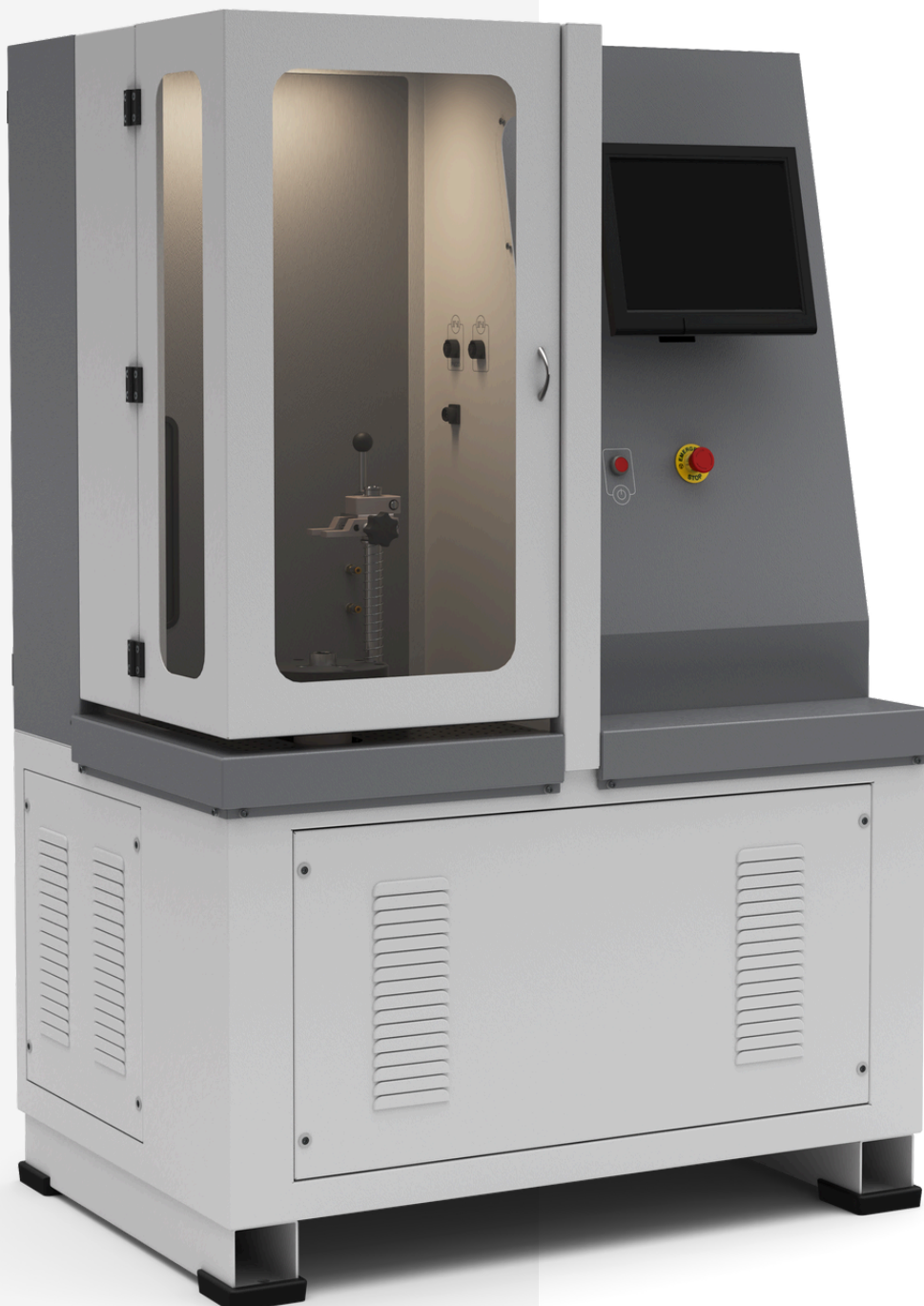


TK1029.H.PD - Standard CR TESTING

The most powerful, accurate, and precise solution for **Heavy-Duty Common Rail** injector testing.





TK1029.H.PD - standard CR TESTING

Testing capabilities

- Test bench designed for testing both regular and heavy-duty common rail injectors.
-
- Drive system & software: Faster operation with the new electronic drive system and Maktest CR1 test control software; capable of measuring large injectors up to 1000 mm³/stroke.
-
- Temperature control: Improved temperature control for higher accuracy in fuel measurements.
-
- 24/7 heavy-duty operating conditions: Suitable for continuous testing with enhanced filtration, a larger/redesigned test oil tank, cooling algorithm, motor drive, and master pump selection for operations targeting back-to-back testing in long shifts (nearly 24/7).

Measurement capacity options:

Approximately 700 HP measurement capacity (400 mm³/Str) for on-road (truck/construction equipment) applications; accuracy optimized within this range.

L'Orange MTU Series 4000.01 (KO2001), MTU Series 4000.03
L'Orange CR (KO1950)
Cummins QSK-19 (KO2002) and Cummins XPI / QSX11.9 (KO2006 / KO1768)
Bosch MTU 2000 series (KO2003)
Scania XPI (KO2005)
Bosch CRIN 4.2 (4 pin) Double Magnetic (KO2004)

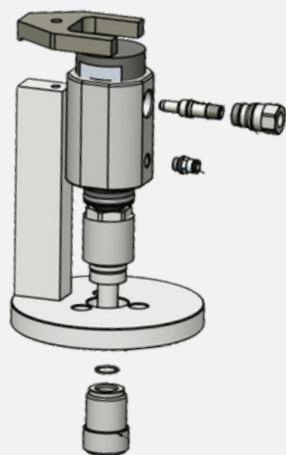
Heavy-duty injectors such as L'Orange MTU 1163, MTU4000, Cummins QSK

Bosch, Denso, Delphi, Siemens; also OEM examples such as Caterpillar, Komatsu, John Deere, Renault, Iveco/Cummins, MAN, Daewoo, Ford, Hyundai, Isuzu, Volvo, DAF, Foton/Shanqi, Massey Ferguson, Golden Dragon, etc.

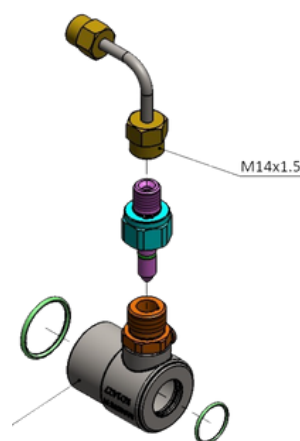
CR
adapter list



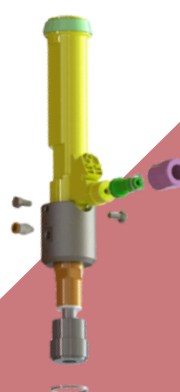
KO1427
BOSCH-RENAULT



KO1950
MTU Series
4000.03
L'Orange CR



KO1943
BOSCH - VOLVO
CR/IPL21/ZERIS20S

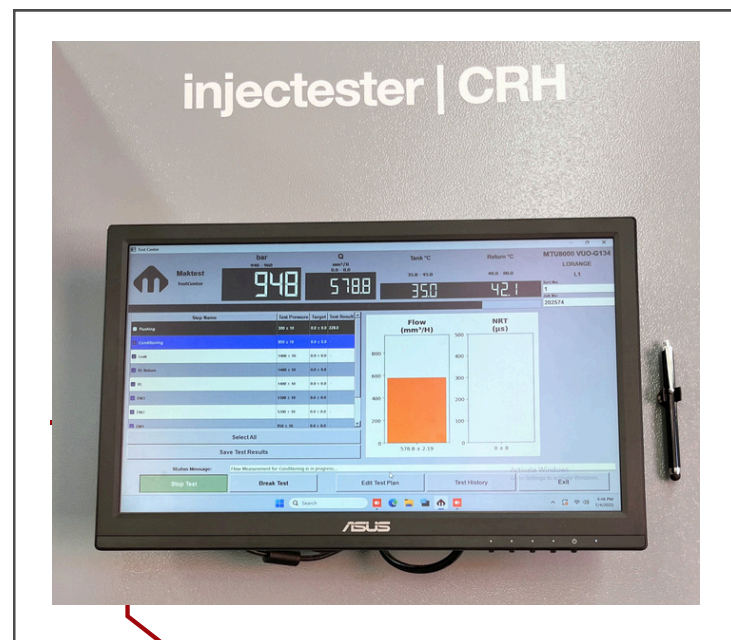


User profile

- High-volume service and refurbishment centers: Workshops that test injectors in succession, operate long shifts, and require high repeatability.
- Heavy-duty / super heavy-duty applications: Areas such as marine and high-output generator sets with high flow rates and large injectors (High Flow capacity)
- On-road truck & construction equipment services: Applications up to approximately 700 HP class with standard measurement capacity.
- R&D and mass reconditioning operations: Users requiring dynamic flow/valve response analysis and comprehensive reporting with the Introduction Rate option.

Materials Included in the Standard Product

- Delivery hose (100 cm)
- Rubber feet – 4
- Power cable – 1
- High pressure fuel connection – 1
- Clamp for TK1029-3 bench (bench clamp) – 1
- Injector cable (crocodile clips) – 1



Maktest CR1 test control software simplifies the creation and management of test plans; it provides the operator with a fast and repeatable measurement process.

Configuration Options

Measurement Capacity Option: Standard / Hi Flow

Voltage Options: 200–240 Vac / 360–415 Vac

Coding Option: No Coding / Bosch IMA Coding

High Pressure System

HP Pump: Bosch CP3 veya Denso HP3

HP Pump Motor: 7.5 kW; 1400 rpm @ 50 Hz / 1800 rpm @ 60 Hz

Max Pressure: 2200 bar

Pressure Regulator: Bosch

Rail Volume: 28 cm³

Test Oil Supply System

Tank: 27 L

LP Supply Pump: 4 L/min, max 4 bar

Heater Element: 2 kW

Cooling System: Air Cooled

Filter: 5 micron

Instrumentation / Electronics

HP Sensor: Bosch 2200 bar

Standard Flow Sensor: Gear Type 1000 mm³/stroke
@ 1000 injections/min

Nozzle Response Time (NRT): Piezo + acceleration
correction, within 10 microsecond accuracy

Electronics: Maktest CR1

Machine Dimensions: 930 (W) × 650 (D) × 1690 (H) mm; Weight: 270 kg

Packing Dimensions: 1090 (W) × 860 (D) × 1890 (H) mm; Weight: 360 kg