

**Product Name :**  
Cascade Refrigeration Test Rig

**Product Code :**  
RLE-0001



**Description :**

Cascade Refrigeration Test Rig

**Technical Specification :**

**Cascade Refrigeration Test Rig** that is used to find the COP of individual Refrigeration cycle. The offered rig is manufactured by utilizing high grade raw material and advance technology by our skilled engineers. Apart from this, our rig is tested on various parameters in order to ensure its sturdiness and quality. Clients can avail this rig from us in different specifications and at affordable prices.

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**Features:**

- Sturdy construction
- Easy to operate
- Impeccable performance
- Negligible maintenance

**Range Of Experiments:**

- To find the COP of individual Refrigeration cycle.
- To find the COP of cascade cycle.
- To determine the Refrigeration effect, Work output, Actual C.O.P, Carnot C.O.P., Theoretical C.O.P, Tonnage of refrigeration.
- To study various parameters and heat balance of cascade refrigeration system.

**Specification:**

- **High Pressure Side Compressor:** Hermetically sealed compressor having cooling capacity of (3/4 ton), Make: Emerson or Equivalent.
- **Low Pressure Side Compressor:** Hermetically sealed compressor having cooling capacity of (1/4 ton), Make: Emerson or Equivalent.
- **Evaporator:**

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Copper Coil immersed in insulated water tank (shell) of stainless steel water tank, Capacity of 75 liters. To achieve Temperature of -35 Deg C with the mixture of Ethylene Glycol.

- **Condenser:** Air-cooled condenser with copper fins. This is a tube type condenser, FHP fan motor with fan blade is provided.
- **Cascade Condenser:** Tube and Tube type Condenser with copper tubes.
- This is a tube type condenser.
- **Expansion device:** 2 No

#### Capillary Tube:

- Diameter : Suitable
- Material : copper
- **Rota meter:** 2 No, for measuring flow rate of liquid refrigerant.
- **Refrigerant:** (R-22) & (R-404a).

#### Pressure Gauges:

- 0 to 300 PSI (R-22) - 1 no.
- Compound Gauge -30 to 150 PSI (R-404a) - 1 nos

**Multipoint Digital Temperature Indicator:** 2 No, to measure temperatures at various salient points of the refrigeration cycle.

- **HP/LP cut-out:** 2 No. Danfoss or equivalent.
- **Service valve:** 4 nos. Brass type.

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- **Filter / Drier:** 2 nos. Danfoss or equivalent make.

**Service Required:**

- Single phase 230 V AC, 15 Amp supply.
- Space required: 2mtr x 1.5 meters.

## **Civil Mechanical India**

**Website:** [www.civilmechanicalindia.com](http://www.civilmechanicalindia.com), **Email:** [export@civilmechanicalindia.com](mailto:export@civilmechanicalindia.com)

**Address:** 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, +91-0171-2601773