

PRESSURE REDUCING VALVE

Globe Type / Model 90G-21 Angle Type / Model 90A-21



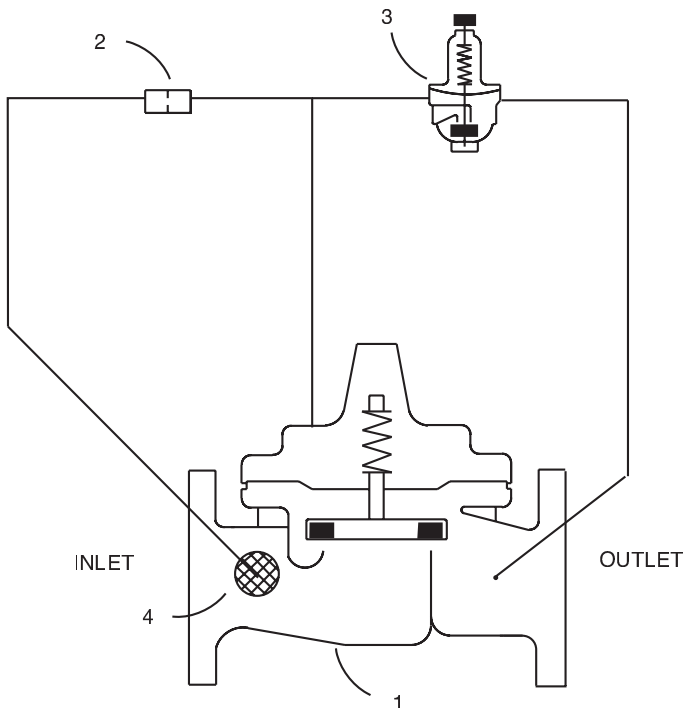
Features

- Globe or Angle Pattern
- Proven Reliable Design
- Available in Cast Bronze and Ductile Iron
- Accurate Pressure Control
- In Line Service
- Flanged and Grooved Ends

The Model 90G-21 (globe) and 90A-21 (angle) Pressure Reducing Valves are indispensable in any fire protection system. The diaphragm actuated design is proven highly reliable and easy to maintain. Available are globe or angle pattern with a full range of adjustments. A variety of material options are also available. Epoxy coating is strongly recommended for all fire system valves (excluding bronze valves).

The 90G-21 and 90A-21 can be supplied with optional internal and external epoxy coating of the main valve wetted surfaces.

The 90G-21 (globe) and 90A-21 (angle) Pressure Reducing Valves automatically reduce a higher inlet pressure to a steady lower outlet pressure regardless of changing flow rate and/or varying inlet pressure. The valves pilot control system is very sensitive to slight downstream pressure fluctuations, and will automatically open or close to maintain the desired pressure setting. The downstream pressure can be set over a wide range by turning the adjustment screw on the CRD pilot control. The adjustment screw is protected by a screw-on cover, which can be sealed to discourage tampering.



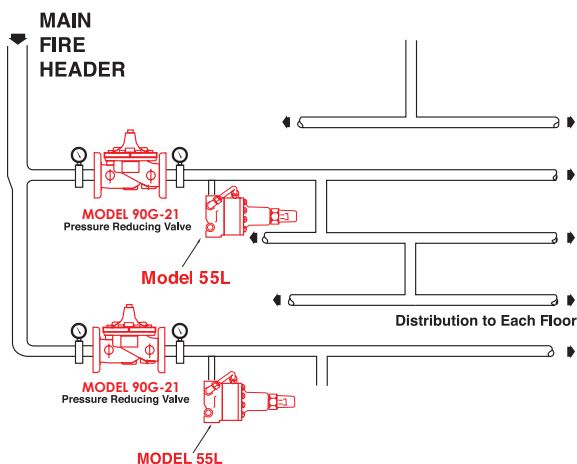
Schematic Diagram

- Item Description
- 1 Model 100-01 Hytrol (Globe or Angle)
 - 2 X58C Restriction Tube Fitting
 - 3 CRD Pressure Reducing Control
 - 4 X46A Flow Clean

PRESSURE REDUCING VALVE

Typical Application

Underwriters Laboratories requires the installation of pressure gauges upstream and downstream of the Pressure Reducing Valve. Also, a relief valve of not less than 1/2 inch in size must be installed on the downstream side of the pressure control valve. Adequate drainage for the relief valve discharge must be provided.



Size	Ductile Iron 150#F	Ductile Iron 300#F	Globe Pattern Ductile Iron Grooved End	Bronze 150#F	Angle Pattern Ductile Iron Grooved End	Ductile Iron 300#F
1 1/2"	UL / ULC	UL / ULC	UL / ULC			
2"	UL / ULC	UL / ULC	UL / ULC	ULC	UL / ULC	ULC
2 1/2"	UL / ULC	UL / ULC	UL	ULC		ULC
3"	UL / ULC	UL / ULC	UL / ULC	ULC	UL / ULC	ULC
4"	UL / ULC	UL / ULC	UL / ULC	ULC	UL / ULC	ULC
6"	UL / ULC	UL / ULC	UL / ULC		ULC	
8"	UL / ULC	UL / ULC	UL / ULC			
10"	ULC	ULC				

Specifications

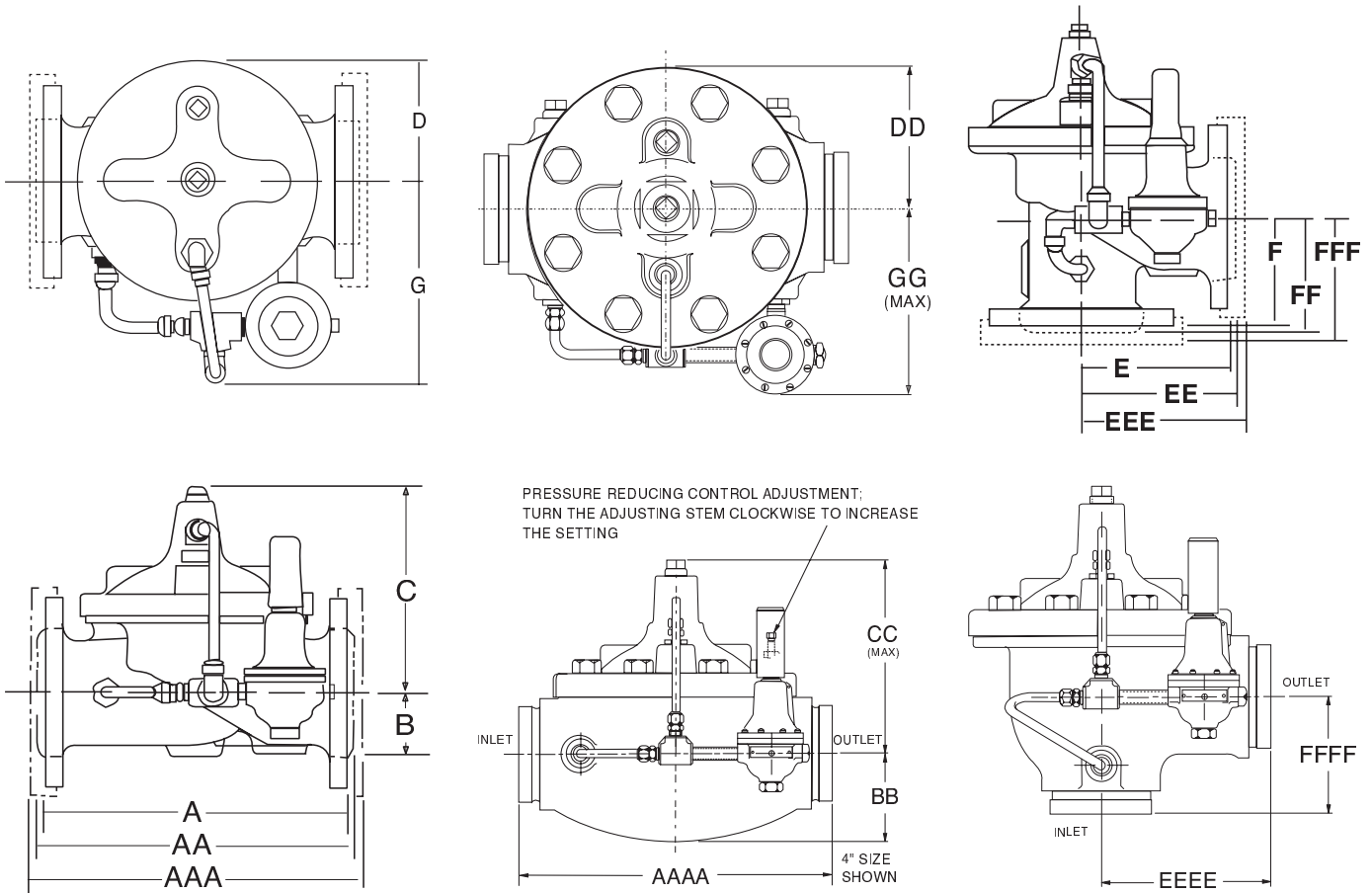
- Size** : Class 175 lb. 40 mm - 200 mm (Globe) 50 mm - 150 mm (Angle) Class 300 lb. 40 mm - 200 mm (Globe) 50 mm - 150 mm (Angle)
- End Details** : 150 ANSI B16.42 (Ductile Iron) (Bronze) 300# (Ductile Iron) 300# (Ductile Grooved End).
- Temperature Range** : Water to 82°C (180°F) Max.
- Pressure Differential** : 10 PSI Min.
- Pressure Adjustment Range** : Class 175 lb. 30 - 165PSI Class 300 lb. 30 - 165PSI

Materials

- Main Valve Body & Cover** : Ductile Iron - ASTM A536
- Main Valve Internal Trim** : Bronze ASTM B61
- Pilot Control System & Pilot Control Valve** : Bronze ASTM B62 with Stainless Ü Steel 303 internal trim Copper tubing with brass fittings
- Main Valve and Pilot Valve Diaphragm and Disc** : Buna-N synthetic rubber

PRESSURE REDUCING VALVE

Dimensions



Valve Size	(mm) (inc)	40	50	65	80	100	150	200	250
			1 1/2"	2"	2 1/2"	3"	4"	6"	8"
Max. Flow Rate	LPM	606	992	1412	2180	3755	8521	14763	23280
	GPM	160	262	373	576	992	2251	3900	6150

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Dimensions

Size (inch)	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"
A Threaded	7,25	9,38	11,00	12,50	-	-	-	-
AA 150 ANSI	8,50	9,38	11,00	12,00	15,00	20,00	25,38	29,75
AAA 300 ANSI	9,00	10,00	11,62	13,25	15,62	21,00	26,38	31,12
AAAA Grooved End	8,50	9,00	11,00	12,50	15,00	20,00	25,38	-
B	1,12	1,50	1,69	2,56	3,19	4,31	5,31	9,25
BB Grooved End	2,00	2,50	2,88	3,12	4,25	6,00	7,56	-
C Max	5,50	6,50	7,56	8,19	10,62	13,38	16,00	17,12
CC Max. Grooved End	4,10	5,00	6,88	6,50	8,80	11,10	14,50	-
D	2,81	3,31	4,40	4,56	5,75	7,88	10,00	11,81
DD Grooved End	2,81	3,31	4,40	4,56	5,75	7,88	10,00	-
E Threaded	3,25	4,75	5,50	6,25	-	-	-	-
EE 150 ANSI	4,00	4,75	5,50	6,00	7,50	10,00	12,75	14,88
EEE 300 ANSI	4,25	5,00	5,88	6,38	7,88	10,50	13,25	15,56
EEEE Grooved End	-	4,75	-	6,00	7,50	-	-	-
F Threaded	1,88	3,25	4,00	4,50	-	-	-	-
FF 150 ANSI	4,00	3,25	4,00	4,00	5,00	6,00	8,00	8,62
FFF 300 ANSI	4,25	3,50	4,31	4,38	5,31	6,50	8,50	9,31
FFFF Grooved End	-	3,25	-	4,50	5,00	-	-	-
G (Max)	7,50	7,75	7,75	8,00	9,00	9,50	10,50	11,50
GG (Max)	8,10	8,00	-	8,13	9,31	10,50	11,50	-

Size (mm)	40	50	65	80	100	150	200	250
A Threaded	184	238	279	318	-	-	-	-
AA 150 ANSI	216	238	279	305	381	508	645	756
AAA 300 ANSI	229	254	295	337	397	533	670	790
AAAA Grooved End	216	229	279	318	381	508	645	-
B	28	38	43	65	81	109	135	235
BB Grooved End	51	64	73	79	108	152	192	-
C Max	140	165	192	208	270	340	406	435
CC Max. Grooved End	104	127	175	165	224	282	368	-
D	71	84	112	116	146	200	254	300
DD Grooved End	71	84	112	116	146	200	254	-
E Threaded	83	121	140	159	-	-	-	-
EE 150 ANSI	102	121	140	152	191	254	324	378
EEE 300 ANSI	108	127	149	162	200	267	337	395
EEEE Grooved End	-	121	-	152	191	-	-	-
F Threaded	48	83	102	114	-	-	-	-
FF 150 ANSI	102	83	102	102	127	152	203	219
FFF 300 ANSI	108	89	109	111	135	165	216	236
FFFF Grooved End	-	83	-	114	127	-	-	-
G (Max)	191	197	197	203	229	241	267	292
GG (Max)	206	203	-	207	236	267	292	-