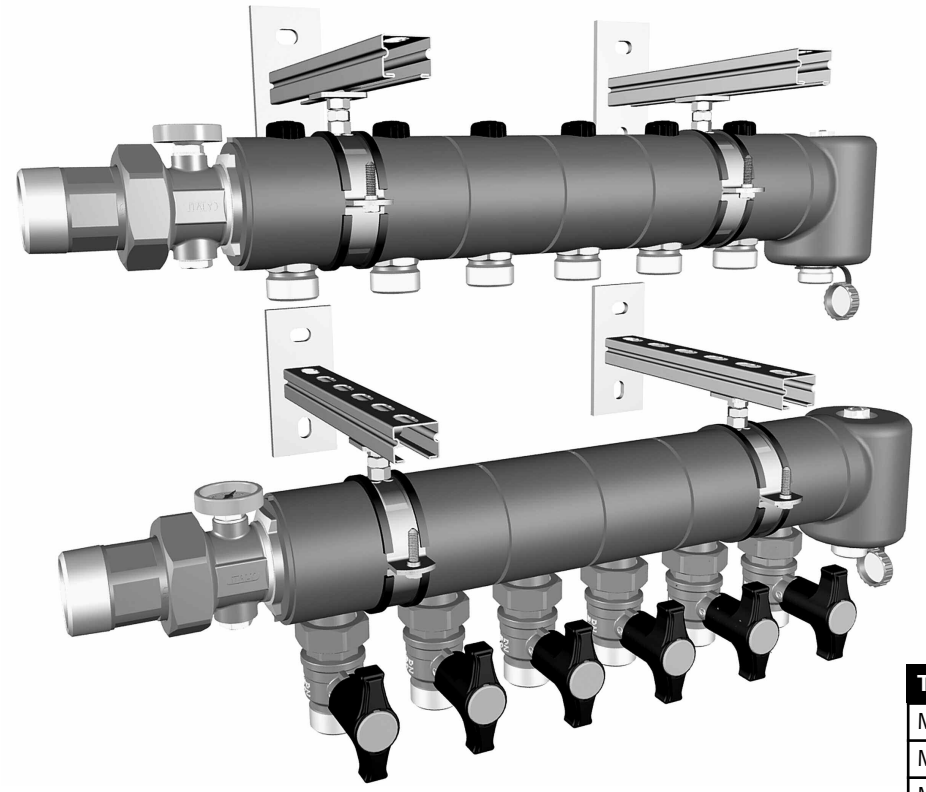


RADIANT HEATING SYSTEMS

TruFLOW™ SR. MANIFOLD

INSTRUCTION SHEET

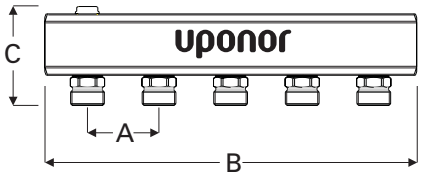
TruFLOW Sr. Manifold Specifications	
Maximum Working Pressure	145 psi
Maximum Fluid Temperature	220°F
Manifold Flow Capacity	41 gpm
Manifold Connection	1½" NPT and Cu
Loop Flow Capacity	C_V = 7.4 gpm
Loop Connection	R25

TruFLOW™ Sr. Manifold System

The TruFLOW™ Sr. Manifold is a larger-capacity manifold that follows the concept of the TruFLOW Classic Manifold but is designed to meet the higher flow demands of commercial and snow-melting applications.

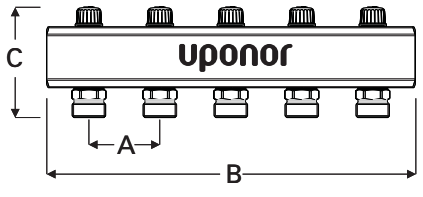
TruFLOW Sr. Valveless Manifold (Dimensions in inches)

Part No.	Part Description	A	B	C
A2650200	TruFLOW Sr. Valveless Manifold, 2-loop	2.755	6.062	3.791
A2650300	TruFLOW Sr. Valveless Manifold, 3-loop	2.755	8.818	3.791
A2650400	TruFLOW Sr. Valveless Manifold, 4-loop	2.755	11.574	3.791
A2650500	TruFLOW Sr. Valveless Manifold, 5-loop	2.755	14.330	3.791
A2650600	TruFLOW Sr. Valveless Manifold, 6-loop	2.755	17.086	3.791



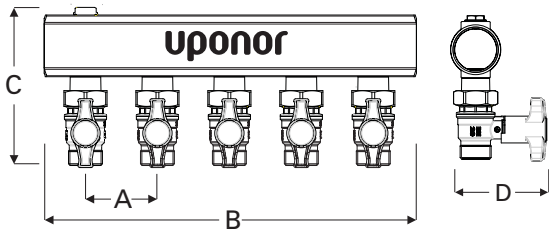
TruFLOW Sr. with Balancing Valves Manifold (Dimensions in inches)

Part No.	Part Description	A	B	C
A2650201	TruFLOW Sr. Manifold with Balancing Valves, 2-loop	2.755	6.062	4.28
A2650301	TruFLOW Sr. Manifold with Balancing Valves, 3-loop	2.755	8.818	4.28
A2650401	TruFLOW Sr. Manifold with Balancing Valves, 4-loop	2.755	11.574	4.28
A2650501	TruFLOW Sr. Manifold with Balancing Valves, 5-loop	2.755	14.330	4.28
A2650601	TruFLOW Sr. Manifold with Balancing Valves, 6-loop	2.755	17.086	4.28

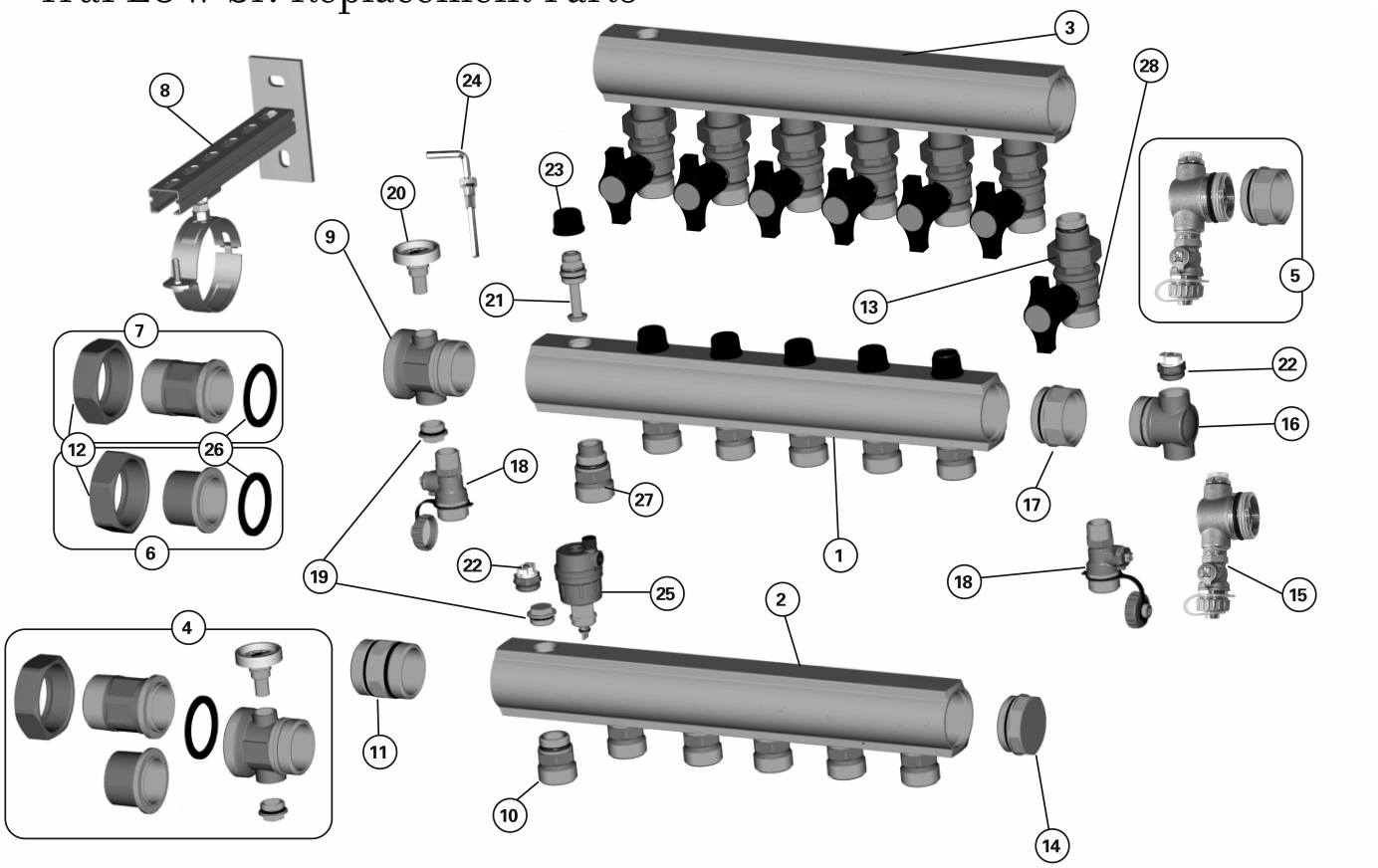


TruFLOW Sr. with Isolation Valves Manifold (Dimensions in inches)

Part No.	Part Description	A	B	C	D
A2650202	TruFLOW Sr. Manifold with Isolation Valves, 2-loop	2.755	6.062	6.012	4.04
A2650302	TruFLOW Sr. Manifold with Isolation Valves, 3-loop	2.755	8.818	6.012	4.04
A2650402	TruFLOW Sr. Manifold with Isolation Valves, 4-loop	2.755	11.574	6.012	4.04
A2650502	TruFLOW Sr. Manifold with Isolation Valves, 5-loop	2.755	14.330	6.012	4.04
A2650602	TruFLOW Sr. Manifold with Isolation Valves, 6-loop	2.755	17.086	6.012	4.04



TruFLOW Sr. Replacement Parts

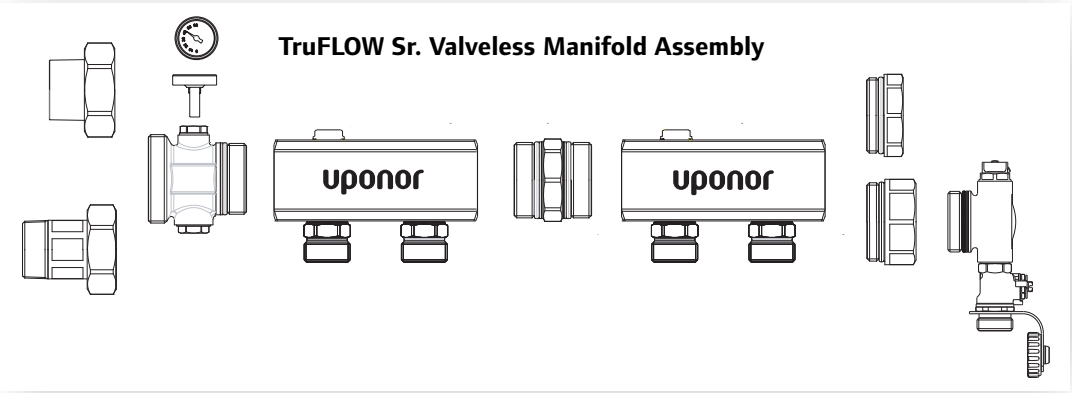


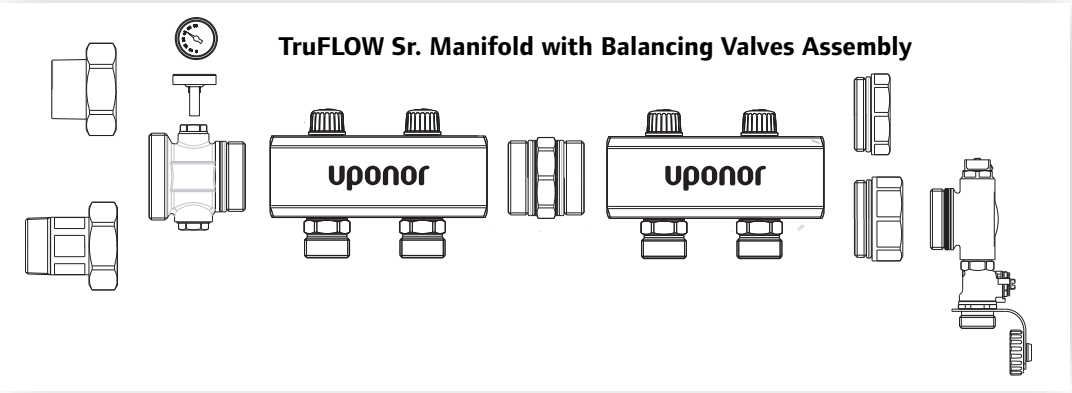
No.	Part No.	Part Description
1	A2650201	TruFLOW Sr. Manifold with Balancing Valves, 2-loop
1	A2650301	TruFLOW Sr. Manifold with Balancing Valves, 3-loop
1	A2650401	TruFLOW Sr. Manifold with Balancing Valves, 4-loop
1	A2650501	TruFLOW Sr. Manifold with Balancing Valves, 5-loop
1	A2650601	TruFLOW Sr. Manifold with Balancing Valves, 6-loop
2	A2650200	TruFLOW Sr. Valveless Manifold, 2-loop
2	A2650300	TruFLOW Sr. Valveless Manifold, 3-loop
2	A2650400	TruFLOW Sr. Valveless Manifold, 4-loop
2	A2650500	TruFLOW Sr. Valveless Manifold, 5-loop
2	A2650600	TruFLOW Sr. Valveless Manifold, 6-loop
3	A2650202	TruFLOW Sr. Manifold with Isolation Valves, 2-loop
3	A2650302	TruFLOW Sr. Manifold with Isolation Valves, 3-loop
3	A2650402	TruFLOW Sr. Manifold with Isolation Valves, 4-loop
3	A2650502	TruFLOW Sr. Manifold with Isolation Valves, 5-loop
3	A2650602	TruFLOW Sr. Manifold with Isolation Valves, 6-loop
4	A2651500	TruFLOW Sr. Manifold Connection with Union, 1½" BSP x 1½" NPT or 1½" Cu, set of 2
5	A2651250	TruFLOW Sr. Manifold End Cap with Vent, 1½" BSP
6	A2651502	TruFLOW Sr. Manifold Connection Male Union, 2" BSP x 1½" Cu Sweat
7	A2651503	TruFLOW Sr. Manifold Connection Male Union, 2" BSP x 1½" NPT
8	A2650006	TruFLOW Sr. Manifold Bracket, set of 4
9	A2651501	TruFLOW Sr. Manifold Connection Union Body, 1½" BSP x 2" BSP, replacement part
10	A2650018	TruFLOW Sr. Loop Nipple for valveless manifold, R25, replacement part
11	A2651515	TruFLOW Sr. Manifold Coupling Nipple, 1½" BSP x 1½" BSP

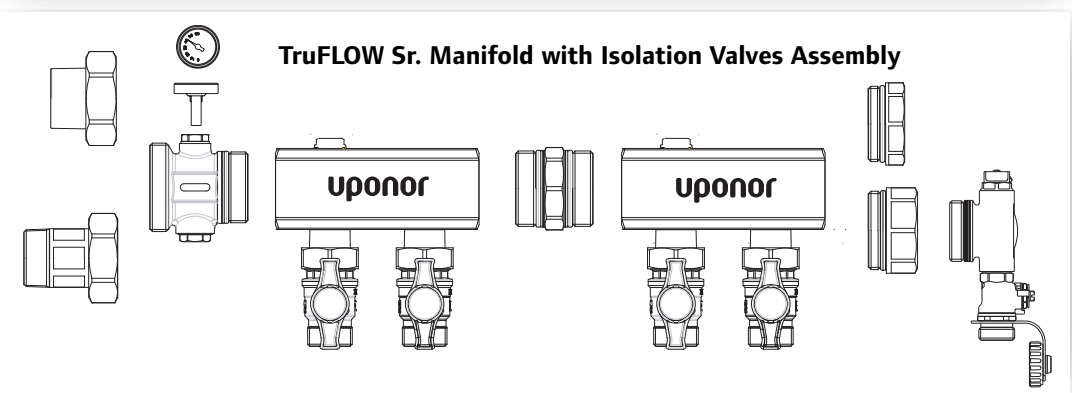
Replacement O-rings

Part No.	For Items
A2650003:	10, 13 and 27
A2650004:	9, 11, 14 and 17
A2650005:	19, 21, 22 and 25
A2620008:	15 and 16

No.	Part No.	Part Description
12	A2651504	Replacement Nut for 1½" TruFLOW Sr. Union
13	A2650017	TruFLOW Sr. Manifold Isolation Loop Ball Valve union, replacement part
14	A2651251	TruFLOW Sr. Manifold Basic End Cap, 1½" BSP
15	A2621250	TruFLOW End Cap with Vent and Drain, 1¼" BSP
16	A2620011	TruFLOW End Cap vent body, replacement part
17	A2651513	TruFLOW Sr. Manifold Reduction Bushing, 1½" BSP x 1¼" BSP
18	A2620012	TruFLOW End Cap with Vent Valve, ½" bsp x ¾" Garden Hose, replacement part
19	A2650019	TruFLOW Sr. ½" cap, replacement part
20	A2610120	Thermometer with Well, replacement part
21	A2650010	TruFLOW Sr. Balancing Valve body, replacement part
22	A2620010	TruFLOW End Cap Coin Vent, replacement part
23	A2620014	TruFLOW Balancing Valve Plastic Cap, replacement part
24	A2620002	TruFLOW Manifold Balancing Hex Key
25	A2620050	TruFLOW Automatic Air Vent with check valve
26	A2650001	Replacement Gasket for 1½" TruFLOW Sr. Union
27	A2650011	TruFLOW Sr. Internal Valve Seat Loop Nipple, R25, replacement part
28	A2650002	TruFLOW Sr. Manifold Isolation Loop Ball Valves, R25, replacement part







Applying Silicone Oil

Refer to **Figure 1** and follow the instructions to apply the silicone oil (part number A2620007) to the manifold assembly.

1. Apply an ample amount of silicone oil, provided in the manifold box, onto the thread over the factory-applied Teflon thread sealer.

2a. Spin the component into the manifold body until the o-ring disappears. You now have one full turn remaining to orient the component in the preferred position.

2b. Spin the component into the manifold body until the o-ring disappears and the flange is in contact with the manifold body.

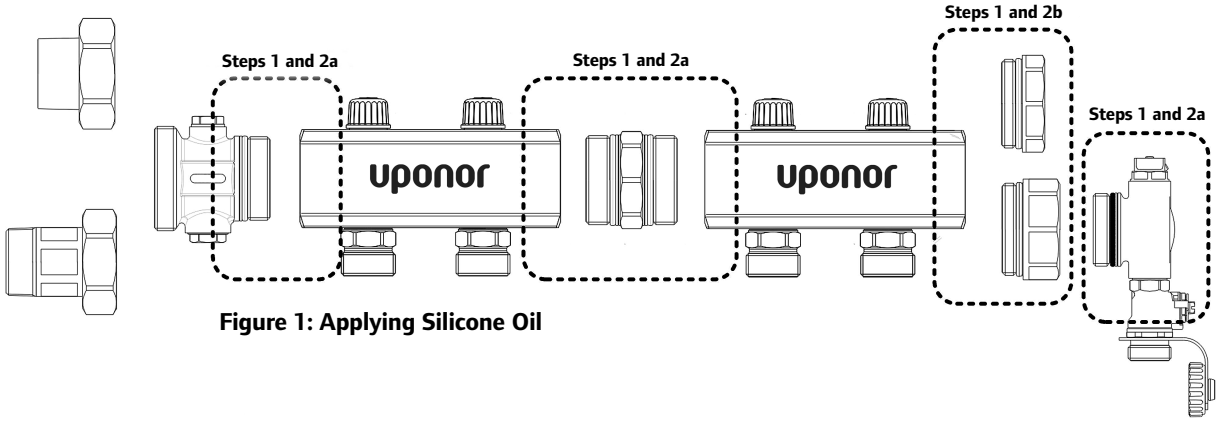


Figure 1: Applying Silicone Oil

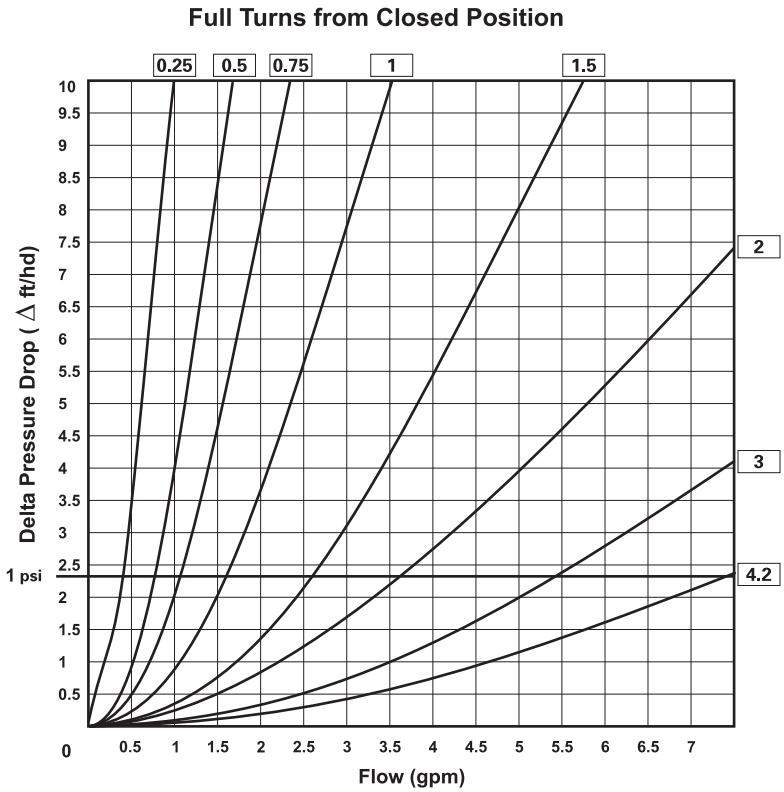
How to Determine Balancing Turns

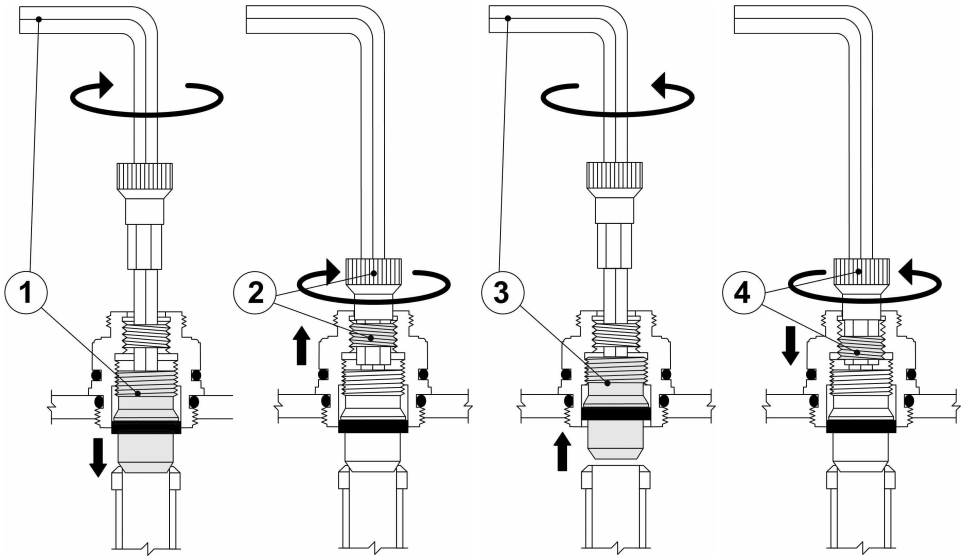
To balance the manifold correctly, determine the gallon per minute (gpm) flow and pressure drop (ft/hd) for each loop on the manifold. To find the required turns, follow the directions below.

1. On the manifold to be balanced, find the loop with the highest pressure drop (ft/hd). This loop does not need any balancing, and will be fully open (4.25 turns from closed position).
2. To balance all other loops on the manifold, find the pressure drop (ft/hd) for each loop and subtract from the loop with the highest pressure drop (same as the loop figured in step 1). The difference is the delta ft/hd. Use this number on the balancing chart to find the required number of balancing turns.

   Example: If the highest pressure-drop loop has 7 ft/hd and the loop that needs to be balanced has 5 ft/hd, subtract 5 from 7 for a difference of 2 delta ft/hd.
3. Locate the delta ft/hd number on the vertical scale located on the left side of the balancing chart.
4. Locate the gallons per minute (gpm) on the horizontal scale at the bottom of the balancing chart.
5. Locate where the delta ft/hd and gpm intersect on the chart.
6. The closest diagonal line to this intersection represents the number of full valve turns from closed to open to accurately balance the loop. If the intersection falls between two diagonal lines, estimate the distance between the lines and adjust the turns accordingly.

Balancing Chart





Valve Setting

To balance and preset the manifold assembly, proceed as follows.

1. Using the chrome allen key (6mm), turn main valve clockwise until it stops.
2. Using the small brass key, turn memory stop clockwise until it stops.
3. Using the chrome allen key, turn the main valve counter-clockwise to set the loop flow or balancing turns for that loop.
4. Using the small brass key, turn memory stop counter-clockwise until it stops.

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