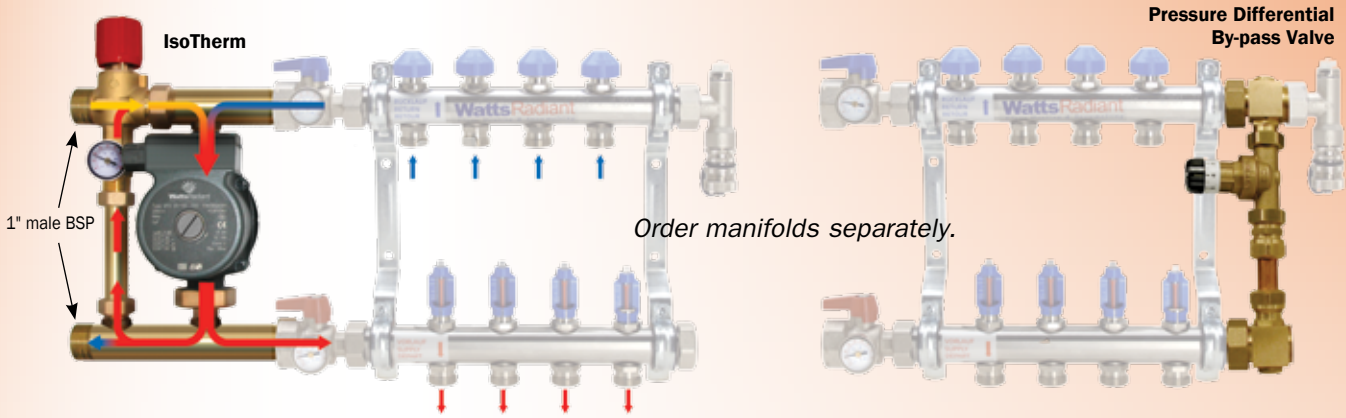


# Hydronic Accessories



**IsoTherm** — a pre-piped, pre-wired pump and mix valve for 1" Stainless Steel Manifolds.

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
IsoTherm	1	D3803995	81005361	15

Order isolation ball valves to help in purging air at start-up.

Order transitional fittings separately for transition to supply and return piping.

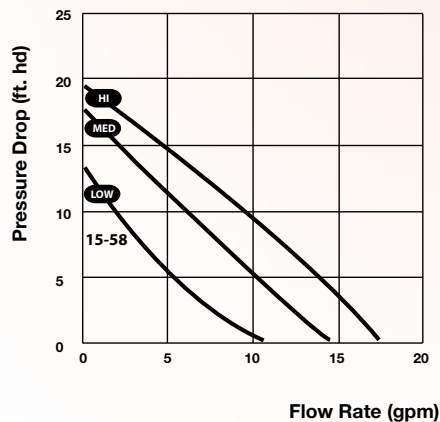
The **IsoTherm** is a compact, efficient pre-piped and pre-wired pump and mixing valve control designed to connect to Watts Radiant's 1" Stainless Steel Manifolds.

When combined with Watts Radiant's electrothermal actuators and actuator valve controls (not included), a complete trouble-free system is created, serving from 1 to 12 zones and delivering up to 50,000 BTU/h (maximum of 68,000 BTU/h with a minimum boiler temperature of 160°F).

The mixing valve has a standard temperature range of 113° to 140°F (45° to 60°C). The unit is factory set at 131°F (55°C). The valve is easily adjustable and locks in position with a "click-stop" device, preventing temperature drift.

A three-speed 1/25-HP pump comes pre-installed and pre-wired, taking the guesswork out of field installations. The Watts Radiant 1558 circulator will flow approximately 10 gpm at 10 ft. hd. This unit is ready — right out of the box!

Watts Radiant Circulator



**Pressure Differential By-pass Valve** — for 1" Stainless Steel Manifolds.

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Pressure Differential By-pass Valve	1	D4402050	81005345	5

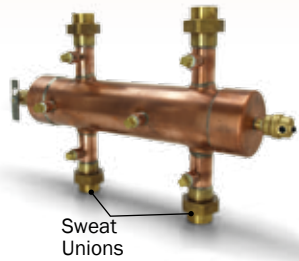
Order manifold End Cap and/or Vent-and-Purge Assembly separately.

The **Pressure Differential By-pass Valve** for 1" Stainless Steel manifolds eliminates possible water velocity noise and water hammer. With this valve, pumps cannot exceed the actuator close-off pressure. Pump life increases because of minimal pressure surging as actuators open and close. Correct and constant flow is always ensured regardless of the number of actuators open.

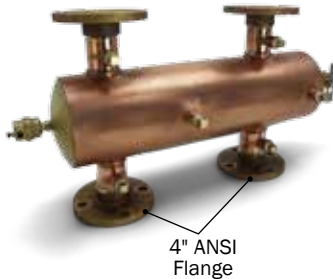
This Pressure Differential By-pass Valve installs directly on the 1" Stainless Steel manifolds. This valve adjusts from 0.7 psi (1.6 feet water) to 10.3 psi (23.8 feet water) using a graduated knob. Water by-pass capacity is 1.2 gpm to 9 gpm. The knob is set and locked with a set screw to prevent tampering.

# Hydronic Accessories

**NEW** Hydraulic Separators



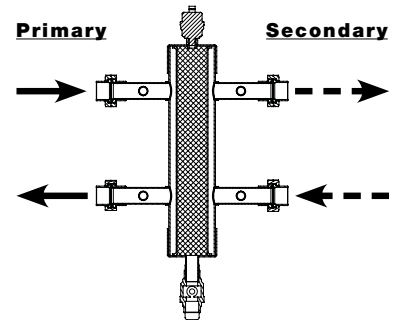
DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
1" Hydraulic Separator, Sweat Union	1	HSEP100-U	81010007	15
1-1/4" Hydraulic Separator, Sweat Union	1	HSEP125-U	81010008	20
1-1/2" Hydraulic Separator, Sweat Union	1	HSEP150-U	81010009	25
2" Hydraulic Separator, 4" ANSI Flange	1	HSEP200-F	81010010	50
2-1/2" Hydraulic Separator, 4" ANSI Flange	1	HSEP250-F	81010011	65



Watts Radiant's **Hydraulic Separator** is designed to decouple the primary loop flow from the secondary, impede particle and sediment movement through a system, and to act as a point of air removal.

Flow through the hydraulic separator is dependent on the resulting pressure differentials created by the circulators on either side. Circulators should always be arranged in a counter-flow orientation.

Commonly used to simplify piping for condensing boilers, our separators are constructed from type -L copper with a stainless steel screen and brass air vent. A 3/4" brass drain, expansion tank tapping, and 5 temperature gauge/sensor wells are standard. Rated to 210 °F at 100 psi.

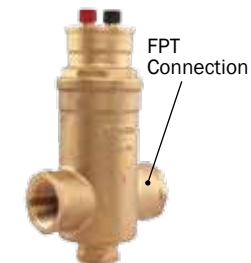


**NEW** Zone Valve Body & Actuator Kit

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
3/4" Valve Body Only	1	703022	81009858	1
3/4" Valve Body & Actuator Kit	1	PZ656104A	81011158	2

Watts Radiant's new 3/4" sweat zone valve is comprised of a brass body with stainless steel internal springs and EPDM seals, allowing for extended longevity in adverse conditions. CV=2.8

Each valve is compatible with our existing thermal actuator, which is used on the Stainless Steel manifold series.



**NEW** Watts Microbubble Air Separators

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
3/4" FPT Air Remover	1	AS-MB 75	81013747	3
1" FPT Air Remover	1	AS-MB 100	81013748	3
1-1/4" FPT Air Remover	1	AS-MB 125	81013749	3
1-1/4" Flanged Air Remover	1	AS-MB FL	81013750	4

The rugged, high-temperature PPSU coalescing media is corrosion-resistant, and the entire unit can be disassembled for inspection and cleaning. The high capacity DuoVent (manual and automatic) allows for fast venting. AS-MB FL flanged model can be used with Watts PIPF Isolation Pump Flanges with Purge Port and Swivel Flanges to create a compact purge/air elimination module.



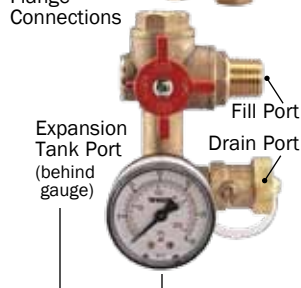
**NEW** Boiler Header Module Kits

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
3/4" Boiler Module Kit	1	HP-BHM-75	81013752	8
1" Boiler Module Kit	1	HP-BHM-100	81013745	8
1-1/4" Boiler Module Kit	1	HP-BHM-125	81013746	9

**This kit combines a Watts Air Remover, a Swivel Isolation Pump Flange with a Purge Port, and a Residential Boiler Fill Fitting**

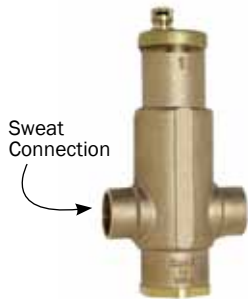
The PIPF Isolation Pump Flange is designed to isolate circulator pumps to facilitate circulator pump replacement or repairs, while providing an integral purge port to facilitate system purging. The PIPFs swivel flange design allows the contractor to rotate the valve body 360° to place the purge port in the most convenient spot for purging and provide attractive custom installations.

The RBFF residential boiler fill fitting allows fast and easy isolation of the expansion tank, a drain valve for easy draining or filling of the system, and a 30 psi pressure gauge.



## Hydronic Accessories

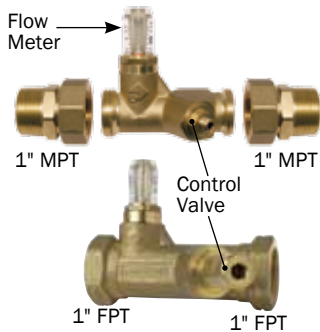
### Air Remover



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
1" Sweat Air Remover	1	671161	81000605	5
1-1/4" Sweat Air Remover	1	671201	81000606	7
1-1/2" Sweat Air Remover	1	671241	81000607	8

**Air Removers** are required in any closed-loop hydronic system to remove air from the system and keep it out after the system has been purged.

### FlowGuards — circuit setters with visual readout.



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
0.5–4 GPM FlowGuard, 1" MPT half unions	1	D3499375	81001979	4
1–13 GPM FlowGuard, 1" FPT ends	1	D3499480	81001980	2

**FlowGuards** are a commercial-quality, non-electronic flow indicator and flow setter. Made of durable, cast brass construction, these units give accurate visual flow indication in GPM. With the ability to set fluid flow, the FlowGuards allow zone-by-zone control and optimization. No special training or electronic instrumentation required.

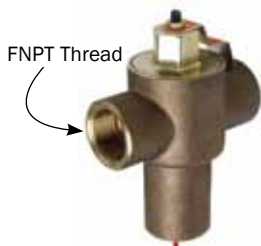
### MixTemp™ 180 Valves — 100° to 180°F range.



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
3/4" MixTemp 180 (Cv = 3.1)	1	703075	81000710	2
1" MixTemp 180 (Cv = 3.2)	1	703100	81000711	2

These durable, non-electric, brass-bodied **MixTemp 180 Valves** have the widest (100°–180°F) temperature ranges available in a small valve. The valve comes complete with threaded unions for ease of service. All connections are FPT threads. MixTemp valves can be used in both primary/secondary and direct piping applications with at least one pump per valve. These are not to be used for potable water applications as they are not anti-scald valves.

### AllTemp™ Mixing Valves — 100° to 200°F range.



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
1-1/4" All-Temp (Cv = 6.1)	1	703200	81000716	7
1-1/2" All-Temp (Cv = 6.2)	1	703240	81000717	7
2" All-Temp (Cv = 9.1)	1	703320	81000718	10

These simple, durable, non-electric **AllTemp Mixing Valves** feature a rugged cast-bronze body with liquid-filled copper thermostatic actuators. All connections are FNPT threads. These valves are sensitive to the slightest change in mixed water temperature. These valves can be used in both primary/secondary and direct piping applications with at least one pump per valve. These are not to be used for potable water applications as they are not anti-scald valves.

### Watts Combination Temp./Press. Gauge — bottom mount, 32°–248°F/0–50 PSI.



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Combination Gauge, 32°–248°F/0–50 PSI	1	705075	81004202	1

These gauges combine a graduated temperature gauge and pressure gauge in ONE unit! Features metal construction for ruggedness. An ingenious self-sealing 1/2" MPT brass well is included so minimal system fluid is lost if the gauge is ever removed from the system.

A manually-adjustable pointer can be used to track temperature or pressure changes. These gauges come in two styles: either bottom mount or back mount for mounting convenience. Install one of these gauges and monitor your system easily, efficiently, and reliably.

# Hydronic Accessories



**Watts Combination Temp./Press. Gauge** — back mount, 60°–320°F/0–200 PSI.

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Combination Gauge, 60°–320°F/0–200 PSI	1	705100	81003656	1

## Temperature Gauge



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Temperature Gauge, 0°–200°F	1	704621	81000720	1

These **Temperature Gauges** are 3" in diameter. They are made with a continuously welded, stainless steel housing with a 2-1/2" long stem and 1/2" NPT threads. The black-on-white dials are marked in °F and °C, and are protected by a rugged crystal lens. Back mounted.

## Brass Well for Temperature Gauge



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Brass Well for Temp. Gauge	1	850071	81000755	1

**Brass Wells** are used with temperature gauges to allow gauge removal or installation without draining the system. Made of solid brass with a 3/4" MNPT to transition to copper and 1/2" FNPT to accept the temperature gauge.



## Pressure Gauge

DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
Pressure Gauge, 0–60 PSI	1	850031	81000752	1

These **Pressure Gauges** are made of stainless steel construction with black numbers in psi and kpa on a white dial face covered with a durable lens. Back mounted.

## StickTemps™ — a Watts Radiant exclusive!



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
StickTemp	1	850100	81000757	1

These liquid-crystal, digital **StickTemp** thermometers are an inexpensive, quick way to take temperature readings at various points on a system. Use one at each point a temperature reading is desired. For 3/4" or larger pipe. Peel off the backing paper and apply to any clean surface. Temperature range from 100° to 200°F.

## Differential By-pass Valves



DESCRIPTION	QTY	MODEL #	ORDER #	WT. (lbs)
3/4" Differential By-pass Valve	1	PZ4661C34	81005517	2
1" Differential By-pass Valve	1	PZ4662C1	81005518	2

Noise can be present in a multiple-actuator manifold if only one or two actuators are open. The pump is sized for the total flow rate and highest pressure drop of all the circuits. With just one or two circuits calling for heat, the pump is oversized, possibly causing noise. The **Pressure Differential By-pass Valve** eliminates water velocity noise and water hammer. With this valve, high-pressure pumps cannot exceed actuator close-off pressure. Pump life increases because of minimal pressure surging as actuators open and close. There is always correct and constant flow regardless of the number of actuators open.

The valve adjusts from 2.18 psi (5.0 feet water) to 11.6 psi (26.8 feet water) using a graduated knob. Water by-pass capacity is 0.6 gpm to 9 gpm. Maximum pressure is 145 psi, maximum temperature is 230°F. The knob is set and locked with a set screw to prevent tampering.