

HTBR //X

Diesel System Test Bench

The Optimum Diesel Specialists HEUI Solution

The Professional's Service Station
for All Types and Makes HEUI systems.

#carbonzappXseries



The New **HTBR-X** is a unique Standalone Diesel Hydraulic Electronic Unit Injector Test Bench capable to thoroughly Test, Service and Code* every possible HEUi in the market today

SPECIALISTS

CRDi

EUI/EUP

HEUi

CRP

ENGINE

GDi

EFI

GDi Pumps

Overview of the New HTBR-X

Precise, repeatable and rapid Diesel HEUi Injectors Testing

[1] HEUi Testing & Coding*

- 6-8 minutes testing and coding* time per injector
- Dynamic and static measurement of the actual overflow
- Dual-Coil HEUi Injector testing capable

400 Bar

**Standalone
Diesel HEUi
(1 Injector)
Test Bench
For Specialists**

CloudX™

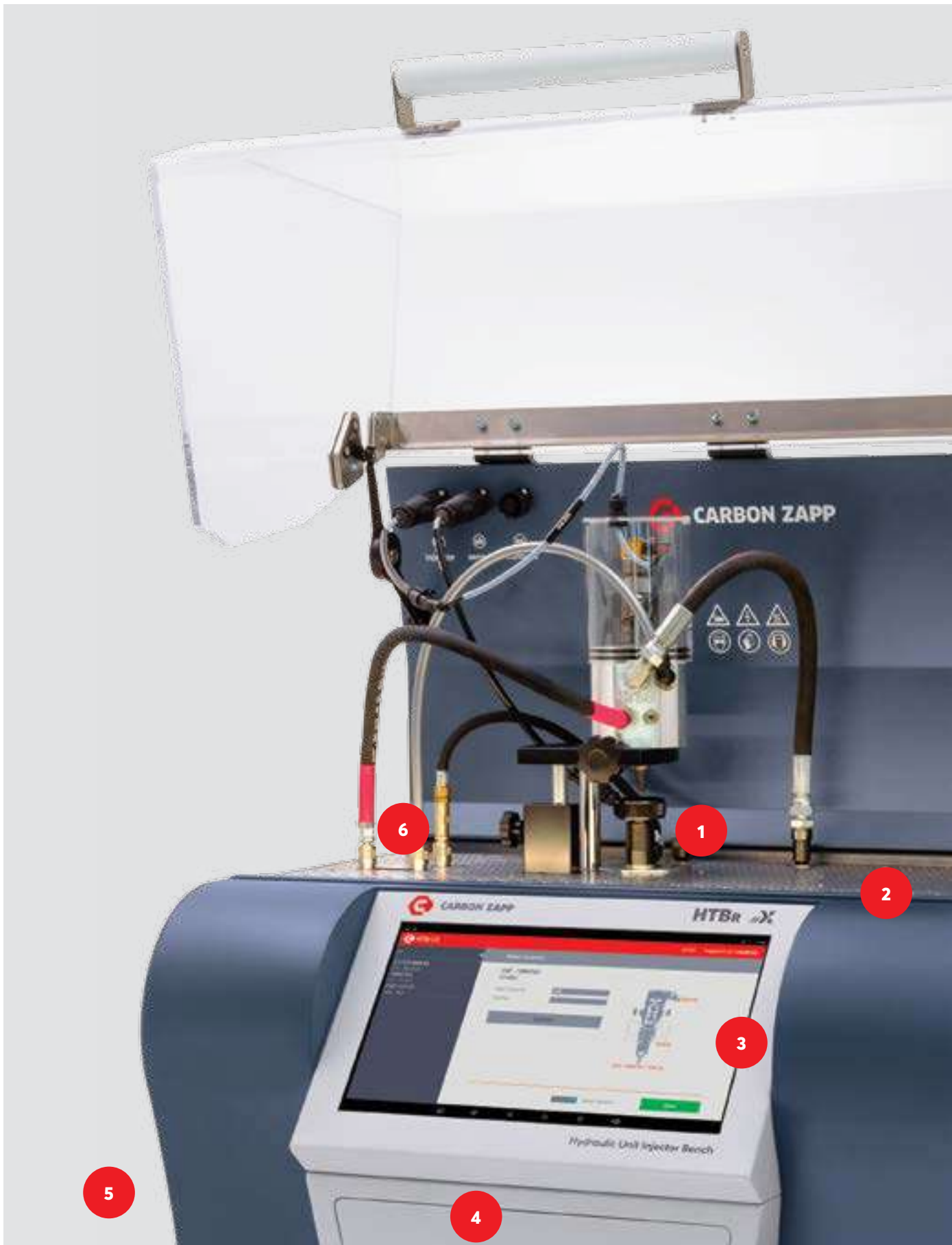
Powerful innovations at your fingertips with Carbon Zapp CloudX computing Platform. Take complete control over your service benches with cloud-based Apps, business intelligence (BI) services and database management systems over a secure Internet connection.



A Revolution in HEUi Test Benches

Our qualified team, know-how and pioneering thinking developed the New Powerful HTBR-X Generation

HTBR-X Points



**New database and Coding is continuously being updated to new EU6 applications*

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HTBR //X

Diesel System Test Bench

1 Working Area

Ergonomic & easily accessible illuminated working space. Fast mounting for all types of Injectors.

2 Easily Accessible Filters & Waste Area

Quick access to all inline filters for fast check-up and replacement located within your working area. A mess-free compartment to work at, continuously draining to the waste tank.

3 Machine Interface

New CloudX based AZOV3 software features speed, connectivity and expandability in a user friendly environment.

4 Easily accessible drawer and connection ports.

5 Functional use of test oil tank enhances maintenance.

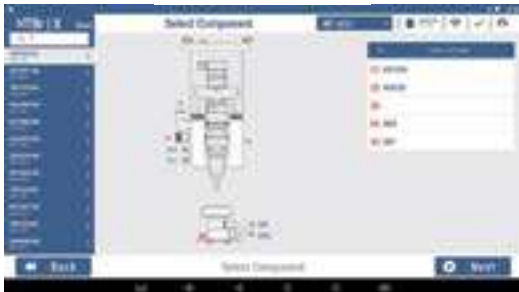
Tank extends to fill-up, drain and clean.
(View detailed image on page 30)

6 Actual Dynamic measurement of the injector overflow



Scan to visit our YouTube channel and watch CZ Test Benches tutorials, training & product videos.

AZO SOFTWARE



Systems

CAT C7/C9

CAT 7.3L/3126

CAT 3408/3412

FORD POWER STROKE

ISUZU TROOPER

Features

Xtremely Fast Testing Times without any Compromise

New Design for every Service Station

Optimized Working Area to reduce Injector Set-up Times

400Bar Operating Pressure

All Systems Testing and Coding

CloudX Capabilities

Coding capability for CAT C7/C9*

Diesel HEUI testing and coding*

Ergonomic, Fast and Easy Injector Clamping device to minimize mounting times.

Fully Adjustable height for all types of injectors.

Utilizes a spring-loaded injector holder to ease the operation of the user.

Easily accessible filters and waste area

Quick access to all inline filters for fast check-up and replacement located within your working area.

A mess-free compartment to work at, continuously draining to the waste tank.

Advanced water-cooling or air-cooling system to optimize long term nonstop operation at all environmental conditions.

Live Response Time Measurement for all injectors

Capable to automatically measure the BIP of the solenoid actuator

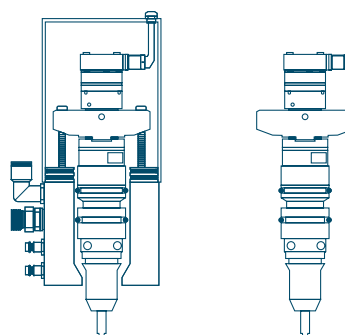
Adaptability for every type of Diesel HEUI Injectors in the market

Continuous Database updates and new Software capabilities to meet the market needs.

Android Powered 15.6" HMI with unlimited flexibility and connectivity competencies.

Injector flushing feature pre-installed (optional kit available)

*New database and Coding is continously being updated to new EU6 applications



HEUI Technologies

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HTBR //X Specifications

DESCRIPTION		UNIT	HTBRX-A (CZ-008722)	HTBRX-W (CZ-008862)	
Machine Dimensions	Length	mm	770	770	
	Width	mm	800	800	
	Height	mm	1650	1650	
Weight		kg	250	252	
HMI	Tablet Touchscreen	Inches	15	15	
Internet Update	WiFi / Ethernet	-	YES / YES	YES / YES	
Pressure Source	Type	Motor Driven High Pressure CR Pump			
Test Oil	Type	(DxL-ISO) ISO4113 Calibration Oil			
Test Oil Tank	Capacity	Liters	30	30	
Max Pressure	Pressure	Bar	400	400	
Max RPM	Max Revolutions Per Minute	RPM	2500	2500	
Max Pumps	Pumps Test	Slots	-	-	
Max Injectors	Test Injectors	Slots	1	1	
LP Pump	Supply Pressure	Bar	0.1 - 5.4	0.1 - 5.4	
Air Supply	Pressure	Bar	-	-	
	Air Flow	Lt/ Min	-	-	
Main Power Supply	Phases	Number	1P	1P	
		TYPE	P+N / PE	P+N / PE	
	Voltage	VAC	220-240	220-240	
	Frequency	Hz	50/60	50/60	
	Current	Ampere	12	12	
Motor	Max Consumption		kVA (220V/240V)	2.64 - 2.88	2.64 - 2.88
	Model		TYPE	AK100L-4	AK100L-4
	RPM		RPM 50 / 60Hz	1420 / 1700	1420 / 1700
		POWER		KW 50 / 60Hz	3 / 3.6
			HP 50 / 60Hz	4 / 4.8	4 / 4.8
	Connection Y			Ampere (50HZ)	400 V: 6.56 A
			Ampere (60HZ)	480 V: 6.56 A	460 V: 6.89 A
Water Supply	Max Input pressure		Bar	-	4
	Max Output Pressure		Bar	-	1Bar< Input Pressure
	Min Input Temperature		Celsius	-	5
	Max Input Temperature		Celsius	-	15
	Min Diameter In/Out Water Hose		mm	-	10
	Water Tank Capacity		Liters	-	10
	Max Water Flow		Lt / Min (4Bar)	-	4
	Min Water Output Temperature		Celsius	-	5
	Max Water Output Temperature		Celsius	-	65
	Delta T		Celsius	-	0-50
	Max Cooling Efficiency "Debit" [20 liters of 5° C water in order to Cool Down the Test Oil from 43° C to 36° C (2 tank cycles)]		Tank Cycles	-	2
Operating Temperature	Min / Max Room Temperature		Celsius	6 / 23	6 / 30
IVM Sensors	Measurement Sensors		Type / Quantity	XKM / 1 *	XKM / 1 *

MEASUREMENT SENSORS
 XKM [Dynamic Meas. Sensor]; High Accuracy: ± 0.1%, Exceptional Repeatability ±0.05%, Measur. Range: 1-1000ml/min
 DFM 500 [Dynamic Measurement Sensor]; Accuracy: ± 1%, Repeatability 0.5%, Measurement range: 5-500l/min
 DFM 50 [Dynamic Measurement Sensor]; Accuracy: ± 1%, Repeatability 0.5%, Measurement range: 0.5-50l/min
 Volumetric Tubes [Static Analog Measurement]; Accuracy: 1ml, Measurement range: 0.5-65ml

APPLICATIONS
 Passenger Car/ Motorcycles: Volumes up to 120mm³/H
 Light Duty: Volumes up to 200mm³/H
 Medium Duty: Volumes up to 300mm³/H
 Heavy Duty: Volumes up to 650mm³/H
 Marines: Volumes up to 1500mm³/H

EXPLANATIONS
 - : N/A
 - A: Air Cooling
 - W: Water Cooling

PRESSURE SOURCES
 - In: In-vehicle High Pressure Pump
 - M: Motor Driven High Pressure CR Pump
 - External: Pressure coming from another Test Bench or external source

Electr. Pump: Fuel Injection system or Industrial Application Electrical Pump 12VDC
 - : No Pressure Source

eXpanding Capabilities

X Series 2023

Space saving, accessory organizers for everyday tasks.
Increased productivity and uncluttered space.

Extras MTBR-X & PTBR-X



1 Desk & Harness Shelf



Hydraulic Hose Side Panel
Pocket with Drain

2



Ultrasonic Shelf

for GTBR-X,
ITBR-X, HTBR-X





**Carbon Zapp Trolley
Fully Configured Setup**



CZ Base Trolley



**Hose & Harness
Side Organizer**
(max. 2 pcs per trolley)

Carbon Zapp Trolley

Ideal workshop organizer to fit most parts of the machine like harnesses, hoses, adapters, tools and flanges. Can be easily transformed to a Cambox and/or pump rack for easy transfer and storing.



**CRp Flange Drawer
Organizer**
(max. 1 pc per trolley)



**Cambox/Pump
Transfer Rack**
(max. 2 pcs per trolley)





CloudX is CarbonZapp IoT Cloud computing Platform

Powerful innovations at your fingertips
with CZ CloudX computing Platform



CZ CloudX computing technology Platform as a service (PaaS) is a complete environment in the cloud, with resources that enable clients the full control of their Bench with cloud based Apps access them over a secure Internet connection. With middleware, development tools, business intelligence (BI) services, database management systems and more.

CloudX allows clients to access live online updates of database, remote operation and status report of their bench. Generate remote reports for handling, printing, filling and organizing from machine database. Instant activation of features on a pay-as-you-go basis. Multiple machines management support. Complete machine cloud back-up and instant trouble shooting via X-Connect directly from CZ factory. Receive notifications on your smart devices for machine maintenance tasks like Oils, Filters, Service, and more.

Explore today new powerful innovations at your fingertips with CZ CloudX computing Platform.

CloudX Features

- IoT Cloud computing Platform. Industry 4.0 Complaint
- Instant Activation of Features on a pay-as-you-go basis
- Live Online Updates of Database and supporting new requests from clients
- Multiple machines management
- Remote Operation and Status Report of Client Bench
- Complete machine cloud back-up
- Generating remote reports for handling, printing, filling and organizing from machine database
- Instant troubleshooting via X-Connect directly from CZ Factory
- Notifications on Client smart devices for machine maintenance tasks like Oils, Filters, Service, and more



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