

**Product Name :**

Two Stage Air Compressor Test Set Air Water Cooled

**Product Code :**

CHINAELABC3720005

**Description :**

Two Stage Air Compressor Test Set Air Water Cooled

**Technical Specification :**

The Two Stage Air Compressor Test Set Air Water Cooled is for studying the two stage reciprocating air compressor characteristics.  
For educational purpose, the two stages are separated and can be operated at different speeds.  
Both stages are connected by vee-belts to the same motor with an advanced inverter.  
The second stage compressor has three alternative pulleys to vary the pressure ratio between the two stages.  
An intercooler is provided between first and second stage.  
The air receiver has a drain valve, a safety valve and a discharge valve.  
The piping system is arranged such that intercooler or second stage compressor can be by passed.  
The unit is equipped with necessary measuring instruments and is on wheels.

Experiments of Two Stage Air Compressor Test Set Air Water Cooled  
Compressor characteristics eg. volumetric efficiency, isothermal efficiency, pressure ratio, temperature ratio.  
Effect of compressor speed.  
Effect of intercooler.  
Effect of second stage drive ratio.

Technical Data of Two Stage Air Compressor Test Set Air Water Cooled  
Compressors  
Type : Air-cooled, two stage.  
Displacement : Approx 300 ml.  
Second stage : Completed with three different diameter pulleys.

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Maximum working pressure : 12 kg/ cm<sup>2</sup>.

Air receiver : Approx 90 l or as requested.

Intercooler : Water cooled, counter flow heat exchanger.

Measuring instruments

Speeds : Digital display.

Pressures : Pressure gauges at first stage and second stage outlets, and air receiver.

Air flow rate : Inlet orifice plate with air box and inclined water manometer.

Motor input power : Advanced inverter.

Temperatures : Air inlet and outlet of each stage, cooling water inlet and outlet.

Cooling water flow rate : Rotameter.

Input power : Advanced inverter.

Accessory : Barometer.

Power supply : 220V 1Ph 50 Hz. Other power supply is available on request.



**Engineering Lab China**