

**Product Name :**  
Computerized Variable Compression Ratio Diesel Engine Test Rig

**Product Code :**  
TK954



**Description :**

Computerized Variable Compression Ratio Diesel Engine Test Rig

**Technical Specification :**

Computerized Variable Compression Ratio Diesel Engine Test Rig  
Engine

Compression Ratio Variable: 5:1 to 20:1

Number of cylinder: Single

Cooling: Water cooled

Fuel: Diesel

Speed: 1400 – 1500 RPM

HP: 3 to 5HP

Starting: Manual crank start

Lubrication: Forced

Dynamometer

Eddy Current

Cooling: Air

Load measurement method: Strain gauge

Speed: 3000rv/m

HP: 5HP

Coupling type: Direct

Exhaust gas Calorimeter: Pipe in Pipe

Data Acquisition System, Sensors, Controls and Software

Sensors

Engine Combustion Pressure Sensor: Piezo-electric 0-100 Bar  
Crank angle: Rotary 360 PPR  
Air Measurement: DP Sensor 0-500 mm WC  
Fuel Measurement: Optical constant volume, fully automatic (0.1 to 10 Kgs/hr)  
Speed: Encoder 10000  
Dynamometer Load: Strain Gauge Load cell  
Temperature Sensor:  $\mu$  Type  
Engine Cooling Water Rotameter  
Exhaust Gas Calorimeter Cooling Water Rotameter  
Data Acquisition System: High Speed DAC with 1 mega samples/sec  
Controls: Fuel injection System with controls Software: Windows Based Engine Combustion Analysis and performance Software, Fuel injection and control software.  
EGR System  
A standalone EGR system with facility to electronically change the percentage of EGR to the Engine. The EGR system is provided with the below mentioned measuring instruments.  
EGR Flow sensors  
EGR Temperature  
Turbo Charger  
Turbo air charging and air preheating heating unit. The turbo air charging and air preheating heating unit has the facility to change the air flow rate and temperature with respective measuring instruments.  
Digital Manometer.  
Air Temperature.  
Manifold Gas Injection  
Intake gas pressure to the System is Greater than 1 Bar lesser than 1.5 Bar  
Injection Timing Variable 0 to 720° Crank Angle (Controlled from Computer)

## Naugralabequipments

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