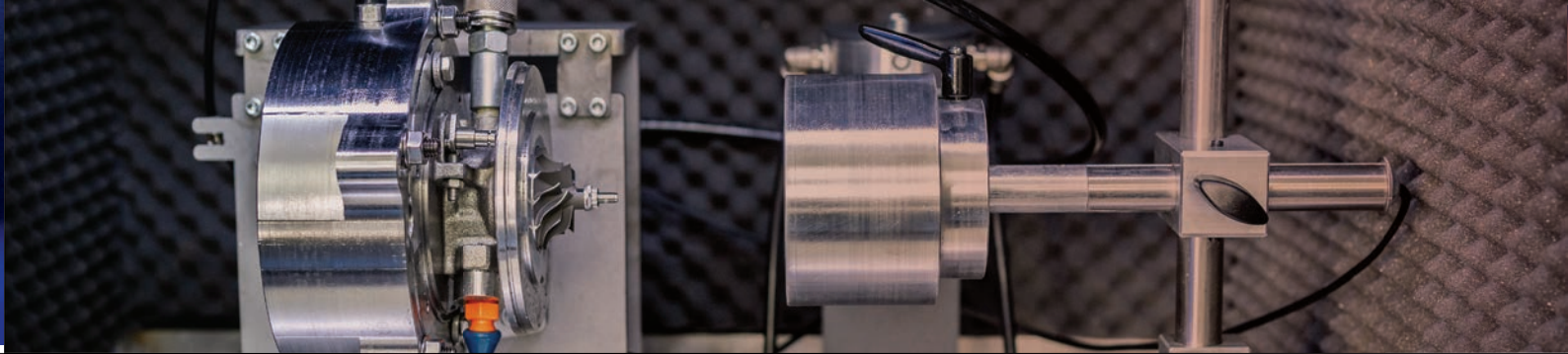


*Technical Information*

**TCW<sub>HD</sub> NG**





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## INTRODUCTION

The most complete equipment on the market for repairing light and heavy turbochargers has entered into the next generation and is even more precise and efficient.

The TC Workbench HD *NG* innovates with the autocalibration function at startup, Standard Mode and Precision Mode and a more ergonomic work area with 2 adjustable touchscreens. In this new generation, the equipment can be monitored and updated remotely, **there is greater integration with the Platform TurboClinic 4.0** and the possibility of adding modules according to the needs of each business.

These features join the pre-existing turbocharger balancing function, the adjustment of the geometry, test of light and heavy vehicle electronic actuators, program of light electronic actuators and the measurement of the efficiency of the compressor wheel.



## FEATURES

- \\ Balancing of the turbochargers from light and heavy vehicles;
- \\ Measures the efficiency of the compressor wheel;
- \\ Adjusts the balancing speed test automatically, depending on the diameter of the compressor wheel;
- \\ Test speeds up to 300.000 RPM;
- \\ Accuracy of 0,005G;
- \\ Polar graph with precise cutting angle indication;
- \\ Oil temperature automatically controlled;
- \\ Oil tank: 7 liters;
- \\ Test cartridges for leaks;
- \\ Variable nozzles adjustment from light and heavy vehicles;
- \\ Tests electronic actuators from light and heavy vehicles;
- \\ Programs electronic actuators from light vehicles;
- \\ Test wastegate valves (vacuum/pressure/electronic);
- \\ VNT Autocalibration;
- \\ Automatic Adjustment of Turbochargers with Programable Electronic Actuator;\*
- \\ Optimized Value for Best Efficiency\*;
- \\ Simplified Vacuum Adjustment;\*
- \\ Pneumatic Actuator with Position Sensor;\*
- \\ New compressor wheel lockout system;
- \\ Equipped with 2 adjustable touchscreens, allowing two users simultaneously;
- \\ Higher precision (2 independent working modes: Standard Mode and Precision Mode);
- \\ Greater integration with the TurboClinic 4.0 platform (remote monitoring and update of the equipment);
- \\ Pay-per-use options;
- \\ Generate reports;
- \\ RJ45 LAN connection;

\*Function access requires internet connection and valid subscription



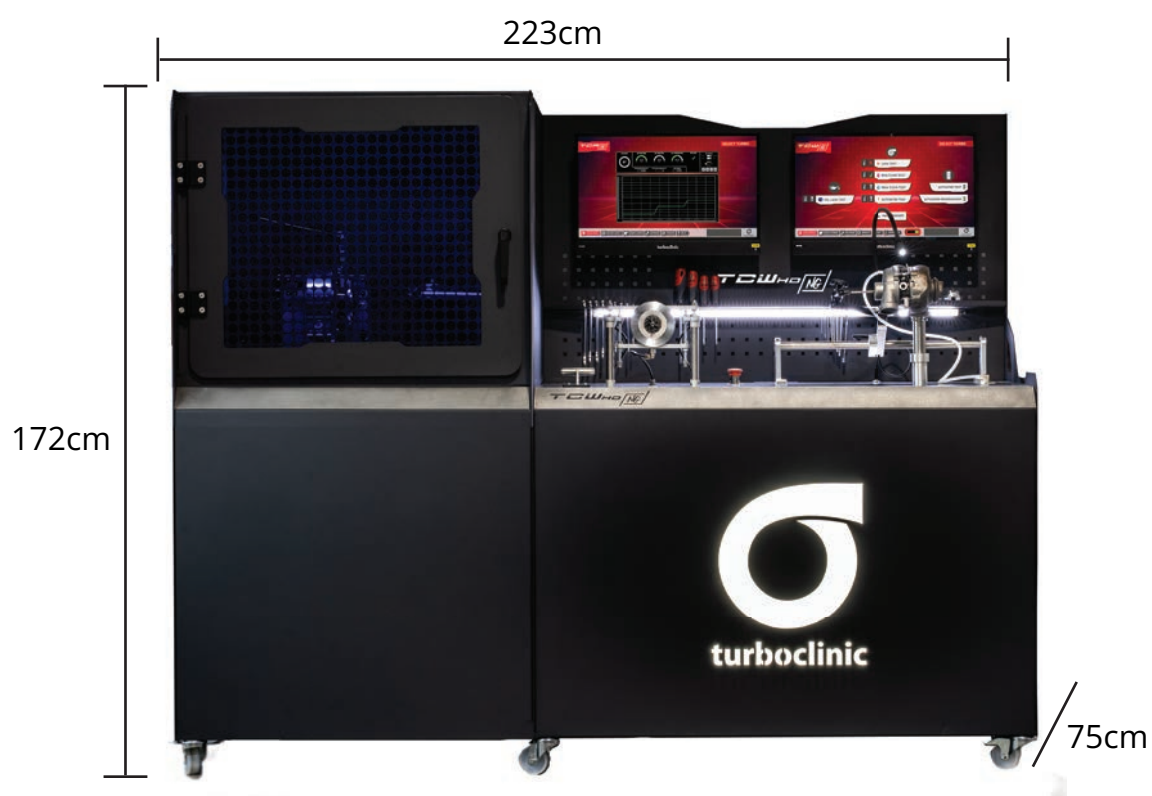


## DIMENSIONS

\\ Length: 223cm

\\ Width: 75cm

\\ Height: 172cm





## TECHNICAL REQUIREMENTS

- \\ Compressed Air Network (between 8 and 10 bar)
- \\ 300 liters compressed air tank (minimum) linked directly to the machine by 1.5" hose (maximum distance recommended - 2m)
- \\ Power Supply 230V (50/60Hz) -1500W
- \\ RJ45 LAN Connection - Internet - to get the latest updates and remote support
- \\ Air Filter\* – to prevent the impurities in the air network from interfere with the TC Workbench HD NG pneumatic systems;
- \\ Oil Lubricator\* – to help maintain the valves clean and lubricated;
- \\ Recommended Oil - 5W30 (the equipment requires the use of a thin oil);
- \\ Turboclinic recommends the use of a UPS (uninterruptible power supply 2500VA).

*\*Not included*

## MAINTENANCE

- \\ Check the condition of the oil
- \\ Change oil and filter at least once a year
- \\ Lubricator - maintain oil in lubricator - Recommended oil - ISO VG32

*Not included*



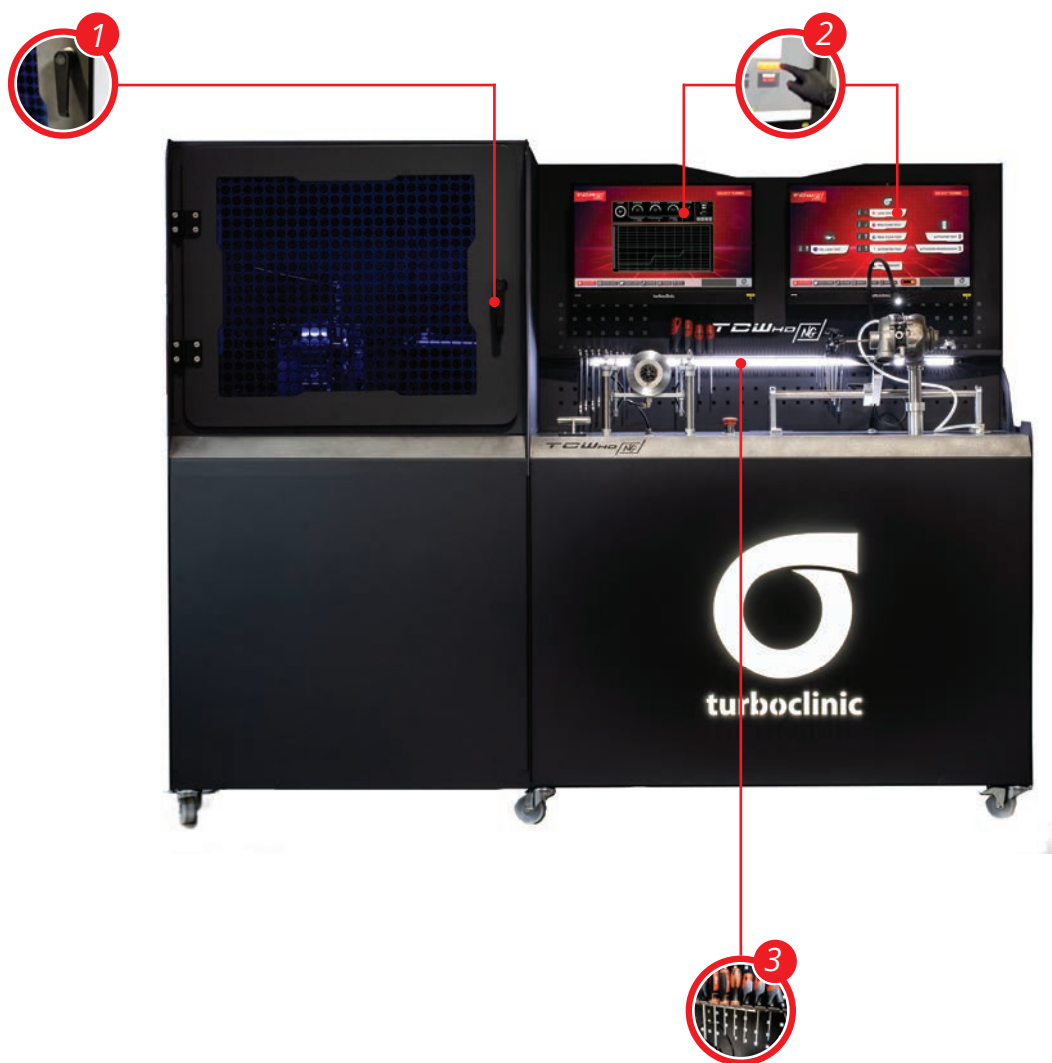
## DIAGRAM

*TC Workbench NG \ Front*

1\ Door Lock

*TC Workbench NG \ TOP*

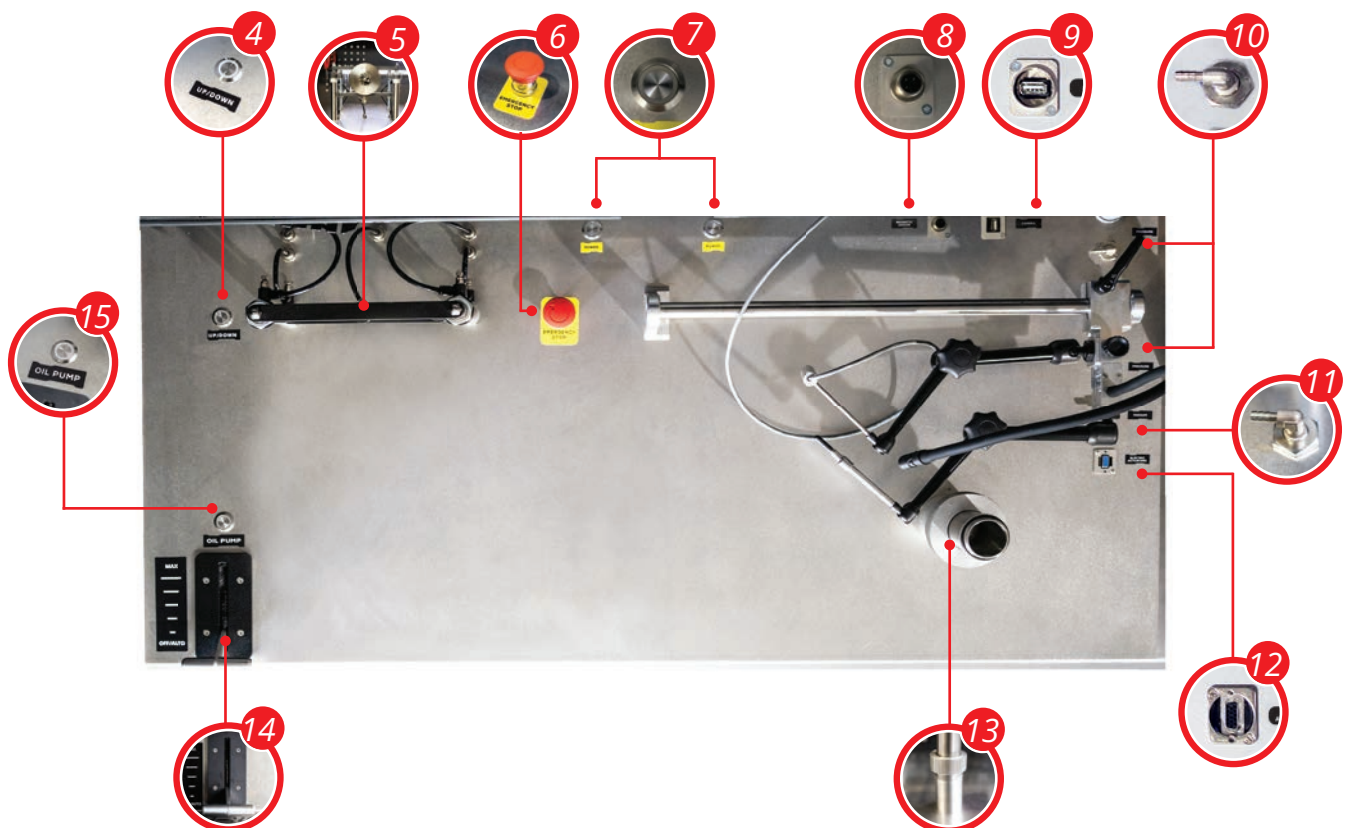
2\ 2 Touch Screens 21.5"  
3\ Area for tools' hanging



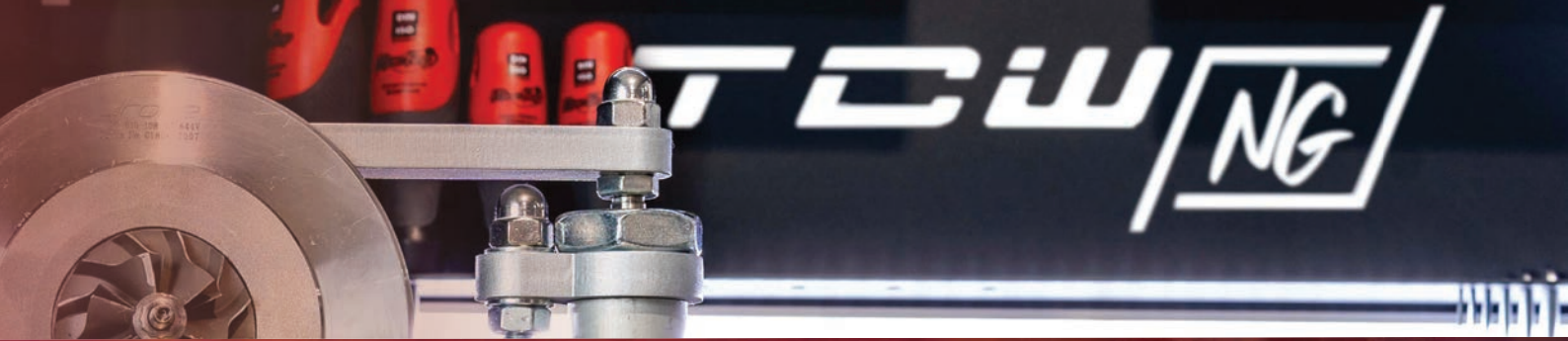
# DIAGRAM

## *TC Workbench NG \ Front - bench top*

- 4\ Pneumatic Oil Leak Tester Holder Up / Down button
- 5\ Pneumatic Oil Leak Tester
- 6\ Emergency Stop button
- 7\ Power Buttons ( Balancing side and VNT side)
- 8\ Magnetic Sensor connection for pneumatic actuators
- 9\ Camera's USB connection for pneumatic actuators
- 10\ Connection for pressure actuators (light and heavy vehicles)
- 11\ Connection for vacuum actuators
- 12\ Connection for electronic actuators
- 13\ Turbo support base
- 14\ Balancing Air Control Valve
- 15\ Oil Pump Button







## DIAGRAM

### TC Workbench NG \ Right side

16\ Air Inlet (Coupling DN7.4 european profile) - Lubricated Air (to adjust the geometry) - it is mandatory to connect the air supply to an external oil lubricator and an air filter\*

\* Not included

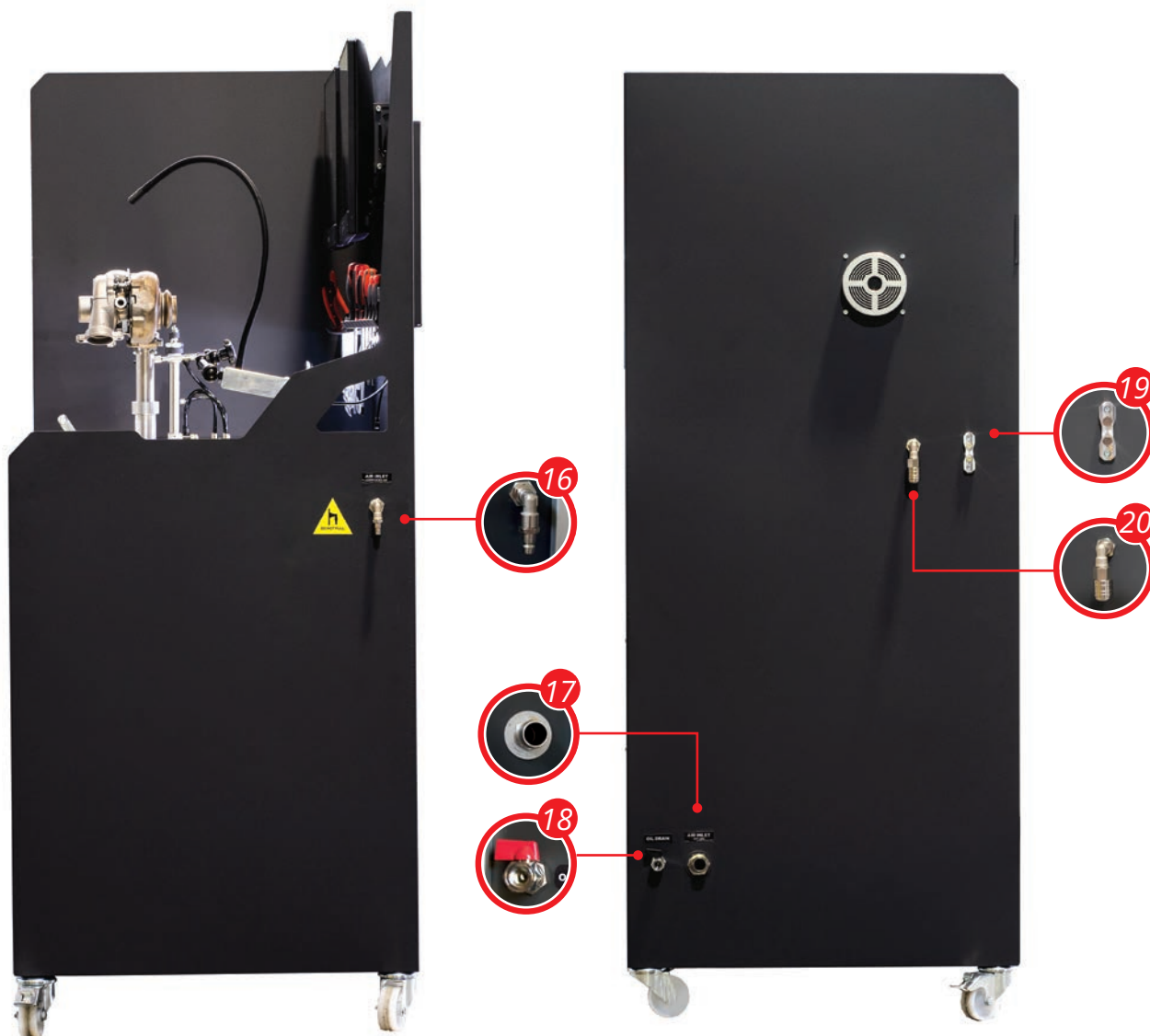
### TC Workbench NG \ Left side

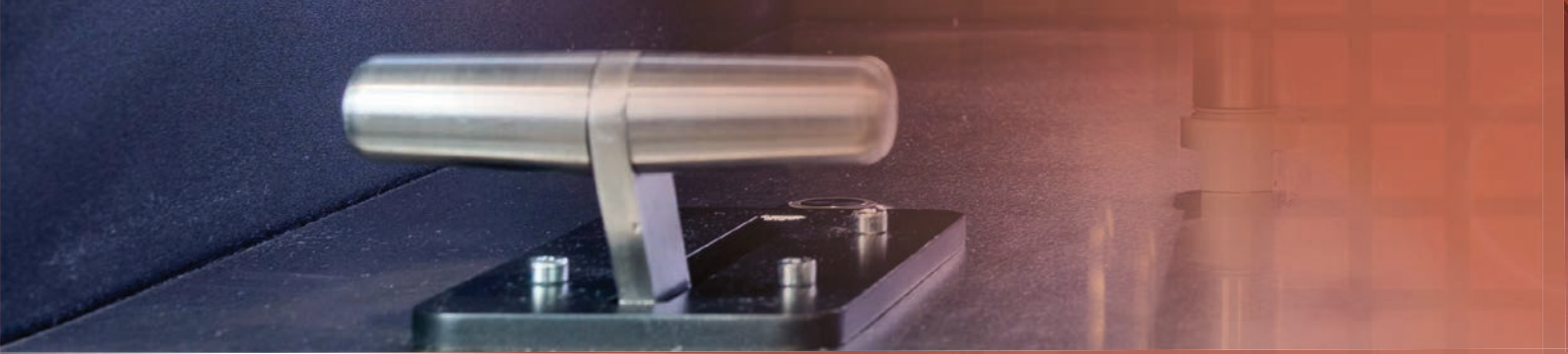
17\ Air Inlet (1,5") - Dry Air (to balance the cartridge)

18\ Oil drain

19\ Support for pneumatic precision tool

20\ Air Outlet for pneumatic precision tool

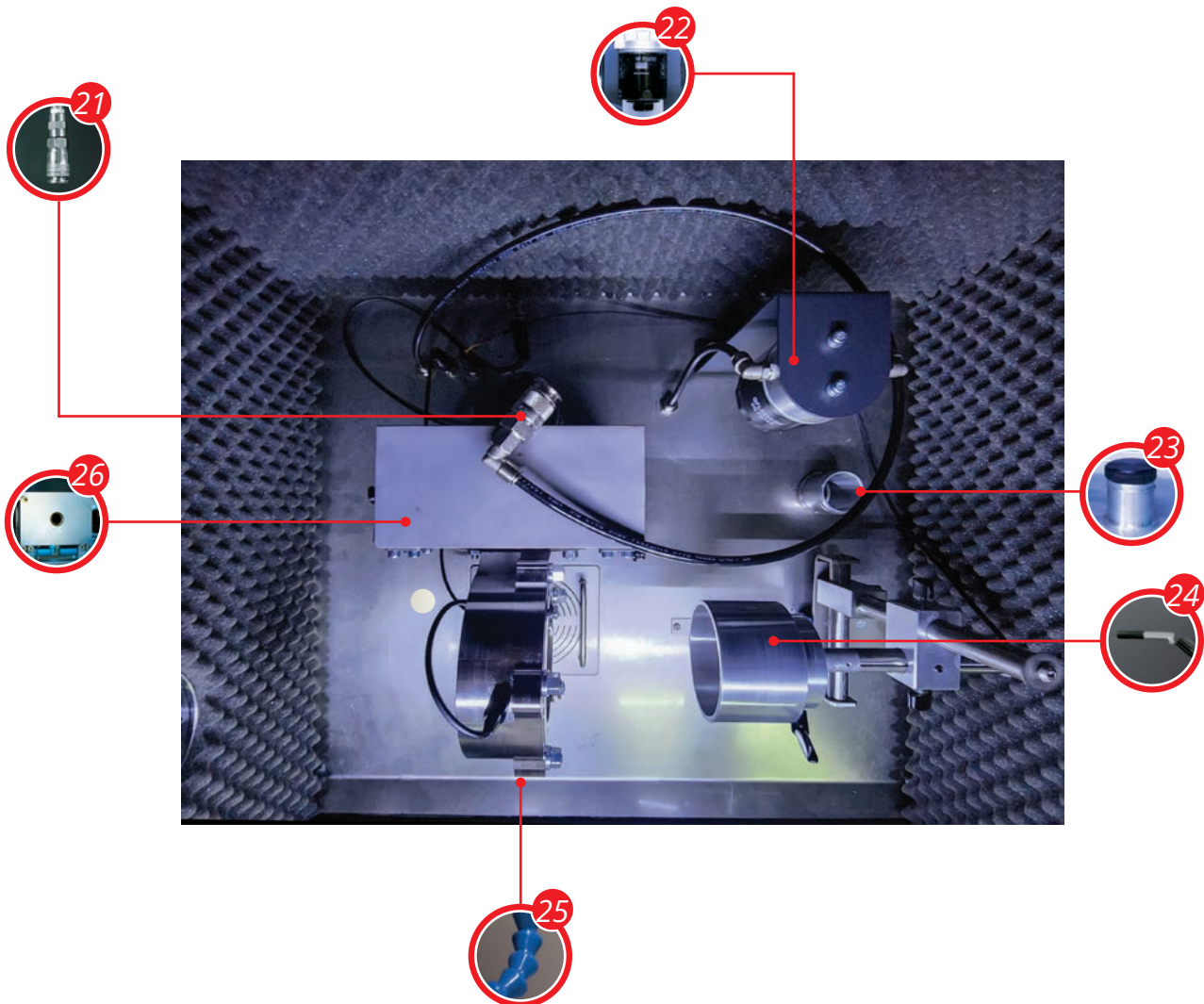




## DIAGRAM

### *TC Workbench NG \ TCA Interior*

- 21\ Oil Supply
- 22\ Oil Filter
- 23\ Air input for Compressor Wheel Efficiency Test
- 24\ Rotation Sensor
- 25\ Oil Return
- 26\ Turbo support base



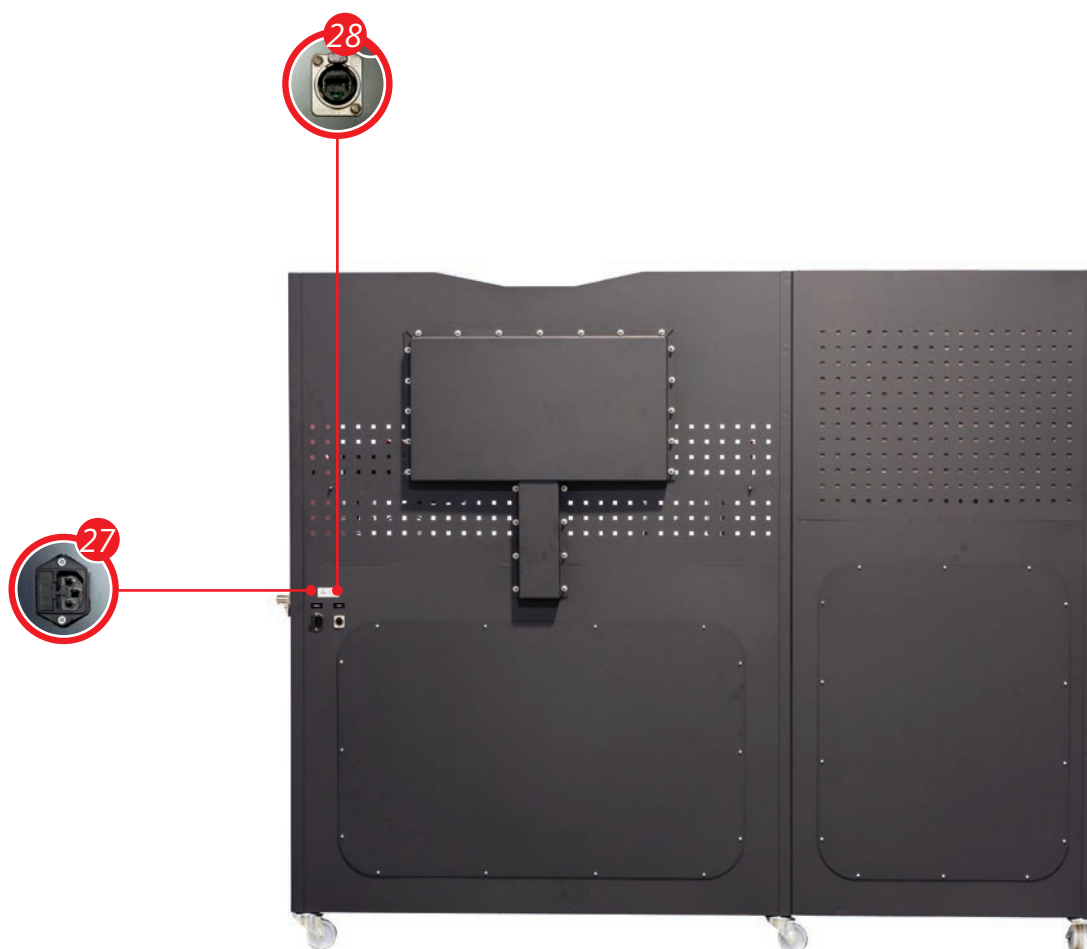
# DIAGRAM

## *TC Workbench NG \ Back*

27\ Power socket 230V- 50/60Hz

28\ Internet Connection\* (RJ45 LAN plug)

\* Not included





## FUNCTIONS TC WORKBENCH HD NG

### *TCA Test*

- \\ Balancing of Turbochargers
- \\ Measurement of the Efficiency of the Compressor Wheel
- \\ Print Report

### *VNT Test from light and heavy vehicles;*

- \\ Leak Test
- \\ Minimum Flow
- \\ Maximum Flow
- \\ Pneumatic Oil Leak Tester
- \\ Test Electronic Wastegates
- \\ Print Report
- \\ Actuator Test
- \\ Test N75 Valve
- \\ Test PVF Sensor
- \\ Actuator Programmer
- \\ Automatic Adjustment of Turbochargers with Electronic Actuator\*
- \\ Simplified Vacuum Adjustment\*
- \\ Pneumatic Actuator with Position Sensor\*
- \\ Optimized Value for Best Efficiency\*

\*Function access requires internet connection and valid subscription.



# ACCESSORIES

## *VNT Extras*

- \\ Test Electronic Wastegates
- \\ Program Electronic Actuators from Heavy Vehicles' Turbochargers
- \\ Additional Cables for Electric Actuators
- \\ Additional Turbo Mounting Plates

## *TCA Extras*

- \\ Adapters for the TurboClinic universal base

| Nozzles



| Plates



*[www.turboclinic.com](http://www.turboclinic.com)*

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