



**CARBON
ZAPP**

G2, 35

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.

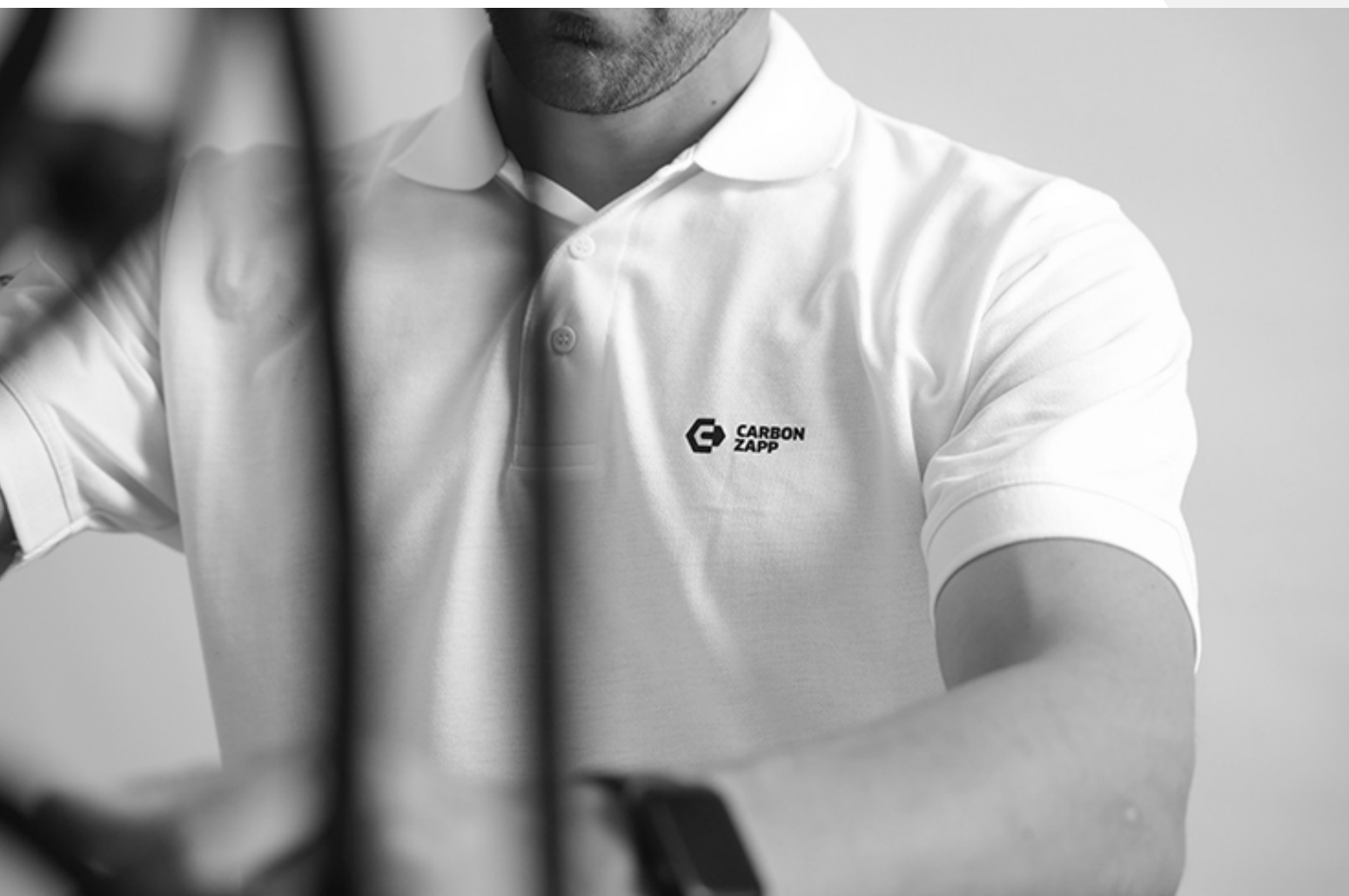
The Professional's Service Station for All Types and Makes HEUi systems.

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**

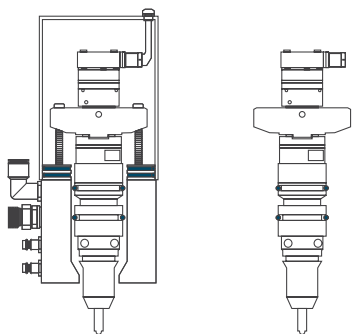
**A Revolution in
HEUI Test Benches**



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.

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

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



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HTBR 1X

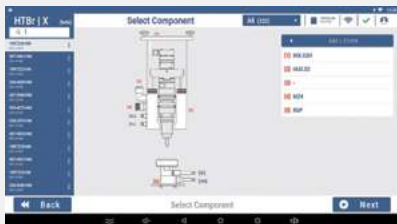
HTBR 1X
Sensor selection
CAT - 1304793
C7400
Main Pressure: [input field]
Charging: [input field]
Injection: [input field]
[Start] [Main Rotation]

Hydraulic Unit Injector Bench

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

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

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	1420 / 1700	
	POWER		KW 50 / 60Hz	3 / 3.6	3 / 3.6
			HP 50 / 60Hz	4 / 4.8	4 / 4.8
		Connection Y	Ampere (50HZ)	400 V:6.56 A	380 V: 6.89 A
			Ampere (60HZ)	480 V:6.56 A	460 V: 6.89 A
	Max Input pressure	Bar	-	4	
	Max Output Pressure	Bar	-	1Bar< Input Pressure	
	Min Input Temperature	Celsius	-	5	
	Max Input Temperature	Celsius	-	15	
Water Supply	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
	Min / Max Room Temperature	Celsius	6 / 23	6 / 30	
Operating Temperature					
IVM Sensors	Measurement Sensors	Type / Quantity	XKM / 1*	XKM / 1*	



- : N/A
 A: Air Cooling
 W: Water Cooling
PRESSURE SOURCES
 Motor: Motor Driven High Pressure CR Pump
 Elect. Pump: Fuel Injection system or Industrial Application Electrical Pump 12VDC
MEASUREMENT SENSORS
 XKM | Dynamic Meas. Sensor | High Accuracy: ± 0.1% Exception of Repeatability ±0.05% Measur. Range: 1-1000ml/min
APPLICATIONS
 Light Duty: Volumes up to 200mm³/h
 Medium Duty: Volumes up to 300mm³/h
 Heavy Duty: Volumes up to 650mm³/h



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

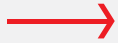
EXPANDING CAPABILITIES



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

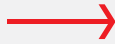


/// CZ Base Trolley



/// 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

New Address

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