

## TH-750V Series Stainless Steel Semi-Instantaneous Steam Fired Packaged Water Heaters

### TH-750V Vertical Steam Fired Semi - Instantaneous Water Heater

The Thermaflo Engineering TH-750V Series 316L Stainless Steel Steam Fired Water Heaters are designed for years of trouble free hot water on demand. These high quality packages are factory steam tested before shipment to ensure quick fit and forget start-ups and installation. Factory packaging and "Live" steam testing keeps contractor and customer installation time to a minimum. Their simple compact design allows them to be installed in tight spaces and replace those old oversized hot water storage tanks. All sizes fit through a 30" doorway.

Thermaflo Engineering utilizes their exclusive single seated type balanced trim steam control valve with "Thermal" soft seat to provide exceptional control over high and low water flow demand changes. The **"Seals like Rubber - Wears like Hardened Steel"** seat shuts off steam dead tight on long standby type loads and no demand periods like no other!

All Thermaflo TH-750V Heaters can be fitted with condensate sub cooling option to eliminate flash steam increasing overall unit efficiency of both latent and sensible heat BTUs.

All Thermaflo TH-750V Heaters are constructed and stamped in accordance with Section VIII, Div 1 of the ASME CODE.

Review the following features and let us assist you on your next installation with a fit and forget TH-750V Steam Fired Water Heater from **Thermaflo Engineering Company . Made in the USA.**

### Features and Benefits

#### ***Compact Size and Vertical Construction***

TH-750V Units fit through 30" standard doorways and take up less than 4 sq ft of floor space. All units are designed so that the tube bundle can be removed from the bottom for ease of maintenance.

#### ***Mass Flow Temperature Control***

The single seated balanced trim control valve is ratio loaded from the digital microprocessor controller and controls not only the steam pressure into the tube bundle, but also the volume or mass density of the steam providing a precise control of outlet hot water. **This feature allows high pressure steam (125 PSI Max) to be piped directly to the control valve inlet eliminating in many cases expensive steam pressure reducing stations, and large piping systems.**

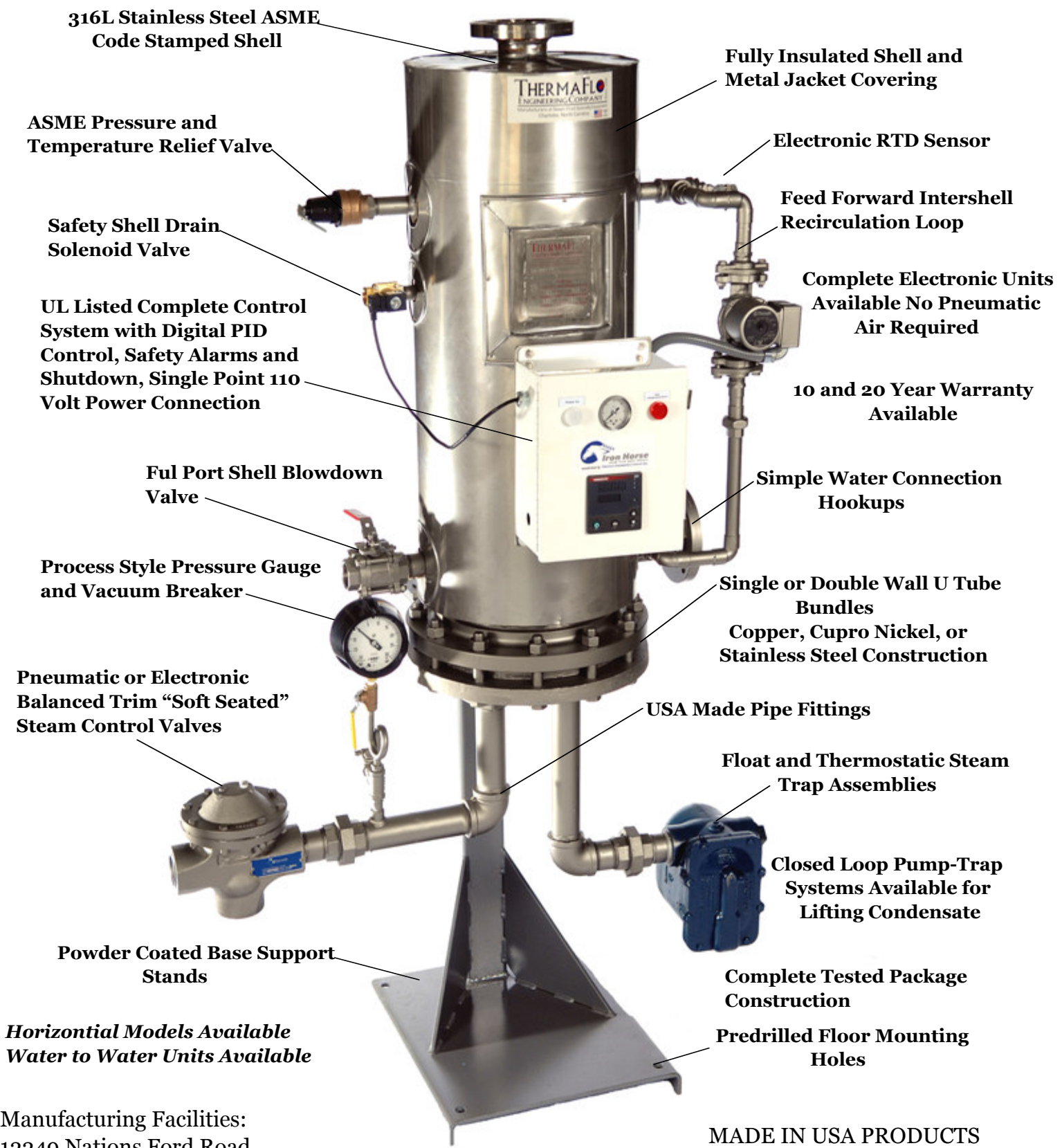
#### ***Construction and Safety***

A **"Quality ASME Stamped Product"** in a complete factory. NO field erector set for field installation. Safety with Hot Water is important to us at Thermaflo, that is why every heater comes standard with a safety shutdown system that is factory **"Live Tested"** before shipment.  
10 Year Guarantee Available      Over 200 Installations in Service



**TH-750 Steam Fired Water Heater**  
**“Standard Features”**

- ➡ Accepts Up to 125 psig Steam Eliminating Costly PRV Stations
- ➡ Complete Package Construction for Simple Pipe and Operate Installation
- ➡ 100:1 Control Valve Flow Turndown and Dead Tight Shutoff with “Soft Seat Unique Design Controls Pressure and Temperature
- ➡ Touch Screen, Modbus, Ethernet Controls and Outputs Available



**316L Stainless Steel ASME Code Stamped Shell**

**Fully Insulated Shell and Metal Jacket Covering**

**ASME Pressure and Temperature Relief Valve**

**Electronic RTD Sensor**

**Safety Shell Drain Solenoid Valve**

**Feed Forward Intershell Recirculation Loop**

**UL Listed Complete Control System with Digital PID Control, Safety Alarms and Shutdown, Single Point 110 Volt Power Connection**

**Complete Electronic Units Available No Pneumatic Air Required**

**10 and 20 Year Warranty Available**

**Full Port Shell Blowdown Valve**

**Simple Water Connection Hookups**

**Process Style Pressure Gauge and Vacuum Breaker**

**Single or Double Wall U Tube Bundles  
Copper, Cupro Nickel, or Stainless Steel Construction**

**Pneumatic or Electronic Balanced Trim “Soft Seated” Steam Control Valves**

**USA Made Pipe Fittings**

**Float and Thermostatic Steam Trap Assemblies**

**Powder Coated Base Support Stands**

**Closed Loop Pump-Trap Systems Available for Lifting Condensate**

*Horizontal Models Available*  
*Water to Water Units Available*

**Complete Tested Package Construction**

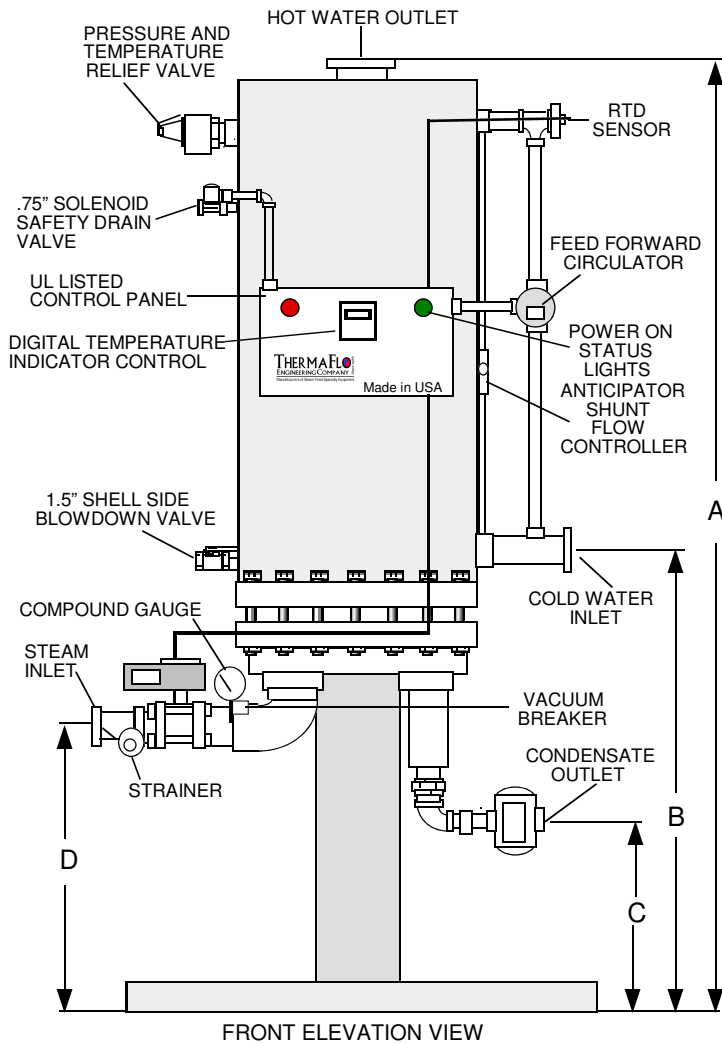
**Predrilled Floor Mounting Holes**

Manufacturing Facilities:  
12249 Nations Ford Road  
Pineville, North Carolina 28134

Pneumatic Version Shown

**MADE IN USA PRODUCTS**  
[www.thermafloengineering.com](http://www.thermafloengineering.com)  
10/09

# THERMAFLO TH-750VEN ELECTRONIC STEAM FIRED WATER HEATER STANDARD FEATURES



- ASME CODE SECTION VIII DIV1 UM STAMPED CONST
- 100% FACTORY STEAM TESTED BEFORE SHIPMENT
- ELECTRONIC "FAIL SAFE" SPRING TO CLOSE SINGLE SEATED CONTROL VALVE, DEAD TIGHT SHUTOFF DESIGN, 50:1 FLOW TURNDOWN
- NO EXTERNAL AIR SOURCE REQUIRED
- 316L STAINLESS STEEL SHELL CONSTRUCTION
- INTERGAL FEED FORWARD DEMAND ANTICIPATOR FOR FAST RESPONSE OF LOAD CHANGE
- ACCURACY +/- 4F UNDER NORMAL LOADS
- DOUBLE SAFETY HIGH LIMIT SHUTDOWN SYSTEM
- UL LISTED DIGITAL MICROPROCESSOR TEMPERATURE CONTROLLER
- SHELL BLOWDOWN VALVE AND EXPANDABLE TUBE DESIGN TO REMOVE INTERNAL SCALE BUILDUP
- VACUUM BREAKER AND PRESSURE GAUGE
- 1.5" THICK INSULATION WITH METAL JACKET MEETS ASHRAE 90.1

HEAT EXCHANGER DESIGN STANDARDS			
	MAXIMUM WORKING PRESSURE PSIG	MAXIMUM TEMPERATURE	TEST PRESSURE
SHELL SIDE	150 PSIG	325F	300 PSIG
TUBE SIDE	125 PSIG	325F	300 PSIG
ASME CODE SECTION VIII, DIV 1 STAMP U			
PRESSURE AND TEMPERATURE RELIEF VALVE SET 150 PSIG @ 210F			

### CONNECTIONS

INLET WATER: 2" NPT TH-750-6-36, 8-36/48  
 INLET WATER: 3" 150 LB RF TH-750-10-24/36/48 AND TH-750-12-36  
 OUTLET WATER: 2" NPT TH-750-6-36/8-36/48  
 OUTLET WATER: 3" 150LB RF TH-750-10-24/36 AND TH-750-12-36  
 STEAM CONTROL VALVE: AS REQUIRED  
 CONDENSATE OUTLET: AS REQUIRED

#### TAG:

**FLOW RATE:**  
**INLET STEAM PRESSURE:**  
**INLET WATER TEMPERATURE:**  
**OUTLET WATER TEMPERATURE:**  
**MODEL:**

#### MATERIALS OF CONSTRUCTION

SHELL	316L STAINLESS STEEL
TUBESHEET	RED HEAVY DUTY BRASS
TUBES	COPPER .049WALL SEAMLESS
STEAM HEAD	CLOSE GRAIN CAST IRON

- NOTE: 1. DOUBLE WALL TUBE CONSTRUCTION AVAILABLE.  
 2. CARBON STEEL STEAM HEAD ALSO AVAILABLE.  
 3. COMPLETE 316 STAINLESS STEEL CONSTRUCTION AND SANITARY AVAILABLE

**THERMAFLO**  
**ENGINEERING COMPANY** Since 1986

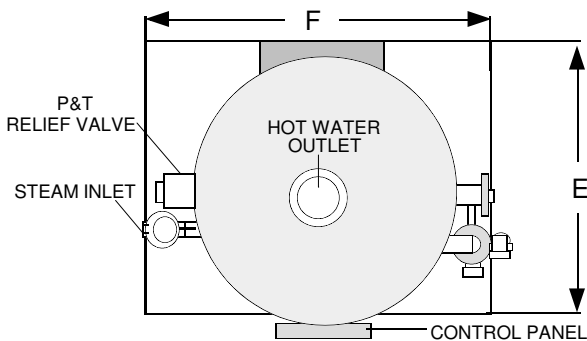
Manufacturers of Steam Fired Specialty Equipment

<b>Thermaflo</b> <small>Since 1986</small>	Engineering Company Inc. Charlotte, North Carolina 28247
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TH-750V STEAM FIRED WATER HEATER  
 PACKAGED WITH ELECTRONIC CONTROL VALVE  
 DIMENSIONAL/FEATURE DRAWING

DWN BY:	DATE: 10/1/06	
SCALE: None	CHKD: KB	APPD: RFJ
		DWG NO# 750VEL01

DESIGN AND MATERIALS SUBJECT TO CHANGE



TOP VIEW

DIMENSIONS					
A	B	C	D	E	F
84	38	18	26	20	24

NOTE: A Dimension 96" for Model 8-48/10-48 Heaters

- NOTES: 1. UNIT HYDROTESTED BEFORE SHIPMENT.  
 2. UNIT SHOWN IS ELECTRONIC FAIL SAFE.  
 3. 115 VOLT/1PHASE/60HZ POWER REQUIRED FOR OPERATION.  
 4. MOUNTING FRAME PRIMED AND PAINTED.  
 5. CONTROL PANEL NEMA 4 CONSTRUCTION UL LISTED.

**Manufacturing Facilities: 12243 Nations Ford Road**  
**Pineville, North Carolina 28134**