THERMODYNAMIC

TE-605 SERIES AND PARALLEL AIR COMPRESSOR TRAINING SET

GENERAL EXPLANATION

This training set is prepared to experimentally apply the thermodynamic working principles of a typical air compressor used for compressed air production.

EXPERIMENTS

1. PV = mRT relationship and P-T diagram in air compression
2. Pressure-flow and flow-time relationship in single-stage single cylinder compression
3. Pressure-flow and flow-time relationship in single-stage parallel compression
4. Pressure-flow and pressure-time relationship in two-stage (series), intercooled air compression
5. Calculate volumetric efficiency based on compressor compression ratio in parallel operation
6. Total efficiency calculation based on compressor compression ratio in parallel operation
7. Volumetric efficiency change due to compressor compression ratio in series operation

DIMENSIONS

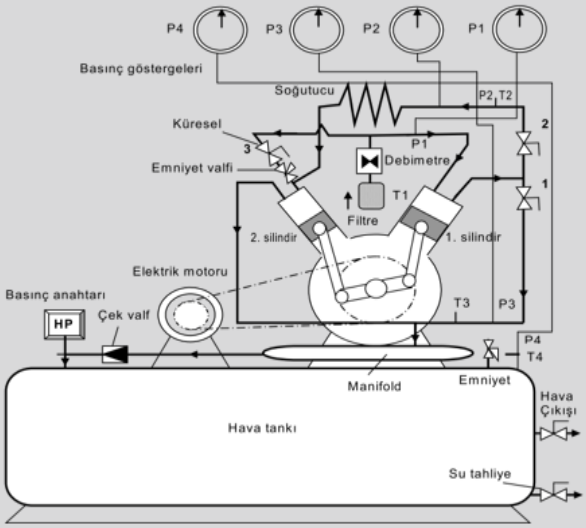
A x B x H : 1650 x 800 x 1650 mm

OPTIONAL FEATURES

- Touch LCD Display
- USB Computer Connection
- Computer Control

TECHNICAL SPECIFICATION

Basic thermodynamic calculations of air compressors are being made. The compressor uses pressure, volume, mass, R coefficient and temperature values for series and parallel compaction, intercooled compaction test.



TECHNICAL DETAILS

- Speed sensor
- Digital cycle indicator
- Pressure manometer
- Ball valve
- Compressor
- Pressure switch
- Pressure measurement from 4 different points
- Temperature measurement from 5 different points
- Digital measurement of electrical data

PACKAGE INCLUDED

Device, device cover, 1 printed experiment report, circuit diagram and product catalog