



EQUIPMENT PROFILE

GT70 Skid Mounted Heating Unit

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The GT70 Skid Mounted Heating Unit is a compact, continuous, forced circulation, diesel fired liquid heating unit. Its self-regulating capabilities analyze the outlet temperature of the heated liquid, calling for an addition or reduction in fuel rate. This internal control system allows for optimized fuel consumption, reducing operating costs along with its carbon footprint. It also ensures safety while achieving operational outcomes. The GT70 is ideal in many heating applications, including those involving wells, pipelines, and storage tanks.

Equipment

The forced circulation heater contained within the GT70 distributes hot combustion gases over three separate carbon steel heating coils. This provides the GT70 with an effective 32.3 m² (348 ft²) heating surface, generating 8,000,000 BTU per hour and producing discharge temperatures as high as 121°C (250°F). Its powerful 99 HP John Deere™ diesel engine provides the GT70 with ample electrical and hydraulic power, enabling discharge pressures up to 250psi, while the attached centrifugal pump maintains a circulation rate of 500 litres (132 gallons) per minute. The 3000 litre (792.5 gallon) diesel storage tank delivers to both engine and heater, allowing 12 hours of continuous heating operation. These features, along with internal lighting and easy access connection points, contribute to the GT70's 24-hour stress-free operation.



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Capabilities

Flow Capability: up to 500 liters (132 gallons) per minute

Heating output: 8,000,000 BTU per hour

Discharge Temperature: up to 121°C (250°F)

Discharge Pressure: up to 250 psi

Fuel Ratings

Consumption Rate: 255.5 litres (67.5 gallons) per hour or 4.26 litre (1.125 gal) per minute

Combustion Air: 68 m³ (2400 ft³) per minute

Internal Capacity: 3000 litres (792.5 gallons)

Heating Efficiency: 85% (tested 91%)

Requirements

The GT70 is required to have spill containment or be placed in a berm. Heating and Hoarding is required at subzero temperatures. If the GT70 is enclosed, it must be supplied with 68 m³ (2400 ft³) per minute of combustion air, and adequate ventilation must be provided.

Skid Footprint

| Length | Width | Height | Weight |
|-----------------|----------------|-------------------|--------------------------|
| 6.12 m (20') | 2.44 m (8') | 2.95 m (9' 7") | 14,000 kg (6,350 lbs) |

Applications

The GT70 is suitable for most water and oil-based heating applications. Under optimal conditions, it performs as follows:

| Water: Cp=4.186 kJ/Kg/K | | |
|-------------------------|------------------------------------|------------------------------------|
| Temperature Change °C | 400 Barrels 63.6 m ³ | 200 Barrels 31.8 m ³ |
| 10 | 32 | 19 |
| 20 | 59 | 32 |
| 30 | 86 | 46 |
| 40 | 113 | 59 |
| 50 | 140 | 73 |

| Oil: Cp=1.970 kJ/Kg/K | | |
|-----------------------|------------------------------------|------------------------------------|
| Temperature Change °C | 400 Barrels 63.6 m ³ | 200 Barrels 31.8 m ³ |
| 10 | 18 | 11 |
| 20 | 30 | 18 |
| 30 | 43 | 24 |
| 40 | 56 | 30 |
| 50 | 69 | 37 |



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