



**HEATEC**

# DIRECT-FIRED TANKS

## For Heating Water To Make Concrete

**D**IRECT-FIRED TANKS made by Heatec provide the ideal solution for heating water to make concrete in cold weather. Heated water allows ready-mix concrete producers to prepare mixes despite winter weather. In many locations it enables the producer to operate year-round.

The WH series of tanks from Heatec is designed specifically for production of concrete. Tank capacities range from 2,000 to 30,000 gallons. They are available in either a deluxe or economy version. Numerous options are available.

### Construction

All tank shells are made from 1/4-inch steel plate and are double-welded at the seams. The shells ride in saddles supported by channels. The tanks are hydro-tested for leaks prior to completion.

The incoming water is introduced into the tank by a spray bar in the top of the tank. It distributes the cold water evenly so as to minimize cold spots.

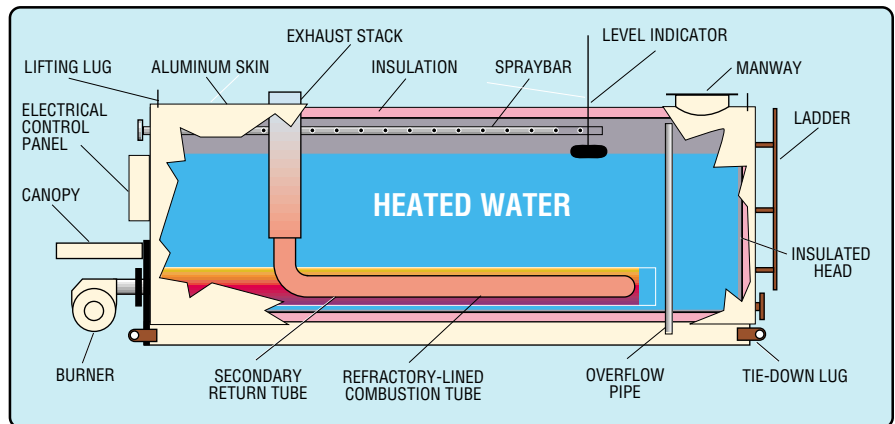
### Insulation

All external surfaces of the tank shell have three inches of fiberglass insulation to minimize heat loss and to increase fuel efficiency. This also produces faster recovery times as the water is used.

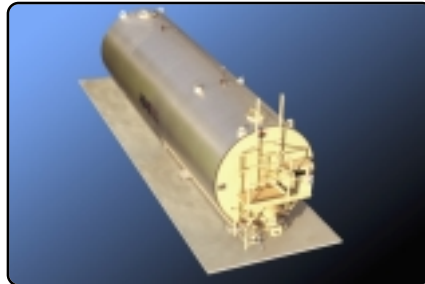
### Heating system

The heating system consists of a burner that fires into a large combustion chamber. The combustion chamber is lined with refractory material for longer life. It extends the length of the tank.

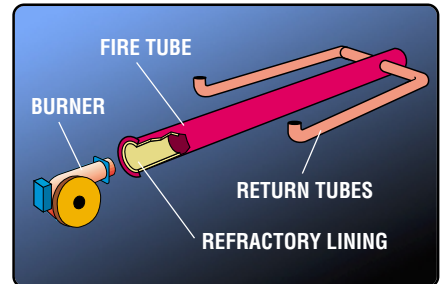
The deluxe tank has two secondary heating tubes that connect to the far end of the combustion chamber. They double back inside the tank and connect to two exhaust stacks that exit through the top of the tank. The secondary tubes significantly increase the amount of heating surface in contact with the water. They enable our



Heatec deluxe direct-fired tank with dual-pass fire tube



Heatec deluxe tank with 10,000 gallon capacity



Main combustion chamber with dual return



Fully modulating burner provides high efficiency



Controls are in a water/dust tight control panel

heating system to easily outperform other direct-fired tanks on the market today.

The economy tank lacks the secondary heating tubes. A single exhaust stack connects to the far end of the combustion chamber. Although it is not as efficient as our deluxe tank, its efficiency is comparable to other units on the market.

### Burner

WH tanks use a fully modulating burner. Our standard burner uses No. 2 fuel oil. However, burners are also available for gas, LP or combination gas/oil.

The full-modulation burner matches the firing rate to the heat demand, thereby eliminating constant recycling and temperature overshooting. Its infinitely variable firing rate operates much more efficiently than a burner that has two only states (either fully ON or OFF) or one that has only three states (LOW, HIGH or OFF). Competitive heating tanks use those types of burners even though they are not as efficient.

### Controls

Burner and safety limit controls are mounted in a control panel that is UL

approved and meets NEMA 4 requirements. The panel protects against windblown dust and rain, splashing water and hose-directed water.

The burner management system uses a microprocessor to manage the burner controls and provide proper burner sequencing, ignition and flame monitoring protection. Readouts and signal lights on the face of the control panel indicate the current burner status and its operating history. If a problem occurs that causes the burner to shut down, the lights identify all switches affected by the shutdown. You can normally tell from the lights which limit switches tripped first, setting off the chain reaction that caused the shutdown.

The controls also include a water high temperature backup controller and alarm switches for low and high water levels. A water level float gauge is also included. A water level float switch for controlling a

solenoid-operated water inlet valve is available as an option.

### Start-Up Service

A two-day start-up service is included with every Heatec water tank sold in the U.S. Heatec sends a factory-trained technician to the site where your tank is installed for its initial start up. The technician also instructs your personnel in proper operation and maintenance of the tank.

### Options

- Caged ladders and walkway
- Six-inch fiberglass insulation
- Water filters
- Solenoid controlled water inlet valve
- Portability package
- Seven-day timer for burner operation
- Firetube and burner kit (for existing tanks.)



Heatec manufacturing facility in Chattanooga, Tennessee

## Specifications

MODEL	TANK SIZE	WEIGHT EMPTY	TANK CAPACITY	BURNER INPUT	HEATING SURFACE	RECOVERY RATE	HEATED WATER AVAILABLE	CONCRETE PRODUCTION
	(Dia. x Length)	(pounds)	(U.S. Gallons)	(Btu/hr)	(Sq Feet)	(gal/hour)	(gal/8 hrs)	(Yds/hr)
<b>ECONOMY MODELS</b>								
WHE-2S	6.1 x 12.0 feet	5,544	2,000	341,000	46	360	4,880	5 to 20
WHE-2M	6.1 x 12.0 feet	5,544	2,000	568,000	46	600	6,800	20 to 25
WHE-5S	8.7 x 16.8 feet	7,738	5,000	568,000	76	600	9,800	30 to 40
WHE-5M	8.7 x 16.8 feet	7,738	5,000	910,000	76	850	11,800	30 to 50
<b>DELUXE MODELS</b>								
WHD-10S	8.7 x 28.8 feet	12,567	10,000	910,000	190	975	17,800	50 to 75
WHD-10M	8.7 x 28.8 feet	12,567	10,000	1,700,000	190	1,800	24,400	80 to 100
WHD-10L	8.7 x 28.8 feet	12,567	10,000	2,200,000	190	2,400	29,200	100 to 120
WHD-15S	11.0 x 26.8 feet	15,147	15,000	1,700,000	176	1,800	29,400	100 to 120
WHD-15M	11.0 x 26.8 feet	15,147	15,000	2,200,000	176	2,400	34,200	120 to 140
WHD-20S	11.0 x 34.8 feet	18,766	20,000	2,200,000	222	2,400	39,200	120 to 160
WHD-20M	11.0 x 34.8 feet	18,766	20,000	2,760,000	222	3,000	44,000	160 to 180
WHD-20L	11.0 x 34.8 feet	18,766	20,000	3,410,000	350	3,600	48,800	180 to 200
WHD-25S	11.0 x 42.8 feet	22,622	25,000	2,760,000	284	3,000	49,000	160 to 200
WHD-25M	11.0 x 42.8 feet	22,622	25,000	3,410,000	439	3,600	53,800	200 to 220
WHD-30S	11.0 x 50.8 feet	25,912	30,000	3,410,000	527	3,600	58,800	200 to 245
WHD-30M	11.0 x 50.8 feet	25,912	30,000	4,550,000	527	4,820	68,560	250 to 275

Recovery rate is for raising the water temperature 100 degrees F. Gallons of heated water available over 8 hours assumes starting with a full tank of heated water. Concrete production is based on 30 gallons of water per yard of concrete.

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