

TT-409 Z

Oil temperature control unit

- high performance unit with wide temperature range: -4°F up to +464°F
- for reactors and double-walled vessels



Oil -4°F up to 464°F

Heating capacity **81'891 BTU/hr**

Cooling capacity

93 kW @ 446°F tubular heat exchanger

150 kW @ 176°F plate heat exchanger

Cooling system indirect

Applications: reactors 13.2 - 39.6 gallons



Functions

- Self-optimizing temperature controller with temperature display 1/10°F – steps
- Display in °C or °F and l/min or gal/min
- Digital flow display and monitoring
- Automatic temperature control
- Switchover for temperature control at the consumer
- Heating switchable in stages
- Heaters with cascade connection
- Pressure indication: pump, compressed air unit, compressed air mains
- With pressure regulation

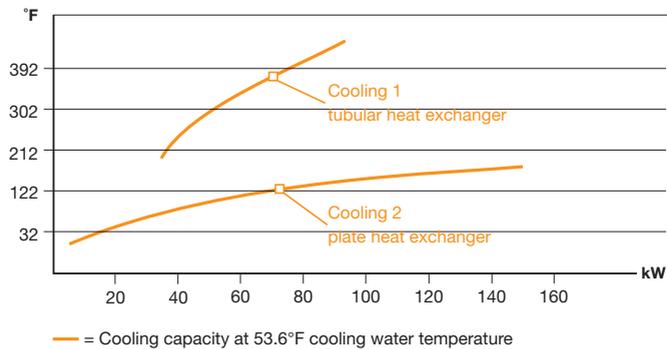
Construction

- High temperature pump with mechanical seal
- Hot oil circuit with bypass, which ensures the internal oil circulation when the valves are closed
- With two cooling circuits:
circuit 1: +176°F to +464°F
circuit 2: -4°F to +176°F
- Limescale free heat exchanger
- No cracking of the oil thanks to special heating construction
- All parts in contact with water are made of stainless steel or bronze
- Unit on castors

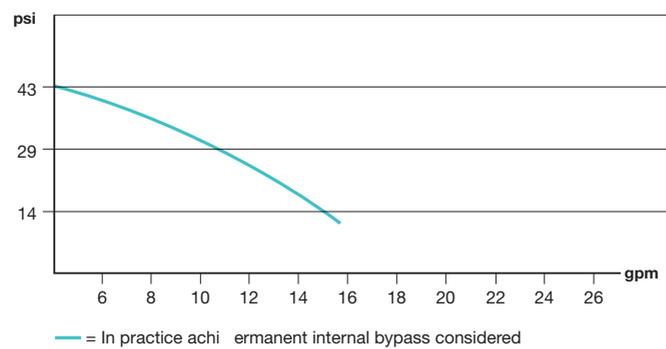
Safety features

- Level control for dry run protection
- Expansion vessel with safety shut-off in case of overflow
- Electronic temperature limitation and monitoring in the controller
- Mechanical safety thermostats
- Visual and acoustic fault indications
- Integrated circuit breakers
- Main switch, transformer and motor protection switch

Cooling capacity



Pump capacity



Technical data

Product attribute	Unit	TT-409 Z
Temperature range	°F	-4°F up to +464°F with heat transfer liquid
Temperature control		Self-optimizing, electronic microprocessor controller MP-988 with digital display of the set and actual value. Automatic temperature monitoring.
Flow control		Electronically, with digital display and automatic control of the minimum flow.
Heating capacity	BTU/hr	81'891 BTU/hr
Switchable in stages		8/8/8 Automatic switching of the required heating power
Cooling capacity		
Cooling 1		93 kW at 446°F – see diagram - tubular heat exchanger
Cooling 2		150 kW at 176°F – see diagram - plate heat exchanger
Pump capacity		
Motor	HP	2.4 HP
Pressure mode		Max. 80 psi / max. 26.4 gpm – see diagram
Expansion tank capacity		12 gallons
Filling amount		15.8 gallons
Expansion volume		9.5 gallons
Connections		
Oil circuit		1" NPT female thread
Cooling water		¾" NPT female thread
Water-glycole		¾" NPT female thread
Compressed air		¼" NPT female thread, min. 72.5 psi
Dimensions (LxWxH)	inch	54.3x28.4x29.1 inch, incl. castors
Weight	lbs	Approx. 750 lbs, empty
Colour		Silvergrey RAL 7001