Exhaust Gas Recirculation System (Product Code: R&DU06)



Features

- Extensive range of Experiments
- Comprehensive teaching manual
- Three-year warranty
- Esthetically designed and finished Rig.
- High Quality instrumentation

Product Description

In the present system the Exhaust gas coming out of the engine is passed to an EC (Exhaust cooler). The exhaust gases from the EC after cooling are passed via a valve and digital manometer. The digital manometer is provided in order to find the total amount of exhaust gas flow (when the EGR Control Valve is closed) and valve for controlling the flow. The digital manometer operates within the temperature range of 10- 50ºC; this is the reason for cooling the exhaust gas after the EGR system. In the main Exhaust line a tapping is provided for EGR system. The Exhaust gas from the tapping via a (stepper motor controlled) valve and is passed to the EGR Cooler, where the exhaust gas is cooled before sending it to the engine. A digital manometer is provided at the inlet manifold of the engine in order to know the flow of Exhaust gas to the engine. To allow desired percentage of EGR into the engine, the first step we should find the total flow of exhaust gas with the digital manometer provided after the EC. If the flow is supposing 40mm, therefore 40mm is the 100% at some particular load. If we wise to pass 10% EGR, now the EGR Control valve is slowly opened until we reach 4mm reading in the digital manometer provided at the intake manifold of the engine.

Product / Component Specification

Surge Tank	Size: Square (Size: 500mm X 500mm) Material: Mild Steel
Stainless Steel EGR Cooler	Shell and tube heat exchanger and suitable Mild steel piping Minimum temperature 50ºC
Control Valve	0-100% Flow rate
Power Supply	230 V
Mounting Frame & Connecting Hose	Suitable Mounting Frame & Connecting Hose has to be provided for to mount in any kind of engine
EGR Valve	Micro controller based control valve with EGR software

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