TESTING SOLUTIONS

FLOW TEST BENCH B_23201

The B_23201 test bench is designed for the characterization of valves or other fluid dynamic components used in aerospace industry, using a water/glycol mixture as a fluid.

The machine is able to perform:
- flow and/or pressure keeping tests;
- proof test.

Using a specific hydraulic circuit, this machine is able to generate a test cycle consisting of maintenance and controlled pressure ramps in accordance with the following standards:
SAEJ343 - ISO18869 - ISO1402 - PED.

Essentially, the bench consists of three trolleys:
- Flow generation units;
- Component test unit;
- DAS console.
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All operations are controlled by the control console, which also incorporates the DAS data acquisition and test report recording.

TECHNICAL DATA:

• Pressure peak:	16 bar_g
• Max flow:	27 l/min
• DAS:	16 ch

INSTRUMENTATION:

• N° 7 pressure transmitters:	
n° 5 relative:	0÷20 bar_g
n° 2 differential:	± 623 $mbar_{diff}$
• N° 2 temperature transmitters:	0° ÷ 150° C, cl. AA
• N° 2 ultrasonic flow meters	0,27÷27 l/min, accuracy ± 0,05% f-s
• N° 1 function generator	0 1 ÷ 5 MHz, 20 ppm, 1 k Ω

SAFETY DEVICES:

- Anti shock bench casing
- Interlock on test compartment hatch
- Mushroom emergency buttons
- Automatic interruption of the test in case of, breakage, component leakage or malfunction of the bench
- Over pressure switch for water lines
- Over pressure valves for air line

SUPPLIES:

• Electric:	400 Vac - 50 Hz 3F+N+PE, 3 + 1 kW
• Process fluid:	150 l (tank)
• Compressed air (if p<6 bar):	50 Nl/min.
• Nitrogen (if p>6 bar):	50 Nl/min

DIMENSIONS AND WEIGHT:

Console:

• L, p, h:	1000 x 600 x 1000 mm
• Weight:	~ 140 kg

Fg:

• L, p, h:	800 x 1175 x 1500 mm
• Raw weight:	~ 180 kg

Uut:

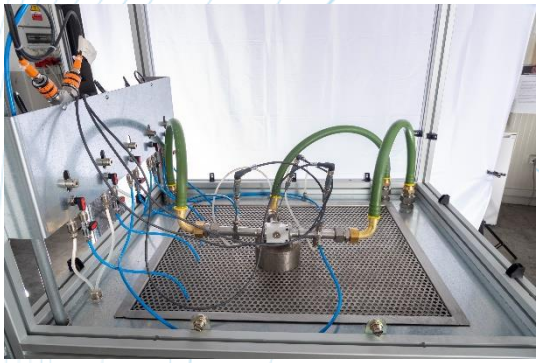
• L, p, h:	1000 x 800 x 1940 mm
• Raw weight:	~ 200 kg

COLOR:

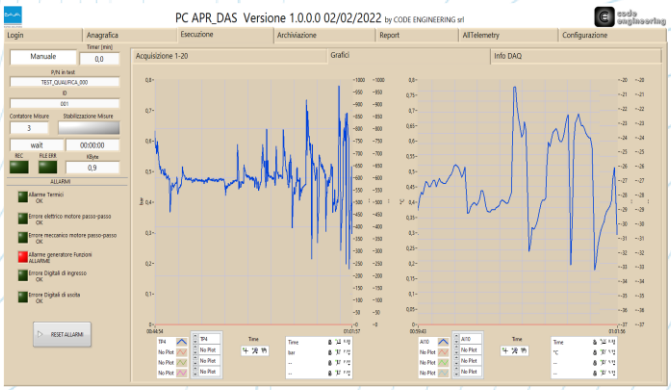
• Standard:	Gray RAL 7035

NOTE:

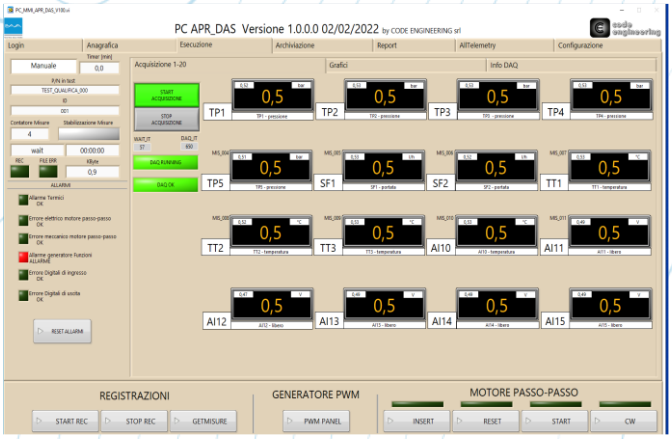
- Customized on demand.



The connection system consists of two (or more, on request) flexible supply pipes that convey the fluid to the component to be tested and one return.
5 relative pressure transducers, 2 differential pressure transducers, 2 flow meters and 2 temperature sensors, with acquired signal, allow the detection of the characteristic curves of the component under test.



• The test bench is provided with an acquisition system equipped with a PC and a National Instruments DAS system.
• The PC software, in addition to setting up the test, allows you to parameterize and control every aspect of the test to be carried out.
The DAS allows you to export, in the most common formats, the test report and the graphic transposition of the individual tests.



The test bench meets the requirements of Industry 4.0 and allows you to:

- interface with external software in order to obtain informations on status of bench and carry out control and management operations of the same;
- take advantage of remote assistance service by BAVA technicians;
- remotely control the bench, compatibly with the permissions of the corporate network.

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