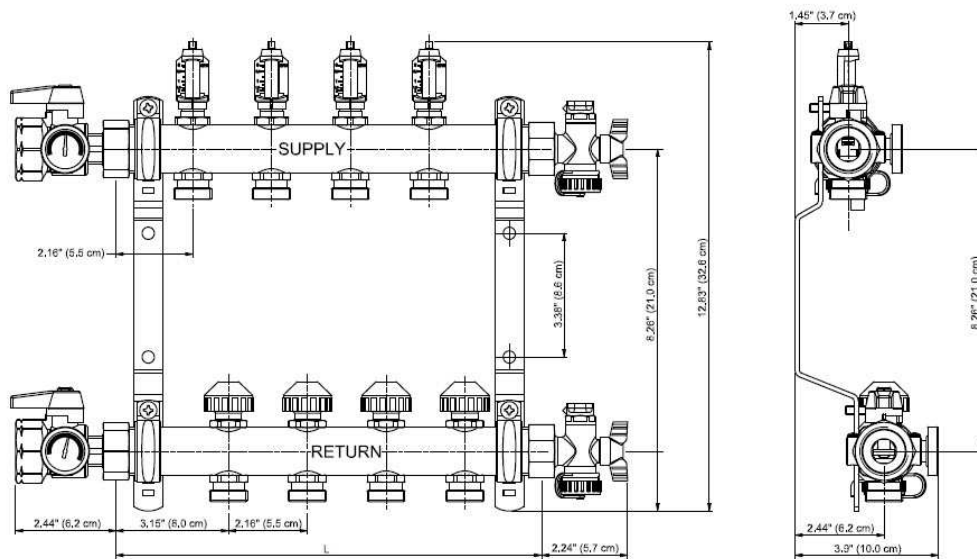


PRODUCT SUBMITTAL 289

Product: **PRO-BALANCE[®] 1 in. Stainless Steel Manifolds With Complete Circuit Isolation Capabilities**

Date: **31 December 2015**



| Article No. | No. of Outlets | L Length in (cm) | Total Depth in (cm) | Total Height in (cm) |
|-------------|----------------|------------------|---|----------------------|
| 381101-001 | 1 | 5.3 (13.5) | 3.90* (10.0) *with mini thermometers installed | 12.83 (32.6) |
| 381102-001 | 2 | 7.48 (19.0) | | |
| 381103-001 | 3 | 9.65 (24.5) | | |
| 381104-001 | 4 | 11.81 (30.0) | | |
| 381105-001 | 5 | 13.98 (35.5) | | |
| 381106-001 | 6 | 16.14 (41.0) | | |
| 381107-001 | 7 | 18.31 (46.5) | | |
| 381108-001 | 8 | 20.47 (52.0) | | |
| 381109-001 | 9 | 22.64 (57.5) | | |
| 381110-001 | 10 | 24.80 (63.0) | | |
| 381111-001 | 11 | 26.97 (68.5) | | |
| 381112-001 | 12 | 29.13 (74.0) | | |

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TECHNICAL DESCRIPTION

| Material | |
|---|---|
| Headers | Stainless steel DIN 1.430 (eq. ANSI 304) |
| Gaskets | Gaskets AFM 34 synthetic fiber-based material |
| Isolation valves | Nickel-plated and chrome-plated brass, PTFE, EPDM |
| Flow gauges | Nickel-plated brass, EPDM, polyamide, polyoxymethylene |
| Air vent drain valves | Nickel-plated and chrome-plated brass, PTFE, EPDM |
| Circuit balancing valves | Nickel-plated brass, brass, polyamide, EPDM |
| Circuit inlets, outlets | Nickel-plated brass, EPDM |
| Connections | |
| Header ends | 1 in. BSP parallel (straight) threads |
| Outlets | R-20 BSP parallel (straight) outside threads |
| Isolation valve | 1 in. NPT female threads |
| Temperature / Pressure Capabilities | |
| Maximum operating temperature for 100% water | 180°F (82.2°C) @ 87 psi (6 bar), see Fig. 2. |
| Minimum operating temperature | 14°F (-10°C), see Fig. 2 |
| Maximum water test pressure (24 hrs. < 86°F [30°C] @ max. ambient temperature 104°F [40°C]) | 150 psi (10.3 bar) |
| Maximum allowable differential pressure | 44 psi (3 bar) |
| Flow Rates | |
| Maximum flow rate | 2.0 USGPM per circuit; 20 USGPM total (0.13 l/s per circuit; 1.27 l/s total) |

FUNCTIONAL DESCRIPTION

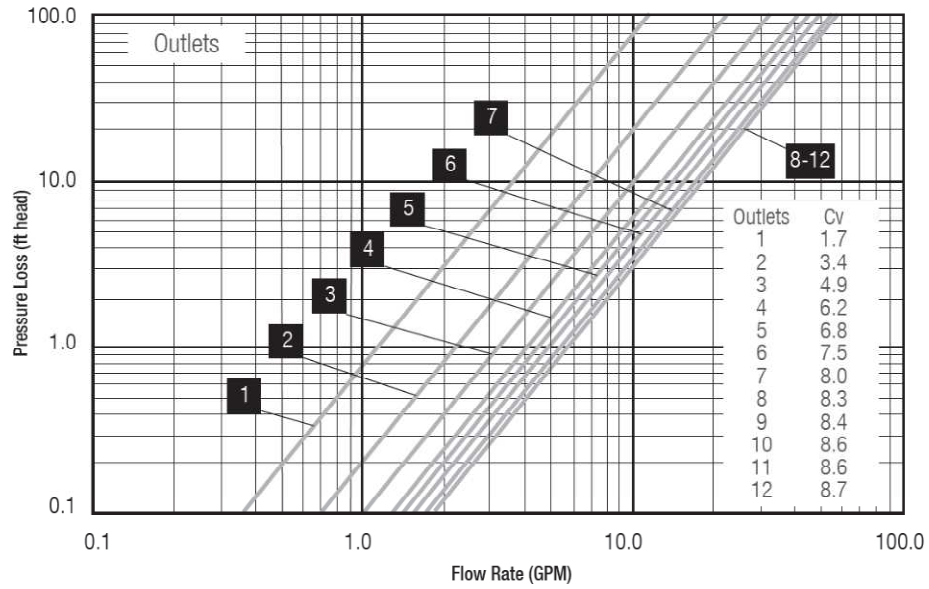
Pre-assembled and factory pressure-tested. For use with 10.1 mm and 3/8, 1/2, 5/8 and 3/4 in. RAUPEX® pipes using REHAU manifold connections (sold separately). Compatible with manifold valve actuator (Art. 260166). May be mounted in any orientation (e.g., inverted, horizontal, etc.).

Each manifold comes complete with:

- Visual flow gauges (GPM) for each circuit on supply side; flow gauges have internal polymer “cages” to prevent build-up of debris, can be used for individual circuit isolation and have an accuracy of +/- 10%
- Circuit balancing/isolation valves on return side
- Two 1 in. NPT supply and return manifold isolation valves with thermometer housings; two mini thermometers included
- Two air vent/boiler drain valves with manual air vent and 3/4 in. GHT hose connection
- Manifold circuit chart
- Vent key and key holder
- Product instructions

PRESSURE LOSS

This is the total pressure (head) loss through the manifold's header pipes, the 1 in. isolation valves, the circuit balancing valves (when fully open) and the flow gauges. To use the diagram, choose the flow rate that is the total flow rate for the entire PRO-BALANCE 1 in. manifold – the total of all circuits (e.g., 3 GPM). Plot a vertical line upward to intersect with the line for the size of the manifold (e.g., 3 outlets). From that point, move to left to find pressure loss in feet of head (e.g., 3 GPM, 3 outlets = 0.9 ft. head).



PRESSURE AND TEMPERATURE RATINGS FOR WATER AND ANTIFREEZE

Operating temperature and pressure must stay below corresponding line for the appropriate fluid type.

