

"Apollo" Valves

SUBMITTAL SHEET

58A Series

Calibrated **Balancing Valve**
Multi-Turn, Variable Orifice Adjustment

APOLLOXPRESS®



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO Number:	
Representative:	
Wholesale Distributor:	



DESCRIPTION

Apollo Model 58A balance valves are precision engineered and manufactured valves which provide two position hydronic circuit isolation capability and multi-turn throttling adjustment as required for proportional balancing of hydronic systems. The valves unique needle valve adjustment, with integrated digital readout incorporated into the handle allows qualified technicians to have the valve function as a highly accurate variable orifice flow meter. Valve pressure drop can be read through the valves integrated 1/4" measurement ports, and flow calculated from the flow coefficient associated with the numerical setting.

FEATURES

- P/T plugs
- Compatible with All Flow Meters
- Easy Adjustment and Setpoint Indicator
- Isolated Flow Shut-off
- Reversible Lever

OPTIONS

- Solder Connection (58A-S Series)
- Press Connection (58A-PR Series)
- Push Connection (58A-P Series)

STANDARD MATERIALS LIST

Part Name	Material
Valve body	DZR brass CW602N
Ball & needle	DZR brass CW602N (chrome plated)
Valve handle	Glass Filled Polyamide
Sealing O-ring	EPDM
Gasket	PTFE
Test port seal	EPDM

PERFORMANCE RATING

- Max Pressure: 600 psi (41.3 bar)
- Max Temp: 250°F (121°C)

Not intended for potable water

SPECIFICATION

2.4.1 Ball Valves (& Butterfly Valves)

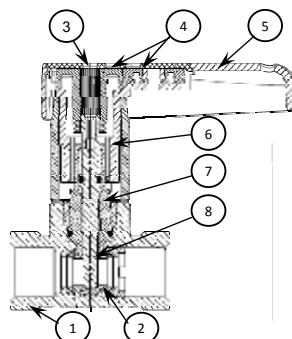
Ball valves shall conform to MSS SP-72 and shall be rated for service at not less than (1207 kilopascal at 93° C) 175 psig at 200°F. Valve bodies in sizes (DN50) 2 inches and smaller shall be screwed-end connection-type constructed of Class A dezincification resistant copper alloy. Balls and stems of valves (DN50) 2 inches and smaller shall be manufacturer's standard with hard chrome plating finish. Valves shall be suitable for flow from either direction and shall seal equally tight in either direction. Valves with ball seals held in place by spring washers are not acceptable. Seats and seals shall be EPDM or polytetrafluoroethylene.

2.4.1.1 Balance and Commissioning Valves

Valves in sizes (DN 50) 2 inches and smaller shall meet construction requirements of 2.4.1. Valves shall provide flow calibration coefficient (CV) to valve position or fixed flow measurement port and flow coefficient (CV) of venturi construction with calibrated pressure drop adjustment. Valve

throttling adjustment shall be no less than five rotations of 360°. Throttled valve setting shall be indicated using digital numeric dial indicator clearly showing numeric value for rotation setting, and partial rotation setting in tenths of adjustment rotation. Valve shall have two integrated instrumentation pressure measurement ports and internal hypodermic seals to allow measurement needle insertion and removal without leakage. Measurement ports shall be provided with captured threaded brass cap. Measurement ports shall be located (A) upstream and downstream of throttling adjustment in variable orifice commissioning valve or (B) At Vena Contracta and downstream of venturi in fixed orifice commissioning valve. Valve shall provide two position 90° control of full adjusted flow rate (open valve ball) or no flow (closed valve ball). Opening and closing of valve shall not influence the adjustment setting of the valve throttling device.

Item No.	Description
1	Machined Valve Body
2	Ball
3	Regulating Adjustment
4	Dial Indicators
5	Valve Handle
6	Valve Stem Cover
7	Ball Valve Stem
8	Regulating Stem



Apollo Valves, Manufactured by **Conbraco Industries, Inc.**
701 Matthews Mint-Hill Road, Matthews, NC 28105 USA
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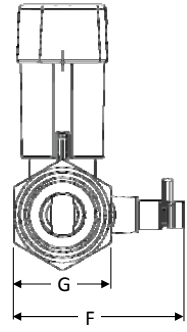
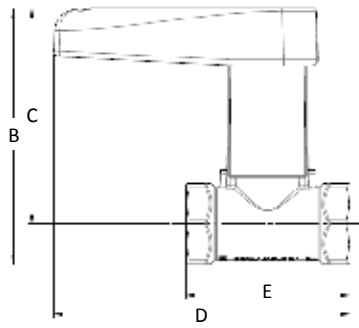
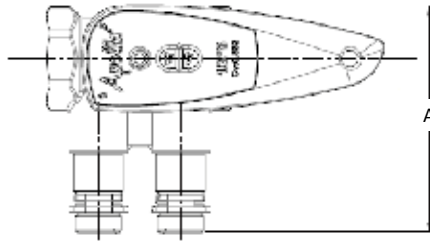
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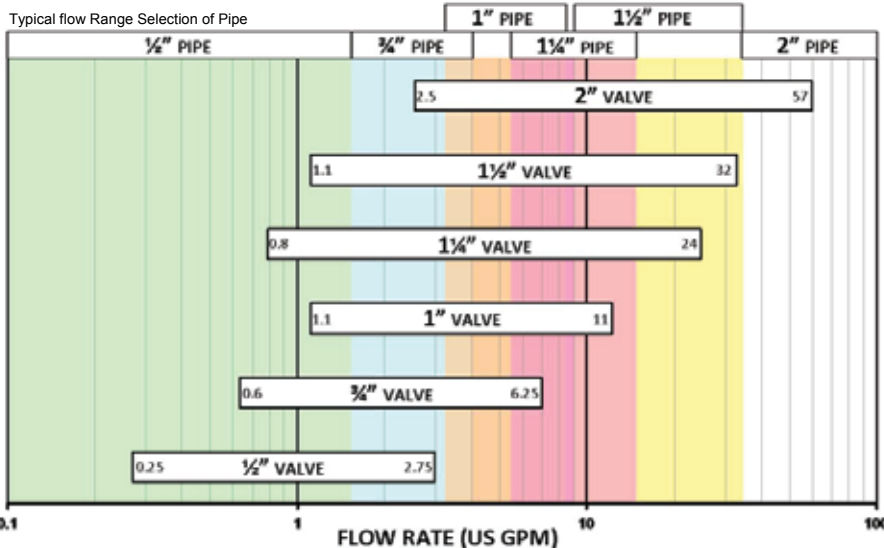


DIMENSIONS

Model Number	Size (in.)	Connection	Cv	A	B	C	D	E	F	G	Wt. (lbs.)
58A103T	1/2"	NPT	1.79	2.7	3.5	3	4.1	2.2	2.7	1.1	0.8
58A104T	3/4"	NPT	4.51	2.9	3.7	3	4.1	2.4	2.9	1.34	1.0
58A105T	1"	NPT	8.18	3.2	4	3.2	4.4	3.0	3.2	1.61	1.4
58A106T	1-1/4"	NPT	13.89	3.5	5.4	4.3	6.5	3.5	3.5	1.97	2.5
58A107T	1-1/2"	NPT	23.9	3.7	5.7	4.4	6.7	3.9	3.7	2.24	3.1
58A108T	2"	NPT	33.77	4.2	6.3	4.7	7	4.5	4.2	2.76	4.4
58A103S	1/2"	Solder	1.66	2.7	3.5	3	4.7	3.9	2.7	1.1	1.0
58A104S	3/4"	Solder	4.51	2.9	3.7	3	5.3	4.9	2.9	1.34	1.3
58A105S	1"	Solder	8.18	3.2	4	3.2	5.6	6.3	3.2	1.61	1.8
58A106S	1-1/4"	Solder	13.89	3.5	5.4	4.3	7.8	7.4	3.5	1.97	3.1
58A107S	1-1/2"	Solder	23.9	3.7	5.7	4.4	8.1	7.9	3.7	2.24	4.0
58A108S	2"	Solder	33.77	4.2	6.3	4.7	8.7	8.9	4.2	2.76	5.8
58A103PR	1/2"	Press	1.66	2.7	3.5	3	5	3.9	2.7	1.1	1.1
58A104PR	3/4"	Press	4.51	2.9	3.7	3	5.2	4.6	2.9	1.34	1.4
58A105PR	1"	Press	8.18	3.2	4	3.2	4.5	5.7	3.2	1.61	1.8
58A106PR	1-1/4"	Press	13.89	3.5	5.4	4.3	7.8	6.4	3.5	1.97	3.3
58A107PR	1-1/2"	Press	23.9	3.7	5.7	4.4	8.3	7.0	3.7	2.24	4.3
58A108PR	2"	Press	33.77	4.2	6.3	4.7	8.8	7.9	4.2	2.76	6.0

For liquids the flow coefficient - Cv - expresses the flow capacity in gallons per minute (GPM) of 60° F water with a pressure drop of 1 psi (lb/in²)

QUICK SELECTION CHART



Notes On Valve Selection;

Balancing valves are flow control valves and should be sized per the application. It is generally better to specify the valve for the desired flow rate when fully open, applying a 1PSI to 2 PSI pressure drop, which will allow for adequate differential pressure for field flow measurement. This may make the valve smaller than the applied pipe size.

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