

Poppe + Potthoff GmbH
Dammstraße 17
33824 Werther (Deutschland)

Werther/Nordhausen (Germany), April 1, 2016

PRESS INFORMATION

Gasoline in the impulse test stand

Poppe + Potthoff Maschinenbau uses its expertise from diesel engine technology for secure high-pressure testing of components for gasoline injection

Engines need to become more efficient and cleaner. Until the middle of the next decade, the EU calls for a reduction in fuel consumption by 30 percent. The Chinese have set 45 percent as a goal, the Americans even 50 percent. An important contribution is achieved by direct injection: Around 15 per cent less fuel per 100 kilometers is required compared to conventional intake manifold injection. And consumption can be reduced even further – when the pressure in the injection system increases.

"There are particular challenges when testing metal and plastic components for direct injection of gasoline", says Johannes Montag, Head of Sales at Poppe + Potthoff Maschinenbau ([Tube 2016, Hall 03/B01](#), [Automotive Testing Expo 2016, Stand 1104](#)).

"The permanent pressure strength of the components needs to be tested considering varying bio-ethanol content in gasoline. Thereby, pressure cycling tests must take place under special precautions to safely prevent the development of an explosive mixture of petrol and air. "

The new impulse testing stand of Poppe + Potthoff is extremely compact. It has a safety chamber with nitrogen flushing for safe testing in gasoline and optionally a second chamber with a separate test circuit for simultaneous pressure-testing with oil. It allows for validating common rails, injection lines, injectors, pumps and other metal and plastic components with up to 2,000 bar at a pulse frequency of 2 Hz to 10 Hz, depending on the pressure unit.

During the development of the new system, the specialists for high-pressure technology benefitted from their extensive experience with diesel injection systems. Poppe + Potthoff tests these with up to 6,000 bar pulses at 1-30 Hz. In addition, the machine builders from Nordhausen (Germany) offer equipment for tests under positive (up to 15,000 bar) and negative pressure (up to -0.7 mbar) at stable or changing climatic conditions (-40 ° C to + 180 ° C).

The measurement data acquisition and visualization is done with LabVIEW applications by National Instruments. All test procedures and data are automatically stored on the system and can be exported into the network for further analysis. Single and combined test systems for metal and plastic components, autofrettage systems with up to 16,000 bar, high pressure units and compressors, fully automated test and measurement systems and comprehensive testing services round off the portfolio.

2,600 characters (incl. blanks)

Photos



Photo 1: Poppe + Potthoff has developed a compact impulse testing system with a safety chamber for tests in gasoline at pulses of up to 2,000 bar. Optionally, tests in oil can simultaneously take place in a second chamber at a frequency of up to 10 Hz.



Photo 2: Johannes Montag, Head of Sales at Poppe + Potthoff Maschinenbau GmbH in Nordhausen (Germany) together with CEO Stefan Dreyer (left) and CTO Frank Baudler (right).

Source: Poppe + Potthoff.

In printable quality: [Download ZIP](#) or via press.info@oha-communication.com

Poppe + Potthoff Maschinenbau GmbH designs and manufactures test stands for measuring the strength and durability of components in automotive engineering and shipbuilding as well as other industries. The specialized machines made by the experts for high pressure technology are designed for precision and high-performance and are used in research, development and production. This includes test stands for measuring bursting pressure and tightness, impulse testing, autofrettage as well as automated testing and sorting. The company based in Nordhausen (Germany) is a member of the Poppe + Potthoff Group.

Poppe + Potthoff stands for precision. The group develops and manufactures customer-specific steel tubes, common rail subsystems, high pressure tubes, precision components, line shafts, couplings as well as specialized test stands and other machines. Poppe + Potthoff enables highly sophisticated solutions in automotive engineering and shipbuilding, machine tool building and mechanical engineering as well as other industries. The family-owned enterprise with its headquarters and technology center in Werther (Germany) was founded in 1928 and has more than 1,200 employees. Poppe + Potthoff is active in more than 50 countries with its subsidiaries and long-term partners – always in close contact with its customers. www.poppe-potthoff.com

Contact Sales:

Johannes Montag
Poppe + Potthoff Maschinenbau GmbH
Head of Sales
Phone: +49 (0)36 31 / 46 22 10 22
Mobile: +49 (0)171 / 671 11 65
E-mail: johannes.montag@poppe-potthoff.com
Internet: www.poppe-potthoff.com

Contact Marketing:

Martina Engler-Smith
Poppe + Potthoff GmbH
Manager Marketing
Phone: +49 (0)5203 / 91 66 327
Mobile: +49 (0)162 / 854 84 38
E-Mail: martina.engler-smith@poppe-potthoff.com
Internet: www.poppe-potthoff.com

Contact PR Agency:

Oliver Frederik Hahr
oha communication
Consulting and Public Relations
Phone: +49 (0)711 / 50 88 65 82-1
Mobile: +49 (0)176/ 51 22 22 88
E-Mail: oliver.hahr@oha-communication.com
Internet: www.oha-communication.com