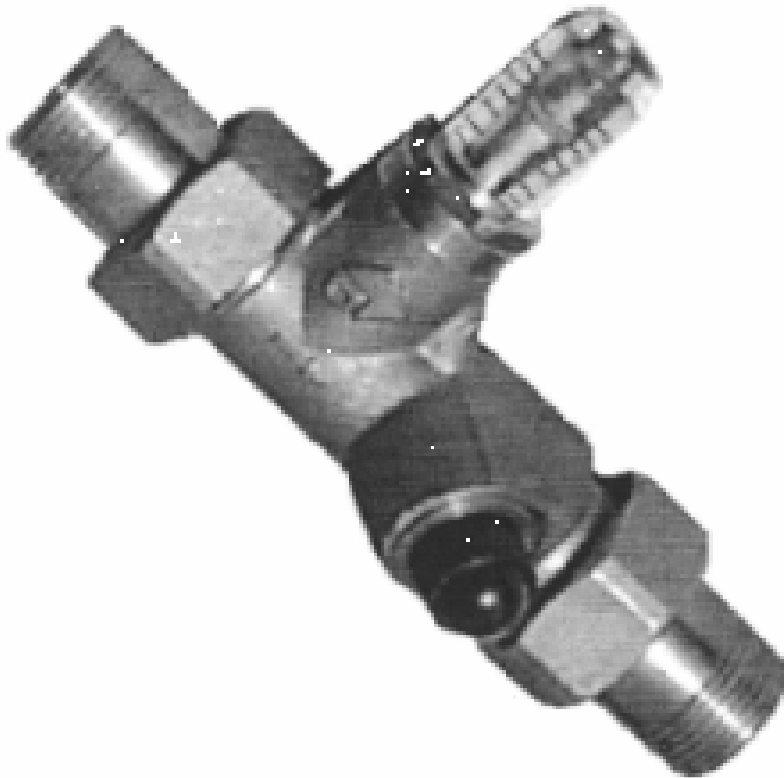


**BALANCING VALVE
ENGINEERING MANUAL
FLOWGUARD 2900 SERIES**



FLOW MEASUREMENT & CONTROL SOLUTIONS

PRODUCT OVERVIEW

Istec's FlowGuard is a combination balancing valve and flow rate indicator. It can be used to balance and verify the flow rate in heating, cooling, solar, radiant or water source heat pump systems.

The FlowGuard is very simple and accurate. The multi-turn balancing valve adjusts the flow to the desired rate while the indicator constantly shows the momentary value. This allows for fast and easy verification, without the need for additional equipment. In addition, the FlowGuard provides a positive shutoff

COMPONENT DESCRIPTION

BODY

Pipe Size 3/4" (20mm) to 1-1/4" (32mm) Brass

CONNECTIONS

Pipe Size 3/4" (15mm) to 1" (25mm) NPT or Sweat

Pipe Size 1 1/4" (32mm) NPT

FLOW INDICATOR

Housing High Impact/Temperature Resistant Plastic

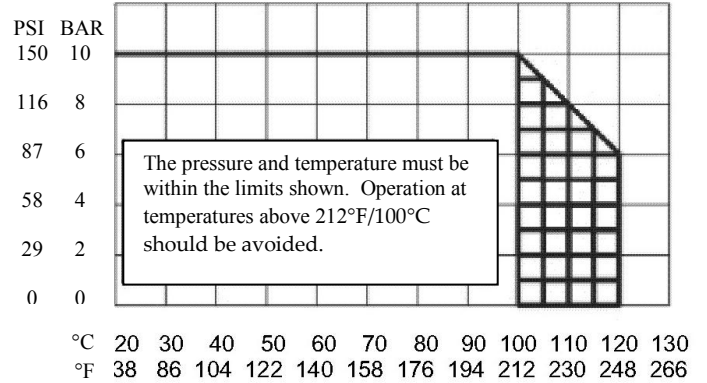
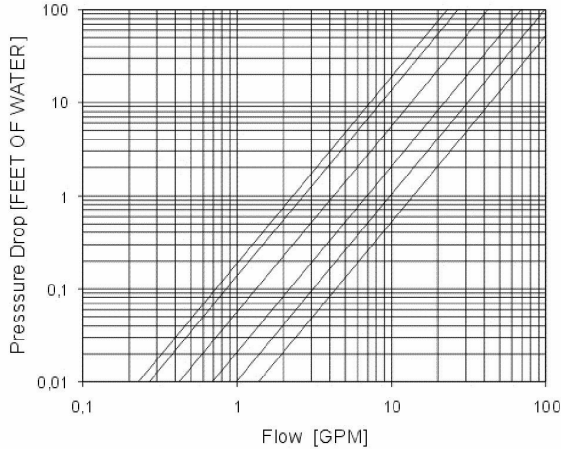
Spring Stainless Steel

O-Ring EPDM

ENVIRONMENTAL

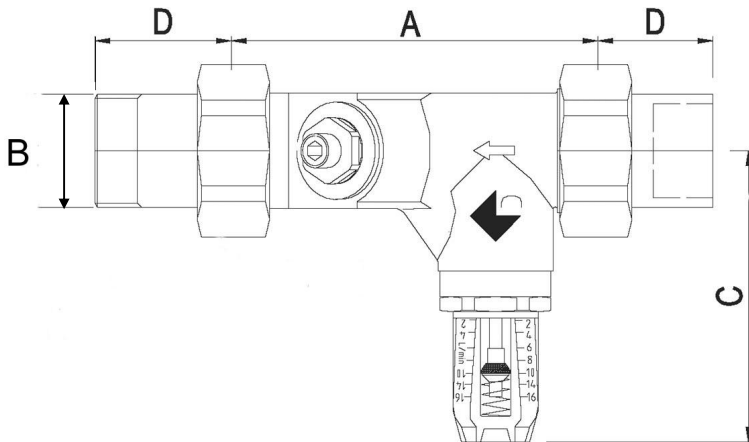
Maximum Operating Temperature	See Temperature/Pressure Chart Below
Minimum Operating Temperature	-4°F (-20°C) using appropriate antifreeze
Maximum Operating Pressure	See Temperature/Pressure Chart Below
Accuracy	+/- 10% of Actual Reading

TECHNICAL SPECIFICATIONS



Product Number	Line Size	Flow Indicator Range (GPM)		Cv	Weight (lbs)
		Min	Max		
2907	3/4"	0.5	4	3.5	1.01
2908	3/4"	1	9	4.1	1.01
2911	1"	1	13	6.4	2.07
2912	1-1/4"	2	21	10.5	2.82

DIMENSIONS



P/N	2907	2908	2911	2912
A	3-3/8"	3-3/8"	4-3/4"	5-5/16"
	86mm	86mm	120mm	135mm
B	3/4"	3/4"	1"	1-1/4"
	20mm	20mm	25mm	32mm
C	2-3/4"	2-3/4"	2-7/8"	3"
	69mm	69mm	73mm	76mm
D (NPT)	2-1/2"	2-1/2"	2-5/8"	2-7/8"
	64mm	64mm	67mm	73mm

BALANCING VALVE SPECIFICATION: 2900 SERIES

**AS MANUFACTURED BY ISTECH CORPORATION
92 MAIN STREET, SPARTA, NJ 07871**

The contractor shall furnish and install as shown on the plans a hydronic Balancing Valve with integral Flowmeter. The Valve shall be factory assembled, calibrated and tested, incorporating the following features:

BODY

The valve body shall be constructed of brass, rated for temperatures up to 212°F (100°C) and pressures up to 150PSI (10BAR). It shall contain a multi-turn insert for accurate flow setting and positive shut-off. It shall be capable of being mounted on horizontal as well as vertical pipelines. It shall require a straight pipe run on the inlet no longer than the valve body length.

CONNECTIONS

The valve shall be furnished with union connections. Valve sizes ¾” (20mm) through 1” (25mm) shall be available with NPT or sweat tailpieces. The 1-¼” (32mm) valve shall be available with NPT tailpieces.

FLOWMETER

The Balancing Valve shall incorporate an integral Flowmeter to constantly measure the actual flow rate. The Flowmeter shall be mounted at right angles to the valve body so it can be read even if the valve is insulated. The Flowmeter shall be designed so the system medium does not flow through it, protecting it from debris and allowing continued readings. It shall be capable of being rotated for easy reading in any position.

The Flowmeter shall be adjusted with a hex-type (Allen) wrench. The 1” (25mm) and 1-¼” (32mm) models shall incorporate a “memory stop” setting to facilitate repositioning after shutoff. The Flowmeter shall be field replaceable and available in gallon per minute (GPM) and liter per minute (L/min) calibration.