

RAC01.xls Revision No: 05 Date: April 23, 2021

REFRIGERATION TRAINER

MODEL: RAC01



FEATURES

- Compact, comprehensive, sturdy design
- Smooth and silent operation
- Total instrumentation for complete heat balance
- Direct flow measurement of refrigerant
- Study of refrigeration effect/process

DESCRIPTION

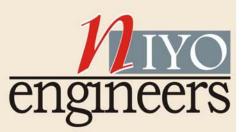
An invaluable aid in the effective understanding of the refrigeration process.

The trainer is designed for the study of thermodynamics of vapour compression refrigeration cycle by way of demonstration and experimentation.

It has a facility to measure various parameters for experimentation. Optionally, a Fault Trainer can also be provided as an additional teaching aid.

INSTRUCTION MANUAL

Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual



LIST OF EXPERIMENT

- 1. To study the actual Refrigeration effect against varying load.
- 2. Determination of Coefficient of performance based on actual cycle.
- 3. Determination of cycle efficiency.

COMPONENTS

- 1. Compressor
- 2. Condenser
- 3. Expansion Device
- 4. Temperature Indicator with sensors
- 5. Evaporator coil placed in a water tank
- 6. Electric heater to load the system
- 7. Pressure gauges
- 8. Rotameter to measure refrigerant flow
- 9. Water Stirrer
- 10. Energymeter
- 11. HP LP Cut out

OPTIONAL ADDITIONAL

1.	Computerised <mark>refrig</mark> eration trainer
2.	An advanced personal computer based model. This system has
	facility of data acquisition, plotting on-line and historical trends.
	It carries ou <mark>t com</mark> plete calculations to determine performance. A
	comprehen <mark>sive H</mark> ELP menu makes the system user friendly.
2	Refrigeration components out away model board

3. Refrigeration components cut away model board.

Note: Details of attachments can be made available on request.

SERVICES REQUIRED

- 1. Water supply and drainage arrangement
- 2. Electric supply

DIMENSIONS AND WEIGHT

Less than $0.3 \ T$

- Weight: 110 Kg (Without packing)
- Dimensions: 800 mm X 600 mm X 1850 mm (H)

More than 1T

- Weight: 150 Kg (Without packing)
- Dimensions: 1100 mm X 900 mm X 1850 mm (H)

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(1) Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice

(2) Photographs are indicative only