



## Digital-Flo™

### Instantaneous Hot Water



Armstrong blends revolutionary digital water temperature control technology with instantaneous heat exchanger design to deliver Digital-Flo™, an industry changing series of water heaters.

Digital-Flo Instantaneous Water Heaters refine hot water system temperature accuracy to a level previously deemed unattainable. By constantly monitoring the digital re-circulating valve (DRV 80) inlet hot, inlet cold and system return water temperatures, Digital-Flo previews the hot water system dynamics to increase the speed of response to changes in demand.

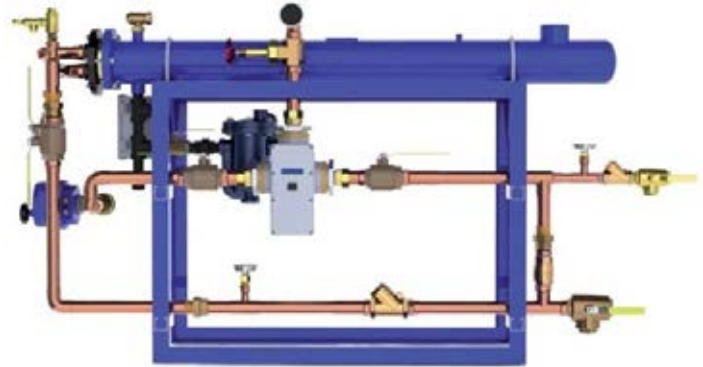
Capable of maintaining +/- 1°C temperature at system draw off between 0 and 37,5 m³/hr., Digital-Flo delivers a “plug and play” hot water generation packaged solution which places efficiency, energy savings and legionella risk reduction at the forefront of hot water system design, operation and maintenance.

### Armstrong Digital Technology

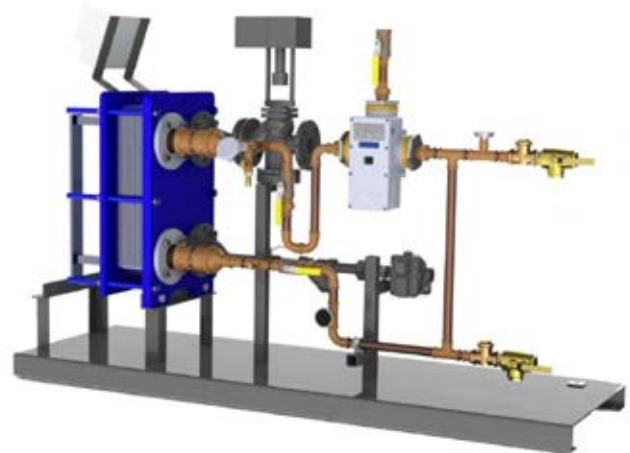
- Powered by low voltage electronics
- Faster response times eliminate the need for pneumatic controls
- Programmable high/low temperature alert function
- Programmable hot water system safety shutdown
- Component self-diagnostics
- Performance monitoring, data logging and reporting
- Integral building management system connectivity
- Simplified system commissioning

### Armstrong Heat Exchange Technology

- Constant steam pressure prevents stall - no pump trap
- Low surface temperature option for hard water applications
- Instantaneous - No Storage
- Water raised above Legionella survival temperature



Digital Steam/Water - Shell & Tube



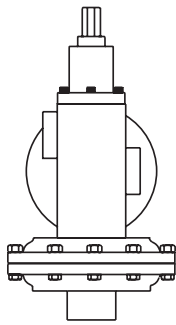
Digital Steam/Water - Plate & Frame  
Digital Water/Water - Plate & Frame



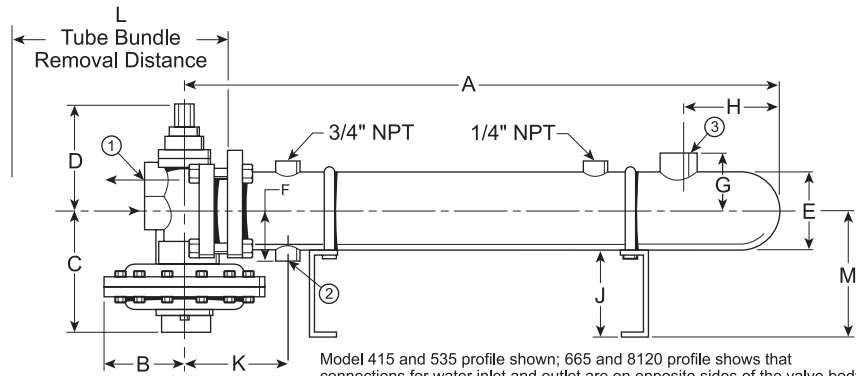


# Flo-rite temp™

## Instantaneous Steam/Water Heater



Model 665 and 8120 Valve



Model 415 and 535 profile shown; 665 and 8120 profile shows that connections for water inlet and outlet are on opposite sides of the valve body.

### Dimensions

Model	A		B		C		D		E		F		G		H		J		K		L		M	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
415	54	1,372	4-1/2	114	7-1/2	190	7	178	4-1/2	114	3-5/16	84	3	76	7	178	6	152	6-1/4	159	50	1,270	7-1/2	190
535	67-1/2	1,715	5-1/4	133	8-5/8	219	9	229	5-9/16	141	4	102	3-11/16	94	7-7/8	200	7	178	7-1/2	191	62	1,575	9	229
665	82	2,083	5-3/4	146	10-3/8	264	10-3/8	264	6-5/8	168	4-5/8	117	4-9/16	116	9-1/4	235	8	203	8-3/4	222	74	1,880	11	280
8120	85	2,159	5-3/4	146	11-3/4	299	12	305	8-5/8	219	6	152	8-7/8	225	9-1/2	241	8	203	9-1/2	241	74	1,880	12-3/8	314

### Connections and Weights

Model	Connections			Weight	
	1	2	3	lb	kg
	in (mm)	in (mm)	in (mm)		
415	1 (25) NPT	3/4 (20) NPT	2 (50) NPT	133	60
535	1-1/2 (40) NPT	1 (25) NPT	2-1/2 (65) NPT	235	107
665	2 (50) NPT*	1-1/4 (32) NPT	3 (80) NPT	358	162
8120	3 (80) NPT*	2 (50) NPT	4 (100) 150# ANSI	585	265

\*665 and 8120 connections for water inlet and outlet are on opposite sides of the valve body.

### Specifications

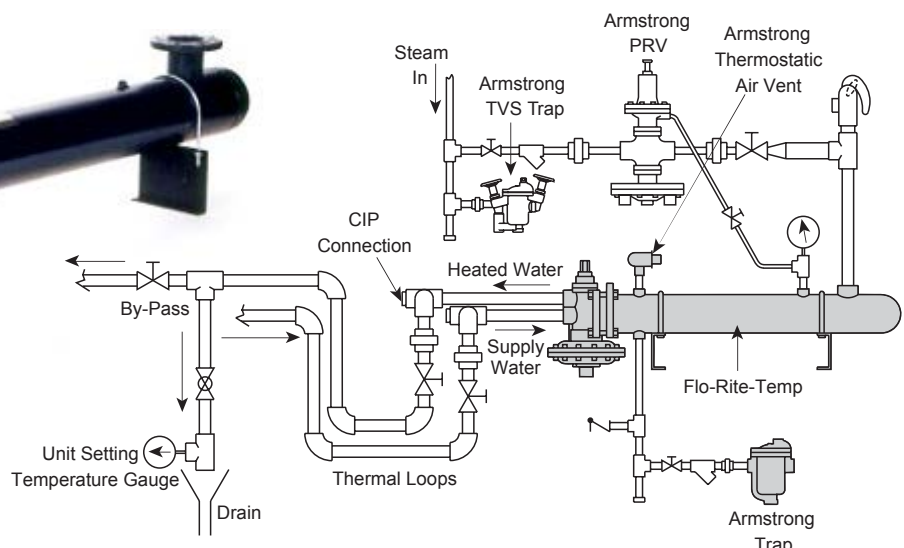
Application	Steam Supply Pressure	Water Supply Pressure	Maximum Water Pressure Drop
Steam to Water	2 - 15 psig (0.14 - 1.0 bar)	20-150 psig (1.4 - 1.0 bar)	10 psig (0.7 bar)

NOTE: Reusable insulation wraps available.

### Materials

Body	Valve	Valve Seats	Diaphragm	Heat Exchanger Shell	Heat Exchanger Tubes	Tube Sheets	Tube Bundle End Cap
Bronze	(415) 303 Stainless	(415/535)	Viton®GF	Carbon Steel	5/8" 16 BWG	Brass	Brass
	Steel w/ Teflon Inserts	303 Stainless Steel	Reinforced	ASTM SA 106-B	Admiralty Brass		
	(535/665/8120) Brass	(665/8120) Brass	w/Nomex® Fiber	ASME "U" Stamped			

NOTE: Units are NSF-61 certified.



### Water Heater Installation Detail

The Flo-Rite-Temp® models identified in the submittal table below are provided, as standard, with an Armstrong steam trap and thermostatic air vent (shaded).

All other items indicated, are shown for water heater installation detail only.

For pre-piped packaged Flo-Rite-Temp® water heater assemblies, refer to pages 14-26.