

repairing the future...

# UTS1004

## ELECTRONIC UNIT INJECTOR AND UNIT PUMP TEST BENCH

What makes equipment professional?

- Capacity?
- Capability?
- User friendliness?
- Flexibility?
- Convenience?

UTS1004 injectester UIP has all these features built in. It is designed upon 30 years of diesel injection background of Maktest combined with excellence.

UTS1004 is not designed only for testing; its abilities reach far beyond, providing fine details such that to guide professionals directly to solution.

**WE provide our customers;**

- Updated information concerning test and repair instructions,
- Latest version control software and drivers,
- User's manuals and troubleshooting guides,
- Repair manuals for repairing various unit injectors and unit pumps.



An easy solution  
for a big problem

UTS1004 is the all makes Unit Injector and Unit Pump Test Bench. Currently more than 1000 units actively being used in 75 different countries, proving its wide range capability and effectiveness.

## Features

### Adjustable Cam Stroke

provides testing being as close to as standard working conditions of the injector. Internal pressure level maintains same as when running on the engine, creating a similar condition like in the engine and allowing the delivery to be compatible to the engine conditions.

UTS1004 patented Cam Box design, allows to set the cam stroke without

- draining oil,
- removing cam
- adjusting timing

It only takes turning a knob a few times to set the cam stroke.

### Wide Application Range;

from Caterpillar to Continental VDO

### UTS1004 has the technical infrastructure to test

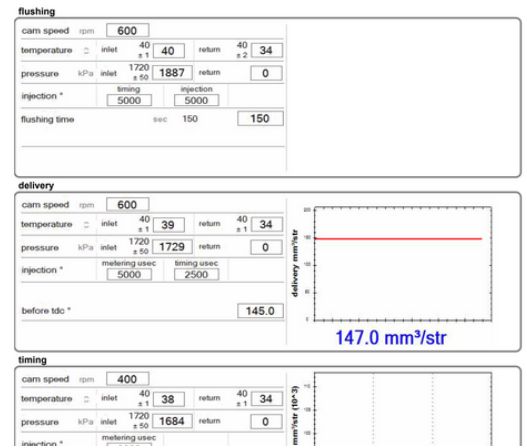
- Caterpillar EUI: 3406E; zC15; C10;C11;C12;C13;C18; 3116 MEUI, 3500 MEUI; 3500E.
- Cummins: Celect N14/M11/M11+; HPI (ISX and QSK); K-STC;
- Bosch EUI/EUP all types.
- Delphi: A0; A3; E1; E3; F2P
- Detroit Diesel: all types.
- Continental VDO all types.

### SRT Measurement

UTS1004 is capable to measure the Solenoid Response Time. SRT value determines the condition of the solenoid, assembly of the control valve with the spring tension and valve stroke. SRT value determines the timing of the delivery and thus relates to many problems such as smoke at acceleration and idling problems.

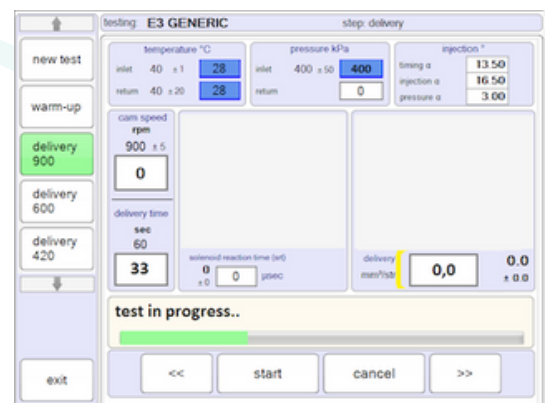
### Easy User Interface with Test Plan Create and Calibrate Function

UTS1004 user interface provides all the necessary data on the test screen readily available for the user to decide the condition of the injector. The software allows the use to create different test plans. Software help user to keep the test plan target values calibrated with its automatic calibration feature.

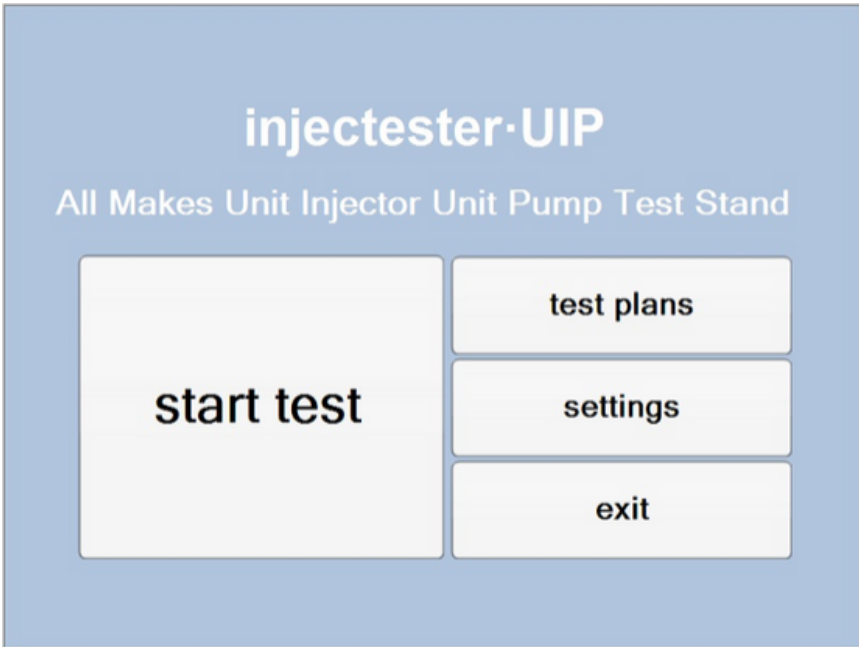


Test Report as PDF File

Manual or Automatic Test



Test Screen Image



Home Screen

**Electricity Requirement**

360-415 Vac 3 phase 50/60 Hz.  
Transformer must be used when local supply is 200-240 3 phase 60 hz.

100- 240 Vac 1 phase 50/60 Hz for electronics and computer.  
Air Supply Min 5 bar, oil and water free @6L/min flow.

**Mechanical Equipment**

Main Motor : 7.5KW  
Speed Control : AC Drive: 100 to 1200 rpm  
Cam Box : Universal Profile, stroke set between 10 and 18 mm.

**Test Oil Transfer System**

- Tank : 30 L
- Pump : 4 L/min; gear type
- Supply Pressure : 0-25 bar; manually adjusted
- Return Pressure : 0-6 bar; manually adjusted
- Test Oil Heater : 2kW
- Test Oil Cooler : Air Cooled, with -5 °C/min with 4L/min transfer; usina seperate transfer pump

**Instrumentation**

- Flow/Delivery : Gear Type Flowmeter; max capacity 1000 mm<sup>3</sup>/str digitally displayed as graph mm<sup>3</sup>/str vs time
- SRT : ±10µs accuracy with respect to real BIP, digitally displayed as graph SRT Value : (µs) vs test time
- Inlet Pressure : 0-25 bar, digitally displayed
- Return Pressure : 0-6 bar, digitally displayed
- Supply Temperature: 10-160 °C digitally displayed
- Return Temperature : 10-160 °C digitally displayed.



Patented Cam Box; stroke set between 10 & 18 mm.



One of Test Adapters

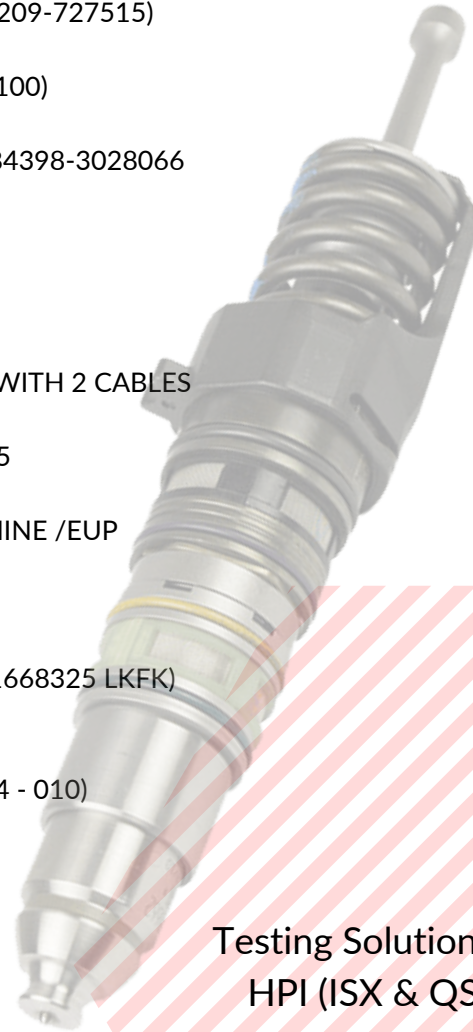
**Dimensions**

Machine Dimensions:  
Width: 1200 mm  
Depth: 800 mm  
Height: 1830 mm  
Weight: 590 kg

Packing Dimensions:  
Width: 1390 mm  
Depth: 1080 mm  
Height: 1970 mm  
Weight: 700 kg

## Optional Accessories for Various EUI / EUP

CB50400 DELPHI A3 TYPE @ VOLVO  
CB50500 BOSCH VW-AUDI-SEAT SKODA  
CB50600 BOSCH MERCEDES ACTROS TRAVEGO / EUP  
CB50700 BOSCH MERCEDES AXOR / EUP  
CB50800 VOLVO-BOSCH (8113408)  
CB50900 BOSCH IVECO  
CB51100 DELPHI LUCAS LAND ROVER - 17491CS  
CB51300 CATERPILLAR 3500 (EUI 1320202-108528)  
CB51400 BOSCH SCANIA  
CB51500 CATERPILLAR 3116 (1071232-220264-1278209-727515)  
CB51600 CATERPILLAR 2113025-2235320  
CB51700 MARIN MECHANICAL INJECTOR (BR55510 100)  
CB51900 DETROIT DIESEL SERIES 60  
CB52000 CUMMINS MECHANICAL INJECTOR MS 3084398-3028066  
CB52100 CATERPILLAR C10 (1660155-437290AU)  
CB52200 BOSCH DAF-RENAULT /EUP  
CB52300 BOSCH DEUTZ  
CB52400 SIEMENS PPD 131021 / 1121013  
CB52500 BOSCH VW-AUDI-SEAT-SKODA NEW TYPE  
CB52600 DELPHI E3 & E1 TYPE @ VOLVO/RENAULT WITH 2 CABLES  
CB52700 CUMMINS CELECT N14  
CB52800 CUMMINS MECHANICAL INJECTOR NTA855  
CB52900 DELPHI A3 TYPE @ HYUNDAI TRUCKS  
CB53000 BOSCH VOLVO HEAVY DUTY WORK MACHINE /EUP  
CB53100 ADAPTOR FOR SIEMENS VOLKSWAGEN  
CB53200 BOSCH NISSAN (9 443 613 182)  
CB53300 CUMMINS CELECT M11 - M11+ - ISM  
CB53400 DELPHI UNIT PUMP FOR DAF (092330311 1668325 LKFK)  
CB53600 LUCAS ( KCCOT120A0020)  
CB53700 VOLVO HEAVY DUTY ( 0414 750 003)  
CB53800 BOSCH IVECO PDE 100S4003 (0414 703 004 - 010)  
CB53900 BOSCH (0414 693 003)  
CB54000 DELPHI John Deere Tractor  
CB54100 BOSCH IVECO (0414 700 003)  
CB54200 BOSCH 0986 411 029  
CB54300 BOSCH 0412 010 594  
CB54500 CATERPILLAR 3500 (MUI)  
CB54600 CATERPILLAR 2490713  
CB54700 LUCAS John Deere  
CB54800 UNIT PUMP BOSH-DEUTZ (0414 491 107)  
CB54900 VOLVO-BOSCH (0986 441 004-0414 701 004)  
CB55000 DEUTZ PUMP (0428 7047)  
CB55100 CUMMINS - QSK (4088428)  
CB55300 CUMMINS MECHANICAL INJECTOR @ ISX (1521978-1464976)  
CB55500 DETROIT DIESEL DD15 DELPHI E3 INJECTOR ADAPTER SET  
CB55600 DETROIT DIESEL MUI (53/71/93) ADAPTER SET  
CB55700 DETROIT DIESEL SERIES 149 EUI ADAPTER SET  
CB55800 DETROIT DIESEL 8 MM EUI ADAPTER SET  
CB56000 ADAPTER FOR EMD INJECTOR EUI  
CB56100 VOLVO F2 PUMP INJECTOR ADAPTER SET



Testing Solutions of Cummins  
HPI (ISX & QSK) Injectors

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