

## **HTBR //X**

Diesel System Test Bench

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

## **CloudX**



**INNOVATION DRIVEN**



**Engineering Forward  
Mobility Solutions!**

**HTBR „X**

Diesel System Test Bench



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.

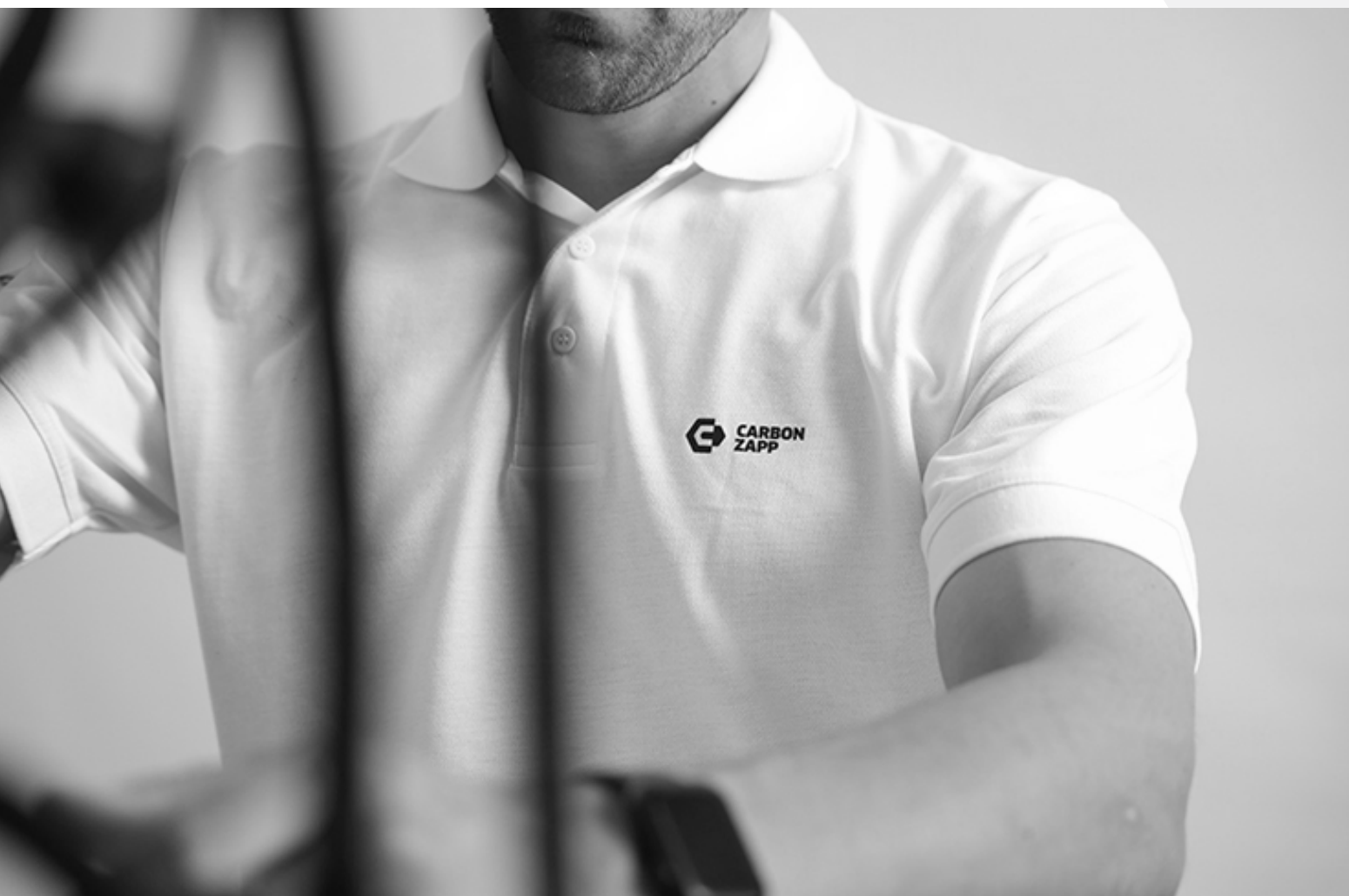
The Professional's Service Station for All Types and Makes HEUi systems.

**Overview of the New HTBR-X**

Precise, repeatable and rapid Diesel HEUi Injectors Testing

**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
- Accurate and automatic measurement of the NOP without disassembling the injector



## SPECIALISTS

CRDi - EUI/EUP - **HEUI** - CRP  
ENGINE - GDi - EFi - GDi Pumps

#carbonzappXseries



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



**400 Bar**

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

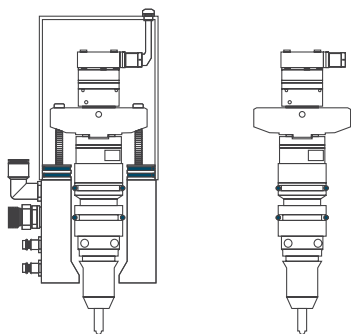
**A Revolution in  
HEUI Test Benches**



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

## HTBR „X“ → Points

### HEUI Technologies



If you want to optimize your operations and become part of our Carbon Zapp Worldwide Authorized Service Centers, please contact us at [sales@carbonzapp.com](mailto:sales@carbonzapp.com).

Set up a meeting to explore the NEW Xseries Automotive Injection Servicing Equipment and discover its features and benefits in depth. #InnovationDriven

#### 01.

##### Working Area

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

#### 02.

##### 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.

#### 03.

##### Machine Interface

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

#### 04.

##### Easily accessible drawer and connection ports.

#### 05.

##### Functional use of test oil tank enhances maintenance.

Tank extends to fill-up, drain and clean.

(View detailed image on page 30)

#### 06.

##### Actual Dynamic measurement of the injector overflow

## SPECIALISTS

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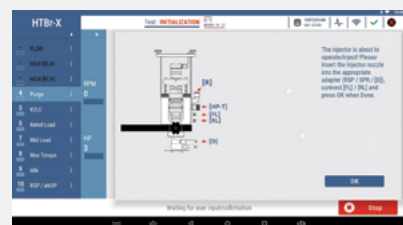
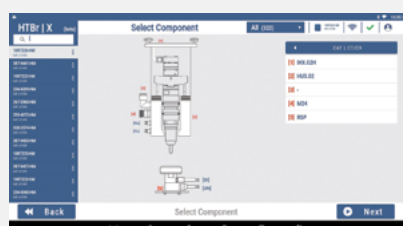




## HTBr „X

### Diesel System Test Bench

AZO SOFTWARE



### → Systems

CAT C7/C9

CAT 7.3L/3126

CAT 3408/3412

FORD POWER STROKE

ISUZU TROOPER

### → Features

Extremely 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

## SPECIALISTS

CRDi - Eui/EUP - **HEUi** - CRP  
ENGINE - GDi - EFi - GDi Pumps

## HTBR → 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
	Max Consumption	kVA (220V/240V)	2.64 - 2.88	2.64 - 2.88
	Model	TYPE	AK100L-4	AK100L-4
Motor	RPM		RPM 50 / 60Hz	1420 / 1700
	POWER		KW 50 / 60Hz	3 / 3.6
			HP 50 / 60Hz	4 / 4.8
		Connection Y	Ampere (50HZ)	400 V:6.56 A
			Ampere (60HZ)	480 V:6.56 A
	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 Supply	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
	IVM Sensors	Measurement Sensors	Type / Quantity	XKM / 1 *

→

- : N/A  
A: Air Cooling  
W: Water Cooling  
PRESSURE SOURCES  
Motor: Motor Driven High Pressure CR Pump  
Electr. Pump: Fuel Injection system or Industrial Application Electrical Pump 12VDC  
MEASUREMENT SENSORS  
XKM | Dynamic Meas. Sensor | High Accuracy: ± 0.1% Exceptional Repeatability: ± 0.05% Measur. Range: 1-1000ml/min  
APPLICATIONS  
Light Duty: Volumes up to 200mm<sup>3</sup>/h  
Medium Duty: Volumes up to 300mm<sup>3</sup>/h  
Heavy Duty: Volumes up to 650mm<sup>3</sup>/h

**CARBON  
ZAPP****CloudX™**  
CARBON ZAPP TECHNOLOGY

# CloudX is Carbon Zapp 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 Platform Industry 4.0

Remote Operation and Status  
Report of Client Bench

Generating remote reports for  
handling, printing, filing and  
organizing from machine database

Multiple machines management

Instant Activation of Features on a  
pay-as-you-go basis

Notifications on Client smart devices  
for machine maintenance tasks like  
Oils, Filters, Service, and more

Complete machine cloud back-up

Instant troubleshooting via CX-Connex  
directly from CZ Factory

Live Online Updates of Database  
and supporting new requests from  
clients

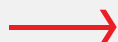
## EXPANDING CAPABILITIES



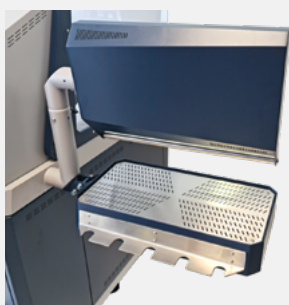
Space saving, accessory organizers for everyday tasks. Increased productivity and uncluttered space.



### Extras



MTBR-X & PTBR-X



01.  
Desk & Harness Shelf

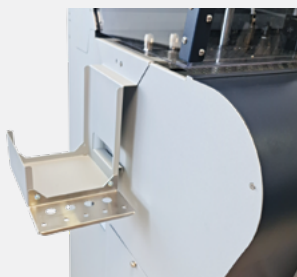


02.  
Hydraulic Hose Side Panel  
Pocket with Drain

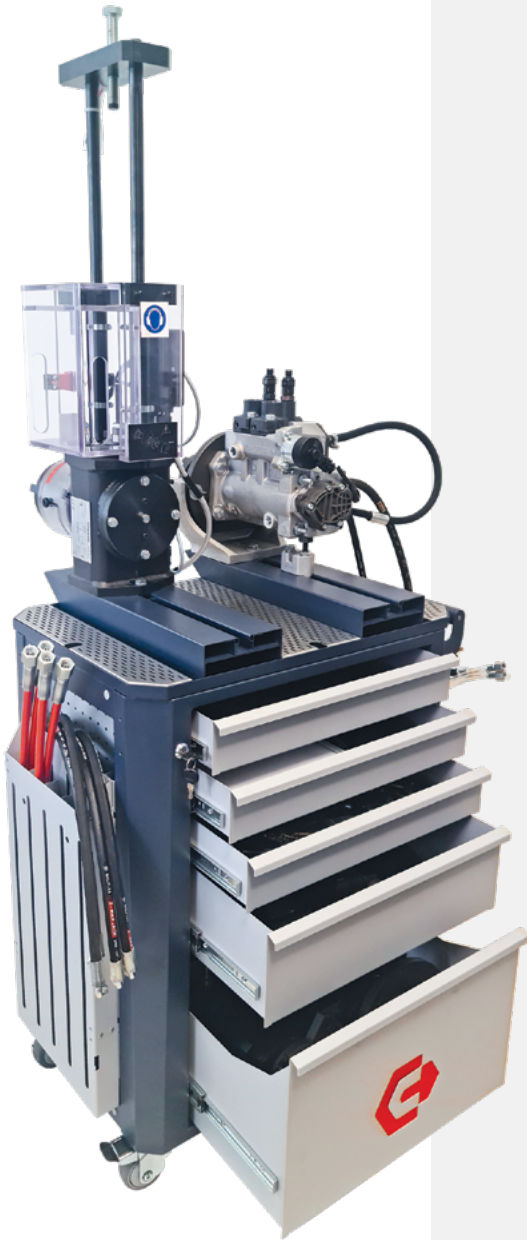
### Ultrasonic Shelf



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)





**VIEW CZ Digital  
Product Catalog**



**Headquarters & Production**

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