

**Process Heating Solutions Worldwide** 

# **Steam Injection Liquid Heating System**

**Superior to Venturi and Static Mixer Designs** 



## **Variable Flow Heater**

#### **Benefits**

- · Eliminates harmful vibration and steam hammer
- Widest operating range of any steam injection heater
- Smooth, quiet operation within acceptable dBA limits
- Precise, accurate temperature control
- Complete absorption of steam into liquid at point of contact not dependent on high velocity mixing in downstream piping
- · Low liquid pressure drop
- 100% heat transfer cuts fuel costs up to 30% compared with indirect heat exchangers

#### **Features**

- Steam capacity ratings from 700 to 35,000 lbs/hr
- Available in 316 stainless steel, carbon steel, cast iron or special alloys upon request
- Complete instrumentation available
- Over 70 years of experience in design, installation and service of steam injection heating systems

## **Applications:**

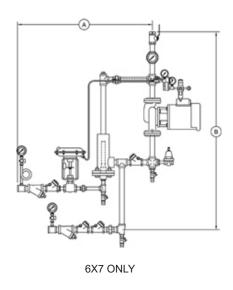
- Multiple Hose Stations
- Plant Sanitation
- Can Topping
- Can Washing
- Filter Backflush
- Freezer Coil Defrosting
- Laundries

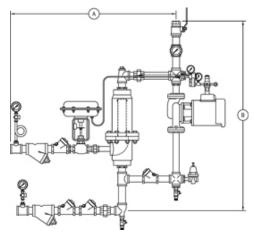
# **Specifications - 9 Standard Sizes**

Model No.		6X7	6X10	6X25	6X50	6X75	6X100	6X150	6X200	6X350
Steam Capacity	Lb/hr	700	1,250	2,500	5,000	7,500	10,000	15,000	20,000	35,000
	Kg/hr	320	565	1,130	2,265	3,400	4,535	6,800	9,070	15,875
Liquid Pipe Size Range (inches). See selection chart below	Threaded	<sup>3</sup> ⁄ <sub>4</sub> - 1 ½	1 - 2	1 ¼ - 2 ½	1 ½ - 3	2 - 3	2 ½ - 3	3	-	1
	Flanged Class 125	1	I	-	ı	4	4	4 - 6	4 - 8	4 - 8
Approx Dimensions (inches)	Α	44	48	52	58	66	76	90	100	112
	В	44	48	52	56	66	70	85	94	104
Shipping Weight (lbs)		320	375	440	650	900	1,100	2,200	2,500	3,000

Water Pipe Selection Chart - Choose best pipe size based on water flow rate in GPM											
Max. GPM	8	15	30	45	90	140	230	500	1,000	1,800	3,000
Pipe Size (inches)	0.75	1	1.25	1.5	2	2.5	3	4	6	8	10

Dimensions are approximate. Variable Flow Heaters are normally used on water service and are offered with cast iron housings as standard. Piping, fittings, and valves are iron, bronze, and steel. Alternate materials are available upon request.





6X10 Thru 6X350

## **Sizing the Variable Flow Heater**

Steam demand (lb/hr)= 0.43 x flow(GPM) x  $\Delta$  T (°F)

Steam demand (kg/hr) =  $0.092 \times \text{flow(LPM)} \times \Delta \text{ T (°C)}$ 

Example: 200 GPM x 50°F temperature rise x 0.43 = 4,300 lb/hr of steam. You would require a 6X50 which has a maximum rated steam capacity of 5,000 lb/hr, and a maximum recommended water flow rate of 230 GPM when furnished with 3"water piping.

- Provides Hot Water Instantly
- Maintains Set Water Temp. within 3°F Regardless of △ Flow
  - Operates AutomaticallySet It and Forget It
  - Systems Available to Deliver Any Volume of Hot Water

### Learn more at www.pickheaters.com

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