

**CRU.2R**

**CRDI SOLUTIONS**

## **Diesel Injection Systems**

Innovative, compact and professional  
solutions for every workshop to test  
& service Diesel Injection Systems

## **CRU.2R**

Common Rail Revolutionary testing solutions for BOSCH, DELPHI, DENSO and VDO, Heavy Duty and Light Duty applications. All types Piezo, Solenoid & Dual-Solenoid actuators.

**Standalone Air Driven Bench**

**High Pressures 2800 bar**

**NVcT: VCC / NCC / EU6 Needle**

**Control Testing CRS.3-27 / CRS.2-25**

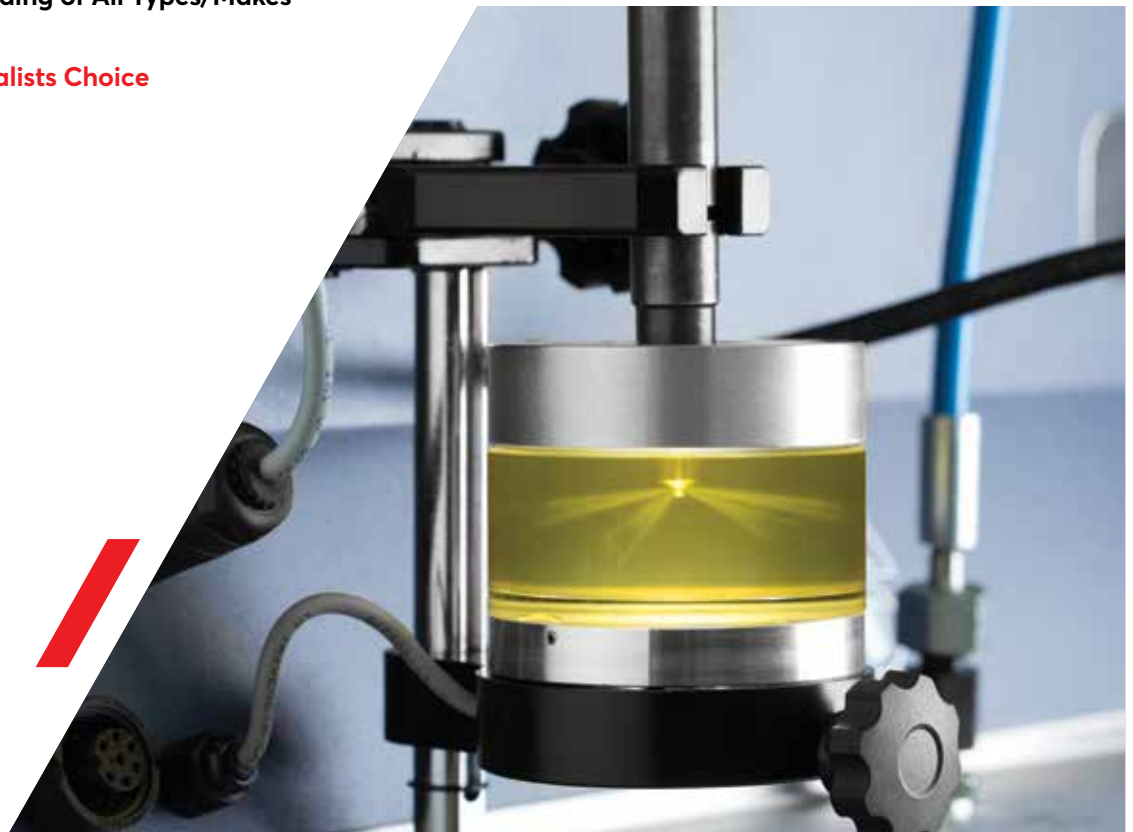
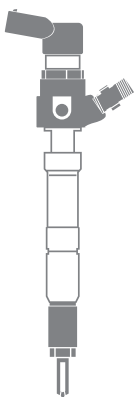
**/ i-Art and more Capable**

**Compact Size for Every Laboratory**

**Fully Automatic and Fast Testing**

**Testing & Coding of All Types/Makes**

**Diesel Specialists Choice**



**VDO**  
Authorized



## **CRU.2R**

Compact Diesel Common Rail Test Bench for 1 CRi(N) / 1 CRiN  
4.2 solenoid or piezo injector in under 7min



High Pressure Testing up to 2800Bar (EU6) with only 6.5 Bar Air supply input

VDO CR injectors (EU5) testing only with approved Energy Control by **VDO**

Tests New EU6 Generation CRI3-25, CRI3-27, Denso I-Art(6-pin) and more with NCC and VCC technology

Injector Coding VDO IIC, Delphi C2i/C3i, Bosch IMA/ISA and Denso QR

Nozzle reaction time measurement for all systems via RSP sensor

Efficient Working Area with Protective Hood fully opening

The fastest and easiest clamping of injectors in the market

Controls all Types and Makes of Injectors. Includes OEM Database and Test Plans

Fully Automatic and fast testing phase through a 10" Touchscreen HMI with AZO software

CRDi Piezo Stack Regeneration function (wake-up)

Blue Limits Diagnosis for Diesel Specialists

Dynamic Electronic Mass (BK) Measurement

Connects to Carbon Zapp's HUIR solution for testing HEUI Systems

Dual System - Flushing / Cleaning system using detergents and Ultrasonics

Emergency Safety Stop function



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# CZ Technologies

## Tests Performed

### R2LC

Electrical actuator test for k $\Omega$ / $\mu$ F,  $\Omega$ / $\mu$ H

### CFL

Check For internal and external Leaks

### NLT

High Pressure Nozzle Leakage

### LKT

Static Back Leakage (Overflow) measurement

### aNOP

Automatic Nozzle Opening Pressure

### iVM (FL, PL, EM, LL, PI)

Injector Volume Measurements (full-load, part-load, emissions, low-load, pre/post-injection.)

### iVM-aDFi

Injector Volume Measurement Performance Ramp (multiple testpoints slope / different Pressure points)

### RSP

Injector Nozzle Response Time

### BIP [ EUI / EUP systems ]

Injector / Pump Control Valve Response Time for Unit Injection Systems

### SPR

Dynamic Spray Test performed in all testing conditions up to 2800Bar

### Extra Tests

High pressure Control Valve operation (DRV, IMV, VCV, PCV, etc...) High Pressure Sensor reaction, High Pressure relief safety valve operation CR Pump flow limiter valve operation (ZME, IMV, SCV.)

### MIM

Multiple Injection Metering (up to 8 fully programmable delay and overlap times)

## Features

### AZO Software

Advanced Android based HMI/PC, Wi-Fi printing, sharing, syncing, software/ hardware & database updating, via USB or Wi-Fi, Real-time Oscilloscope and CSV data export

### Reports

Easy fail-track color report for each component tested. Single-page Quick report or Multi-page Analytic reporting

### aMACC Flushing / Cleaning function

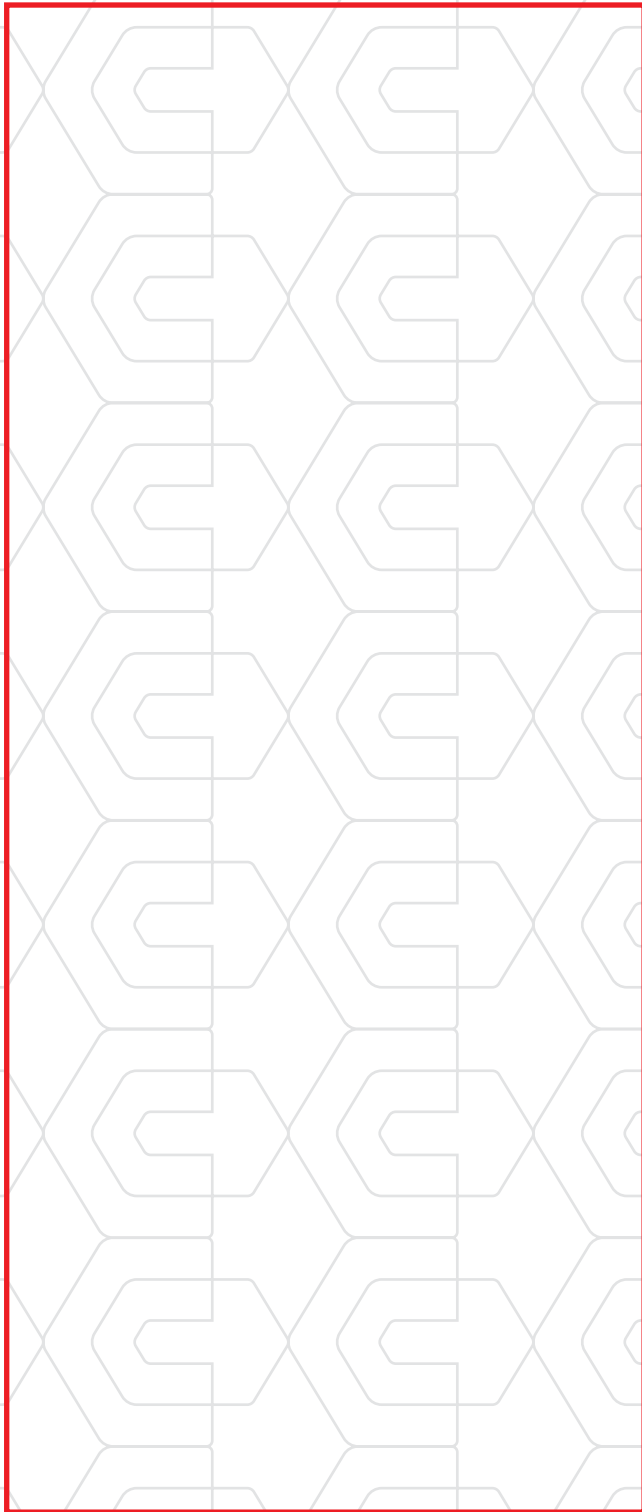
Automatic chemical treatment and flushing of the injector before testing under high pressure and using a specially formulated detergent

### RSP / BIP

Response Sensor (RSP) adaptable to all Injector Nozzles

Response Sensor (BIP) adaptable to all Control Valves [EUI/EUP].

Precise measurement of Control Valve & Nozzle reaction time to easily diagnose a slow acting injector, a retarded injection event, poor engine performance and emissions issues."



1. BK



2. DFAP

### Electronic Measurement

1. Dynamic Electronic Mass Measuring Sensor (BK). Ramp function capable for aDFI function, Injector Coding Capable, Acc:0.2%FS, repeatability: 0.05%. Fast and Accurate Measurement with Coriolis technology
2. Static Electronic Mass Measuring Sensor (DFAP) Acc: 0.6%FS, Accurate and Repeatable Measurement with Differential Absolute Pressure Technology



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INNOVATION DRIVEN



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