

## **GTB4R //X**

Gasoline System Test Bench

### **The Optimum Gasoline Specialists GDi Solution**

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

The New GTB4R-X is a unique  
Standalone Gasoline Direct  
Injector Test Bench capable  
to thoroughly Test, Service  
and Code every possible  
GDi in the market today.

The machine's Innovative  
technology is already in  
compliance with all EU6  
standards and requirements,  
meantime is prepared  
for future upgrades.



#carbonzappXseries

## SPECIALISTS

CRDi

EUI/EUP

HEUi

CRP

ENGINE

**GDi**

**EFi**

**GDi Pumps**

## Overview of the New GTB.4R-X

Precise, repeatable and rapid Gasoline Injectors Testing

### [4] Injectors Testing & Coding\*

- 5-7 minutes testing and coding\* time for 4 injectors
- GDi injectors (All Brands and Types)
- Conventional Gasoline EFi Injectors
- Capable for all EU6 technologies
- Coding Capable for all Types of GDi's (Energy Controlled or Volume Metering types)
- Flushing and Servicing options for GDi injectors
- External Control and Measurement for GDi High Pressure Pumps operating on a Conventional Test Bench\*\*

**1200 Bar**

**4 GDi Injectors.  
Capable for all  
EU6 Technologies**



## 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 GDi Test Benches

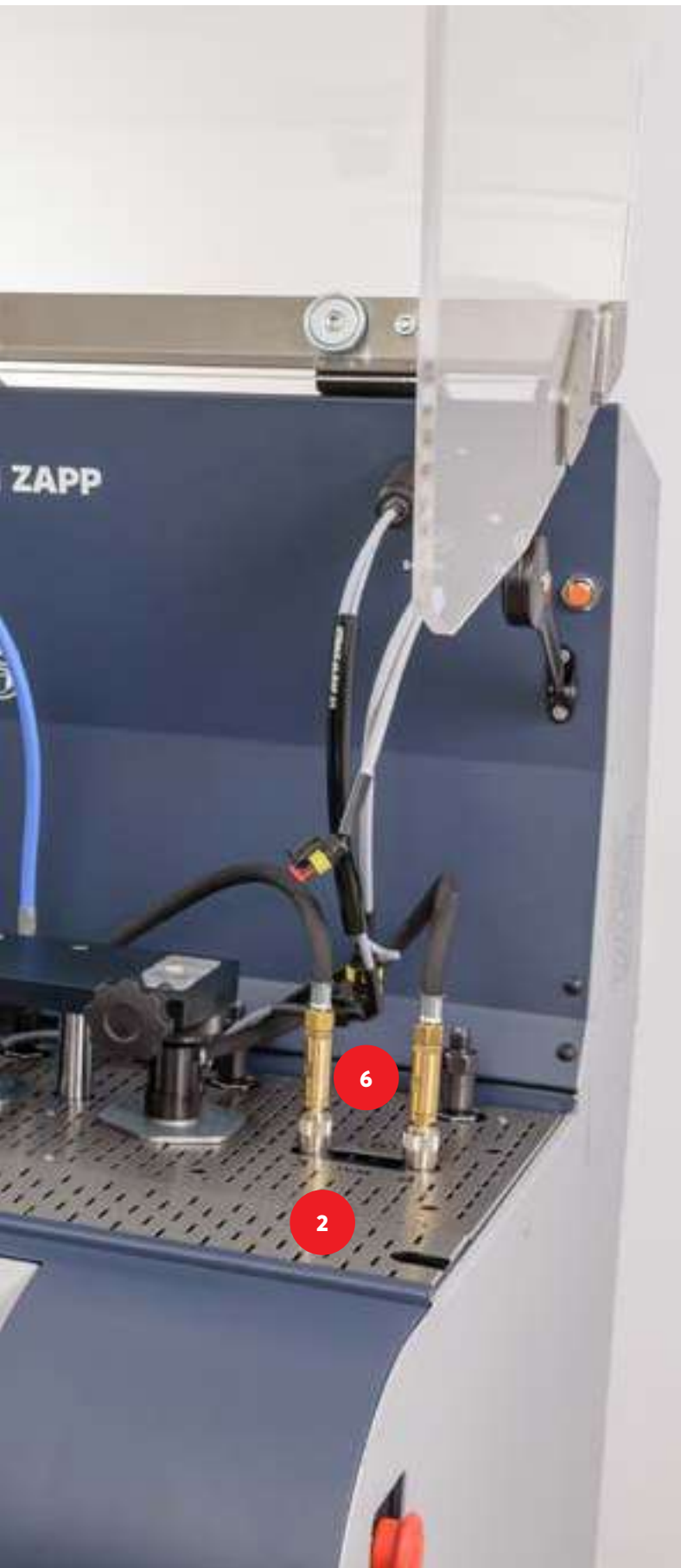
Our qualified team, know-how and pioneering thinking developed the New Powerful **GTB.4R-X**

\*\* : Future upgrade expected Q1/2023.

# GTB4R-X Points



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



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# GTB4R //X

## Gasoline 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.

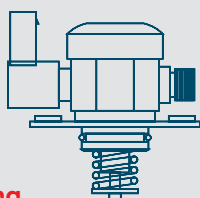
### 4 Easily accessible drawer and connection ports.

*(View detailed image on page 30)*

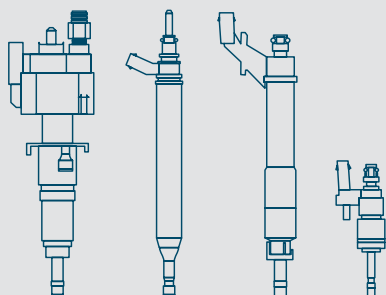
### 5 Functional use of test oil tank enhances maintenance.

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

### 6 Actual Dynamic measurement of the injector overflow



**GDi Pump testing  
on a conventional bench  
as an external control  
& measurement\***



**EU6 Technologies**

## Applications

Gasoline Passenger cars  
Gasoline Light Duty vehicles  
Gasoline Outboard motors  
Alternative Fuels engines

## Features

Xtremely Fast Testing Times without  
any Compromise  
New Design for every Service Station  
Optimized Working Area to reduce  
Injector Set-up Times  
1200Bar Capable Test Bench  
EU6 Systems Testing and Coding

## CloudX Capabilities

## Gasoline GDi testing and coding

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

Fully Adjustable height for all types of GDi and EFi injectors.

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

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 Testing capability for all brands and types available in the market today. Bosch, Denso, Delphi, Continental /VDO, Hitachi-HTC, Magneti Marelli and more added every day...

Coding capability for Siemens/ VDO and for the newer\* generation EU6 available in the market today.

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

Live Response Time Measurement at every test plan

Adaptability for every type of Gasoline 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.

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



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<b>GDi</b>
<b>EFI</b>
<b>GDi Pumps</b>

**GTB4R** //X Specifications

DESCRIPTION		UNIT	GTB.4RX-A (CZ-008737)	GTB.4RX-W (CZ-008787)	
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	(GxL-ISO) Calibration Oil			
Test Oil Tank	Capacity	Liters	30	30	
Max Pressure	Pressure	Bar	1200	1200	
Max RPM	Max Revolutions Per Minute	RPM	2000	2000	
Max Pumps	Diesel Pumps	Slots	-	-	
	Gasoline Pumps	Slots	1	1	
Max Injectors	Test Injectors	Slots	4	4	
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	
Max Consumption		Ampere	16	16	
		kVA (220V/240V)	3.52 - 3.84	3.52 - 3.84	
Motor	Model	TYPE	AK100L-4	AK100L-4	
		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 Δ	Ampere (50HZ)	400 V: 6.56 A	380 V: 6.89 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° 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 / 4 *	XKM / 4 *	

**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: 1mi., 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**  
 - H: High Pressure Pump  
 - M: Motor Driven High Pressure CR Pump  
 - E: 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
- Live Online Updates of Database and supporting new requests from clients
- Remote Operation and Status Report of Client Bench
- Generating remote reports for handling, printing, filing and organizing from machine database
- Instant Activation of Features on a pay-as-you-go basis
- Multiple machines management
- Complete machine cloud back-up
- 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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