve can be installed in either the horizontal or vertical orientation.

## Operating Data

Maximum working pressure . . . . . 145 psi (10 bar)  
 Maximum operating temperature . . . . . 250°F (121°C)

## Materials of Construction

Body . . . . . Brass  
 Internal Components . . . . . Non-Ferrous

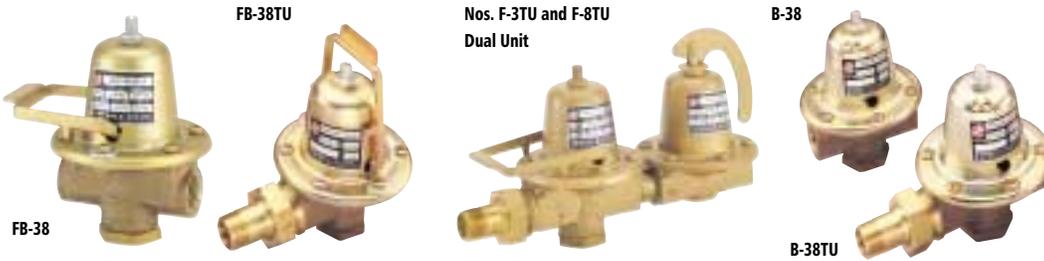


## Dimension & Weights

Model No.	Part No.	Dimensions — Inches (mm)						Approx. Shpg. Wt. lbs. (Kg)
		A	B	C	D	E	F	
HT-3/4	107035	3/4 NPTF	3-1/4 (83)	3-1/16 (78)	1-9/16 (40)	1-3/4 (44)	1-11/16 (43)	1.4 lbs. (0.6)

Do not use for construction. Dimensions are approximate and subject to change. Contact factory for certified dimensions.

# Pressure Reducing Valves



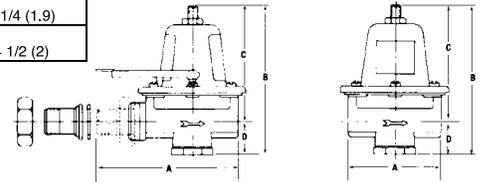
**Reducing Valves** fill the system to a preset pressure for optimum performance.

- Fast fill feature reduces start-up time and labor.
- Low inlet pressure check valve help prevent loss of system pressure if the supply water drops below system pressure.
- Convenient cleanable strainer is designed to prevent dirt and sediment from entering the system.
- Union connection available with 1/2" male NPT thread and 1/2" female sweat tail-piece for fast, flexible system connection.
- Brass body construction is highly resistant to corrosion -- ideal for water systems.

COMBINATION "DUAL UNITS"				Connection in Inches		Dimensions in Inches (mm)		Approx. Shpg. Wt. lbs. (Kg)
Model No.	Part No.	Component Valves	Body Material	Boiler	Fill	Between Connections	Overall Height	
8	110199	Relief B-38	Iron	1/2 NPT	1/2 NPT	6 7/16 (164)	5 3/8 (137)	4 (1.8)
8TU	110200	Relief B-38TU	Brass		1/2 Union NPT/Sweat	8 5/8 (219)		4 1/4 (1.9)
F-3	110197	Relief FB-38	Brass		1/2 NPT	6 7/16 (164)	6 (152)	3 3/4 (1.7)
F-3TU	110198	Relief FB-38TU	Brass		1/2 Union NPT/Sweat	8 5/8 (219)		4 (1.8)
F-8	110201	Relief FB-38	Iron		1/2 NPT	6 7/16 (164)		4 1/4 (1.9)
F-8TU	110202	Relief FB-38TU	Brass		1/2 Union NPT/Sweat	8 5/8 (219)		4 1/2 (2)

### PRESSURE SETTING

Relief 30 PSI standard; factory adjustable range: 20 - 40 PSI  
 Reducing 12 PSI standard; field adjustable range: 10 - 25 PSI  
 Maximum operating temperature 225°F (107°C) - Maximum operating pressure 125 PSIG (862 kPa)



Model No.	Part No.	Body Material	Conncction Size - Inches	Factory Setting (PSIG)	Adjustable Range (PSIG)	Dimensions in Inches (mm)				Approx. Shpg. Wt. lbs. (Kg)
						A	B	C	D	
B-38	110190	Brass	1/2	12	10 - 25	3 1/16 (78)	4 13/16 (122)	3 11/16 (94)	1 1/8 (29)	1 3/4 (0.8)
B7-12	110196		3/4 NPT			3 (76)	4 31/32 (126)	3 21/32 (93)	1 5/16 (33)	2 1/4 (1.0)
B-38TU	110191		1/2 Union*			4 31/32 (126)	4 13/16 (122)	3 11/16 (94)	1 1/8 (29)	2 (0.9)
FB-38	110192		1/2 NPT			3 1/16 (78)				1 3/4 (0.8)
FB-38TU	110193		1/2 Union*			4 31/32 (126)				2 (0.9)
6	110194		1/2 NPT			3 1/16 (78)				1 3/4 (0.8)
7	110195		3/4 NPT	45	25 - 60	3 (76)	4 31/32 (126)	3 21/32 (93)	1 5/16 (33)	2 1/4 (1.0)

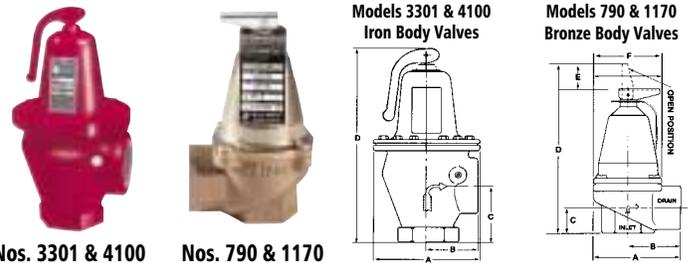
\* Models ending in "TU" feature 1/2" sweat/NPT union connection

# ASME Safety Relief Valves

**ASME Safety Relief Valves** protect fired and unfired hot water vessels against hazardous operating pressures.

- Engineered in accordance with Section IV of the ASME boiler & pressure code for heating boilers with capacities certified by the National Board of Boiler and Pressure Vessel Inspectors.
- Offer the highest BTUH ratings available on the market today for valves in their class (790,000 to 5,999,000 BTUH)

- EPDM diaphragm operated (cast iron models) and diaphragm assisted (bronze models) have an effective area approximately 5 times greater than conventional "pop-type" relief valves to help overcome the effects of fouling.
- Low differential between opening and closing pressures helps to prevent conditions under which system water might flash to steam and cause hammering.



Nos. 3301 & 4100      Nos. 790 & 1170

Size, Capacity & Relief Setting for B&G ASME Safety Relief Valves <sup>2</sup>				
Relief Setting PSIG	Model Number Capacity in BTU Per Hour			
	Iron Body		Bronze Body	
30	3301-30	4100-30	790-30	1170-30
	3,300,000	4,100,000	790,000	1,170,000
36	3301-36	4100-36	790-36	1170-36
	3,800,000	4,600,000	900,000	1,330,000
45	3301-45	4100-45	790-45	1170-45
	4,500,000	5,515,000	1,065,000	1,575,000
50	3301-50	4100-50	790-50	1170-50
	4,900,000	5,990,000	1,160,000	1,710,000
75	NOT AVAILABLE		790-75	1170-75
			1,615,000	2,385,000
100	NOT AVAILABLE		790-100	1170-100
			2,075,000	3,060,000
125	NOT AVAILABLE		790-125	1170-125
			2,535,000	3,735,000

<sup>2</sup> Contact your local wholesaler or Bell & Gossett representative for availability of ASME Safety Relief Valves with special pressure settings.

### Dimensions & Weights

Model No.	Body	NPT Connections in Inches		Dimension in Inches (mm)						Approx Shpg. Wt. lbs. (Kg)
		Inlet	Outlet	A	B	C	D	E	F	
790	Brass	3/4	3/4	2 9/16 (65)	1 1/2 (38)	3/4 (19)	4 9/16 (116)	1 1/32 (26)	2 3/32 (53)	1.2 (0.5)
1170		1	1	2 7/8 (73)	1 3/4 (44)	7/8 (22)	4 15/16 (125)		2 1/4 (57)	1.5 (0.7)
3301	Iron	1 1/2	2	6 (152)	2 7/8 (73)	3 1/4 (83)	11 (279)	N/A	N/A	17 (7.7)
4100		2								

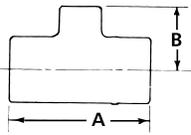
Actual unit model numbers include individual valve pressure settings as a suffix to the basic valve model number noted. Dimensions are approximate and subject to change. Contact factory for certified dimensions.

Maximum Operating Temperature: 250°F (121°C) - Maximum Working Pressure: Model 790 & 1170: 125PSIG (862KPa); Model 3301 & 4100: 50 PSIG (345 KPa).

# Copper Red Ring Monoflo® Fittings

Copper Red Ring Monoflo Fittings let you use a single pipe to serve as both supply and return main.

- Connect risers to the main, assuring proper diversion of water to each heating unit regardless of type and its position in the system.
- Recommended for most installations including cast iron non-ferrous baseboards, free-standing radiation or convectors.
- Only one fitting is needed for most installations for adequate diversion for upfeed radiation. For most applications, a second fitting can be used if higher resistance is required.



## Dimensions & Weights

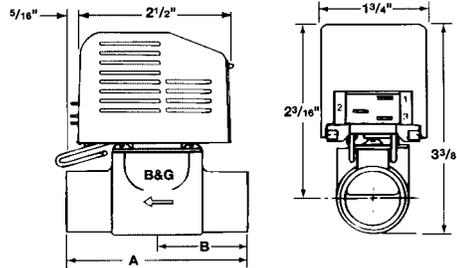
Part No.	Size - Inches	Dimensions - Inches (mm)		Cv Ratings*		Approx. Shpg. Wt. lbs. (Kg)
		A	B	1 FTG	2 FTG	
108119	3/4 x 1/2**	2 5/16 (59)	1 1/32 (26)	4.2	-	1/4 (0.1)
108120	1 x 1/2	2 3/4 (70)	1 7/32 (31)			
108121	1 x 3/4	2 29/32 (74)	1 7/16 (37)	14.5	8.7	
108122	1 1/4 x 1/2	2 15/16 (75)	1 9/32 (33)			1/2 (0.2)
108123	1 1/4 x 3/4	3 7/32 (82)	1 1/2 (38)	24	15.5	
108124	1 1/2 x 3/4	3 7/16 (87)	1 21/32 (42)			
108125	1 1/2 x 1	3 5/8 (92)	1 7/8 (48)	39	25	1 1/4 (0.6)
108126	2 x 3/4	3 7/8 (99)	2 (51)			
108127	2 x 1	4 3/8 (111)	2 5/32 (55)	80	55	1 3/4 (0.8)

\* With side branch plugged \*\* Return only  
Maximum working pressure 150 PSIG (1,034 kPa) - Maximum operating temperature 300° F (149° C).

# Comfort-Trol™ Zone Control Valve

**Comfort-Trol Zone Control Valve** is specially designed to meet the most demanding requirements of residential, institutional and commercial hydronic heating and cooling systems.

- Silent -running heat motor saves power via intermittent energizing.
- Unique double torsion spring opens and closes smoothly, prevents water hammering, assures positive shut-off.
- Leaf-type stack switch with blade terminals allow fast installation and no soldering.
- Compact design and ultra-quiet operation is ideal for installation under baseboards or wherever space is limited.
- Available in 3/4" sweat body connections.
- Maximum working pressure 125 psig.
- Fluid temperature range 40°F to 240°F



Model No.	Part No.	Size Sweat	Voltage Rating 50/60 Hz, 1	VA Rating	Approx. Shpg. Wt.
CTS-7524	109017	3/4"	24 Volt	15	1.0 lbs.

# Hydro-Flo® Enhanced Heating Module

## Contractor/installer benefits

- Faster system installation and maintenance
- No callbacks
- Air purge can be done from the basement
- Module can be pre-assembled and tested in your shop
- Can be used with compression or expansion tanks and with multiple zones
- Save valuable time and money on each job

- Soothing, even warmth throughout the house
- Pure, airless water improves thermal conductivity, reducing energy costs
- Greater comfort and peace of mind

## Hydro-Flo is ideal for new or retrofit residential or light commercial heating systems

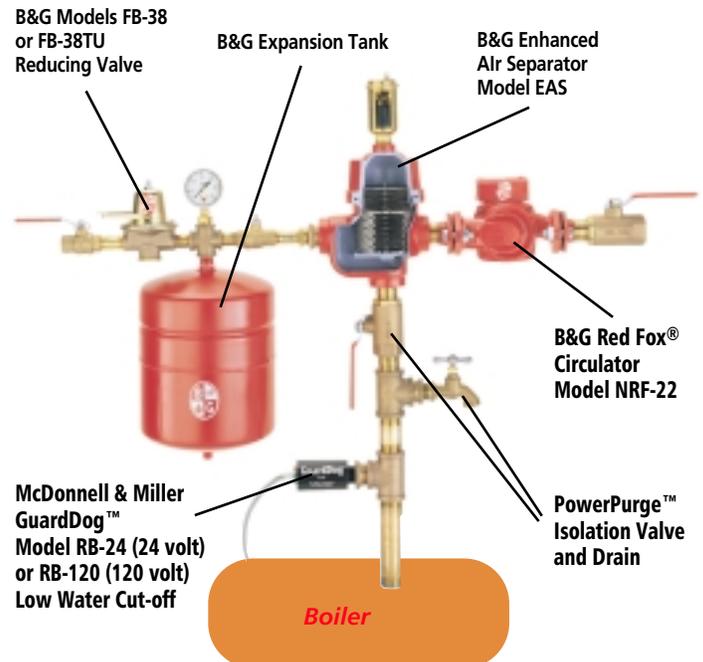
- Baseboard
- Conventional convactor
- Radiant panel
- Multi-purpose

## Homeowner/user benefits

- Air-free system provides whisper-quiet operation
- Isolation valves reduce maintenance time and cost
- Quality components provide years of trouble-free, dependable service

## Hydro-Flo can be used with:

- Diaphragm/bladder or steel compression tanks
- Zoning with circulators or valves
- Primary/secondary pumping with 3-way valves or variable speed pumps



# Enhanced Air Separator

## Model EAS Enhanced Air Separator Patented Design

### Supreme first pass efficiency

- Removes over 99% of air, including micro-bubbles.

### Removes entrained air

- Increases heat transfer and comfort
- Reduces noise in the system

### Prevents call backs

### High flow rates

- Up to 55% more than the competition

### How It Works

**1** As system fluid enters through the inlet, (either straight or angle) the diffuser distributes flow evenly across the stainless steel, wire brush-like medium.

**2** Air bubbles, even micro air bubbles, stick to the brush filaments.

**3** Trapped air rises above the diffuser through a baffle (not pictured), where the air is then released through an opening at top.

**4** Deaerated water then goes back into the system.

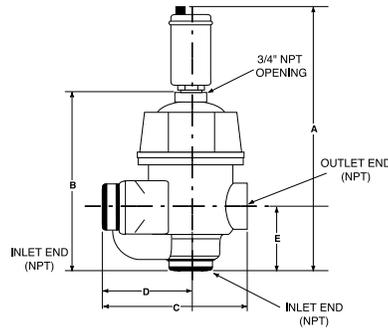
### Four sizes available

- For residential and commercial applications

### Easy to install

- No minimum pipe run required
- Straight or angle installation
- Compatible with diaphragm or compression tank

### Removeable 3/4" high capacity air vents

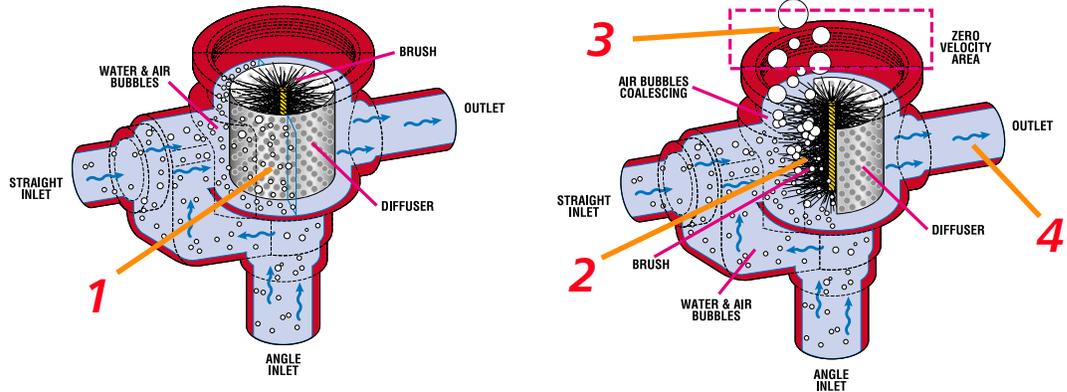


### Dimensions & Weights

MODEL NO.	PART NO.	MAX. FLOW (GPM)	SIZE INCHES NPT	DIMENSIONS - INCHES (MM)					APPROX. SHPG. WGT. LBS. (Kg)
				A	B	C	D	E	
EAS-1	112105	35	1	12 <sup>9</sup> / <sub>16</sub> (310)	6 <sup>7</sup> / <sub>8</sub> (175)	6 <sup>7</sup> / <sub>16</sub> (164)	3 <sup>5</sup> / <sub>16</sub> (100)	3 (76)	8.8 (4)
EAS-1 <sup>1</sup> / <sub>4</sub>	112106	35	1 <sup>1</sup> / <sub>4</sub>	12 <sup>9</sup> / <sub>16</sub> (310)	6 <sup>7</sup> / <sub>8</sub> (175)	6 <sup>7</sup> / <sub>16</sub> (164)	3 <sup>5</sup> / <sub>16</sub> (100)	3 (76)	8.4 (3.8)
EAS-1 <sup>1</sup> / <sub>2</sub>	112107	45	1 <sup>1</sup> / <sub>2</sub>	15 <sup>3</sup> / <sub>4</sub> (400)	11 <sup>3</sup> / <sub>8</sub> (289)	8 <sup>5</sup> / <sub>8</sub> (219)	4 <sup>7</sup> / <sub>8</sub> (124)	4 <sup>1</sup> / <sub>4</sub> (108)	15.5 (7)
EAS-2	112108	70	2	17 <sup>1</sup> / <sub>2</sub> (445)	11 <sup>3</sup> / <sub>8</sub> (289)	8 <sup>5</sup> / <sub>8</sub> (219)	4 <sup>7</sup> / <sub>8</sub> (124)	4 <sup>1</sup> / <sub>4</sub> (108)	15.25 (6.9)

EAS-1 or EAS-1<sup>1</sup>/<sub>4</sub> MAX. WIDTH 4<sup>1</sup>/<sub>16</sub>" (103mm)

EAS-1<sup>1</sup>/<sub>2</sub> or EAS-2 MAX. WIDTH 5<sup>3</sup>/<sub>4</sub>" (146mm)



# Inline Air Separator

### Description

The B&G In-Line Air Separator is specifically designed to efficiently separate air from circulating water in hydronic heating and cooling systems to assure quiet operation.

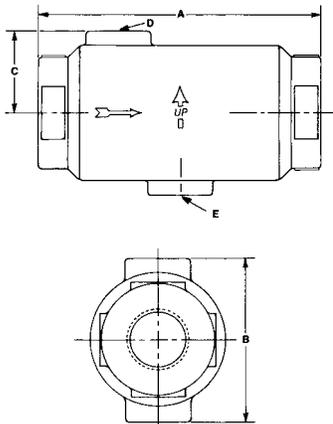
### Operating Data

Maximum working pressure . . . . . 175 psig (1,207 kPa)

Maximum operating temperature . . . . . 300°F (149°C)

### Construction

One Piece Cast Iron



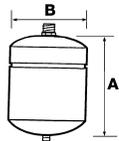
### Dimensions & Weights

Model No.	Part No.	Size NPT	Max. Flow (GPM)	Dimensions - Inches (mm)					Approx. Shpg. Wt. (Lbs)
				A	B	C	D	E	
IAS-1	112095	1"	15	6-1/8	3-1/2	1-3/4	3/4 NPT	1/2 NPT	3-3/4
IAS- 1-1/4	112096	1-1/4"	25	(156)	(89)	(45)			3-1/2
IAS- 1-1/2	112097	1-1/2"	35	8-1/8	4-1/2	2-1/4	3/4 NPT	1/2 NPT	8-1/2
IAS- 2	112098	2"	50	(207)	(114)	(57)			7-1/2
IAS- 2-1/2	112099	2-1/2"	75	10-1/8	6-3/8	3-3/16	3/4 NPT	1/2 NPT	23
IAS- 3	112100	3"	125	(257)	(257)	(81)			21-1/2

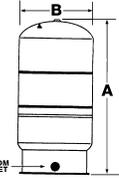
Dimensions are approximate and subject to change. Contact factory for certified dimensions

# Diaphragm Tanks • Expansion Tanks

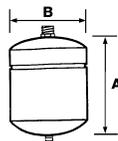
Bell & Gossett expansion tanks are designed to absorb the force of thermal expansion in hydronic heating and domestic potable water systems. Series HFT tanks for hydronic heating systems are available in sizes from 2—86 gallons. Tanks for potable water systems, Series PT and PTA (ASME construction) are available in sizes from 2—528 gallons.



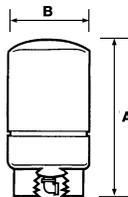
HFT-15 thru HFT-90



HFT-30V thru HFT-160V



PT-5 & PT-12



PT-25V thru PT-210V

## HFT Tanks for Hydronic Heating Tanks

Model Number	Part Number	Volume Gallons (Liters)		Height (A) Inches (mm)	Diameter (B) Inches (mm)	System Connection	Approx. Shpg. Wt. lbs. (Kg)
		Tank	Acceptance				
HFT-15	1BN201	2 (7.5)	1.0 (3.7)	12 <sup>5</sup> / <sub>8</sub> (321)	8 (203)	1/2" NPT M	5 (2.3)
HFT-30	1BN202	4.4 (16.6)	2.5 (9.4)	15 <sup>1</sup> / <sub>2</sub> (394)	11 (279)		9 (4.1)
HFT-60	1BN203	7.6 (28.7)	2.5 (9.4)	23 (584)	11 (279)		14 (6.4)
HFT-90	1BN204	14 (53)	11.5 (43.5)	21 (533)	15 <sup>3</sup> / <sub>8</sub> (390)	1" NPT F	23 (10.4)
HFT-30V	1BN205	14 (53)	11.5 (43.5)	24 (610)	15 <sup>3</sup> / <sub>8</sub> (390)		25 (11.3)
HFT-40V	1BN206	20 (75.7)	11.5 (43.5)	31 <sup>3</sup> / <sub>4</sub> (806)	15 <sup>3</sup> / <sub>8</sub> (390)	1 1/4" NPT F	33 (15.0)
HFT-60V	1BN207	32 (121.1)	11.5 (43.5)	46 <sup>5</sup> / <sub>8</sub> (1184)	15 <sup>3</sup> / <sub>8</sub> (390)		43 (19.5)
HFT-90V	1BN208	44 (166.5)	34 (128.7)	36 (914)	22 (559)	1 1/4" NPT F	69 (31.2)
HFT-110V	1BN209	62 (234.6)	34 (128.7)	46 <sup>5</sup> / <sub>8</sub> (1184)	22 (559)		92 (41.7)
HFT-160V	1BN210	86 (325.5)	46 (174.1)	47 <sup>3</sup> / <sub>8</sub> (1199)	26 (660)		123 (55.8)

Materials: Steel Shell, Butyl Diaphragm

System Connection: Steel

Maximum Operating Temperature = 240°F (116°C); Maximum Working Pressure = 100 PSI (689 kPa);

Standard Factory Precharge = 12 PSI (83 kPa)

## PT Tanks for Potable Water Systems

Model Number	Part Number	Volume Gallons (Liters)		Height (A) Inches (mm)	Diameter (B) Inches (mm)	System Connection	Approx. Shpg. Wt. lbs. (Kg)
		Tank	Acceptance				
PT-5	1BN001	2 (7.5)	0.9 (3.4)	12 <sup>5</sup> / <sub>8</sub> (321)	8 (203)	3/4" NPT M	5 (2.3)
PT-12	1BN002	4.4 (16.6)	3.2 (12.1)	15 (381)	11 (279)		9 (4.1)
PT-25V	1BN003	10.3 (39)	10.3 (39)	19 <sup>1</sup> / <sub>4</sub> (489)	15 <sup>3</sup> / <sub>8</sub> (390)	1" NPT F	23 (10.4)
PT-30V	1BN004	14 (53)	11.3 (42.8)	23 <sup>7</sup> / <sub>8</sub> (606)	15 <sup>3</sup> / <sub>8</sub> (390)		25 (11.3)
PT-42V	1BN005	20 (75.7)	11.4 (43.1)	31 <sup>5</sup> / <sub>8</sub> (803)	15 <sup>3</sup> / <sub>8</sub> (390)	1 1/4" NPT F	33 (15)
PT-60V	1BN006	34 (128.7)	34 (128.7)	29 <sup>5</sup> / <sub>8</sub> (752)	22 (559)		69 (31.3)
PT-80V	1BN007	44 (166.5)	33.8 (127.9)	36 (914)	22 (559)	1 1/4" NPT F	69 (31.3)
PT-180V	1BN008	62 (234.7)	34.1 (129.1)	46 <sup>3</sup> / <sub>4</sub> (1187)	22 (559)		92 (41.7)
PT-210V	1BN009	86 (325.5)	46.4 (175.6)	47 <sup>1</sup> / <sub>4</sub> (1200)	26 (660)		123 (55.8)

Materials: Steel Shell, Polypropylene Liner, Butyl Diaphragm

System Connection: PT-5 and PT-12 = Brass; PT-25V through PT-210V = Stainless Steel

Maximum Operating Temperature = 200°F (93°C); Maximum Working Pressure = 150 PSI (1,034 kPa);

Standard Factory Precharge = 40 PSI (276 kPa).

All PT tanks are available with ASME certification, designated by adding an "A" after the "PT". Example, PTA-25V. Volumes, dimensions and weights may be different for ASME vessels. Consult factory for certified dimensions.

Code approvals: PT-5, PT-12, PT-25V



PT-30V thru PT-210



## Compression Tanks

Air-tight, ASME constructed. Available in painted steel or galvanized. Sizes 15 to 400 gallons. Gauge glass tappings are standard. Always use with B&G Airtrol Tank Fittings.



### Dimensions & Weights

Model No.	Part No.*	Capacity Gallons	Required Airtrol Fitting	Tank Dia. Inches	Tank Length Inches	Approx. Shpg. Wt. (Lbs)
15	116029	15	ATF-12	12	33	46
24	116030	24			51	64
30	116031	30			48	67
40	116032	40			63	85
60	116033	60	ATF-16	16	72	115
80	116034	80	ATF-20	20	62-1/2	134
100	116035	100	ATF-20		78	166
120	116036	120	ATF-24	24	65	199
135	116037	135			72	219
175	116038	175	ATFL	30	62-1/2	304
220	116039	220			77	364
240	116040	240			84	394
305	116041	305			105-3/4	489
400	116042	400			36	93-1/2

Dimensions are approximate and subject to change.

Consult factory for certified dimensions.

\*Part numbers in table above are for paint steel tanks.

Consult factory for galvanized tank part numbers.

## Airtrol® Tank Fittings

Directs free air to the compression tank. Restricts thermal circulation to boiler. Establishes initial tank air level. Allows compression tank size reduction.



### Dimensions & Weights

Model No.	Part No.	Tank Dia. Inches	Connection (NPT)		Approx. Shpg. Wt. (Lbs)
			Tank	Boiler	
ATF-9	112008	9	1/2" M	3/4" M	2-1/4
ATF-12	112010	12 - 14			2-1/2
ATF-16	112011	16 - 18			2-3/4
ATF-20	112026	20 - 22			
ATF-24	112013	24			
ATFL	112014	>100 gal	1" F	1" F	14

# Hydronic Specialties

## No. 87, 67 and 7 Automatic Air Vents

are designed to vent the accumulation of troublesome air wherever it can be trapped. These non-ferrous automatic air vents are 4-3/4" x 2-1/4", 3-3/16" x 1-1/2" and 4-1/16" x 2-3/16" (height and width), respectively, and are rated for a **maximum operating temperature of 240°F at pressures of 150, 35 and 75 PSI, respectively.** The No. 87 has a combination of 1/2" FPT/3/4" MPT connection, whereas No's. 67 and 7 have 1/8" MPT, and FPT connections, respectively.



## No. 26 Vacuum Breaker

Designed to protect closed vessels and piping systems against collapse when the induced vacuum exceeds design conditions. When used on steam heating systems, the No. 26 Vacuum Breaker controls induced vacuum, permitting normal return of condensate to the boiler. Adjustable range 1/4" to 20" (mercury) vacuum. Factory set to 4" — **150 P.S.I.G. Maximum Working Pressure — 300°F Maximum Operating Temperature**



## No. 400 Automatic Air Vents

is a float type vent designed to vent troublesome air from hydronic heating systems. The brass body and the non-ferrous internals provide years of reliable service. The compact design 3-1/8" x 1-7/8" and high operating pressure/temperature (**240°F @ 150 P.S.I.G.**) limitations make the No. 400 a must in any hydronic heating system.



## Model No. 107A High Capacity Air Vent

A rugged High Capacity Air Vent designed to purge free air from liquid systems at **operating pressures up to 150 psig.** The Model 107A Air Vent has a cast iron body and bonnet, with stainless steel, brass and EPDM internal components and is suitable for a **maximum operating temperature of 250°F.** The Air Vent has a 3/4" NPT inlet and 3/8" NPT outlet.



## RV-125A Readout Valve and RP-250B Readout Probe

The RV-125A is designed for use wherever pressure readings are required to monitor flow or pressures. The Readout Valve is fitted with an EPT insert which incorporates a unique check valve feature designed to check flow when the Readout Valve is not being used to monitor flow. Use companion RP-250B Readout Probes with the RV-125A Readout Valve.



**300 P.S.I.G. Working Pressure—250°F Maximum Operating Temperature**

## No. 17 SR and 17 Jr. Automatic Hot Water Air Valves

No. 17 Sr. Valve is a deluxe, hygroscopic air valve. No. 17 Jr. is similar to No. 17 Sr. but does not have manual shut-off. 1/8" N.P.T. connection. **30 P.S.I.G. Working Pressure — 225°F Maximum Operating Temperature**



## B&G Thermoflo® Balancer

A device for instant visual balancing of hot or cold water flows. With a B&G Thermoflo balancer installed in each circuit or zone, the entire system can be quickly balanced to meet original design calculation. No. TB-3/4"- Capacity 1 to 5 GPM. No. TB-1"- Capacity 2 to 10 GPM. **125 P.S.I.G. Working Pressure—250°F Maximum Operating Temperature**



## No. 4V "Coin-Operated" Air Vent

This vent is specially designed for the new types of radiators. An important feature is that it projects only slightly, being almost flush with the radiator. **150 P.S.I.G. Working Pressure—250°F Maximum Operating Temperature**



## DT-2 Drain-O-Tank® Air Charger

The Drain-O-Tank Air Charger offers a sure, quick way to recharge a water-logged compression tank. **125 P.S.I.G. Working Pressure — 240°F Maximum Operating Temperature**



Dimensions, Weights and Specifications

Model No.	Part No.	Description	System Connection	Dimensions (W x H)	Maximum		Approx. Shpg. Wt. (Lbs) Carton Of	
					Pressure	Temperature		
400	113222	Automatic Air Vent	1/8" NPTM	1-7/8" x 3-1/8"	150 PSIG	240°F	10	4
87	113021		Combination 3/4" NPTM 1/2" NPTF	2-1/4" x 4-3/4"			12	8
67	113020		1/8" NPTM	1-1/2" x 3-3/16"			3	3
7	113001		1/8" NPTF	2-3/16" x 4-1/16"			6	6
107A	113076	High Capacity Air Vent	3/4" NPTF	4-1/2" x 9-5/8"	150 PSIG	250°F	1	10
17 SR	113004	Automatic Air Vent	1/8" NPTM	1 1/16" x 1"	30 PSIG	225°F	12	2
17 JR	113042		1/8" NPTM	13/16" x 1-1/4"			2	2
4V	113055	Manual Air Vent	1/8" NPTM	5/8" x 5/8"	150 PSIG	250°F	48	2
26	113075	Vacuum Breaker	3/4" NPTM	1-1/4" x 3"		300°F	6	3
RV-125A	113100	Readout Valve	1/8" NPTM	1-1/8" x 9/16"	300 PSIG	250°F	50 pairs	4
RP-250B	113102	Readout Probe	N/A	2" x 5/8"			6 pairs	1
DT-2	113041	Drain-O-Tank	1/2" NPTM	2-1/4" x 6-5/16"	125 PSIG	240°F	12	8
TB-3/4	127001	Balance Valve	3/4" NPTF	2" x 9-1/4"	125 PSIG	250°F	1	26
TB-1	127002	Balance Valve	1" NPTF	2" x 9-1/4"			1	26

## Genuine B&G Parts

When replacing parts in your customers' B&G booster or other hydronic specialties, don't settle for anything other than genuine B&G parts. You owe it to your customers and to yourself to do it right the first time.

Bell & Gossett parts are designed and engineered strictly for the Bell & Gossett boosters. Substitute parts may seem to cost less. But more often than not, they actually cost a lot more, when they do not hold up on the job. Then you are faced with callbacks and your reputation is at stake.

So why risk having to replace a replacement part? Stick with the real thing — from Bell & Gossett.

**Visit our website at [www.bellgossett.com](http://www.bellgossett.com) and go to ESP Plus to view an exploded drawing and bill of material of your Bell & Gossett products.**



**B&G builds our own motors to exacting circulating pump specifications.**



**B&G bearing assembly bracket. Restores pump to like new conditions.**



**B&G flexible spring coupler dampens vibration and noise.**

## For Top Quality Hydronic System Products, Count on Bell & Gossett

Founded in 1916, Bell & Gossett has been a dependable force in the hydronic heating industry for more than 80 years. Over the years, we've continued to focus on providing the highest quality products, and the best technology available. In fact, we pioneered many hydronic heating technologies that today are taken for granted -- for instance, the entire concept of "primary/secondary pumping" and "pumping away".

Our plant incorporates the most advanced manufacturing and research capabilities in the industry. Count on us to apply that technology to make our products the most reliable--and to make your job easier.

### **Bell & Gossett is ISO 9001 Certified**

Bell & Gossett's Morton Grove manufacturing facility has received ISO 9001 certification, awarded to only a select group of companies worldwide that



meet the quality assurance standards of the International Organization for Standardization (ISO). ISO certification tells you that a company has passed a stringent independent audit for a universally uniform level of "proof of performance."

Bell & Gossett's on-going company goal is to meet or surpass customer specification by making all products right "the first time, every time."

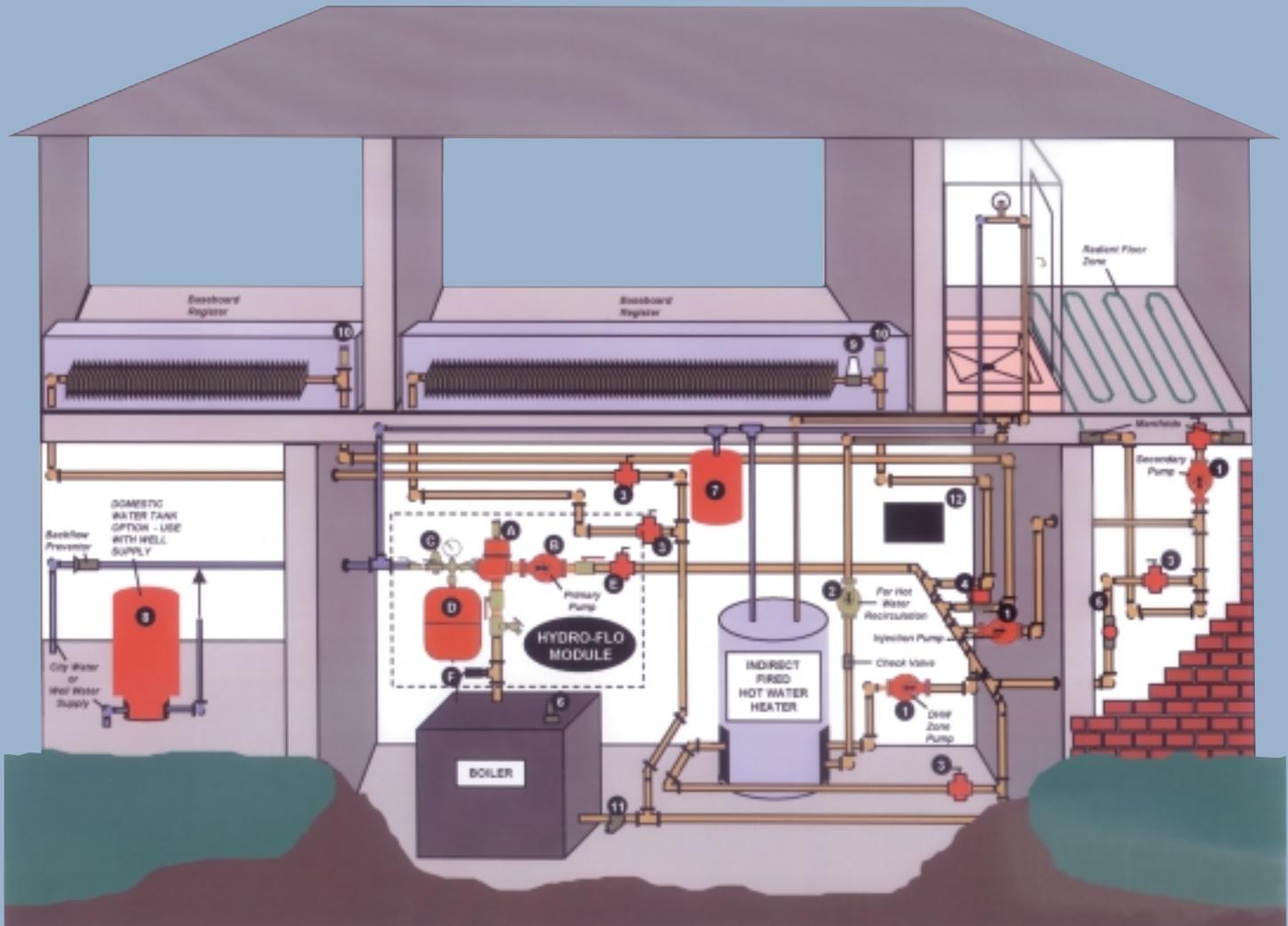


### **A Leader Educating the Industry**

Bell & Gossett is known throughout the hydronic heating business as the industry's educator. Our Little Red Schoolhouse®, a completely equipped learning center, has trained more than 45,000 engineers, contractors and installers in the proper design, installation and maintenance of hydronic heating and cooling systems.



**The most Complete Line of Hydronic Heating and Plumbing Products.  
All from a Single Source – Bell & Gossett.**



**Contact your Bell & Gossett Representative for Quality Products from a Single Source.**

To maximize performance and efficiency in your home or business, Bell & Gossett has all the products you need.

**Customer Service Second to None.**

Bell & Gossett is the Leader in R&D and technical education throughout the

hydronic heating industry. Your B&G Representative has complete details on the products, system design, training programs and services that can help your business work faster and better.

**Hydro-Flo.™ Module Includes:**

- A. EAS - Enhanced Air Separator
- B. Red Fox™ Circulator
- C. FB-38 -- Pressure Reducing Valve
- D. HFT— Diaphragm Tank
- E. Flo-Control Valve

- F. ITT McDonnell & Miller GuardDog™ Low Water Cut-off

**Other B&G Heating or Plumbing Systems Products Include:**

- 1. Red Fox™ Circulator
- 2. Bronze Fox™ Circulator
- 3. Flo-Control Valve
- 4. Comfort-Trol® Zone Valve
- 5. Circuit Setter®

- 6. ASME Safety Relief Valve
- 7. Potable Water Diaphragm Tank
- 8. Domestic Well Tank
- 9. Non-Electric Zone Valve
- 10. Automatic Air Vent
- 11. ITT Hoffman Y-Strainer
- 12. Zone-Trol Pump Controller



**Bell & Gossett**

8200 N. Austin Avenue  
Morton Grove, IL 60053  
Phone: 847/966-3700  
FAX: 847/966-9052  
www.bellgossett.com

