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NA38229

FlowCal™ Y-Strainer

120 Series

Function

The FlowCal™ Strainer version combines a Y-strainer with an integral ball valve. Inspection, cleaning, and replacing the strainer cartridge can be done easily without removing the body from the pipeline. The ball valve control stem is blow-out proof and has as standard a zinc-plated steel handle with vinyl grip. PT test ports are available, separately purchased or pre-assembled to check for the degree of clogging in the strainer.
Drain valves are also available as an accessory for installing in the blowdown port connection.

Product range

120 Series Y-strainer with ball valve, with and without Pressure and Temperature Test ports; sizes 1/2" - 3/4" - 1" - 1 1/4"

Technical characteristics

Material:	Body:	brass
	Strainer cartridge:	stainless steel
	Seals:	EPDM
	Ball:	brass, chrome-plated
	Ball seat and stem seal:	PTFE + EPDM
	Lever:	zinc coated steel with vinyl grip
	Pressure and temperature test port plugs:	brass
	Pressure and temperature test ports:	body and cap- brass; core- nordel
	Drain port plug:	brass
Performance:	Medium:	water, glycol solutions
	Max. percentage of glycol:	50%
	Max. working pressure:	400 psig (400 WOG)
	Working temperature range:	14–212°F (-20–100°C)
	Strainer mesh diameter:	0.87 mm(20 mesh)
Connections:		1/2", 3/4", 1", 1-1/4" FNPT or Sweat with union x FNPT or Sweat
Pressure and temperature test ports connections:		1/4" FNPT
Blowdown port connection:		1/2" - 3/4": 1/4" FNPT 1" - 1 1/4": 1/2" FNPT
Flow rate (Cv):		1/2": 8.0; 3/4": 8.4; 1": 19.3; 1-1/4": 20.0
Identification:		metal plate with ball chain stating strainer mesh size

SAFETY INSTRUCTION

This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.**

CAUTION: All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of systems in accordance with all applicable codes and ordinances.

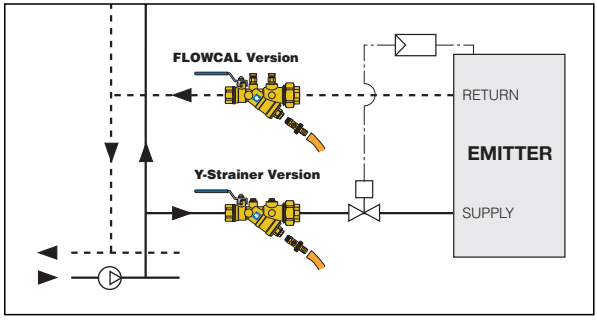
CAUTION: Over-tightening and breakage can occur with the use of Teflon® pipe joint compounds. Teflon® provides lubricity so that care must be exercised not to over-tighten joints. Failure to follow these instructions could result in property damage and /or personal injury.

WARNING: System fluids are under pressure or temperature can be hazardous. Be sure the pressure has been reduced to zero and the system temperature is below 100°F (38°C). Failure to follow these instructions could result in property damage and/or personal injury.

WARNING: Clean the pipes of any debris, rust, incrustations, welding slag and any other contaminants. For optimal operation, air in the system must be removed.

Installation

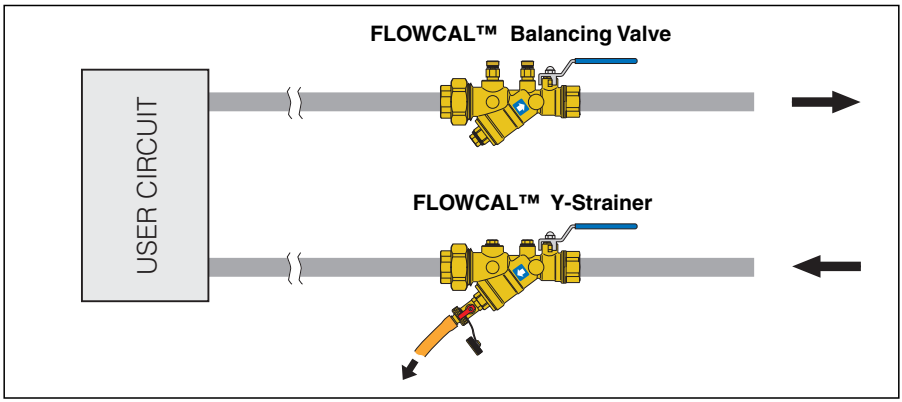
Install the FlowCal Y-strainer on the circuit supply pipe of the emitter coil to prevent clogging, with flow direction arrows indicating proper flow direction. It is important to allow easy access to the FlowCal for inspection and maintenance.
The identification tag with the technical data must accompany the y-strainer after installation. It is equipped with a special metal retaining ball chain especially useful when the valve is enclosed with insulation.
Install a balancing valve (series 121 on circuit return pipe of the emitter coil. Strainers should be inspected and cleaned after start-up and twice per year thereafter.
FlowCal balancing valves and Y-Strainers may be installed in the pipe horizontally, vertically or at any angle. For Sweat fittings: Union sweat tailpieces should be removed from the valve body for sweating to the pipeline. Remove the flow cartridge of the balancing valve (and adapter for larger sizes) and pressure port plugs while sweating the fixed end into the pipeline. In addition, wrap a wet cloth around the ball valve portion of the series 121 flow balancing valve (and the 120 Y-strainer) when sweating in the integral sweat body connection.



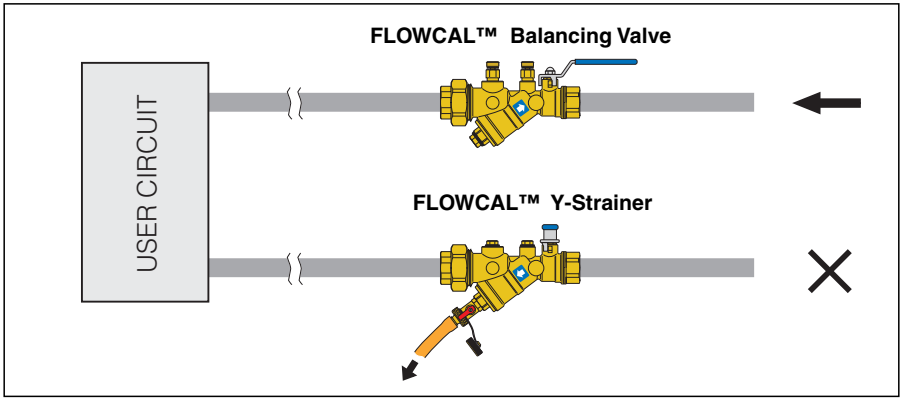
Strainer servicing notes

The strainer cartridge can be cleaned without removing it from the Y-strainer body:

Opening the drain valve (cod. 538202 FD - 1/4" NPT; 538402 FD-1/2" NPT optional) and allowing the dirt to blow into a drain line.

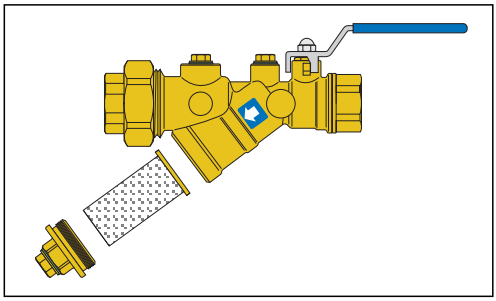


Backflushing it (having the water flow backwards through the screen). This is done by closing the supply isolation valve before opening the blowdown valve.

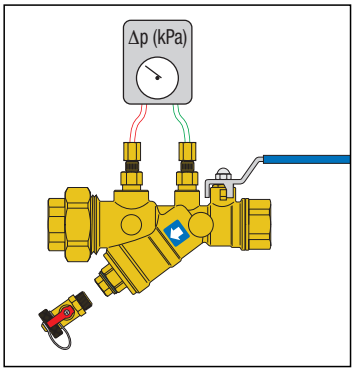


Inspecting the strainer

The strainer is assembled in such a way to permit an easy removal from the body for inspection or replacement.



Pressure and temperature testing
The FLOWCAL Y-strainer is fitted with connections for the pressure and temperature test ports to read the pressure difference between inlet and outlet sides.This is useful when checking for strainer clogging.
In addition, drain valve (538202 FD - 1/4"NPT; 538402 FD-1/2" NPT) can be connected for blowdown operations.



NA1023 PT test ports

Fast-plug pressure/temperature test ports for FlowCal Y-strainers.
Their special construction enables rapid and accurate measurements without the need to leave expensive test equipment inline. The double-sealing core insures long and trouble-free service.

Can be used for:
- Y-strainer;
- checking for strainer clogging;

Brass body.
Nordel Core.
Working temperature range:
0–275°F (-18–135°C)
Max. working pressure:
1000 psi (69 bar).

Code	Size
NA10233	1/4" NPT PT Test Port and Cap, standard size
NA10235	1/4" NPT PT Test Port and Cap, 2 1/4" length

538

Drain valve
with 3/4" garden hose connection.

Code	Size
538202 FD	1/4"
538402 FD	1/2"

CAUTION: If the FlowCal Y-strainer is not installed, commissioned and maintained properly, according to the instructions contained in this manual, it may not operate correctly and may endanger the user.

CAUTION: Make sure that all the connecting pipework is water tight.

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