

## Educational working engine model with (TSI) direct petrol injection

Self – contained, fully operational engine is installed in a mobile frame. This training engine with direct petrol injection (TSI) system is specially designed to demonstrate the engine management system and operational structure. The educational training engine is based on Audi/VW original (refurbished) components with MOTRONIC MED 17.5.5 engine management system.

The training engine is a great educational tool that allows students to learn the structure of the engine and its components, power supply system, cooling system, engine control system, turbocharger. It also allows to study components and operation modes of the engine control system, perform various measurements, tests and other diagnostic procedures.

### Technical specifications and functions

- The educational functional engine model with direct petrol injection (TSI) system, instrument cluster, cooling system, power supply system, turbocharger and the exhaust system
- Ability to measure the exhaust gas before and after the catalytic converter
- Completed with safety removable panels to protect against hot and rotating parts
- Electric wiring diagram with built – in banana plug jumpers for measurements and simulation of system fault codes
- Ability to simulate more than 30 faults by disconnecting Banana plug jumpers
- The engine with external components is clearly visible after removing safety panels. Easy access to the engine and its components for service and maintenance
- Integrated engine emergency stop button

### Diagnostic and measurement

#### Oscilloscope/multimeter

- System's parameters are measured by connecting to the banana connector
- Ability to measure electrical signal parameters of each system component (such as sensor or actuator)
- Ability to measure high voltage circuit of the ignition system

#### Control unit diagnosis

- Diagnosis through OBD 16 – pin diagnostic connector
- Electronic control unit (ECU) identification
- Reading/erasing fault codes
- Displaying the operating system parameters (live data)
- Actuator test (Depends on the control unit)
- Throttle adaptation
- Control unit coding/configuration

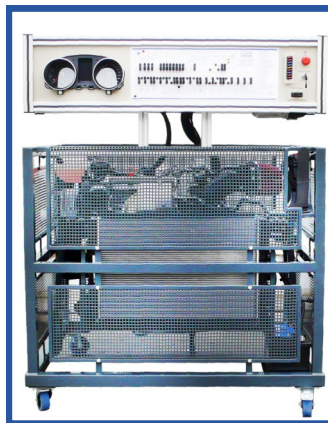
#### Other

- The stand has a closed structure – internal wiring is not visible; Instrument cluster, measurement and fault simulation panel is integrated in a closed aluminum frame construction;
- Dimensions approx.: (HxLxW) 1550x1000x1200 mm
- Nett weight approx.: 300 Kg
- Made in Lithuania
- CE certificate

### Optional accessories

- Examination console for 10 hidden fault simulations
- Vacuum gauge
- The pressure gauge in the fuel supply line
- Automotive oscilloscope
- OBD diagnostic scan tool
- The gas analyzer
- The exhaust extraction system

*According to customer's request there is a possibility to manufacture car or truck (petrol or diesel) working engine model!*



Order Nr. MVTSI 1

