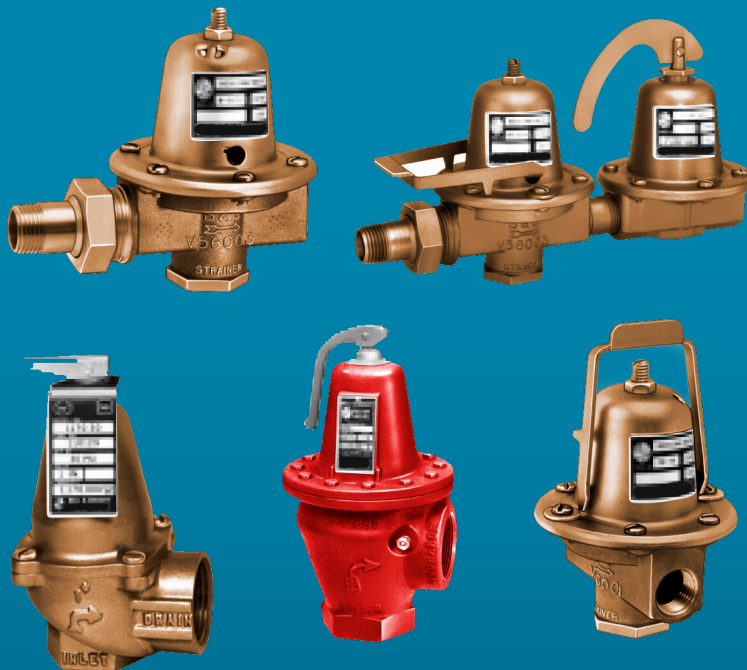


xylem

Relief and reducing valves

Hydronic heating, cooling systems,
and domestic water systems



Bell & Gossett
xylem

ASME safety relief valves

Meet requirements of Section IV of the ASME Code for heating boilers

Xylem's Bell & Gossett bronze ASME Safety Relief Valves protect hot water vessels from overpressure. They offer the highest BTUH rating for their size and feature:

- Designed according to Section IV of the ASME Boiler and Pressure Vessel Code, certified by the National Board of Boiler and Pressure Vessel Inspectors.
- EPDM diaphragm with 5x larger effective area than conventional "pop-type" relief valves provide greater operating force to help overcome effects of fouling.
- Unique fail-safe disc to maintain safety relief function in the event of diaphragm rupture.
- Low differential between opening and closing pressures prevent conditions under which system water might flash into steam and cause hammering.
- Available in a wide range of pressure settings to closely match the BTUH output rating of hot water heating boilers, hot water heaters, storage tanks with indirect heaters, heat exchangers and other pressure vessels.



Models 3301/4100
Iron body valves



Models 790/1170
Bronze body valves

Size, capacity and relief setting

Relief setting PSIG (bar)	Model# / Capacity (BTU per hour)			
	Iron body*		Bronze body	
30 (2.0)	3301-30	4100-30	790-30	1170-30
		4,100,000	790,000	1,170,000
50 (3.5)	3301-50	4100-50	790-50	1170-50
		5,990,000	1,160,000	1,710,000
75 (5.2)	Not available		790-75	1170-75
			1,615,000	2,385,000
100 (7.0)	Not available		790-100	1170-100
			2,075,000	3,060,000
125 (8.6)	Not available		790-125	1170-125
			2,535,000	3,735,000

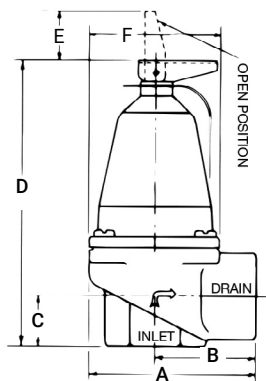
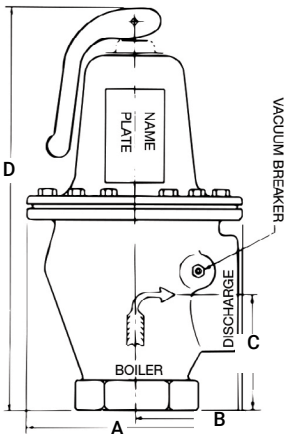
Pressure settings:

Maximum operating temperature: 250°F (121°C)

Maximum working pressure: 125 PSIG (8.6 bar)

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

*Models 3301 and 4100 Iron body relief valves are not recommended for use on domestic water service.



Dimensions and weights

Model#	Part body material	NPTI connections**		Dimension inches (mm)						Approx. weight lb (kg)
		Inlet	Outlet	A	B	C	D	E	F	
790	Bronze	3/4	3/4	2.56" (65)	1.50" (38)	0.75" (19)	4.56" (116)	1.03" (26)	2.09" (53)	1.2 (0.5)
1170		1	1	2.88" (73)	2.88" (73)	0.88" (22)	4.94" (125)	1.03" (26)	2.25" (57)	1.5 (0.7)
3301	Iron	1-1/2	2	6.00" (152)	6.00" (152)	3.25" (83)	11.00" (279)	-	-	17 (7.7)
4100		1-1/2	2	6.00" (152)	6.00" (152)	3.25" (83)	11.00" (279)	-	-	17 (7.7)

Actual unit model numbers include individual valve pressure settings as a suffix to the basic valve model number noted.

**NPTI/NPTE – National Pipe Thread Internal/External

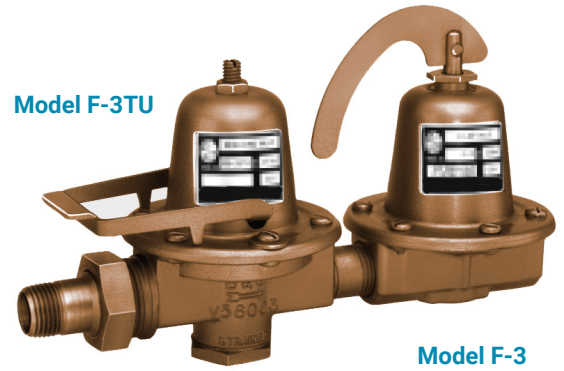
Dual-unit valves

Combine functions of reducing and relief valves

The Bell & Gossett Pressure Reducing Valve is coupled with the noncode relief valve providing fill overpressure protection as well as the fill function. The pressure reducing valve features a lead free brass* body, corrosion resistant wetted parts, low inlet pressure check valve and a cleanable strainer. The noncode relief valve features a corrosion resistant seat and a large diaphragm for positive action. Units are available with lead-free brass* relief valve bodies.

Some models feature pressure reducing valves with a fast fill option while others offer the new union tailpiece connection.

Note: This noncode relief valve is not to be used alone to protect the system. An ASME type safety relief valve must also be installed on the system for output overpressure protection.



Nos. 8, F-3 and F-3TU dual unit valves combine the functions of reducing and relief valves. Models with an "F" prefix feature fastfill. Models ending with "TU" feature a 1/2" sweat/NPT union.

Dimensions and weights

Model#	Part#	Component valves	Body material	Connections inches (mm)		Dimension inches (mm)		Approx. weight lb (kg)
				Boiler	Fill	Between connection	Overall height	
8	110199LF	Relief or B-38	Lead-free brass*	1/2 NPTI	1/2 NPTI	6-7/16" (164)	5-3/8" (137)	4 (1.8)
F-3	110197LF	Relief or FB-38	Lead-free brass*		1/2 NPTI	6-7/16" (164)	6" (153)	3.75 (1.7)
F-3TU	110198LF	Relief or FB-38TU	Lead-free brass*		1/2 Union or NPTW/SWT	8-5/8" (219)	6" (153)	4 (1.8)

Pressure settings:

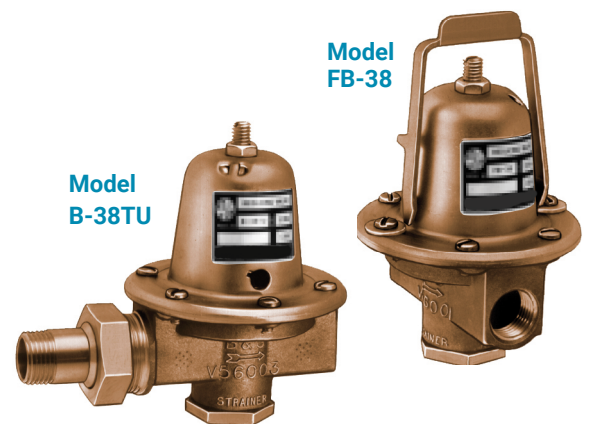
Relief: 30 PSI (2 bar) standard, 20 to 40 PSI (1.4 to 2.8 bar) adjustable range
 Reducing: 12 PSI (0.8 bar) standard, 10 to 25 PSI (0.7 To 1.7 bar) adjustable range
 Maximum operating temperature: 225°F (107°C)
 Maximum operating pressure: 125 PSIG (8.6 bar)

Reducing unit valves

Maintain proper system pressure

Bell & Gossett Reducing Valves safeguard HVAC and plumbing systems from excessive pressures. Pressures are factory-set and adjustable to ensure optimal system performance. Key features include:

- Low pressure inlet check valve to help maintain system pressure if supply water pressure drops below system pressure.
- Fast-Fill models available with bypass lever for quick initial fill (indicated by model names that begin with the letter "F").
- Corrosion-resistant lead-free brass construction*.
- Various connection styles: NPT, sweat, and single union with universal tailpiece.
- All Bell & Gossett reducing valves feature a cleanable strainer, readily accessible from the bottom of the valve, designed to prevent dirt and sediment from entering the valve.



*CSA certified to NSF/ANSI372 that product contains less than 0.25% lead content by weight on wetted surfaces.

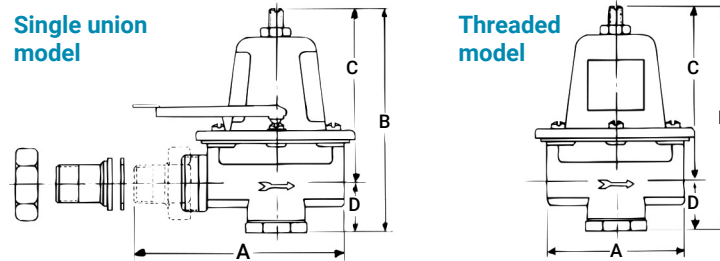
**NPTI/NPTE – National Pipe Thread Internal/External

Reducing unit valves (cont'd.)

B7-12 reducing valve is equipped with a low inlet pressure check valve and removable strainer. It is suitable for use in buildings with a maximum of three floors.

B-38, FB-38, B-38TU and FB-38TU low pressure reducing valves are equipped with a low inlet pressure check valve and removable strainer. Models with an "F" prefix feature fastfill. Models ending with "TU" feature a 1/2" sweat/NPT union.

6 and 7 high pressure reducing valves protect plumbing fixtures against excessive line pressures. All wetted parts are lead free brass*. These valves are fitted with a removable strainer, low inlet pressure check valve and extra large diaphragm. They are factory adjusted to deliver 45 psi (3.1 bar) with 125 psi (8.6 bar) to the valve.



Dimensions and weights

Model#	Part#	Part body	Connection type and size (in)	Fast-fill lever	Factory setting PSIG (bar)	Adjustable range PSIG (bar)	Dimension inches (mm)				Approx. weight lb (kg)
							A (typ)	B	C	D	
B-38	110190LF	Lead-free Brass*	1/2" NPTI		12 (0.8)	10-25 (0.7-1.7)	3.06" (78)	4.80" (122)	3.67" (94)	1.13" (29)	1.75 (0.8)
B7-12	110196LF		3/4" NPT		12 (0.8)	10-25 (0.7-1.7)	3.00" (76)	4.97" (126)	3.66" (93)	1.31" (33)	2.24 (1.0)
B-38TU	110191LF		1/2" Union NPTE/SWT		12 (0.8)	10-25 (0.7-1.7)	4.97" (126)	4.80" (122)	3.67" (94)	1.13" (29)	2.00 (0.9)
FB-38	110192LF		1/2" NPTI	•	12 (0.8)	10-25 (0.7-1.7)	3.06" (78)	4.80" (122)	3.67" (94)	1.13" (29)	1.75 (0.8)
FB-38TU	110193LF		1/2" Union NPTE/SWT	•	12 (0.8)	10-25 (0.7-1.7)	4.97" (126)	4.80" (122)	3.67" (94)	1.13" (29)	2.00 (0.9)
6	110194LF		1/2" NPTI		45 (3.1)	25-60 (1.7-4.1)	3.06" (78)	4.80" (122)	3.67" (94)	1.13" (29)	1.75 (0.8)
7	110195LF		3/4" NPTI		45 (3.1)	25-60 (1.7-4.1)	3.00" (76)	4.97" (126)	3.66" (93)	1.31" (33)	2.25 (1.0)

Pressure settings:

Maximum flow: 6.5-7 GPM (0.4-0.44 ltrs./sec.) at 125 PSIG (8.6 bar) inlet pressure

Maximum operating temperature: 225°F (107°C)

Maximum working pressure: 125 PSIG (8.6 bar)



*CSA certified to NSF/ANSI372 that product contains less than 0.25% lead content by weight on wetted surfaces.

**NPTI/NPTE – National Pipe Thread Internal/External

Learn more
about relief and
reducing valves



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