

DynoTronics

Dynamometer -- Service Training Consulting

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Oil Cooling System

DT- OCS - (E) or (M)

Short Description

This cooling system enable close control of engine oil temperature. It is mainly used when an engine is tested under full load for long extends of time. Typical is endurance testing and ECU mapping.

The system consists of 2 major parts : heat exchanger and temperature control.

The heat exchanger used is an industrial grade type, normally found on industrial engines.

An oil filter is installed on the system. This prevents cooler damage, or expensive cleaning, in the case of a engine failure.

The control system controls the oil temperature by sensing the fluid temperature inside the shell. An electronically controlled (E) or mechanically controlled system (M) is available. The electronically controlled version has a control unit in the operator room while the mechanically controlled version needs adjusting in the dyno room.



Oil Cooling System DT- OCS- (E) or (M)

General Specifications

Power rating (continuous)	600 Hp
Temperature Range	60degC 150degC
Max cooling fluid pressure	8 bar (10 bar for mechanic system)
Temperature control loop	Mechanically or Electronically
Engine Water connection	Dash 10 connection
Cooling Water connection	PN16 flange (DN15)
	(Other dimensions and flexible tubing on request)
Level gage	No
Oil filter	Yes , Standard
Stand alone or wall mounted	
Pre-Heater	No, Optional
Circulating Pump	No, Optional
Colour Powder Painting	RAL7001
	(other colours on request)

Detailed Specifications

Heat Exchanger

Max Power	600 Hp
Max Tubes Pressure	10 bar
Max Shell Flow	45 l/min
Max Tubes Flow	30 l/min
Max Temperature	170 degC
Shell Volume	3 litre

Electronically Controlled Temperature (E type)

Servo Valve

Max Pressure	8 Bar
Max Flow	150 l/min
Max Temperature	170 degC
Principle	0-10 Volt industrial servomotor
Safety	normal open valve

Control Unit

4 Digit Digital indicator, Process Value and Setpoint Value
Auto tune PID loop for ease of control
Control Range 0 200 degC
Control precision 1 degC
Power Supply 110 240 Vac (50 - 60 Hz)
Setpoint changes through front panel (up down buttons)
Flash memory for retaining set-up parameters

Mechanically Controlled Temperature (M type)

Valve

Max Pressure	10 Bar
Temp Range	70-110 degC
Setpoint by manual control	