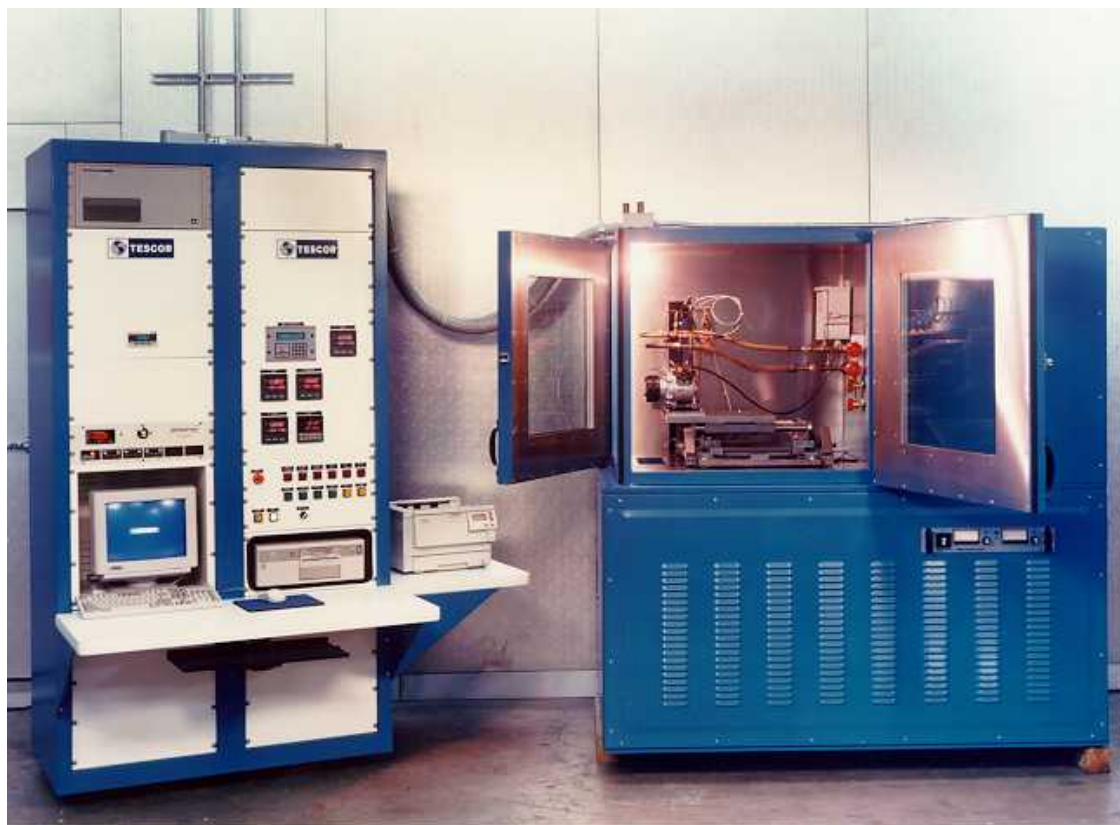




TESCOR

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Automotive A/C Compressor Calorimeter



Tescor's Automotive A/C Compressor Calorimeters are designed in accordance with Ashrae Standard 23 and ISO Standard 917. The calorimeters are provided with a secondary refrigerant calorimeter vessel and Micro Motion coriolis mass flow sensor to provide accurate and repeatable determination of compressor capacity.

Tescor's calorimeter system provides the customer with control of such parameters as compressor speed, discharge pressure, liquid temperature or sub-cooling, suction temperature or superheat, and suction pressure. In addition, Tescor offers as an option an oil control loop that allows the user to precisely and accurately control and report the percentage of oil in circulation automatically, in real-time.

The calorimeter systems are designed to provide heat balances within $\pm 2\%$ with a repeatability of $\pm 1\%$. Tescor offers a standard line of automotive compressor calorimeters up to 16.7 ton capacities.



TESCOR

Automotive A/C
Compressor Calorimeter
Typical Specifications

PARAMETER	UNITS	CONTROL RANGE	STABILITY
Discharge Pressure	Psia	145 to 465	± 2
	Kpa	1000 to 3200	± 14
Suction Pressure	Psia	0 to 100	± 0.2
	kPa	0 to 700	± 1.4
Liquid Refrigerant Inlet Temperature	°F	60 to 160	± 0.2
	°C	15 to 50	±0.1
Suction Temperature	°F	-15 to 100	± 0.2
	°C	-25 to 35	±0.1
Compressor Chamber Temperature	°F	Ambient to 250	± 3.6
	°C	Ambient to 120	±2
Compressor Speed	RPM	800 to 12,000	± 0.05% FS
Oil Flow Rate (Optional)	Lbs/hr	0 to 180	±.25% of refrigerant flow
	Kg/hr	0 to 90	

- ❑ Refrigerants Tested: R-12, R-134a (Other refrigerants as required)
- ❑ Capacity Range: Up to 200,000 BTUH (60 Kw) with 10:1 turndown range
- ❑ Software
 - Create Tests And Sequences for Automatic Operation
 - User configurable data acquisition channels
 - User configurable calculation channels
 - Loop Calibration Utility
 - Dedicated hardware checkout routine
 - Color coded stability status indicators
 - Stability tolerance adjustment on the fly
 - Time-history graphing capability
 - Automatic Test Report Generation
 - Data File Management and Search Tools
- ❑ Performance Measurement
 - 2% agreement or better measured mass-flow to calculated mass-flow
 - 1% repeatability of test results

Note: The specification shown above are typical. Tescor can customize your system to provide the performance that you require.

Tescor manufactures a full line of Automotive Climate Control Test Equipment such as: *A/C System Calorimeters, Radiator Calorimeters, Condenser Calorimeters, Evaporator Calorimeters, Heater Core Calorimeters, Oil Cooler Calorimeters, Charge Air Cooler Calorimeters, Clutch Test Stands, Compressor Endurance Test Benches, Compressor Noise Test Benches and Compressor Audit Benches.*