

TK1029

HEAVY DUTY COMMON RAIL INJECTOR TEST BENCH

TK1029
IS A TEST BENCH
FOR BOTH
REGULAR
AND
HEAVY DUTY
INJECTORS



TK1029 Model Options:

TK1029.H.PD

HEAVY DUTY CR TESTER - HIGH FLOW WITH PD

- Standard pressure of 2700 bar.
- Provides precise measurement using a Rotometer manufactured in Germany.

TK1029.H.CO

HEAVY DUTY CR TESTER - HIGH FLOW WITH CORIOLIS

- Offers more precise measurement with Coriolis flowmeter. This model is more expensive than the PD option.

TK1029.H.PD.RT

HEAVY DUTY CR TESTER - HIGH FLOW WITH INTRODUCTION RATE

- Measures with Rotometer. The RT system is a specially designed system to measure injector fuel efficiency (FLOW) under 40 bar pressure.
- This system uses a steel tube with an internal diameter of 5-6 mm, honed and helically coiled, along with precision valves.

TK1029.H.CO.RT

HEAVY DUTY CR TESTER - HIGH FLOW WITH CORIOLIS AND INTRODUCTION RATE

Provides more precise measurement with Coriolis flowmeter and includes the RT system.

Injector nozzle measurement is performed with more precise instruments, and signal graphs are displayed on the screen.

Advantages Offered by the RT System:

High precision fuel efficiency measurement

Specially designed steel tubing and precision valves

Detailed signal graphs displayed on the screen



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

- TK1029 family, is more than a test bench with its new electronic drive system and many updated features.
- In the mean time all of those features helps to accomodate Heavy Duty Injectors such as L'Orange MTU 1163, MTU4000, Cummins QSK and as such for testing and many updated features.
- If you are looking for a test bench to test injectors one after other during long shifts, almost running 24/7; TK1029 is the test bench you should be looking for. The test bench is designed as such to cope with continuous testing, with its better filtration, larger and different design test oil tank, cooling algorithm, motor drive and master pump selection.
- The new electronic drive system and CR1 test control software are faster and capable to measure bigger injectors up to 1000 mm³/stroke. Another new feature is a improved temperature control, providing more accuracy in injector fuel readings.



MEASUREMENT CAPACITY OPTIONS

STANDARD:

Measuring system capacity is limited to measuring On-Road Vehicles including Trucks and Work Machines up to 700 HP (400mm³/Str). The precision for measuring upto this level delivery is maximized.

HIGH FLOW

Measuring system capacity is designed to measure high fuel deliveries from super Heavy Duty applications like high output generator sets, marine applications e.g. MTU 4000, MTU1163 etc. Horsepower rating ofr such engines start from 1000HP to 8000 HP.

MEASUREMENT TECHNOLOGY OPTIONS

PD:

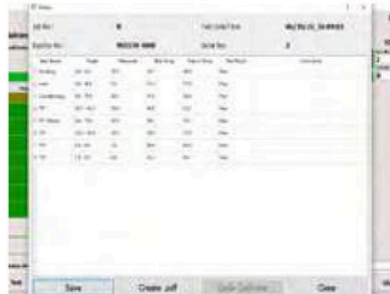
Positive Displacement sensor is used as standard.

Coriolis:

Mass measurement with high accuracy and precision is obtained in delivery measurement.

Introduction Rate:

Measuring the flow rate of each injection, helping observe control valve response, dynamic flow characteristics of nozzle. System is capable present oscilloscope views of flow. Extensive reporting is available with custom software development as per customer's specifications. System is recommended for mass reconditioning operation and R&D labs.



Company Name:
 Address:
 Tel No:
 Email:
 Equipment No: 0000

CRI Injector Test Results

Job No.	Injection No.	Serial No.	Fuel Type
1	00000000	1	000000_000000

Job	Ref	Target	Quantity	Time (s)	Pressure (bar)	Temp (°C)	Pass/Fail	Comment
0000	000	0.0 x 0.0	10.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	20.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	30.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	40.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	50.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	60.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	70.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	80.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	90.0	0.0	0.0	0	Pass	
0000	000	0.0 x 0.0	100.0	0.0	0.0	0	Pass	

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Code Option:

Currently only Bosch IMA Coding option is available. More options will be included in the near future.

No Coding: Standard Model. Bosch IMA Coding: Option provides coding calculator for Bosch Electromagnetic and Piezo injectors, including ISA Classification.

Bosch IMA Coding: Option provides coding calculator for Bosch Electromagnetic and Piezo injectors, including ISA Classification. Feel free to contact us for more information, or watch application videos in TK1029 Channel on product page.

WHAT'S INCLUDED?

DELIVERY HOSE	100 cm
RUBBER FEET	4
POWER CABLE	1
PC CDs	1
HIGH PRESSURE FUEL CONNECTION CLAMP FOR TK1029-3	1
INJECTOR CABLE CROCODILE CLIPS	BENCH 1

TECHNICAL SPECIFICATIONS

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 or Denso HP3

High Pressure System/ HP Pump Motor
7.5 kW. 1400 rpm @50 Hz; 1800 rpm @60 Hz

High Pressure System / Max Pressure
2700 bar

High Pressure System / Pressure Regulator
Bosch

High Pressure System / Rail Volume
28 cm³

Test Oil Supply System / Tank
27 L

Test Oil Supply System / LP Supply Pump
4 L/min, max 4 bar

Test Oil Supply System / Heater Element
2kW

Test Oil Supply System / Cooling System
Air Cooled

Test Oil Supply System /Filter
5 micron

Instrumentation / HP Sensor
Bosch 2700 bar

Instrumentation /Standard Flow Sensor
Gear Type 1000 mm³/stroke @ 1000 Injections per minute

Instrumentation /Nozzle Response Time (NRT)
Piezo with Acceleration correction. within 10 microsecond Accuracy

Instrumentation /Electronics
Maktest CR1

Machine Dimensions

Width: 930 mm
Depth: 650 mm
Height:1690 mm
Weight: 270 kg

Packing Dimensions

Width: 1090 mm
Depth: 860 mm
Height: 1890 mm
Weight: 360kg

Optional Accessories for Various CR

KO2000 Standard Injector (Bosch - Denso - Caterpillar etc.) Clamping Unit
 KO2001 KO2001 ADAPTER SET FOR L'ORANGE MTU Series 4000.01 INJECTOR
 KO2002 QSK-19 Adapter Set
 KO2003 KO2003 ADAPTER SET FOR BOSCH MTU 2000 SERIES for Old & New Types
 KO2005 Scania XPI Adapter Set
 KO2004 ADAPTER SET FOR BOSCH CRIN 4.2 (4 PIN) Double Magnetic.
 KO2006 CUMMINS XPI ADAPTER SET
 KO1950 MTU Series 4000.03 L'Orange CR Injector Adapter
 KO2005 SCANIA XPI ADAPTER SET
 KO1389 BOSCH (0445 120 064 / 137 / 394)
 KO1426 DENSO - KOMATSU (275) (0561 09E 0582) (095000-0560)
 KO1427 BOSCH - RENAULT (0445120020)
 KO1428 BOSCH - IVECO/CUMMINS (0445120 113 / 114)
 KO1429 BOSCH - MAN (0445 120 030 / 061 / 202 / 218)
 KO1430 BOSCH - DAEWOO (0445120040)
 KO1431 BOSCH - FORD (0445120025)
 KO1432 DENSO - JOHN DEERE (095000-5480 /5050)
 KO1768 CUMMINS XPI (QSX11.9) (2872127)
 KO1459 DENSO - HYUNDAI (095000-5550)
 KO1462 BOSCH-MAN (0445 120 024 / 044 / 055 / 056)
 KO1472 DELPHI-JAGUAR X400 (EJDR01001D) (EJDR00504Z)
 KO1484 DENSO - JOHN DEERE (7560-07K00201)
 KO1502 DELPHI - MERCEDES - SMART (RA0020109751)
 KO1584 DENSO - ISUZU (095000-6222 09K60394)
 KO1587 BOSCH-KOMATSU (0445 120 007 / 059 / 075 / 123 / 140 / 212 / 250) (F431-4-8965)
 KO1592 DENSO-KOMATSU (PC800) (0562 01L 0516) (095000-1211 09K0047)
 KO1631 BOSCH-CUMMINS (0445 120 070) (0445 120 241) (0445 120 121 - (F2093-02-0370))
 KO1634 DELPHI (EMBR00002D)
 KO1636 SIEMENS - FORD 6.4 L (1875072C91)
 KO1714 BOSCH - VOLVO (0445 120 066 / 067 / 141)
 KO1715 BOSCH-FOTON/SHANQI (0445 120 086)
 KO1716 DENSO-MASSEY FERGUSON (095000-6490)
 KO1718 BOSCH (0445 120 102)
 KO1737 BOSCH - MAN (0445 120 092 / 157)
 KO1767 DELPHI - DAF (1742535)
 KO1830 BOSCH - MAN 0445 120 026/045/098/099/105/147
 KO1860 DENSO - 095000-5450
 MO1105 RETURN ADAPTOR - DELPHI
 AA3459 CR PIPE CONNECT NIPPLE-DENSO INJ
 AP1757 INJECTESTER CR DELPHI INJECTOR CABLE
 BA1351 RETURN CONNECTION NIPPLE
 KO1583 CATERPILLAR (320DL-32F61-00062)
 KO1902 Bosch CRIN Injector Adapter suitable for 0445 120 078 and same body size injectors.
 KO1644 ADAPTOR SET FOR BOSCH-GOLDEN DRAGON 0445 120 078

LEARN MORE: COMMON RAIL TESTING 



About Us

Since its establishment in 1981, our company has been producing CR test equipment, HEUI test equipment, EUI injector and pump test equipment, mechanical test equipment and devices that can diagnose faults with close to one hundred percent accuracy, and has a dealer network that organizes its sales to the whole world.

Started the production of 9 types of turbochargers, which are modules of diesel vehicles and appeal to 68 different model vehicles with 1.3, 1.4, 1.5 and 1.6 liters.



Technical Support

To get help from our technical support, simply contact us today. The expert technical team responds quickly to all service requests registered on the web page.



Reach To Dealer

Maktest is located in İzmir, Turkey. We work with our authorized dealers to provide fast and perfect service in our sales, installation and after-sales services to the whole world. You can contact us via our website to learn about Maktest dealer near you.



Universal Solutions

All makes injector and pump testing



Maktest Warranty

Defect and malfunction coverage



Always Up-to-date

Continuously develops software for better test results

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