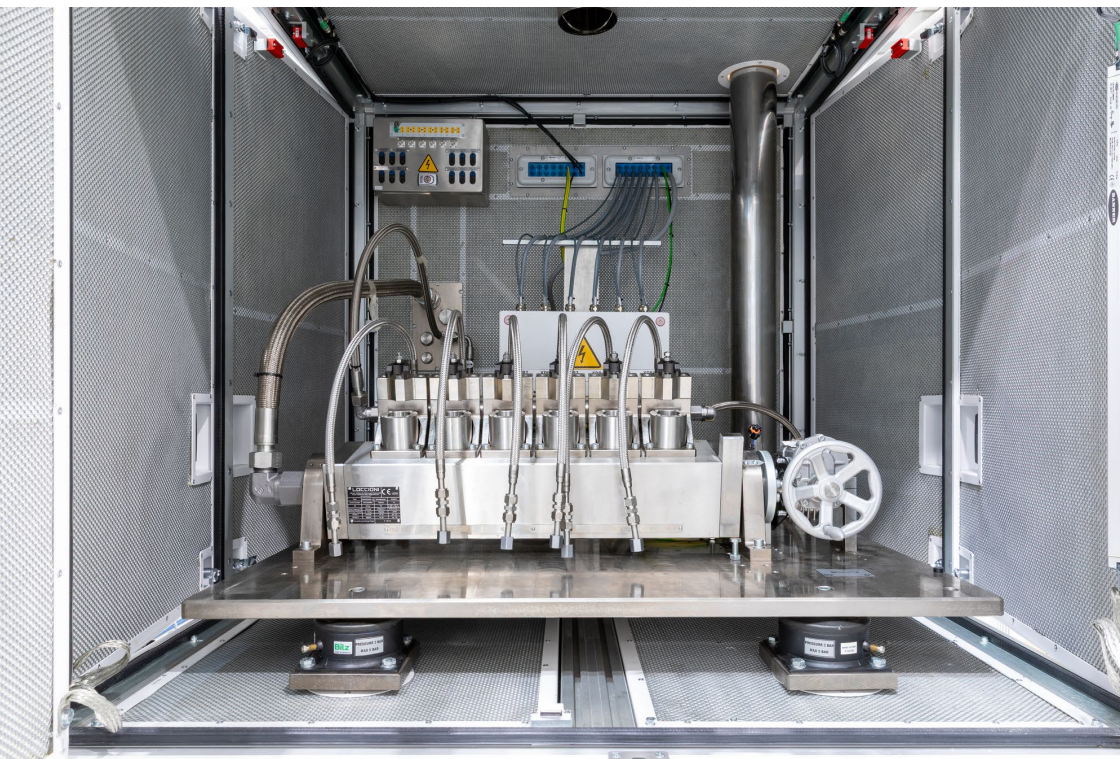


Durability test bench for H₂ Injectors

Stand-alone testing solutions



The rig tests the long-term durability of H₂ injectors as an end-of-line process. It measures flow and leakage at different operating points, using N₂ and H₂ as test media, while the injector is actuated under real operating conditions. Endurance cycles run automatically, and all results are stored for full traceability.

THE SYSTEM

Designed for low-volume production and product development, the bench includes manual loading and unloading, electrical connection and a high-pressure gas supply.

The system is flexible: a fixture-changing system allows different product types to be tested on the same bench.

- > Manual loading/unloading
- > Fast changeover
- > Multi-purpose fixture



1. Fixture



2. Hydraulic skid

MAIN FEATURES

The system can carry out a range of tests on the injector:

- > Linearity curve
- > Dynamic flow test
- > Static flow test
- > Leak test
- > Endurance cycling

TECHNICAL SPECIFICATIONS

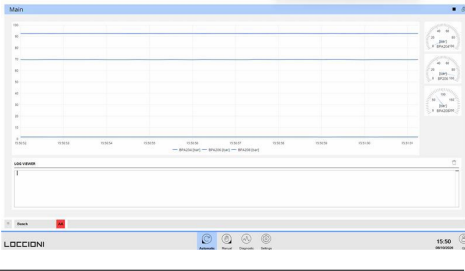
- > Supply pressure: up to 60 bar
- > Test gases: N₂ and H₂
- > Gas temperature: up to 90 °C
- > Operating temperature: ambient
- > Back pressure: up to 10 bar
- > Flow measurement: up to 20 g/s

THE SOFTWARE

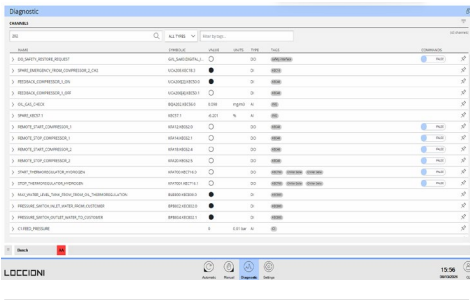
The software is based on Loccioni's Aulos platform, a suite of two main applications: **Aulos Automation**, a desktop application whose HMI controls and monitors the hardware and runs the test routines, and **Aulos Supervisor**, which collects data and results from the systems and creates their programs and configurations.

Software features:

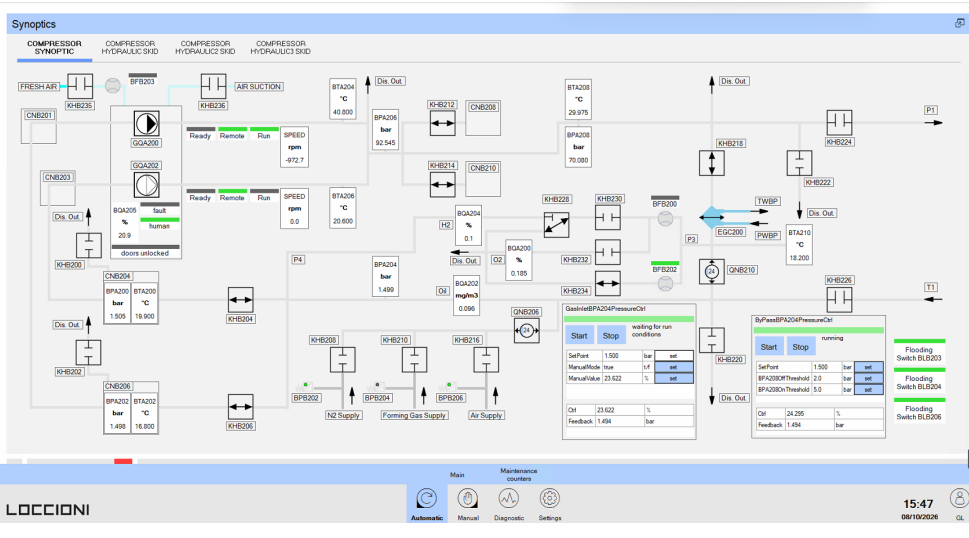
- > User access configuration
- > Hardware monitoring and calibration
- > Manual debugging
- > Dashboard
- > Program editor
- > Program execution
- > Automatic cycling
- > Data and result archiving



3. Automatic panel



4. Diagnostic panel



5. Synoptic view

LOCCIONI