

### OVERVIEW

The 1.8 million Btu Hydro Heat Pro combines the heating power of the efficient DryAir water heater system and two fluid to fluid plate heat exchangers into one ready-to-move trailer package. The system uses three pumps, one for the water heater's heating fluid circuit (food grade glycol) and one for each of the two plate heat exchanger output loops.

### HOW AND WHERE IT WORKS

The water heater is Tri-fuel capable (NG, LP or diesel fuel sources). Tri-fuel ready units require only a burner change-out to switch from one fuel source to another as all other Tri-fuel plumbing and componentry are permanently in place. Also, the fuel specific burners have designated storage locations within the Hydro Heat Pro cabinets to ensure convenient hassle-free burner swaps.

As a precautionary measure, an in-line pre-screen acts as a serviceable trap to catch large unforeseen contaminants prior to the plate heat exchangers. The process water plate exchanger can also be taken apart for removal of scale build-up and cleaning. Considerable time and effort in the Hydro Heat Pro component layout and trailer access design ensure that general maintenance, burner change-outs and plate heat exchanger servicing are convenient and practical.

Each plate heat exchanger has a 2 million Btu/h capacity, with a 20% fouling factor to effectively manage the output from the hot water heater. Therefore, 100% of the heating fluid flow can be directed to one plate heat exchanger. If your next job requires a different fluid to be heated, the valving can direct the heating fluid to the other plate heat exchanger. This increases flexibility, reduces cleaning and the risk of contamination.

With two plate heat exchangers, two different fluids can also be heated simultaneously. Since the two plate heat exchangers are plumbed in parallel, they both will receive heat transfer fluid from the water heater at approx. 180 °F.

#### Specific applications for the Hydro Heat Pro:

- Acting as a boiler tie-in, heating and circulating a building's heating fluid for potable hot water and building heat.
- Heating and circulating potable hot water in a building complex, bypassing the building's boiler/water heating system.
- Heating and circulating water for washing facilities at large multiple day events and gatherings.
- The heating and circulating of water for processing plants, mining and oil field projects.
- For larger jobs, where one DryAir heating unit is not adequate, the Hydro Heat Pro's plate heat exchanger can be connected in series to boost output.



# PRODUCT SPECS

# HYDRO HEAT PRO

## 1800 HHP *cont'd*

## SPECIFICATIONS

### Dimensions:

L 212" x W 93.5" x H 114"

Weight ..... 9,000 lbs (estimate)

Burner..... Two stage

### Fuel Specs:

#### *Diesel*

#### Input Capacity

- 1,792,000 Btu/h

#### Output Capacity

- 1,523,000 Btu/h

#### Consumption (max)

- 12.8 US gph

#### *Natural gas*

#### Input Capacity

- 1,690,000 Btu/h

#### Output Capacity

- 1,352,000 Btu/h

#### Consumption (max)

- 1,577 cu ft/h

#### *Propane*

#### Input Capacity

- 1,715,000 Btu/h

#### Output Capacity

- 1,372,000 Btu/h

#### Consumption (max)

- 18.7 US gph

### Water heater:

Water jacket/fire tube type

### Fluid temperature

range ..... 130°F to 180°F

### Controls and monitoring:

Pump and temperature controls, full gauge panel showing circulation fluid temperatures and pressures, 7-light system operation feature for easy troubleshooting

### Water heater circulation pump:

3 hp, 110 US gpm @ 30 psi

Electrical ..... 230 V, single phase, 60 Hz, 2 x 30 A (L14-30)

### Internal fluid circulation system:

#### *Basic features*

- Atmospherically vented low pressure system with a single supply and return, adjustable fluid temperature control, auto pressure bypass for pump protection and variable flow demands, auto temperature bypass for heat exchanger protection

### Plate heat exchangers:

2 million Btu, serviceable, quantity 2, one for potable and one for process water

### Plate heat exchanger pumps:

3 hp, 110 US gpm @ 30 psi, quantity 2

### Contamination protection:

Pre-screening prior to the plate heat exchangers

### Quick connect couplers:

2" Kamlok® couplers

### Heat transfer fluid (HTF):

Non-toxic propylene glycol/water mixture

### Loading (standard):

Forklift pockets

### Loading (optional):

Bolt on lifting frame

### Certification:

CSA/UL certified



## READY TO WORK

In many jurisdictions, the use of a pressurized boiler or a hydronic heater with a rating of over 1 million Btu results in increased permitting, inspections and staff with boiler tickets. Using a non-pressurized water heater system, with two 900,000 Btu burners in the 1800 Hydro Heat Pro, minimizes these overhead costs and the timeline, significantly influencing the success of your heating project.

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