



# Heavy Duty Common Rail Injector Test Stand

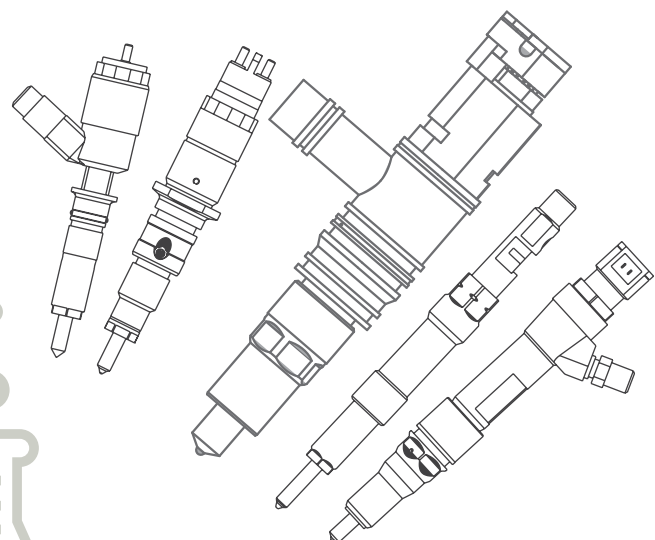
## Independent solution provider for diesel injection problems

MTU 4000 and 2000 series engines are equipped with Common Rail Injectors. These engines are varying between 2700 Kw to 3400 Kw and either 12, 16 or 20 cylinders. The common rail injectors are L'Orange and Bosch Injectors.

TK1029 injectester CRH is designed for testing high pressure and high volume injectors. Its metering capacity is up to 2000 mm<sup>3</sup>/stroke. Latest design metering system incorporates a sophisticated cooling system to be able to test these type of heavy duty injectors successfully.

Additionally, TK1029 injectester CRH is capable to test all injectors for passenger car light commercial and of course truck engines. There are more than 500 test plans in its database and being updated periodically.

Maktest has Training Centers in 5 locations around the world. Training centers are focused to help customers to stay up to date with new diesel injection systems. Customers are trained for repairing common rail injectors, using special tools and interpretation of test results. Training centers provides continuous support to the customers to help them solve their repair and diagnose problems with diesel injection problems.



The only powerful, accurate and  
precise solution for Heavy Duty  
Common Rail Injector testing

Maktest is manufacturing diesel injection test equipment since 1977. Maktest products are distributed in more than 70 countries around the world and more than 3000 test equipment is actively in operation in these countries. Well recognized brand names dizotester, pumptester, injectester, unittester are Maktest products.

ISO 9001  
BUREAU VERITAS  
Certification

No: 223176



# An easy solution for a big problem

Worldwide sales and service network provide timely and reliable support to all questions.

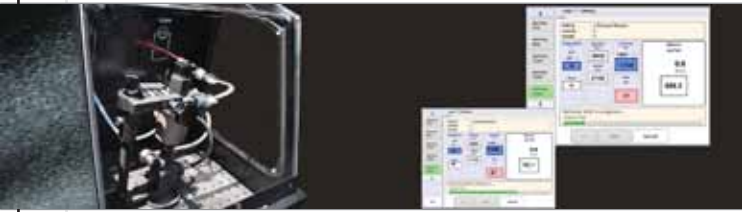
## Features

### Quick Clamp for Heavy Duty Applications



Easy set-up with reinforced clamping mechanism helps to reduce overall testing time.

### High Flow Testing Capacity



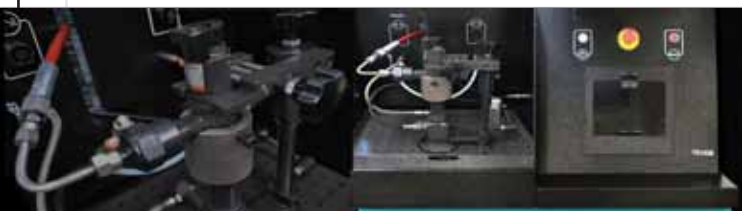
Improved metering capacity now allows to test up to 2000 mm<sup>3</sup>/Stroke fuel delivery. Therefore TK1029 CRH is capable to test both on-road and off-road Heavy Duty Common Rail Injectors at the same time.

### Accurate Temperature Control



High Flow rate often creates heating problem when testing. Therefore TK1029 CRH is designed to have advanced temperature control systems to maintain temperature during testing.

### Automatic Testing



TK1029 CRH does not need any attendance during testing.

Test procedure is conducted automatically and a summary test report is displayed on the screen when testing is finished.

### Piezo and what is more?

Future is our today and we build machines for tomorrow. That is why TK1029 can test any common rail injector no matter it is piezo or anything else. TK1029 infrastructure is capable to run many and more.

## Technical Specifications

High Pressure Test Oil Transfer System	Pressure is controlled digitally between 100 and 2000 bar.
Injector Drive System	System is designed to be able to drive future injectors. It can drive electromagnetic injectors as well as piezo injectors. Drive system is capable to inject 3 times per injection cycle.
Control System	Control computer with 10" LCD. Touch Panel runs Windows 7 OS. Special control software operates TK1029 with high accuracy.
Fume Extraction	Patented filter system extracts the fume and filters it to drain. Powerful extraction capacity prevents fume from escaping out of spray chamber.
Delivery Measurement	Electronic Fuel Measurement System (TK1029.H)

## Required Utilities

### Electricity Supply

TK1029.H	380VAC 50 or 60 Hz 3 phase
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## Delivered Accessories With This Product

KO1738	L'Orange Common Rail Injector Adaptor Kit
AP1638	DELPHI CABLE
AP1639	BOSCH CABLE
AP1640	DENSO CABLE
AP1642	SIEMENS CABLE
AP1648	CABLE FOR HEAVY DUTY APPLICATIONS
AP1675	CABLE FOR MERCEDES APPLICATIONS
KO1365-2	ADAPTOR FOR JOHN DEERE-DENSO
BA1369	FLEXIBLE HIGH PRESSURE HOSE
AP1713	INJECTION DELAY SENSOR CONNECTION CABLE
KO1538	BOSCH CR RETURN CONNECTOR
KO1485	MAINTENANCE KIT

## Optional Accessories and Tools Recommended

KO1560	Torque Wrench Digital
KO1521	Denso Repair Tool Set
KO1579	Bosch CRIN 2.0 - 3.0 Service Tool Set
KO1382	CRI 1.0 - 2.0 - 2.2 and CRIN 1.0 Repair Tool Set
KO1475	Clean Bench for Electronic Injector Repair, Including Injector Clamp and Ultrasonic Cleaner

## For Various Common Rail Injector Applications

KO1426	DENSO-KOMATSU (095000-0560)
KO1427	BOSCH-RENAULT (0445120020)
KO1428	BOSCH-IVECO/CUMMINS (0445120113-0445120114)
KO1429	BOSCH-MAN (0445120030)
KO1430	BOSCH-DAEWOO (0445120040)
KO1431	BOSCH-FORD (0445120025)
KO1432	DENSO-JOHN DEERE (095000-5480/5050)
KO1459	DENSO-HYUNDAI (095000-5550)
KO1462	BOSCH-MAN (0445120056)
KO1472	DELPHI-JAGUAR X400 (4S7Q-9K546-BD) (EJDR00504Z)
KO1484	DENSO-JOHN DEERE (7560-07K00201)
KO1502	DELPHI-MERCEDES-SMART (RA0020109751)
KO1583	CATERPILLAR 320C
KO1584	DENSO-095000-6222
KO1592	DENSO (0562 011 0516) (095000-1211)
KO1631	BOSCH-CUMMINS F-2093-02-370
KO1587	BOSCH-CUMMINS 0445 120/007-059-075-123
KO1644	BOSCH 0445120 078 FAWY-GOLDEN DRAGON

Please contact to the nearest dealer to obtain latest adaptor list for Common Rail Injectors. Maktest is continuously work design adapters for the new injectors.



Maktest Makina Sanayi ve Ticaret A.Ş.

A. İzmir Ankara Yolu No:12/1 Ulucak - Kemalpaşa 35170 / İzmir, Türkiye  
 T. +90 (232) 877-08-35 M. info@maktest.com.tr  
 F. +90 (232) 877-07-82 W. www.maktest.com.tr



Test Bench Dimensions  
 Width 1000mm  
 Depth 730mm  
 Height 1680mm  
 Weight 270kg



Package Dimensions  
 Width 1160mm  
 Depth 1000mm  
 Height 1920mm  
 Weight 350kg