

TC Workbench

Technical Information



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INTRODUCTION

TurboClinic presents the *TC Workbench*, an unique equipment which integrates all that is needed to repair a turbocharger.

The *TC Workbench* gathers the functions of the *TCA Compact*, the *VNT*, the *EAT v3*, the *Actuator Programmer* and it also comes with a *Pneumatic Oil Leak Tester* that simplifies and automates the oil leak test.

This all-in-one equipment allows a complete repair of a turbocharger, from the balancing of the turbochargers to the adjustment of the nozzle vanes, and from the test of the cartridges for oil leaks to the test of the electronic actuators as well as the actuators' programming.

The *TC Workbench* goes even further allowing to measure the efficiency of the compressor.

CHARACTERISTICS

- \\ Ergonomic design for user comfort
- \\ Ample and well-lit work area
- \\ Intuitive interface
- \\ Test speeds over 300.000 RPM
- \\ Accuracy of 0,005G
- \\ Simple to work with to reduce the testing time
- \\ Use of the original exhaust (turbine housings) or the Universal Exhaust Housing for best test simulation
- \\ Oil temperature automatically controlled
- \\ Oil tank: 7 liters
- \\ Generate reports
- \\ Ready to test the last generation turbochargers
- \\ 2 Touch screen 22"
- \\ RJ45 LAN connection
- \\ Use of the existing compressed air network (between 8 and 10 BAR)
- \\ 230V - 320W
- \\ Built-in EAT functions
- \\ Built-in Actuator Programmer functions
- \\ Measure the efficiency of the compressor wheel

DIMENSIONS

\\ Length: 212cm

\\ Width: 70cm

\\ 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" hose (maximum distance recommended - 2m)
- \\ Power supply 230V - 50Hz, 1500 Watts
- \\ RJ45 LAN Connection - Internet - to get the latest updates and remote support;
- \\ Air filter* - to prevent that impurities in the air network may interfere with the TC Workbench pneumatic systems
- \\ Oil lubricator* - to help maintaining the valves clean and lubricated.
- \\ Recommended oil - 5W30 (the equipment requires the use of a thin oil)

* *Not included*

MAINTENANCE

- \\ Pay attention to the oil conditions
- \\ Replace the oil and the oil filter at least once a year
- \\ Oil Lubricator* - maintain oil in the lubricator - Recommended Oil - ISO VG32*
- \\ Calibrate the equipment regularly

* *Not included*

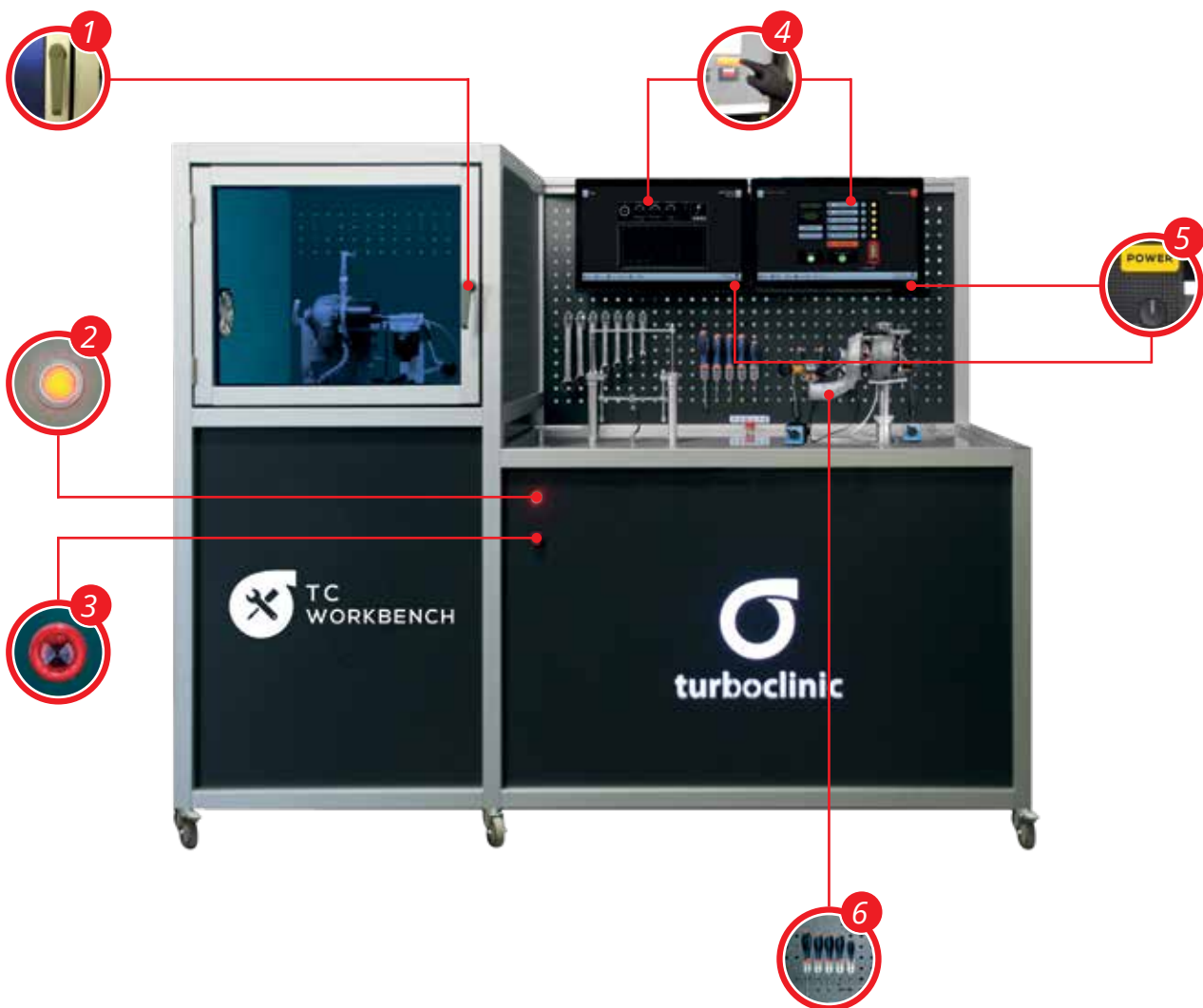
DIAGRAM

TC Workbench \\ Front

- 1\ Door lock
- 2\ Power light
- 3\ Warning light and buzzer alarm (if activated, there will be an informative pop-up on the screen)

TC Workbench \\ TOP

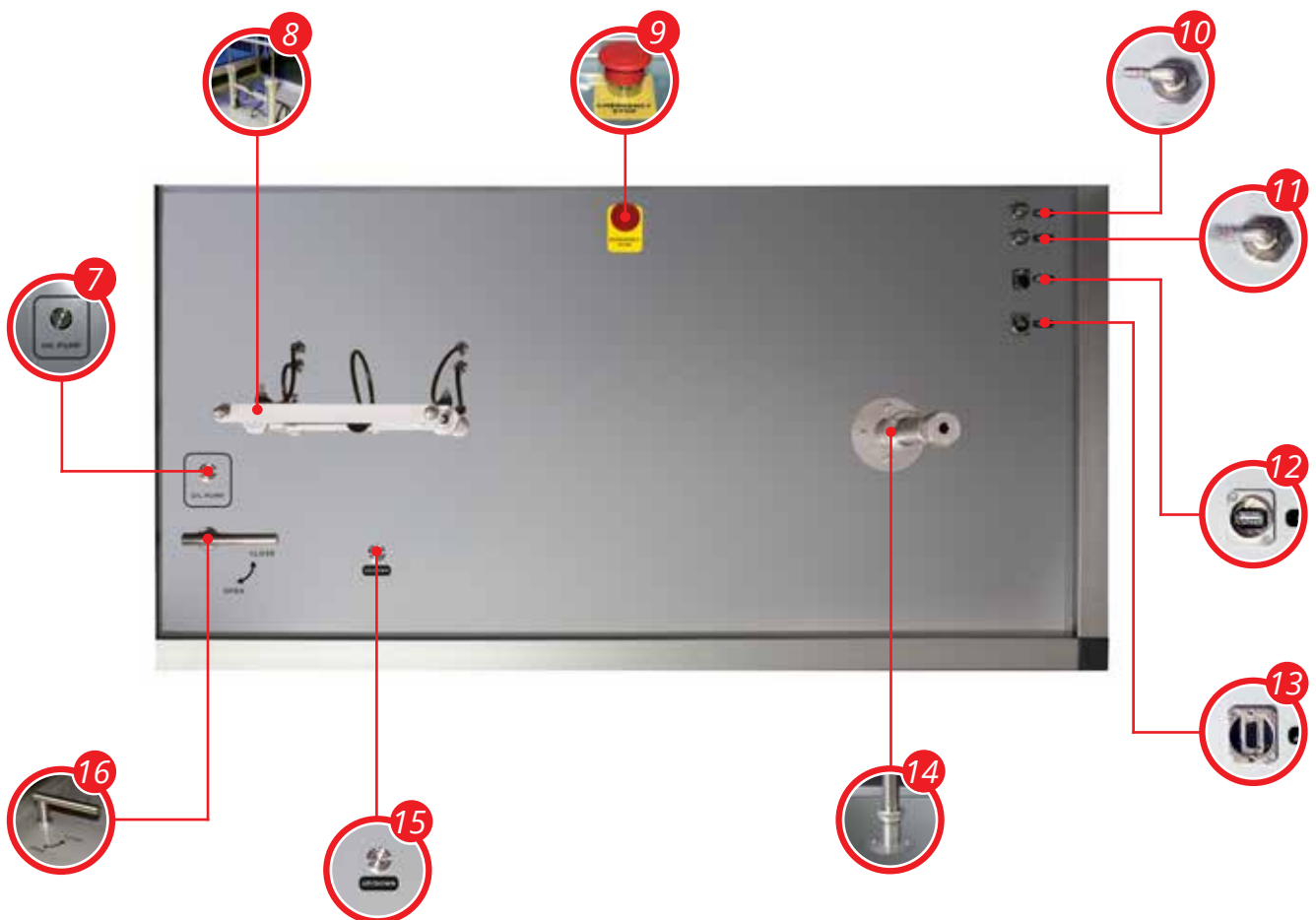
- 4\ 2 Touch screens 22"
- 5\ Power button
- 6\ Area for tools' hanging



DIAGRAM

TC Workbench \ \ Front - bench top

- 7\ Oil pump button
- 8\ Pneumatic oil leak tester
- 9\ Emergency stop button
- 10\ Connection for pressure actuators
- 11\ Connection for vacuum actuators
- 12\ Camera's USB connection
- 13\ Connection for electronic actuators
- 14\ Turbo support base
- 15\ Pneumatic Oil Leak Tester UP/DOWN button
- 16\ Air control valve



DIAGRAM

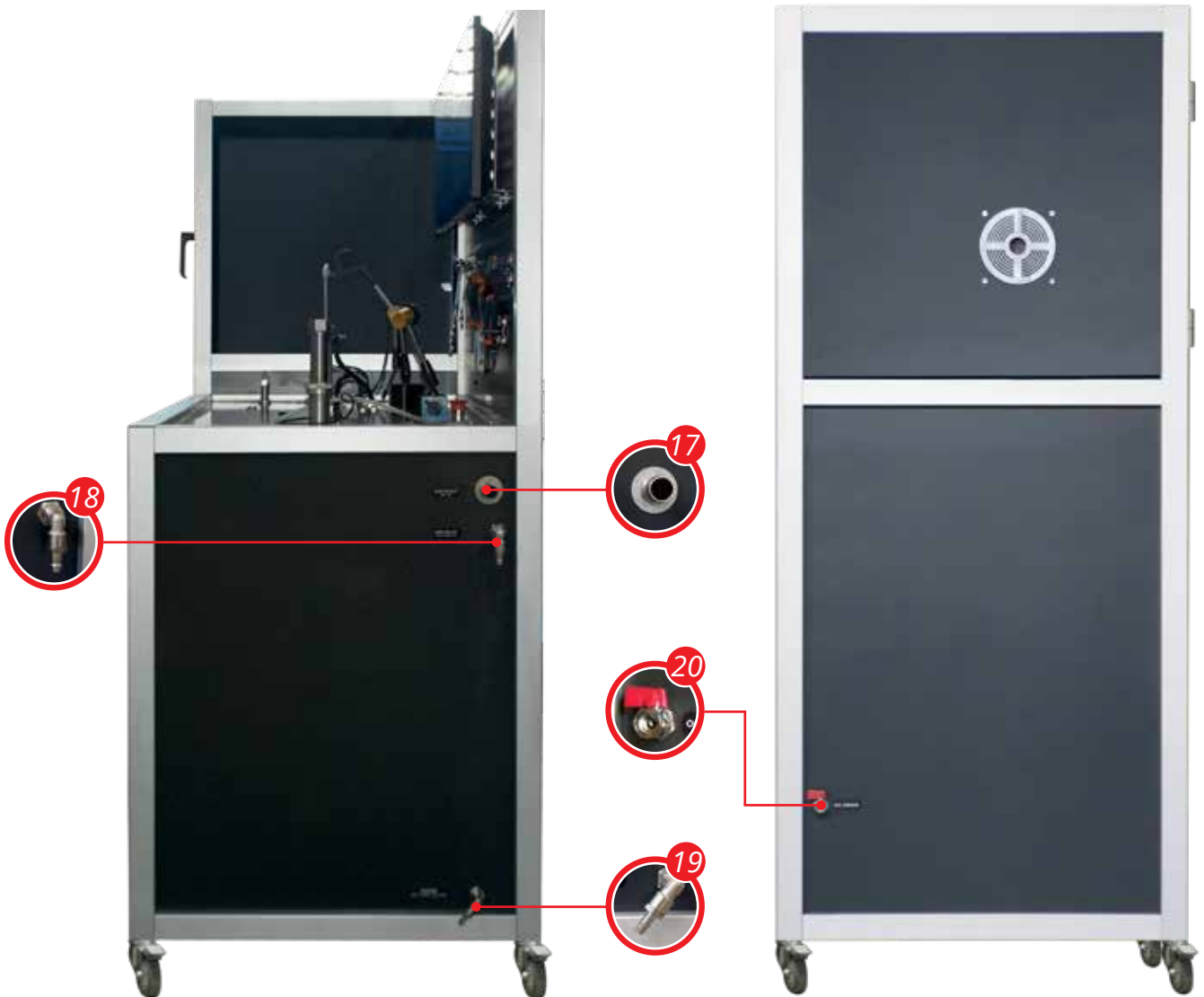
TC Workbench \\ Right side

- 17\ Air inlet - Dry air
- 18\ Air inlet - Lubricated air (it is mandatory to connect the air supply to an external oil lubricator and an air filter)*
- 19\ Purge

* Not included

TC Workbench \\ Left side

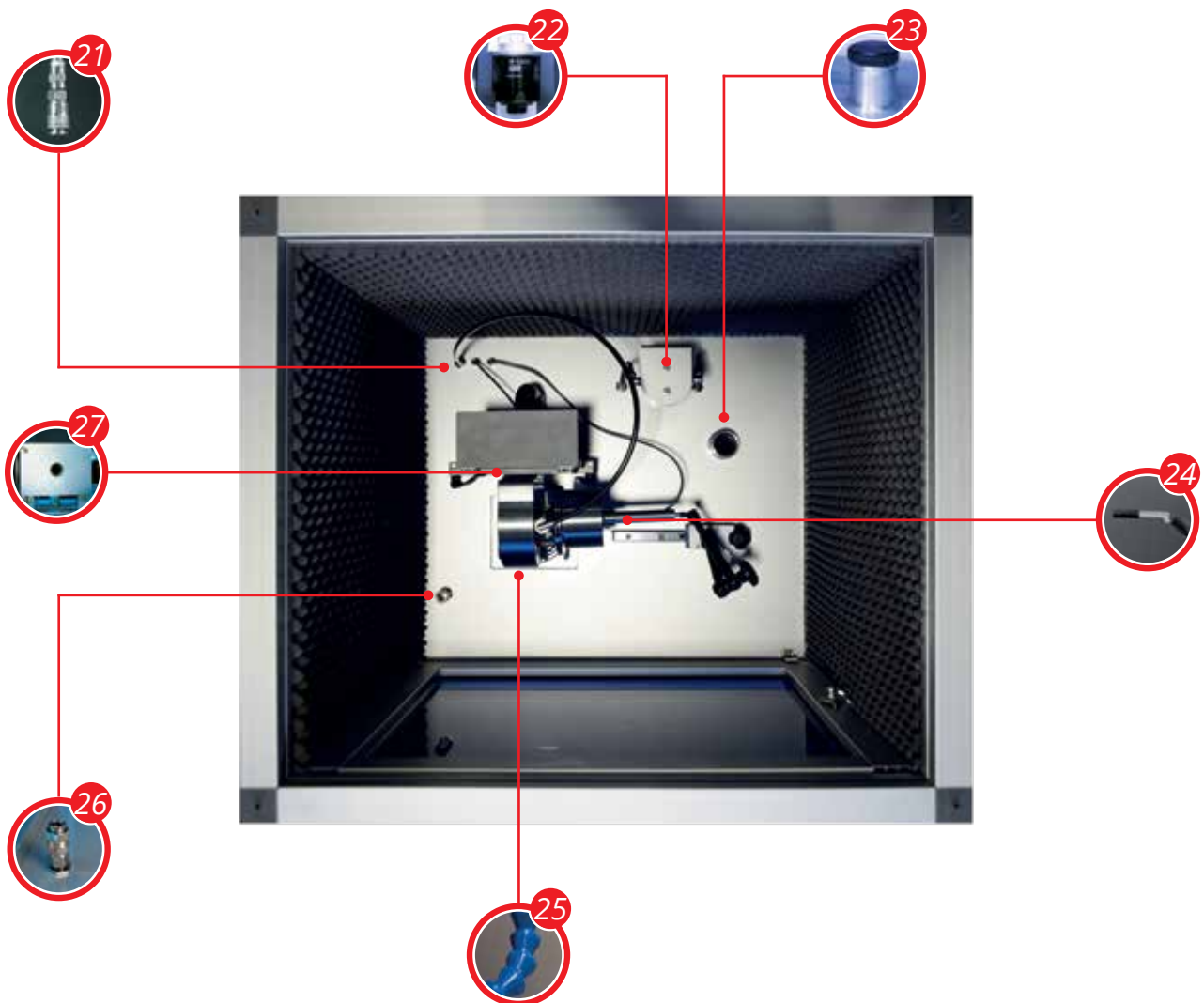
- 20\ Oil drain



DIAGRAM

TC Workbench \ TCA Interior

- 21\ Oil supply
- 22\ Oil filter
- 23\ Air input for CW Test
- 24\ Rotation / Speed sensor
- 25\ Oil return
- 26\ Air grinder connection
- 27\ Turbo support base

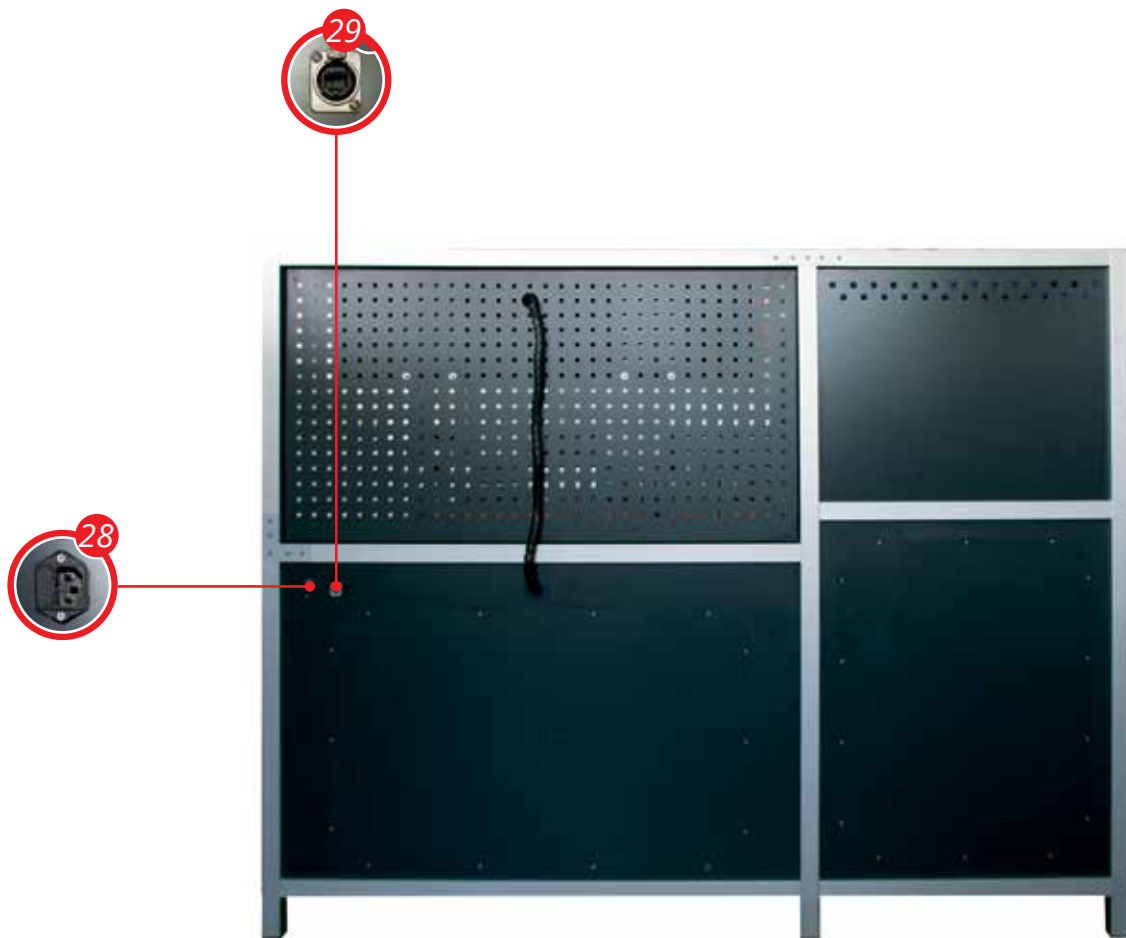


DIAGRAM

TC Workbench \ \ Back

- 28\ Plug to connect the power supply cable to the 230V~50Hz
- 29\ Plug to connect the network cable* to RJ45 LAN plug

* Not included



TC WORKBENCH TESTS

- \\ Balancing Turbocharger
- \\ Measurement of the Efficiency of the Compressor Wheel
- \\ Testing Turbocharger
 - | Leak Test
 - | Minimum Flow
 - | Maximum Flow
 - | Actuator Test
 - | Pneumatic Oil Leak Tester
 - | Print Report
- \\ Testing Electronic Actuators
 - | Actuator Tester
 - | Test PVF Sensor
 - | Test N75 Valve
 - | Actuator Programmer