# For Residential and Commercial Applications

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative

# ThermalPro™ Mixing Boiler Station

## 1" and 11/2" piping with mixing

ThermalPro™ Mixing Boiler Station is a compact, pre-piped mechanical system complete with circulator, isolation ball valves, temperature gauges, differential pressure bypass valve, and a 24 volt 3-way mixing valve.

Controls, relays, and corresponding thermostats are not included with the ThermalPro Boiler Station package.

MIX VALVE AND ACTUATOR DETAILS	25-58	26-99
Valve Material	Brass	Brass
$C_{v}^{(1)}$	7.3 or 9.3	11.6
Supply Voltage	24 VAC	
Power Consumption	2 VA	
Rotation (factory set)	90°	
Torque	45 in-lbs (5 Nm)	
Ambient Temperature Range	5°F to 131°F (-15°C to 55°C)	
Valve Travel Time	1.7 min	

(1) Mix valves can have potentially higher flow than indicted depending on system conditions such as required flow rates and corresponding head pressure.

CIRCULATOR DETAILS		25-58	26-99
Casing Material		Cast Iron	
Voltage		120	
Amps/Watts	Speed 1	0.75/87	1.80/197
	Speed 2	0.66/80	1.50/179
	Speed 3	0.55/60	1.30/150
Horsepower		1/25	1/6
Fluid Temperature Range		36°F to 230°F (2°C to 110°C)	
Max. Working Pressure		145 psi	
Max. Flow Capacity (GPM)		17.5	34
Max. Head Capacity(2) (feet)		19	32

<sup>(2)</sup> Maximum head capacity shown does not correspond to maximum flow capacity. Refer to circulator specifications for actual pump curves.



- A Return Temperature Gauge with internal isolation ball valve
- B Differential Pressure By-pass
- C Supply Temperature Gauge with internal isolation ball valve
- D Circulator
- E Floating Action Mix Valve
- Insulated Enclosure
- G Sensor Well

<b>V</b>	ORDER #	DESCRIPTION
	81015290	1" Mixing Boiler Station with
		UPS 25-58 Circulator and 7.3 Cv Valve
	81015291	1" Mixing Boiler Station with
		UPS 25-58 Circulator and 9.3 Cv Valve
	81015292	1½" Mixing Boiler Station with
		UPS 25-99 Circulator and 11.6 Cv Valve
	81010373	11/4" FNPT x BSP Tailpiece Set (2)
	81010374	11/4" Sweat Union x BSP Tailpiece Set (2)

#### **A** CAUTION

This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.

## **A** WARNING

**General Safety Instructions** 

- 1. THIS UNIT SHOULD BE INSTALLED ONLY BY QUALIFIED PERSONNEL!
- 2. Disconnect all power from the control before opening the front cover plate.

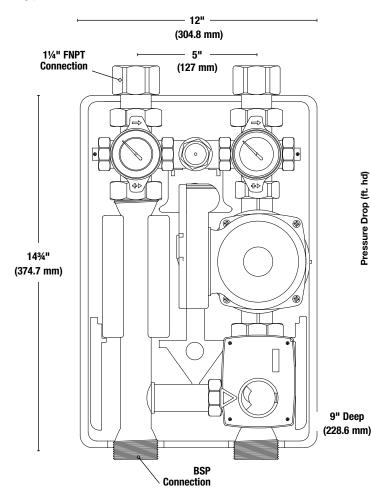


## **Specifications**

ThermalPro™ Boiler Mixing Stations speed up installation by connecting directly to a hydronic heating system providing a compact mixing system in a thermally insulated enclosure.

Controls, relays, and corresponding thermostats are not included with the ThermalPro package.

## **Typical Dimensions**



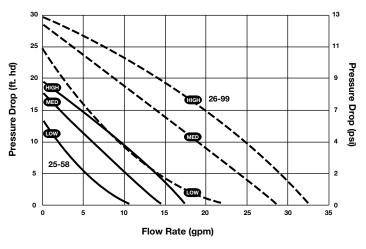
#### **Features**

Each ThermalPro panel comes standard with the following:

- Stainless steel supply and return piping
- Color coded supply/return temperature gauges
- Integrated ball valves
- Integrated check valve (supply side only)
- Selection of 3 circulator options
- Fully encompassing expanded polystyrene insulated enclosure

#### Circulator

Three-speed circulator is standard for the ThermalPro Mixing Station to provide for a wide range of system conditions. Circulator speed not to exceed 2 gpm per circuit



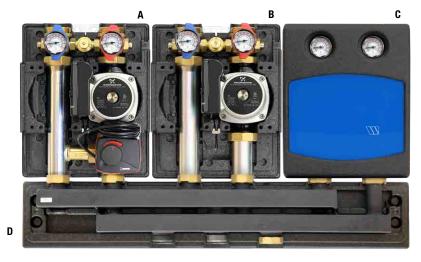
Tailpieces are required to transition between the ThermalPro unit and the supply or return line. Sets are available in either Sweat x BSP or FNPT x BSP. Not included with panels. Not required to connect to the ThermalPro Header.

# **Typical Configuration**

ThermalPro panels can be "chained" together with the use of a Header Manifold. A maximum of five ThermalPro panels can be chained together.

All electrical wiring must be done at the time of installation. Mixing and circulator controls are not included with the ThermalPro panel.

- A Mixing Panel
- **B** Non-Mixing Panel
- C Panel with Cover Installed
- D Header Manifold





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