



Independent Testing Center

EXPERT IN **TURBO TESTING**

- NVH
- R&D
- BURST
- THERMAL SHOCK
- MAPPING
- EFFICIENCY
- PULSATING



www.crittm2a.com

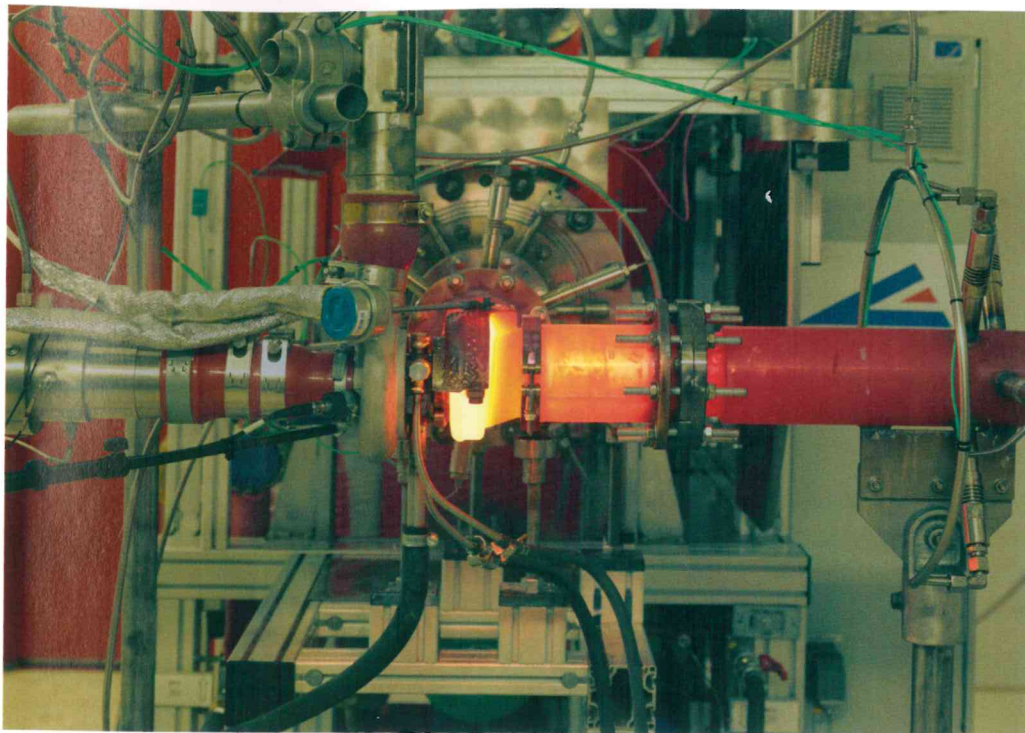
PROFESSIONAL MOTORSPORT WORLD

pmw

- » All the latest news
- » Exclusive features
- » Industry interviews
- » Expert opinion
- » Video gallery
- » Recruitment section
- » Digital edition and magazine archive



www.pmw-magazine.com



Critt M2A's facilities can be used to test turbochargers in isolation, or in combination with other parts

PERFORMANCE TESTING

Independent R&D center can provide advanced engine, turbo and battery system testing for greater powertrain performance

Based in Northern France, Critt M2A is an independent research and development center considered a major player in testing and R&D services. Focusing on four technical development activities – engine, NVH, turbocharger and battery – the company can provide expertise and advanced testing to the automotive, rail and aeronautic industries.

Equipped with seven engine testbeds, one semi-anechoic room, three reverberating rooms and one full-anechoic powertrain bench, Critt M2A is able to provide a comprehensive range of testing services. The company's electrical center is equipped with 96 single-cell test channels, five battery modules, six battery pack test benches and a full 4WD vehicle dynamometer.

Critt M2A is also considered a leading turbo test center within Europe. Indeed, the five high-standard gas stands, which can cover a mass flow up to 1kg/sec and temperatures up to 1,200°C (2,192°F), offer a large range of

turbocharger tests for industrial actors such as suppliers and OEMs. Mass flow, temperature and pressure can be precisely measured to characterize the turbocharger's performance. Critt M2A enables engineers to test turbochargers either alone or combined with upstream or downstream parts, offering a complete map of the system, or an assessment and technological comparison.

Critt works with the latest technology, using a radioactive tracer to measure the oil consumption of compressor and turbine stage separately, or using battery simulator technology to test the latest turbo-compound technology such as electric compressors, recovery systems and hybrid turbos.

This test process can be completed through endurance tests such as mechanical or thermal aging to validate the material used, through burst containment tests to qualify the final product, or through vibroacoustic investigations.



The test possibilities are mostly focused on the turbocharger, but Critt M2A has the capacity to test any hot part of the powertrain, including the exhaust valve, exhaust manifold, full exhaust line or EGR system. Heat exchanger performance measurements are also possible.

The company's commitment to R&D includes the creation of four technical theses – with a particular focus on turbocharger testing. The company's Turbocharger Test

Center will continue its work on the pulsating unit, a specific tool used to simulate the exhaust pressure pulses and to investigate the impact on turbocharger performances. This topic was first explored in a Critt M2A thesis four years ago and will be continued in a second one at the end of 2019.

Running 80% of its tests for global customers, Critt M2A guarantees the highest level of confidentiality. Each test cell is independent and secured with restricted access, ensuring that customers have a private workshop and office.

Thanks to its extensive test capabilities and expert support, Critt M2A offers a flexible service that is adaptable to each specific customer request for tests dealing with planning constraints and non-standard testing. <

FREE Reader Inquiry Service

Critt M2A

To learn about this advertiser, visit:
www.ukimediaevents.com/info/pmw

006 READER INQUIRY REFERENCE