

Tank Container Refrigeration Unit

Klinge Corp's Tank Container Refrigeration Unit, Model TCR-109, heats and cools the tank's cargo by circulating brine or synthetic oil around external cooling coils in the tank. The unit is designed so the mechanical section fits on the side of the container and the electrical control box is at the end of the container where it is easily accessible when stacked at a terminal or onboard vessels.

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This system is used to transport hazardous and non-hazardous chemicals, pharmaceuticals, food products and beverages. Klinge Corp has been providing this model to companies around the world for nearly 30 years.

PHOTO OF THE TANK CONTAINER REFRIGERATION UNIT (MODEL TCR-109)



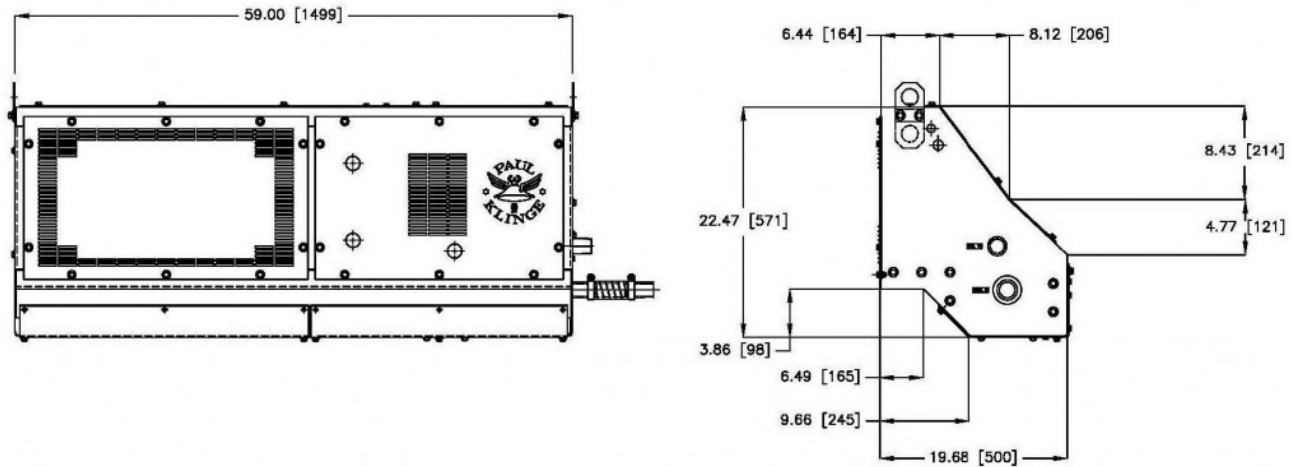
Klinge Corporation's convenient front mounted control box & lightweight tank refrigeration unit maximizes cargo load and service-ability



Tank Container Refrigeration Unit - Model TCR-109

FEATURES OF THE TANK CONTAINER REFRIGERATION UNIT (MODEL TCR-109)

- » Unit is compact and lightweight.
- » Fits neatly alongside the tank container.
- » Easily mountable / demountable.
- » Components require low level of maintenance intervals.
- » Copeland Scroll compressor offers superior refrigeration capacity and efficiency.
- » MicroProcessor Controller (MPC), the most flexible and simplest to operate, yet still compact and reliable.
- » Easy access chiller section door saves a tremendous amount of time in maintenance and repair.
- » Noise level will not exceed 78 dB (A) in 250, with unit fitted on the container, when measurement is taken in front of the unit 47 in (1.2 m) above bottom and 23 ft (7 m) distant.
- » Able to be installed in a number of configurations



Refrigerated Tank Container Drawing - Model TCR-109

SPECIFICATION OF THE TANK CONTAINER REFRIGERATION UNIT (MODEL TCR-109)

- » Dimensions: L 59 in (1499 mm), D 20 in (500 mm), H 22 in (571 mm)
- » Weight: 317 lb (144 kg), Remote Electric Panel - 53 lb (24 kg)
- » Unit maintains cargo and cooling liquid temperatures of -20°F (-29°C) to 84°F (29°C). Unit will function and work satisfactorily in ambient temperature from -40°F (-40°C) and +122°F (+50°C). Components are storable in temperature up to 140°F (60°C).
- » Construction: Aluminum Frame, Stainless Steel Hardware
- » Compressor: Scroll, 3600 RPM @ 60 Hz
- » Chiller: Vertical Attitude, Stainless Steel, Brazed Plate
- » Condenser Coil (Air Cooled): Vertical Attitude, Copper Tube, Aluminum Fin, Fin Space 10 Per in (3.62 mm)
- » Condenser Fan: Blower (Forward Curved), Ø9.2 in (233 mm), 1750 RPM, Aluminum Blade Material, Direct on Motor Shaft
- » Condenser Fan Motor: Nominal HP 1.5, Totally Enclosed Air Over, IP 56, Class F Insulation
- » Glycol Expansion Tank: A small atmospheric expansion tank has to be fitted. This simple atmospheric tank can be fabricated as part of the container structure. It is conveniently located at a high point.
- » Refrigerant: R404a
- » Designed to operate on: A/C 460/380 Volts +/- 10%, 3 phase 60/50 Hz +/- 2.5%
- » Control Circuit: A/C 24/20 Volts
- » Capacity: 100°F / 37.8°C Ambient Temperature at 60 Hz power.

Return Air Temp: Net Capacity:
 35°F (1.7°C) 3400 Kcal/h / 13,500 BTU/hr
 0°F (-17.8°C) 2270 Kcal/h / 9000 BTU/hr

- » OPTIONS: **Datalogger**, frame or beam tank mounting, pressurized expansion tank, additional

horn and strobe warning lights, 5 kW heater, dual system for hazardous cargo, satellite communication, alternative heat transfer fluids for high and extreme, dual voltage transformer low temperature

Klinge Group's machinery complies with International Customs Regulations for Containers, relevant ISO recommendations, and the rules of B.V., ABS and Lloyds.