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Product Name :
Compressed Air Refrigeration Training Bench

Product Code :
LBNY-0005-1410009



www.laboratoryinstrumentindia.com

Description :

The demonstrates the types of systems that are used in a lot of small applications in dangerous environments where systems using electrical power cannot be used or where there is no electrical power supply. A Compressed Air Refrigeration Training Bench for studying refrigeration using compressed air. Using the whirling motion of a specially designed and shaped vortex distributor, the compressed air expands and is divided into a cold stream and a hot stream. This is an unusual method of producing cold air by the expansion of compressed air. The cold stream is utilised and the hot stream is exhausted into the environment. The designed and manufactured to incorporate all current safety standards.

Experiments:

Thermodynamics of compressed air
Plotting the air transformation due to air expansion on a temperature-entropy diagram
Coefficient of performance (C.O.P) determination
Demonstration of producing hot and cold air through a system that has no moving parts
Determining the outlet temperature in relation to the feed pressure
Determining the useful refrigeration power
Detecting the operating curve of a vortex tube by varying the inlet pressure and the weight ratio between hot and cold air.

Technical Specification :

Feed pressure regulator
Electronic thermometers
Vortex tube 300 l/min at 7 bars

Pressure gauge

Double vortex compressed air expansion chamber.

Flow meters:

Quick connection for compressed air feed

Control of air flow entering the vortex tube by a pressure regulator located on the front panel.



Laboratory Instrument India