



CONSORZIO ARMEC
CATALOG



2026

WHO WE ARE

The history of ARMEC, based in Corato, is deeply connected to passion and innovation in the field of mechanics, particularly in the remanufacturing of turbochargers.

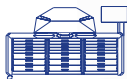
Founded in 1970, ARMEC began its activity with the professional remanufacturing of clutch mechanisms for passenger cars and industrial vehicles, standing out for its reliability and strict adherence to the technical specifications of various manufacturers.

A decisive moment in the company's history came in 1983, when ARMEC expanded its operations to the remanufacturing of original turbochargers from leading international brands, becoming a benchmark in the industry thanks to its expertise and the high quality of its work.

The company philosophy is based on three main pillars: **professionalism**, **customer support**, and **guarantees**, with particular emphasis on the “**3 Kasco Turbo Guarantees**,” covering every aspect of products and services from turbocharger failure to free roadside assistance in the event of breakdowns.

This approach has enabled ARMEC to stand out in a highly competitive market by offering advanced technological solutions such as **ARMEC Turbo Test Benches** and **Testers**.





FLOW BENCHES

Static and Dynamic
Flow Benches for
Turbochargers



TURBOCHARGERS

New and Remanufactured
Turbochargers
with 3 Guarantees



BALANCING MACHINES

Balancing Machines for
Turbochargers, Rotors
and Core Assy, Designed
for Turbocharger
Manufacturers
and Rebuilders



ASSISTANCE

Remote or On-Site
Diagnostics for
Turbocharger Analysis,
Troubleshooting
and Prevention of
Future Failures



TURBO EQUIPMENT

Testers and Programmers
for Electronic Actuators,
Tools for Turbocharger
Rebuilding



SUPPORT

Reliable and Responsive
After-Sales Support.
Free Software and Hardware
Updates for Our Test Benches



TOOLS

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The background features a series of overlapping geometric shapes in various shades of blue (ranging from light to dark navy) and white. These shapes include rectangles, triangles, and rounded forms, creating a modern, architectural aesthetic. The composition is dynamic, with shapes extending from the edges of the frame towards the center.

TOOLS

CIK

Dial Indicator Kit



Includes Base Plate, Magnetic Stand and Carrying Case



K8C

7 Piece Wrench Set for KKK Variable Geometry Turbochargers



Includes T-Handle Wrench and Carrying Case



SB K3

**TURBO ARMEC Support, Adapter A and
Adapter T Included**

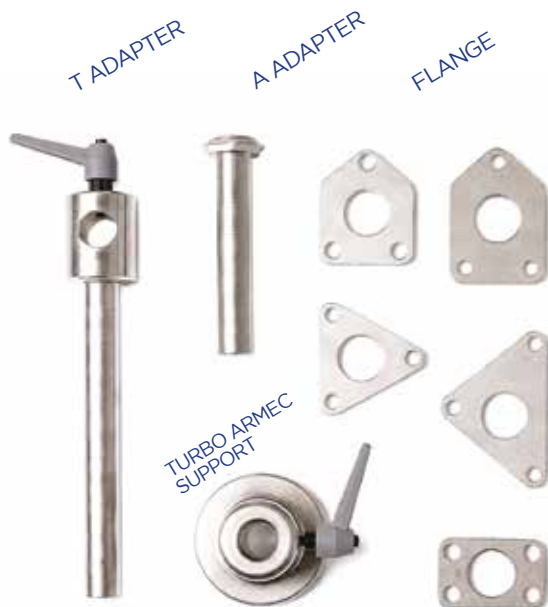


Patented TURBO ARMEC Support, Includes Carrying Case



SB K8

**TURBO ARMEC Support, Adapter A, Adapter T
and 5 Flanges Included**



Patented TURBO ARMEC Support, Includes Carrying Case



The background features a series of overlapping geometric shapes in various shades of blue (light, medium, and dark) against a white background. These shapes include rectangles, triangles, and curved segments, creating a modern, architectural feel.

TESTERS

VM4

Manual Tester for Pneumatic Turbo Actuators

The **VM4** is a professional instrument designed for testing and calibrating pneumatic and electro-pneumatic actuators. Thanks to its separate pressure and vacuum readings, it ensures high accuracy during calibration and diagnostic procedures, making it ideal for both automotive and professional applications.

Equipped with a pressure gauge (0-2.5 bar) and a dedicated vacuum gauge (0 to -1 bar), it provides superior readability compared to combined-scale systems, ensuring more precise measurements. Manual control allows pressure or vacuum to be generated and adjusted progressively, maintaining maximum sensitivity throughout the testing process. Compatible with VNT Connect, it enables realistic simulation of operating conditions and improves adjustment accuracy.

Key Features

- ° Separate pressure and vacuum readings
- ° Precise and progressive manual control
- ° High sensitivity during calibration procedures
- ° Compatible with VNT Connect
- ° Improved adjustment accuracy
- ° Reduced errors and increased reliability



VM4

Manual Tester for Pneumatic Turbo Actuators



Includes Vacuum Gauge (-1 / 0 bar), Pressure Gauge (0 / 2.5 bar) and Carrying Case



VM6

Automatic Tester for Pneumatic Turbo Actuators

The **VM6** is the evolution of the VM4, engineered to deliver greater accuracy, faster operation, and superior performance in testing and diagnostic procedures. Powered directly by the workshop's compressed air supply, it eliminates the need for manual pressure and vacuum generation, ensuring a more practical, continuous, and efficient workflow.

Equipped with dual gauges, it enables simultaneous monitoring of pressure and vacuum, with extended measurement ranges up to -1 bar vacuum and up to 6 bar pressure, making it ideal for automotive, industrial, and heavy-duty applications. The central selector allows instant switching between operating modes, while the integrated regulators ensure precise adjustment of test parameters.

Key Features

- ° Direct compressed air supply
- ° Pressure and vacuum control
- ° Quick switching between operating modes
- ° Precise adjustment of test parameters
- ° Increased operating speed and stability
- ° Reduced operational errors



VM6

Automatic Tester for Pneumatic Turbo Actuators



Includes Vacuum Gauge (-1 / 0 bar), Pressure Gauge (0 / 6 bar), Air Hoses and Carrying Case



RS1

Precision Turbo Shaft Straightening Tester for Shafts up to 180 mm

The **RS1** is a precision system designed for checking and correcting the straightness of turbine shafts and rotors. Thanks to its high-precision dial indicator, it quickly detects deformations, runout and misalignment, correcting any irregularities through the integrated adjustment system.

Ideal for pre-balancing operations, the RS1 ensures properly aligned components, reducing errors in subsequent machining processes and improving overall production quality. Its working capacity of up to 180 mm makes it particularly suitable for automotive applications and small to medium-sized components.

Key Features

- ° Fast and accurate straightness inspection
- ° Immediate detection of deformation, runout and misalignment
- ° Integrated correction system
- ° Working capacity up to 180 mm
- ° Reduced balancing errors
- ° Improved quality and production efficiency





Includes Analog Precision Dial Indicator

RSI

Precision Turbo Shaft Straightening Tester for Shafts
up to 180 mm



RS2

Precision Turbo Shaft Straightening Tester for Shafts up to 270 mm

The **RS2** is the high-capacity version of the RS1 system, designed for checking and correcting the straightness of turbine shafts and rotors used in industrial applications. It maintains the same level of precision as the RS1 while extending the maximum working length from 180 mm to 270 mm.

Thanks to its high-precision dial indicator, the RS2 quickly detects deformation, runout and misalignment, correcting any irregularities through the integrated adjustment system. Ideal for pre-balancing operations, it ensures properly aligned components, reduces errors in subsequent processes and improves overall production quality.

Key Features

- ° Fast and accurate straightness inspection
- ° Integrated correction system
- ° Extended working capacity up to 270 mm
- ° Reduced balancing errors
- ° Improved production efficiency





Includes Analog Precision Dial Indicator

RS2

Precision Turbo Shaft Straightening Tester for Shafts
up to 270 mm



OST

Oil Leak Tester for Passenger Cars with TURBO ARMEC Universal Support

The **OST** is a test bench designed to quickly verify the oil sealing performance of turbochargers, allowing precise detection of leaks on both the compressor side and turbine side. Thanks to its simple and intuitive testing procedure, it is an essential tool for diagnosing oil consumption issues and ensuring proper turbocharger operation.

Equipped with the universal TURBO ARMEC support, the OST enables fast component setup and efficient testing procedures. The integrated 3.5" display provides real-time visualization of test parameters, while its robust design, focused on reliability and ease of maintenance, ensures continuous operation and repeatable results over time.

Key Features

- ° Fast oil seal testing
- ° Leak analysis on compressor and turbine sides
- ° Simple and quick setup
- ° 3.5" display with real-time data
- ° High operational reliability
- ° Easy and immediate maintenance





TEST



CLEAN



OST

Oil Leak Tester for Passenger Cars with
TURBO ARMEC Universal Support



Includes 29 Oil Outlet Adapters and 12 Quick-Connect Oil Inlet Fittings



OST

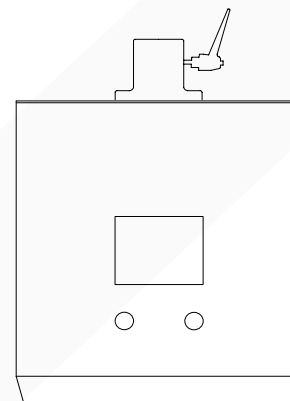
TECHNICAL SPECIFICATIONS

MODEL NAME OST**ELECTRONICS**

Nominal Voltage	230 V + 10 %
Rated Current	1 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	200 W

MACHINE

Dimensions L x D x H	230 x 510 x 265 mm
Maximum Power	180 W
Weight	30 kg
Power Supply	0 / 5 bar
for Compressed Air	Male Quick-Connect Fitting
Operating Ambient Temperature Limits °C (min/max)	5 / 45 °C



OST TRUCK

Oil Leak Tester for Passenger Cars and Commercial Vehicles with TURBO ARMEC Universal Support

The **OST TRUCK** is a test bench designed to quickly verify the oil sealing performance of turbochargers, allowing precise detection of leaks on both the compressor side and turbine side. Thanks to its simple and intuitive testing procedure, it helps diagnose and resolve the most common oil consumption issues, improving repair reliability and overhaul quality.

Equipped with the universal TURBO ARMEC support, the OST TRUCK ensures fast setup and efficient testing operations. The 4.3" touchscreen display provides real-time visualization of test parameters, while the innovative wide-spectrum sensors with white LED technology deliver more precise and stable leak detection compared to traditional systems.

Key Features

- ° Fast oil seal testing
- ° Leak analysis on compressor and turbine sides
- ° High-sensitivity wide-spectrum sensors
- ° White LED technology for more accurate leak detection
- ° 4.3" touchscreen display
- ° High reliability and easy maintenance







OST TRUCK

Oil Leak Tester for Passenger Cars and
Commercial Vehicles with TURBO ARMEC
Universal Support



Includes 29 Oil Outlet Adapters and 12 Quick-Connect Oil Inlet Fittings



OST TRUCK

TECHNICAL SPECIFICATIONS

MODEL NAME

Oil Leak Tester for Passenger
Cars and Commercial Vehicles

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	1 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	150 W

MACHINE

Dimensions L x D x H	450 x 450 x 935 mm
Maximum Power	0.382 kW
Weight	70 kg
Power Supply for Compressed Air	0 / 5 bar Male Quick-Connect Fitting
Operating Ambient Temperature Limits °C (min/max)	5 / 45 °C



WST

Water Leak Tester for Passenger Cars and Commercial Vehicles with TURBO ARMEC Universal Support

The **WST** is a test bench designed to verify the integrity of turbocharger water cooling circuits. It enables the detection of micro-leaks, cracks, and structural defects that could cause contamination between the water and oil circuits, ensuring component integrity before assembly or remanufacturing.

Thanks to its dedicated hydraulic circuit, high-sealing fittings, and controlled pressurization system, the WST performs reliable and repeatable tests. The use of water with a UV tracer allows immediate detection of any leaks, while the integrated touchscreen provides simple and intuitive test cycle management. The system also generates comprehensive reports containing all test data, ensuring full traceability of every inspection.

Key Features

- ° Precise detection of micro-leaks
- ° Prevention of water/oil cross-contamination
- ° Dedicated high-reliability hydraulic circuit
- ° Integrated UV tracer inspection
- ° Automatic reports with full traceability
- ° Ideal for remanufacturing and quality control



WST

Water Seal Tester



WST

Water Leak Tester for Passenger Cars and
Commercial Vehicles with TURBO ARMEC
Universal Support



Includes 18 Mounting Supports and 12 Quick-Connect Water Inlet and Outlet Fittings



WST

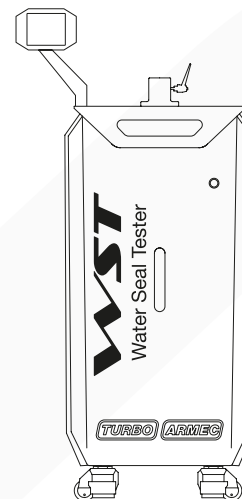
TECHNICAL SPECIFICATIONS

MODEL NAME **WST****ELECTRONICS**

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	1 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	150 W

MACHINE

Dimensions L x D x H	450 x 450 x 935 mm
Maximum Power	96 W
Weight	50 kg
Power Supply	0 / 5 bar
for Compressed Air	Male Quick-Connect Fitting
Operating Ambient	5 / 45 °C
Temperature Limits	
°C (min/max)	



FUSION

Water and Oil Leak Tester for Passenger Cars and Commercial Vehicles with TURBO ARMEC Universal Support

FUSION combines the capabilities of the OST and WST systems into a single platform, providing a complete solution for turbocharger leak testing. Designed to verify both the oil circuit and the water cooling circuit, it enables rapid detection of leaks, micro-cracks, and structural defects that could compromise component reliability.

By integrating both systems into a single machine, **FUSION** reduces workshop space requirements, optimizes workflow, and simplifies testing procedures. The universal **TURBO ARMEC** support, integrated touchscreen, and guided test management allow fast, accurate, and fully traceable inspections. It is the ideal solution for workshops and turbocharger remanufacturing centers looking to consolidate all essential leak-testing operations into one machine.

Key Features

- ° Oil and water leak testing in a single machine
- ° Complete turbocharger diagnostics
- ° Detection of leaks and micro-cracks
- ° Reduced testing time
- ° Improved efficiency and space optimization
- ° Full traceability of test results







FUSION

Water and Oil Leak Tester for Passenger Cars
and Commercial Vehicles with TURBO ARMEC
Universal Support



Includes 29 Oil Outlet Adapters, 18 Mounting Supports, 12 Quick-Connect Oil Inlet Fittings and
12 Quick-Connect Water Inlet and Outlet Fittings



FUSION

TECHNICAL SPECIFICATIONS

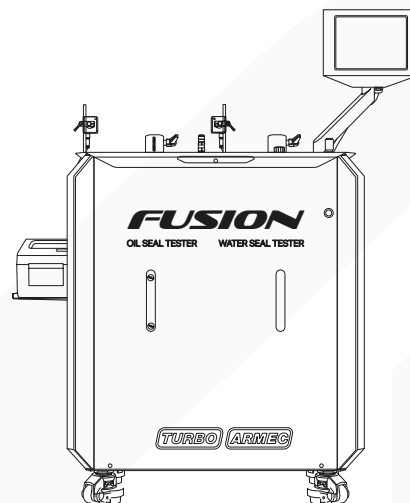
MODEL NAME FUSION

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	1 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1400 W

MACHINE

Dimensions L x D x H	750 x 450 x 935 mm
Water Pump Motor	96 W
Pump Motor	0.382 kW
Weight	100 kg
Operating Ambient Temperature Limits °C (min/max)	5 / 45 °C



VNT CONNECT

12 V & 24 V Electronic Turbo Actuator Tester and Programmer

The **VNT Connect** is a system designed for the control and management of next-generation electronic turbocharger actuators. Developed to operate both as a stand-alone unit and in integration with flow benches, it enables accurate and coordinated testing, even on the most complex applications.

Thanks to its ability to control two electronic actuators simultaneously, the system can manage independent signals and different voltage levels, including combinations of 12 V and 24 V actuators. This operational flexibility makes it the ideal solution for two-stage turbochargers and Stage 2 / Stage 2X systems, ensuring complete control throughout testing and calibration procedures.

Key Features

- ° Stand-alone operation or integration with test benches
- ° Simultaneous control of two electronic actuators
- ° Independent signal management
- ° Compatible with 12 V and 24 V systems
- ° Ideal for two-stage turbochargers
- ° Integration with Stage 2 and Stage 2X systems
- ° Greater accuracy in testing and calibration procedures





VNT CONNECT

POWER IN
TURBO ARMEG

Home

Test

Programmazione

Allarmi

Banco

HO

P 02

GNW010099-01

H3

TURBO ARMEG

P 02

Posizione
5

Feedback
0

Assorbimento I
0

H--

Assorbim
0

AUTO ON

OFF

ON

VNT CONNECT

12 V & 24 V Electronic Turbo Actuator Tester and Programmer



Includes 2 Control Channels, Interlink System, 2 Universal Cables and 44 Adapter Heads
Available in Different Configurations



VNT CONNECT**MODEL NAME VNT CONNECT****GENERAL**

Dimensions L x D x H 418 x 230 x 60 mm
 Weight 2.8 kg
 Display 12" Widescreen

CONNECTIONS

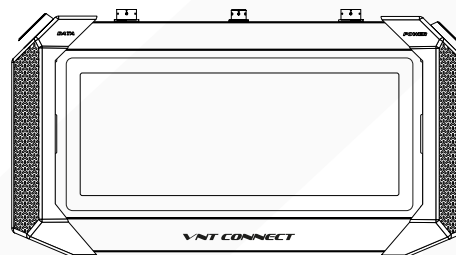
DC Power Supply 1
 OUT/IN Ports 2
 RJ45 Ethernet Port 1

SUPPORTED TECHNOLOGIES

PWM 12 V
 CAN Bus 12 V - 24 V
 LIN Bus 12 V

ELECTRONIC

Nominal Voltage 24 V CC
 Rated Current 5 A
 Phase 1 Phase + N + PE
 50 / 60 Hz
 Maximum Power 120 W

TECHNICAL SPECIFICATIONS

The background is a white canvas with several large, overlapping geometric shapes in two shades of blue: a medium blue and a darker navy blue. These shapes include rectangles, triangles, and a large curved band that sweeps across the lower half of the image. The shapes are arranged in a way that creates a sense of depth and movement.

EQUIPMENT

TOOL CHEST

Tool Storage Cabinet



Customizable Colors and Number of Drawers



BIL

Workbench



Customizable Colors and Number of Drawers



BIL

LED Lighting



BENCH VISE

Jaw Width:

125 mm

Maximum Opening:

150 mm

Dimensions:

355 x 148 x 153 mm



SB K3

Patented TURBO ARMEC
Support, Adapter A,
Adapter T and Dual 360°
Swivel Joint Included

Available Upon Request at the Time of Order



S1

Automatic Sandblasting Machine

The **S1** is an automatic sandblasting machine designed for the professional cleaning of turbocharger components. It has been developed to increase productivity, reduce processing times, and improve operational safety. Thanks to its ability to process up to five housings simultaneously, it allows multiple components to be cleaned through fast automatic cycles, optimizing workshop workflow.

Equipped with an automatic abrasive recovery system and a dual filtration system with integrated dust extraction, the S1 ensures lower consumption, reduced operating costs, and a cleaner working environment. Its 380 V power supply and the fact that it does not require compressed air also help simplify installation and reduce overall operating costs.

Key Features

- ° Simultaneous processing of up to 5 components
- ° Fast automatic cycles for high productivity
- ° Automatic abrasive recovery system
- ° Dual filtration system with integrated dust extraction
- ° Improved operational safety and cleanliness
- ° No compressed air required
- ° Reduced operating costs





SI

Automatic Sandblasting Machine



Automatic Sandblasting Machine with Integrated Dust Extraction and Filtration System



S1

TECHNICAL SPECIFICATIONS

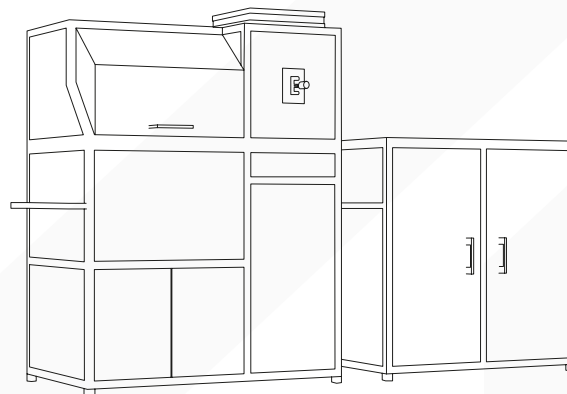
MODEL NAME S1

MAIN UNIT

Dimensions L x D x H	1500 x 1150 x 700 mm
Weight	500 kg
Power	380 V - 50 Hz - 3 Phase
Motor	AC 2.2 kW - 2850 rpm
Gear Motor	AC 120 W - 30 rpm
Other	LED Light 10 W
Steel Shot (0.6 mm)	25 kg
Steel Shot (0.2 mm)	25 kg

FILTER UNIT

Dimensions L x D x H	1000 x 1000 x 600 mm
Vacuum Cleaner	AC 220 V - 50 Hz - 1 kW
Weight	120 kg



PERFORMANCE KIT

TURBO ARMEC Performance Upgrade Kit

The **Performance Kit** is an upgrade designed to expand the capabilities of dynamic flow benches and Stage 2 systems, enabling the analysis of high-performance, modified, and hybrid turbochargers. Compatible with FLOW D, Stage 2, Duo Flow, Trio Flow, and Stage 2X, it introduces advanced testing modes that replicate more demanding and realistic operating conditions.

Thanks to its dedicated Performance Mode, the system allows testing at higher operating speeds while capturing additional parameters such as compressor-side pressure and turbo response time measured in milliseconds. These advanced measurements provide a more accurate evaluation of turbocharger behavior, help verify the effectiveness of performance modifications, and deliver a more comprehensive analysis of overall performance.

Key Features

- Compatible with FLOW D, Stage 2 and combined systems
- Dedicated mode for modified and hybrid turbochargers
- Testing at higher operating speeds
- Compressor-side pressure measurement
- Turbo response time analysis
- Simulation of high-performance operating conditions
- Greater diagnostic accuracy and completeness



PERFORMANCE KIT

TURBO ARMEC Performance Upgrade Kit



Compatible with Flow D, Duo Flow, Trio Flow, Stage 2 and Stage 2X
Performance Measurement Upgrade Kit



The background is a white canvas with several large, abstract geometric shapes in two shades of blue. A prominent dark blue shape, consisting of a long diagonal bar and a curved top section, extends from the bottom left towards the right. Other shapes in a lighter blue shade are positioned in the upper left, middle left, and top right areas, creating a dynamic, architectural composition.

TEST BENCHES
& BALANCING
MACHINES

OUR RANGE

The **TURBO ARMEC** range has been developed to cover the entire turbocharger remanufacturing, calibration, and testing process, offering dedicated solutions for every stage of the workflow. The product range is organized into three main categories:

- ° Flow Benches
- ° Core Assy Balancing Machines
- ° Rotor Balancing Machines

Each solution is designed to deliver maximum accuracy, reliability, and operational efficiency.

The flow bench range includes the **FLOW S**, a static solution for turbocharger testing and calibration, the **FLOW D**, a dynamic flow bench with real turbine rotation, and the **STAGE 2**, an advanced system designed for both single-stage and two-stage turbochargers. The latter represents a unique solution within the aftermarket sector, as there are currently no equivalent systems available for the testing and calibration of two-stage turbochargers.

For balancing operations, the range includes the **B1 TC** for core assemblies and the **B1 R** for rotors, complemented by integrated solutions such as **DUO FLOW**, **TRIO FLOW**, and **STAGE 2X**, which combine balancing and flow testing within a single system.





FLOW
DYNAMIC MACHINE

TURBO ARMEC
ITALY

TURBO ARMEC

TURBO ARMEC

TURBO ARMEC

TURBO ARMEC

XP STATION

Workbench with Oil and Water Leak Testing for Passenger Cars and Commercial Vehicles, Featuring a VNT Actuator Calibration System



PROTOTYPE UNDER DEVELOPMENT. Images, features and specifications are for illustrative purposes only and may differ from the final production version





FLOW S

Test Benches Ready for Industry 4.0

Static Flow Bench

The **FLOW S** is the entry-level solution for turbocharger flow testing and calibration. It is a static test bench in which the turbine is not rotated; the rotor is locked by a dedicated device, as the system does not provide lubrication for the rotating assembly.

The bench allows turbocharger performance to be verified and restored by comparing measured values with the reference parameters of a new component. The system simulates the airflow generated by the engine and measures flow rate, enabling accurate analysis at three operating points. Compatible with both variable geometry and wastegate turbochargers, it ensures precise calibration and provides an expandable platform that can be upgraded over time with additional functionalities.

Key Features

- ° Static test bench for flow testing and calibration
- ° Analysis at three operating points
- ° Compatible with VGT and wastegate turbochargers
- ° Control of pneumatic and electronic actuators
- ° Expandable and upgradeable platform
- ° Festo and Siemens industrial components
- ° Simplified maintenance and always-available spare parts





FLOW S

Test Benches Ready for Industry 4.0

Static Flow Bench



Over 1,000 References with Free Software Updates, Including Adapters, Flanges and the TURBO ARMEC Support



FLOW S

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS

MODEL NAME

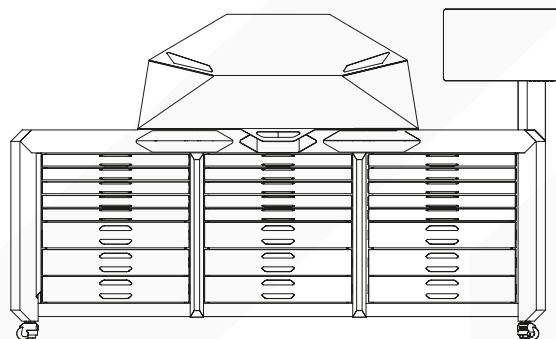
FLOW S

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	4.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1400 W

MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	600 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB



FLOW D

Test Benches Ready for Industry 4.0

Dynamic Flow Bench

The **FLOW D** represents the evolution of static flow testing by introducing real turbine rotation during the test. Thanks to its integrated lubrication system, the turbocharger is supplied with pressurized oil at the correct operating temperature, accurately reproducing the operating conditions found on the vehicle.

In addition to airflow measurement and analysis at three operating points, the system acquires additional parameters such as rotational speed (rpm) and compressor-side airflow, providing a comprehensive evaluation of turbocharger performance. Direct comparison with reference values enables more accurate diagnostics, greater process control, and objective validation of test results.

Key Features

- ° Real turbine rotation during testing
- ° Integrated lubrication system
- ° RPM and compressor-side airflow analysis
- ° Comparison with reference data
- ° More accurate and reliable diagnostics
- ° Ideal for remanufactured and rebuilt turbochargers
- ° Greater control over final performance





FLOW D

Test Benches Ready for Industry 4.0

Dynamic Flow Bench



Over 1,000 References with Free Software Updates, Including Adapters, Flanges and the TURBO ARMEC Support



FLOW D

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS

MODEL NAME**FLOW D****ELECTRONICS**

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	4.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1400 W

MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	600 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB



STAGE 2

Test Benches Ready for Industry 4.0

Two-Stage Turbocharger Dynamic Flow Bench

The **STAGE 2X** combines static variable geometry flow testing and high-speed core assembly balancing within a single platform, allowing both the aerodynamic performance of the turbocharger and the dynamic behavior of the rotating assembly to be verified.

By integrating these two functions, the system enables airflow analysis across the different variable geometry positions while correcting any core assembly imbalance at speeds of up to 250,000 rpm, simulating operating conditions that closely reflect real-world applications. Designed to reduce processing times, setup operations, and component handling, the STAGE 2X provides an efficient and versatile solution for specialized workshops and turbocharger remanufacturing centers.

Key Features

- ° Static variable geometry flow testing
- ° Core assy balancing up to 250,000 rpm
- ° Verification of airflow and dynamic operating parameters
- ° Complete turbocharger testing in a single machine
- ° Reduced setup and processing times
- ° Greater accuracy and reliability of the final result





STAGE 2

Test Benches Ready for Industry 4.0

Two-Stage Turbocharger Dynamic Flow Bench



Over 1,150 References with Free Software Updates, Including Adapters, Flanges, and the TURBO ARMEC Support.
Supports Two-Stage Turbochargers with Up to 5 Actuators



STAGE 2

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS

MODEL NAME

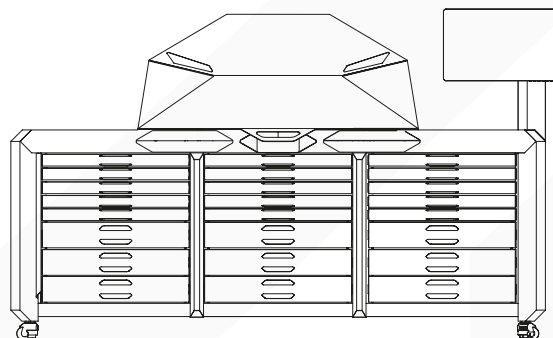
STAGE 2

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	4.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1400 W

MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	600 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB



STAGE 2X

Test Benches Ready for Industry 4.0

Balancing Machine for Turbochargers & Core Assy with Dynamic Flow Testing for Two-Stage Turbochargers

The **STAGE 2X** combines static variable geometry flow testing and high-speed core assembly balancing within a single platform, allowing both the aerodynamic performance of the turbocharger and the dynamic behavior of the rotating assembly to be verified.

By integrating these two functions, the system enables airflow analysis across the different variable geometry positions while correcting any core assembly imbalance at speeds of up to 250,000 rpm, simulating operating conditions that closely reflect real-world applications. Designed to reduce processing times, setup operations, and component handling, the STAGE 2X provides an efficient and versatile solution for specialized workshops and turbocharger remanufacturing centers.

Key Features

- ° Static variable geometry flow testing
- ° Core assy balancing up to 250,000 rpm
- ° Verification of airflow and dynamic operating parameters
- ° Complete turbocharger testing in a single machine
- ° Reduced setup and processing times
- ° Greater accuracy and reliability of the final result





STAGE 2X

Test Benches Ready for Industry 4.0

Balancing Machine for Turbochargers & Core Assy with
Dynamic Flow Testing for Two-Stage Turbochargers



Over 1,150 References with Free Software Updates, Including Adapters, Flanges, and the TURBO ARMEC Support.
Supports Two-Stage Turbochargers with Up to 5 Actuators and High-Speed Balancing up to 250,000 rpm



MODEL NAME

STAGE 2X

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	4.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1700 W

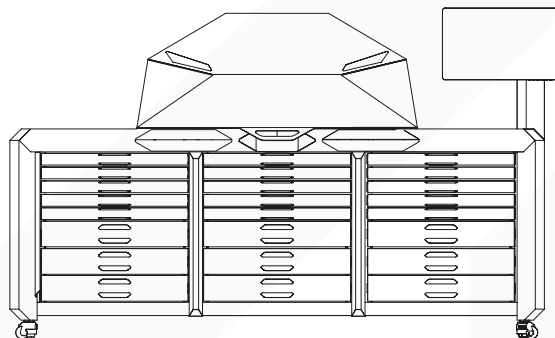
MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	675 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB
Maximum Core Assy Weight	18 Kg
Maximum Turbine Wheel Diameter	150 mm
Maximum Compressor Wheel Diameter	159 mm
Minimum Residual Unbalance	0.03 gmm

STAGE 2X

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS



DUO FLOW

Test Benches Ready for Industry 4.0

Dynamic Flow Bench and Core Assy Balancing Machine

The **DUO FLOW** is a professional solution designed for high-speed balancing and dynamic validation of turbochargers. Combining core assy imbalance correction and fluid-dynamic performance verification within a single platform, it enables testing under operating conditions that closely replicate real-world applications.

Thanks to high-speed turbocharger rotation and the integrated lubrication system, the DUO FLOW allows the analysis of not only vibrations and dynamic imbalances, but also key parameters such as rotational speed (rpm), airflow, and variable geometry behavior. By integrating both processes into a single workflow, the system reduces setup times, component handling, and equipment requirements, improving operational efficiency and test reliability.

Key Features

- ° Core assy balancing up to 250,000 rpm
- ° Dynamic flow testing with real turbine rotation
- ° Analysis of rpm, turbine airflow, and compressor airflow
- ° Realistic simulation of operating conditions
- ° Reduced setup and processing times
- ° Greater diagnostic accuracy and reliability





DUO FLOW

Test Benches Ready for Industry 4.0

Dynamic Flow Bench and Core Assy Balancing Machine



Over 1,000 References with Free Software Updates, Including Adapters, Flanges, and the TURBO ARMEC Support.
High-Speed Balancing up to 250,000 rpm



MODEL NAME

DUO FLOW

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	5.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1700 W

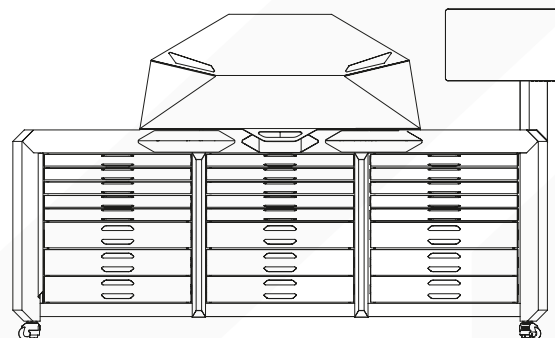
MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	650 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB
Maximum Core Assy Weight	18 kg
Maximum Turbine Wheel Diameter	150 mm
Maximum Compressor Wheel Diameter	159 mm
Minimum Residual Unbalance	0.03 gmm

DUO FLOW

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS



TRIO FLOW

Test Benches Ready for Industry 4.0

Dynamic Flow Bench and Balancing Machine for Rotors, Turbochargers and Core Assy

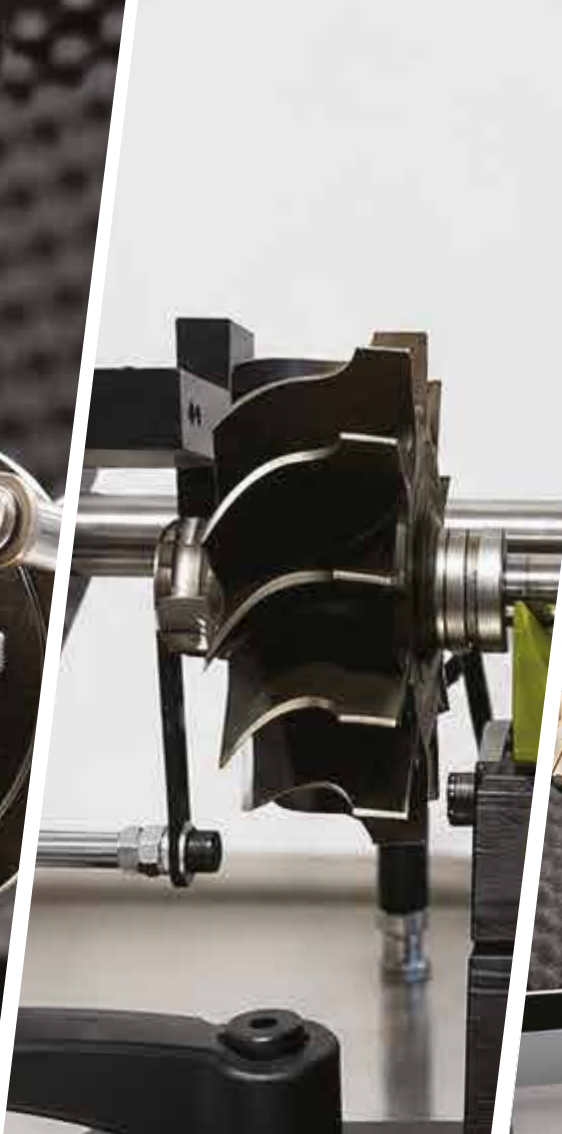
The **TRIO FLOW** is the most complete solution for turbocharger testing and validation. It combines all the essential stages of the remanufacturing process within a single machine: rotating component balancing, high-speed core assy verification, and final dynamic flow testing.

Designed to simulate real operating conditions, it enables the analysis of imbalances, rotational speed, airflow, and overall turbocharger performance through a continuous process, reducing processing times while increasing the reliability of the final result. By integrating all testing and validation stages into a single platform, the TRIO FLOW optimizes workflow efficiency, improves process repeatability, and ensures complete turbocharger validation before installation.

Key Features

- Complete balancing from rotor to core assembly
- Dynamic flow testing with real turbine rotation
- Analysis of rpm, turbine airflow, and compressor airflow
- Realistic simulation of operating conditions
- Reduced setup and processing times
- Greater reliability and quality of the remanufactured turbocharger





TRIO FLOW

Test Benches Ready for Industry 4.0

**Dynamic Flow Bench and Balancing Machine for Rotors,
Turbochargers and Core Assy**



Over 850 References with Free Software Updates, Including Adapters, Flanges, and the TURBO ARMEC Support.
High-Speed Balancing up to 250,000 rpm, Including Rotor, Shaft and Compressor Wheel Balancing



MODEL NAME

TRIO FLOW

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	5.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1700 W

MACHINE

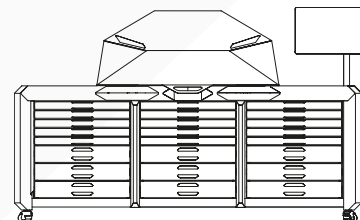
Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	650 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB
Maximum Core Assy Weight	18 kg
Maximum Turbine Wheel Diameter	150 mm
Maximum Compressor Wheel Diameter	159 mm
Minimum Residual Unbalance	0.03 gmm

TRIO FLOW

Test Benches Ready for Industry 4.0

TECHNICAL SPECIFICATIONS

Rotor Weight	60 - 1500 g
Rotor Length	20 - 250 mm
Maximum Turbine Wheel Diameter	5 - 14 mm
Turbine Shaft Diameter	5 - 14 mm
Measurement Speed	1500 - 4500 rpm
Measurement Accuracy	$\pm$ 2%
Unbalance Level	
Unbalance Angle	$\pm$ 2.5°
Accuracy Class and Tolerances	Compliant ISO 1940 Q 2.5 15 - 30 mgmm



B1 TC

Balancing Machine for Turbochargers and Core Assy

The **B1 TC** is a high-speed balancing machine designed for the detection and correction of core assembly imbalances under operating conditions that closely replicate real turbocharger performance. With the ability to reach speeds of up to 250,000 rpm, it provides highly accurate balancing for automotive, industrial, agricultural, and commercial vehicle applications.

Equipped with speed and vibration sensors, the B1 TC analyzes the dynamic behavior of the rotating assy, delivering reliable and repeatable measurement data. The ability to operate with either a bare core assy using dedicated adapters or a partially assembled turbocharger ensures maximum operational flexibility. Integration with flow testing systems further reduces setup times and improves the efficiency of the entire production process.

Key Features

- ° Balancing up to 250,000 rpm
- ° High-precision vibration analysis
- ° Testing of bare core assy or partially assembled turbocharger
- ° Compatible with automotive and industrial applications
- ° More than 70 adapters included
- ° Integration with flow testing systems
- ° Greater reliability and quality of the final result





B1 TC

Balancing Machine for Turbochargers and Core Assy



Includes Adapters, Flanges, and the TURBO ARMEC Support, with High-Speed Balancing up to 250,000 rpm



B1 TC

MODEL NAME B1 TC

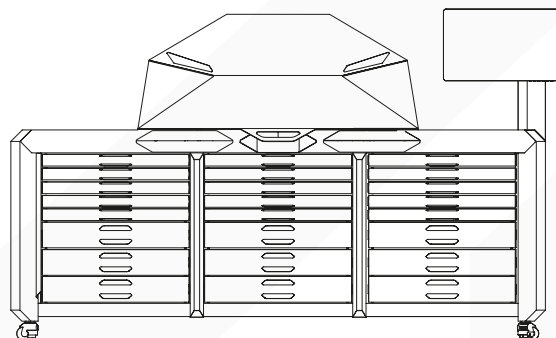
ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	5.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1700 W

MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	650 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB
Maximum Core Assy Weight	18 kg
Maximum Turbine Wheel Diameter	150 mm
Maximum Compressor Wheel Diameter	159 mm
Minimum Residual Unbalance	0.03 gmm

TECHNICAL SPECIFICATIONS



B1 R

Rotor Balancing Machine

The **B1 R** is a balancing machine designed for the balancing of turbocharger rotating components, a critical step in the early stages of the remanufacturing process. It is capable of balancing turbine shafts, compressor wheels, and complete rotors, ensuring high accuracy and fast operation during imbalance detection and correction procedures.

Thanks to its automatic self-calibration system, the machine independently identifies component characteristics without requiring manual input of dimensional parameters. This reduces setup times, eliminates potential operator errors, and makes the balancing process simpler and more repeatable. Accurate balancing of rotating components improves turbocharger reliability and enhances the efficiency of subsequent manufacturing and assembly operations.

Key Features

- ° Balancing of shafts, compressor wheels, and complete rotors
- ° Automatic self-calibration system
- ° No manual parameter input required
- ° Reduced setup times
- ° High measurement accuracy
- ° Improved process repeatability





B1 R

Rotor Balancing Machine



Precision Balancing Machine for Turbine Shafts, Compressor Wheels, and Rotors

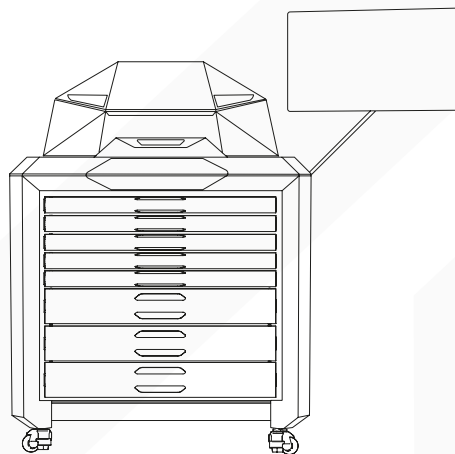


B1 R**MODEL NAME****B1 R****ELECTRONICS**

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	5.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1700 W

MACHINE

Dimensions L x D x H	1550 x 820 x 1500 mm
Weight	200 kg
Rotor Weight	60 - 1500 g
Rotor Length	20 - 250 mm
Maximum Turbine Wheel Diameter	5 - 14 mm
Turbine Shaft Diameter	5 - 14 mm
Measurement Speed	1500 - 4500 rpm
Measurement Accuracy	$\pm 2\%$
Unbalance Level	
Unbalance Angle	$\pm 2.5^\circ$
Accuracy Class and Tolerances	Compliant ISO 1940 Q 2.5 15 - 30 mgmm

TECHNICAL SPECIFICATIONS

DUO B

Balancing Machine for Rotors, Turbochargers and Core Assy

The **DUO B** is the integrated system that combines B1 R and B1 TC technologies into a single machine, enabling complete turbocharger balancing, from the rotor to the high-speed core assy.

Designed to optimize the production process, it eliminates the need to transfer components between different workstations, reducing processing time and operating costs. Thanks to automatic self-calibration and high-speed vibration balancing technology, it ensures precision, reliability, and maximum repeatability of results.

Key Features

- ° Complete balancing in a single machine
- ° Integration of B1 R and B1 TC technologies
- ° Automatic self-calibration
- ° Testing up to 250,000 rpm
- ° Reduced processing time
- ° Increased precision and productivity





DUO B

Balancing Machine for Rotors, Turbochargers and
Core Assy



Includes TURBO ARMEC Adapters, Flanges and Support, with High-Speed Balancing up to 250,000 rpm
Rotor, Shaft and Compressor Wheel Balancing



MODEL NAME

DUO B

ELECTRONICS

Nominal Voltage	230 V $\pm$ 10 %
Rated Current	4.5 A
Phase	1 Phase + N + PE
	50 / 60 Hz
Maximum Power	1400 W

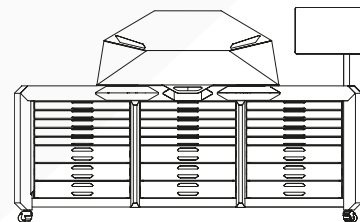
MACHINE

Dimensions L x D x H	2500 x 955 x 1590 mm
Maximum Pump Power	0.382 kW
Weight	550 kg
Compressed Air Supply	8 / 10 bar 1" Connection
Operating Ambient Temperature Range °C (min/max)	5 / 45 °C
Noise Level dB	< 69 dB
Maximum Core Assy Weight	18 kg
Maximum Turbine Wheel Diameter	150 mm
Maximum Compressor Wheel Diameter	159 mm
Minimum Residual Unbalance	0.03 gmm

DUO B

TECHNICAL SPECIFICATIONS

Rotor Weight	60 - 1500 g
Rotor Length	20 - 250 mm
Maximum Turbine Wheel Diameter	5 - 14 mm
Turbine Shaft Diameter	5 - 14 mm
Measurement Speed	1500 - 4500 rpm
Measurement Accuracy	$\pm$ 2%
Unbalance Level	
Unbalance Angle	$\pm$ 2.5°
Accuracy Class and Tolerances	Compliant ISO 1940 Q 2.5 15 - 30 mgmm



The background features a series of overlapping geometric shapes in various shades of blue (light, medium, and dark) against a white background. These shapes include rectangles, triangles, and curved segments, creating a modern, architectural feel.

PRODUCTS

TURBO











CORE ASSY AND SPARE PARTS

Turbo Spare Parts



TURBO ACTUATORS

Pneumatic and Electro-Pneumatic Actuators



Pneumatic Actuators
VM4



Electro-Pneumatic Actuators
VM6



TURBO ACTUATORS

Electronic Actuators



Electronic Actuators
VNT CONNECT Electronic Tester and Programmer



The background features a series of overlapping geometric shapes in various shades of blue (light, medium, and dark) against a white background. These shapes include rectangles, triangles, and curved segments, creating a modern, architectural feel.

TRAINING
COURSES

TRAINING COURSES

Turbocharger and Core Assy Replacement

Location: ARMEC HEADQUARTERS

Language: ITALIAN

During TURBO ARMEC Training Courses, participants learn the correct techniques for turbocharger replacement and turbocharger rebuilding in a safe, professional, and reliable way, using TURBO ARMEC equipment and test benches.



Technical Training



Turbocharger
Replacement and
Rebuilding



Testing and
Validation

Electronic Turbocharger Actuator

Location: ARMEC HEADQUARTERS

Language: ITALIAN

During TURBO ARMEC Training Courses, the correct procedures for turbocharger replacement and turbocharger rebuilding are explained, ensuring safe, professional, and reliable practices through the use of TURBO ARMEC equipment and test benches.

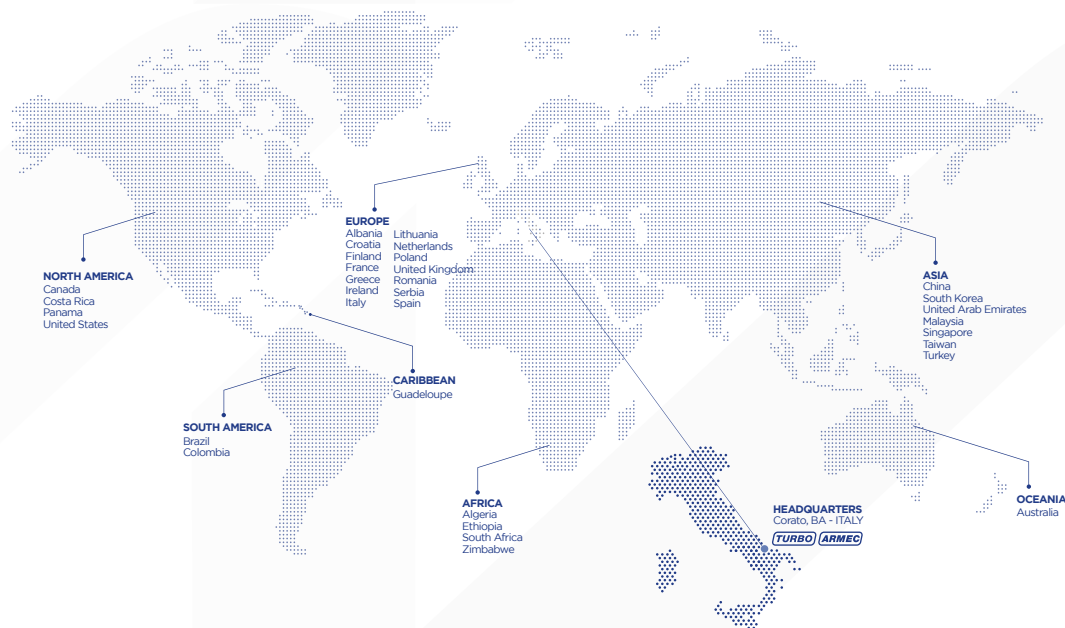


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