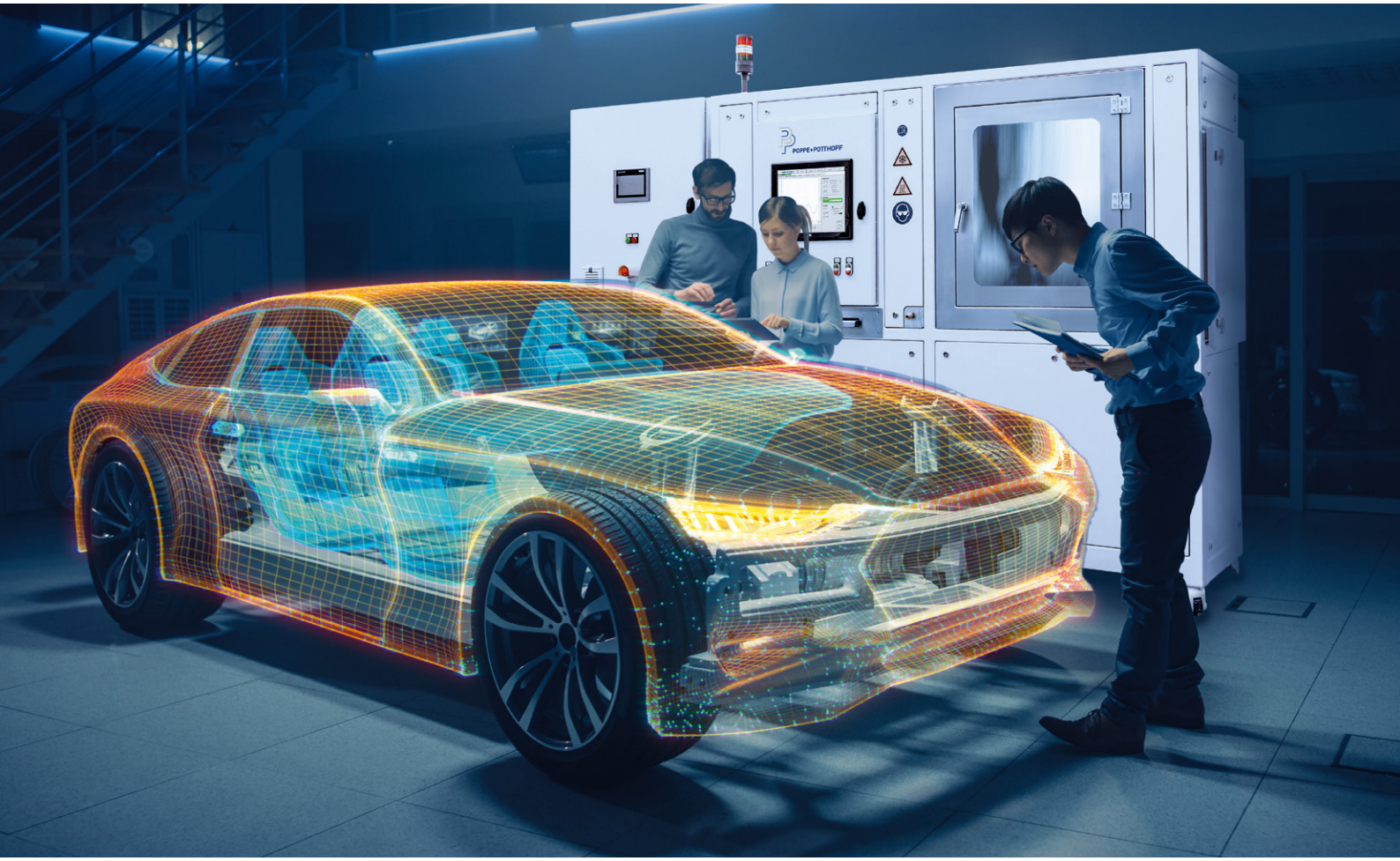
POPPE+POTTHOFF



Pressure Test Stands for:
Burst Testing | Pressure Pulsation Testing | Leak Testing | Function Testing and Autofrettage

Poppe + Potthoff Maschinenbau GmbH

CONTACT US

Poppe + Potthoff Maschinenbau GmbH develops and manufactures systems for operational and fatigue testing of components in the automotive industry and shipbuilding and in many other industries. The precision, high-performance special machines from the specialists for high-pressure and testing technology are employed in research, development and production. They include systems for burst pressure and leak testing, impulse testing, autofrettage and automated testing. The company located in Nordhausen (Germany) is part of the Poppe + Potthoff Group. As system developers, our focus is on the customer's demands. Our main activities are concentrated on technologically complex systems for testing and high-pressure technology. As system developers we plan, design and produce systems for:

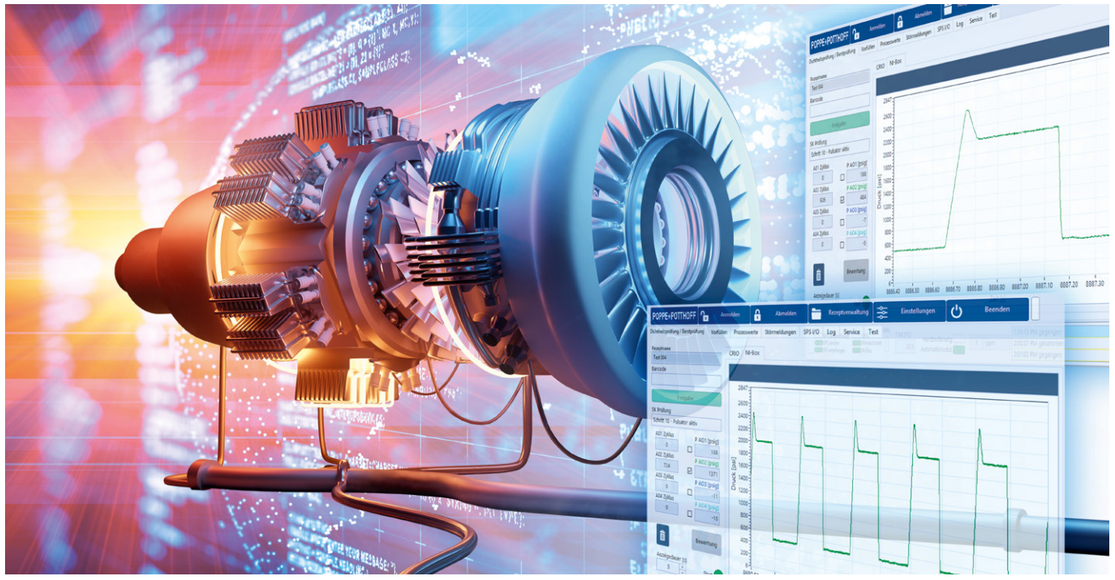
Autofrettage up to 16,000 bar, impulse testing up to 6,000 bar, function testing with 10 l/min. up to 3,800 bar, tests under climatic conditions (-40 °C to +180 °C), burst tests up to 15,000 bar with 100,000 measured values per second, vacuum tests down to 0.7 mbar, fully automated testing and measuring systems with 100% part testing in 3 seconds. Leak tests with precision control methods and further services as well as high-pressure units and booster stations round out our portfolio. Maintenance and service of your systems is a question of honour for us. Test us.

Autofrettage systems

Burst pressure test stands

Impulse test bench

Testing and measuring systems



Expertise, excellent knowledge of the market and affinity for our products guarantee our success. We are proud of our ability to implement strategies for testing systems operating under extreme conditions. We develop our own software applications and have a highly qualified support team at your service.

Our engineering and software specialists routinely exchange ideas with other engineers and the designers and quality managers within the Poppe + Potthoff Group.

This furthers the quality and extent of our know-how, which is then directly applied to the design of new systems and stands. Maintenance, stocking of wearing parts and minimum stock requirements are controlled through SAP.

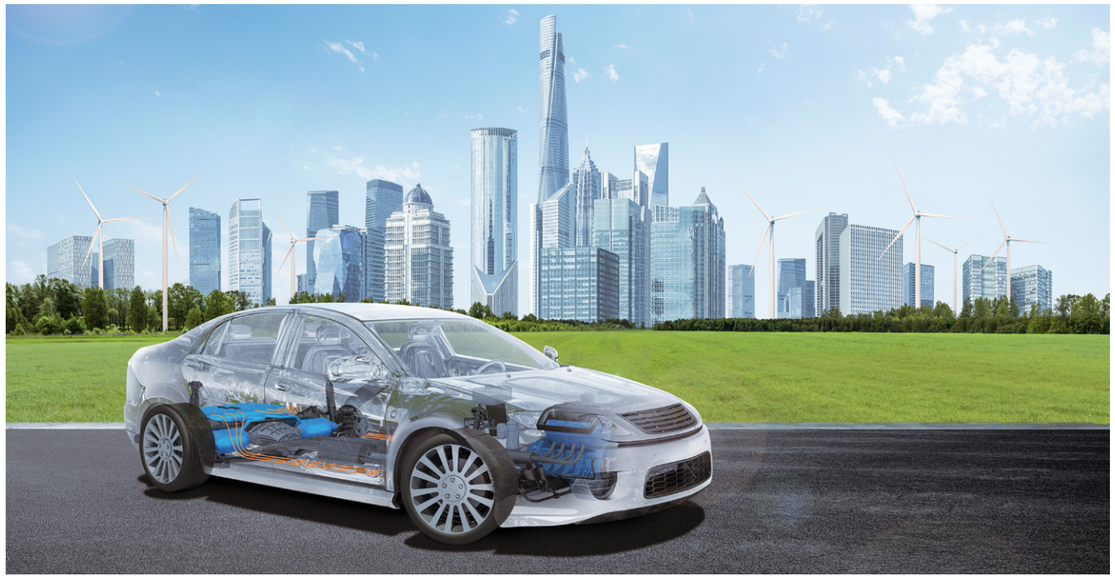
Pressure test systems for e-mobility

Function test rigs for e-mobility

Pressure test rig for H_2

Autofrettage and Pressure Hold Test Bench for COPVs

Test systems for E-Mobility



Function test bench: To test the function of diesel injectors, nozzles, pressure relief valves, air-conditioning parts and many other pressure vessels the tightness and liquid flow are tested during different pressure load conditions. A typical application that we work on closely together with customers is: function testing in the electronic vehicle industry.
Our function test benches allow battery operation simulation while testing components from electronic vehicles (EV). To simulate battery operation in an electric vehicle, a low voltage (0 to 20 VDC / 5A) or high voltage (0 to 600 VDC / 150A) power supply is available. The test medium (water-glycol mixture or pure glycol, for example Glysantin® G40, G44, G48) circulates at a controllable temperature of -35 °C to +100 °C and a volume flow of 3 to 30 l/min. Optionally, tests can also be carried out in an air-conditioning test chamber at -40 °C to +140 °C to simulate changing ambient temperatures.

Fields of application:

E-Mobility

Technical specifications:

Test medium: Water, coolant, glycol

Pressure: 10 bar

Media temperature control:
-40 °C to +140 °C

Pressure curve: 0,1 to 2 Hz,
sqare and sine

Two test circuits, flow rate 3-30/min

PPM 376 Compact pressure pulsation test bench

Test systems for E-Mobility

PPM 377 Function test bench

Fields of application:

E-Mobility

Technical specifications:

Test medium: Coolant

Programmable high power DC power supply
DC output voltage: 0...1.500 Vdc
Output current: 0...120 Adc
Output power: 0...60 kW
Slew rate 10...90 %: max. 30 ms

Cooling capacity 15 kW at -35 °C
Heating capacity electric 25 kW

PPM 430 Pressure test stand

Fields of application:

E-Mobility

Aerospace

Technical specifications:

Test medium: Water, glycol

Customized hydraulic pressure intensifier

Pressure: Up to 20 bar (regarding to your needs)

Ambient temperature control:
-60 °C to +160 °C (climate chamber)

Media temperature control:
-40 °C to +140 °C

Pressure curve: 0,1 to 2 Hz, sine

Flow rate up to 20 l/min or more

Vacuum test, overpressure test, pressure impulse test (vacuum and overpressure test with media), leakage test & pressure pulsation test according to various test standards from different OEMs

Pressure test stands for hydrogen (H_2) components

Hydrostatic pressure fatigue- and burst test: In a typical test, the component is inserted into the test chamber of the burst test bench. This can be an auxiliary heater for an hydrogen car or valves, hoses and other hollow bodies that need to withstand more than 100,000 load changes over the lifetime of the vehicle (up to 15 years). The test benches of Poppe + Potthoff Maschinenbau allow for testing of the hydrostatic strength of components with pressures up to 3,000 bar or more.

Fields of application:

Hydrogen (H_2) components

Technical specifications:

Linear pressure increases up to 3,000 bar or more
Displacement volume max. 235 cm³
Variable programmable pressure ramps possible
Pressure hold times possible
Suitable for hydrostatic and burst pressure tests
Including function for increased displacement

PPM 448 Burst test stand for H_2 components

Test benches for hydrogen (H_2) components

PPM 467 Pressure cycle and burst pressure test rig

Fields of application:

Hydrogen (H_2) components
Pressure tests according to EG79 / EU406 and R134

Technical specifications:

Test media: Oil (HLP 46)
A total of 3 test tracks for pressure cyle tests Max. 2.000 bar for 15 cm³ Max. 1.500 bar for 500 cm³ Max. 50 bar for 1.000 cm³
Pressure intensifier for bursting up to 3.200 bar (200 cm³)
Reloading of the pressure intensifieres
Frequency up to 10 Hz (depents on test setup)
Safety chamber with automatic door
Climate chamber for regulated ambient temperature from -40 °C up to +160 °C
Media filtration unit with clean and dirt tank-system
High precision controller integrated

PPM 470 Leak test bench with gas

Fields of application:

Hydrogen (H_2) components
Pressure tests according to EG79 / EU406 and R134

Technical specifications:

Leak test with forming gas (5 or 10 % H2 or Helium)
Pressure intensifier up to 1.050 bar
Modular design consisting of pressure module, safety test chamber and temperature chamber
Ambient temperature from -60 °C up to +210 °C
Leakage measuring unit is fully integrated ($1*10^{-6}$ mbar*l/s)
Rough leakage detection
Accumulation test during ambient tempering

Burst pressure testing

Tubes, pipes and connections for industry use must withstand pre-defined types of pressure. To guarantee compliance with these standards, such components are put under pressure sometimes until they burst. Up until now, the available systems were limited to those utilizing pressure relay valves. This resulted in slow pressure build-up, imprecise test results and high maintenance costs.

PPM 291 Burst pressure test stand for pipes

Fields of application:

Hose lines
Tubes
Connector

Main features:

up to 4,500 bar
Test medium water
Burst pressure tests
Hold-down clamp for test specimens
Bursting with hydraulically controlled pressure intensifier
Stable test chamber
Freely programmable pressure ramp

PPM 506 Burst pressure test stand for the automotive / plastics industries

Fields of application:

Air-conditioning tubes:	> 100 bar
Hydraulic tubes:	> 1,000 bar
Brake pipes:	> 2,000 bar
Pipe fittings:	> 4,000 bar
Tubes, Accumulators, Containers, Radiators, Coolers	

Technical specifications:

Temperatures up to +180 °C
Media used includes brake fluid, water / emulsion, oil
Max. burst pressure: pmax = 10,000 bar
Pressure relay valve technology

Test media:

Vegetable oil fuel (biodiesel)
Shell v-power diesel V140
Water with anti-corrosion additives (ethylene glycol)
Brake fluid | Rapeseed oil

PPM 319 Burst pressure test stand for hydraulic components

Fields of application:

Automotive industry
Shipbuilding
General industry
Pipe fittings
Hydraulics
Hose pipes

Technical specifications:

Max. pressure up to 10,000 bar
100,000 results per second
Two pressure relay valves
Special technology for very large capacities

Burst pressure test stand for plastic hoses

The test stand is a stand-alone system and has been specifically designed for the hoses industry. Test specimens can be easily adapted using quick couplings. In addition to this, a quick-change device allows test specimens to be mounted manually outside of the test chamber.

Burst tests can be carried out using two test circles, each with a different method of operation. The wear-free fine control process allows an extremely precise pressure increase up to 60 bar. The other test circle has a hydraulic driven pressure booster that can be used to generate pressure of up to 600 bar. Normal mains water or test oil can be used as the test medium. In addition to this, the test stand can be fitted with a hand scanner to identify components, thus allowing burst pressures to be assigned to each component. The system is controlled via a PLC with serial interfaces for data exchange. Test requirements are entered using a touch panel.

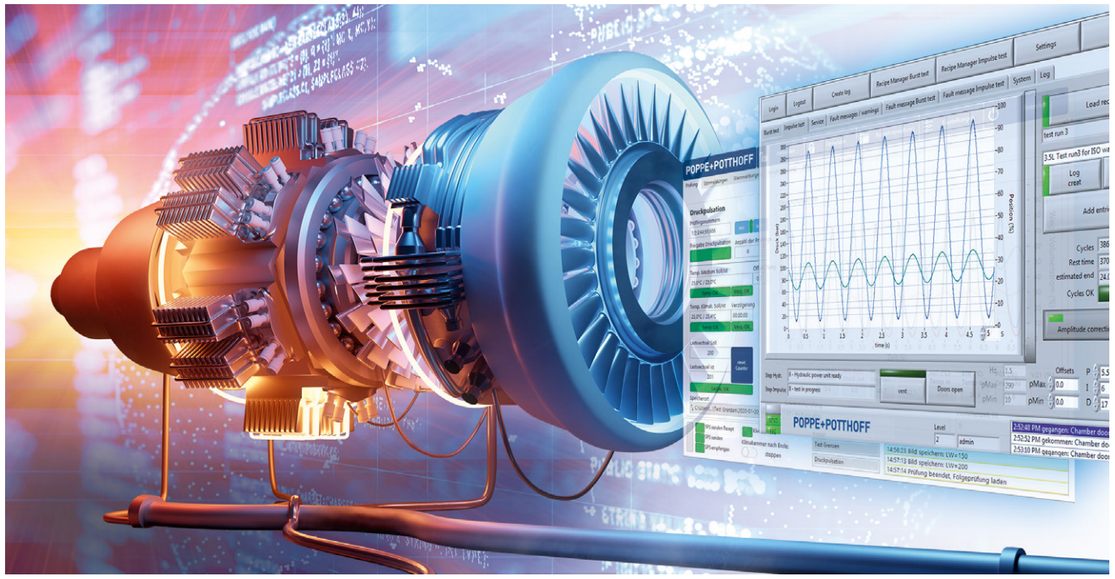
Like all of our test systems, the test rig is customized to your needs and special requirements.

PPM 447 Burst pressure test stand for hoses

Technical specifications:

Burst pressure: up to 600 bar
Fine pressure control: 0 – 60 bar Pressure testing up to 60 bar with ±0.1 bar tolerance
Test medium: Water or emulsion
Medium temperature: >0 °C up to 70 °C
Length, torsion and strain measurement via integrated measuring system
Patented quick couplings

Operational stability and lasting durability (through impulse tests)



Diesel injection systems. The Poppe + Potthoff impulse test stand tests the durability of common rail components: safely, up to 6,000 bar. The test stand is known for its ergonomic design in the Poppe + Potthoff look. We test the operational stability and durability of common rail components for marine engines in our Poppe + Potthoff high pressure testing plant. The endurance test in our testing plant simulates the life cycle under varying pressure. In just one month, a prototype travels the globe in our test stand.

PPM 141 High pressure impulse test stand 4,500 / 6,000 bar

Fields of application:

Research and development
System optimization
Endurance testing of standard parts
Automotive industry and shipbuilding

Technical specifications:

Pressure: 6,000 bar
Frequency: 30 Hz
Impulse pressure testing at up to 6,000 bar impulse frequency up to 30 Hz max.
Pulse form: Sinus
Electronic collection of test results
Logging and archiving

Operational stability and lasting durability (through impulse tests)

The pulsating pressure is generated by a pressure intensifier with hydraulic drive. A hydraulic unit generates a constant hydraulic pressure of 330 bar. This pressure drives the pressure intensifier via a control valve. The pressure intensifier has a constant pressure boosting ratio and generates the high pressure through its linear motion. The control valve is a highly dynamic servo-control valve which enables very high test frequencies with precise repeating accuracy.

The test pressure course is measured with a pressure sensor and is stored. These data sets allow the quality of the test to be assessed at a later stage. The pressure control of the unit also works via this pressure sensor. Hydraulic oil is used as test medium. An optimally matched cooling system keeps the temperature at the pressure intensifier and in the hydraulic system in balance. The cooling system is a very effective water cooling.

Visualisation of the test course is done via a PC. Operation is menu-driven and enables special software configurations. The unit operation is self-monitoring. Possible faults are displayed on the monitor and cause the unit to be switched off. Test specimen failure is detected by means of an oil mist sensor. If an automatic switch-off takes place, an information message is telecommunicated to a mobile phone. All test-relevant data are retained during such an action and are stored automatically.

Fields of application:

- Gasoline injection housings
- Pressure sensors
- Pipes and pipe fittings

Technical specifications:

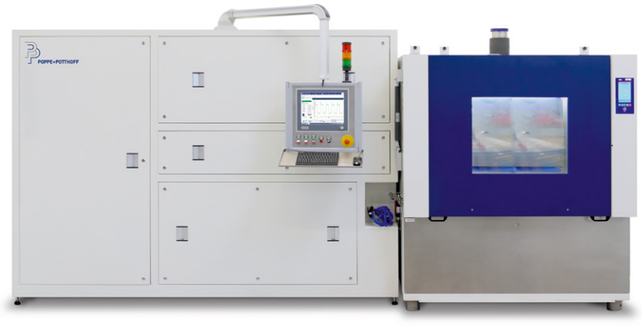
- Test medium: Oil
- Drive: Servo-hydraulic
- Impulse pressure: 1.000 bar
- Burst pressure: 3.000 bar
- Pressure curve: >10 Hz
- Flex pulsation intensifier for volume ranges

PPM 361 Burst- & pressure pulsation test stand with optional burst test chamber

Technical specifications:

- Impulse pressure: 1,000 bar / 2,000 bar
- Pulse form: Sinus
- Max. test frequency: 15 Hz
- Test medium: Hydraulic oil ISO HLP 46
- Noise level: max. 75 DBA
- Electrical power input: 60 kW
- Extension to separate bursting pressure test chamber possible

PPM 432 Impulse test stand 1,000 / 2,000 bar and optional climate chamber



For pressure pulsation testing with subsequent endurance pressure and burst testing, the system has two chambers in each of which up to ten test specimens can be tested simultaneously at ambient temperatures from -60 °C to +180 °C or at room temperature. The medium – 100% glycol or various oils - is supplied via separate control loops at a temperature from room temperature to +160 °C. This enables tests to be carried out with very large temperature differences that are seldom encountered in reality even in the tough tests on the Nürburgring race track, in the Siberian tundra or in the deserts of Africa.

Various servo-hydraulic pressure intensifiers designed optimally for each test pressure range allow very precise control of the test pressure. Pulse tests can thereby be performed with a frequency of 0-10 Hz (the normal range is 0.5-2.5 Hz) for the trapezoidal curve with 4-25 bar and 0-160 bar; for the sinusoidal curve with a frequency of 0-10 Hz, pressures of 0-6 bar are possible. The maximum burst pressure is 500 bar. The measured data recording and visualisation uses LabVIEW applications from National Instruments. All test routines and data are automatically stored on the system and can be exported to the network for evaluation.

PPM 234 Impulse test stand for automotive pipes

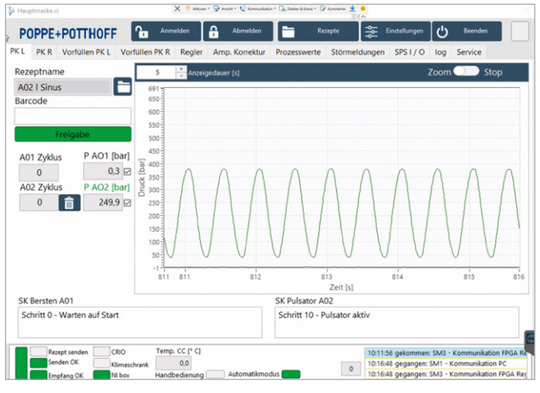


Figure 1: Sinusoidal test curve

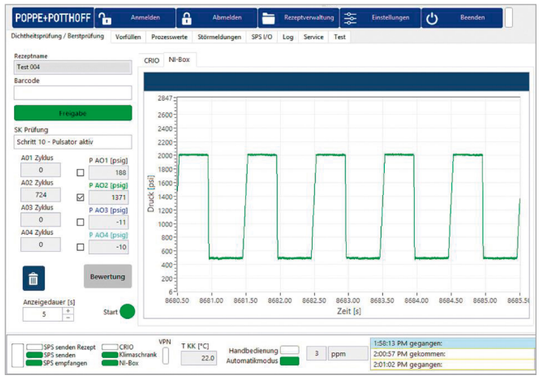


Figure 2: Trapezoidal test curve

Operational stability and lasting durability (through impulse tests)

PPM 300 Impulse / Burst pressure test stand

Technical specifications | Impulse pressure:

- Max. pressure up to 1,500 bar
- Proportionally controlled hydraulic pressure intensifier
- Frequency 0.25 Hz
- Test medium oil
- Total volume test setup up to 2.5 dm^3 Impulse volume up to 75 cm^3
- Two test circles with automatic leakage monitoring

Technical specifications | Burst pressure:

- Max. pressure up to 3,000 bar
- Proportionally controlled hydraulic pressure intensifier
- Proportionally controlled hydraulic clamping device
- Test medium oil
- Compensation volume up to 65 cm^3

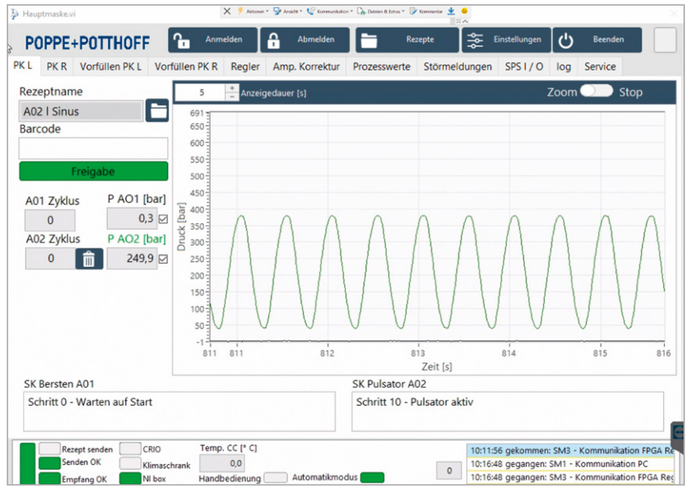


Figure: Sinusoidal test curve

Burst and pressure pulsation test stand with special application spike test

The test stand is a stand-alone system and can be used to carry out reliable pressure tests, burst pressure tests, and pressure drop tests on components such as hydraulic hoses, brake pipes and airbags. Pressure is built up using a hydraulically driven pressure booster. In addition to this, the system can also be used to carry out pressure build-up testing up to 35 bar.

A pressure sensor measures pressure to allow tests to be assessed and makes this data available for evaluation software.

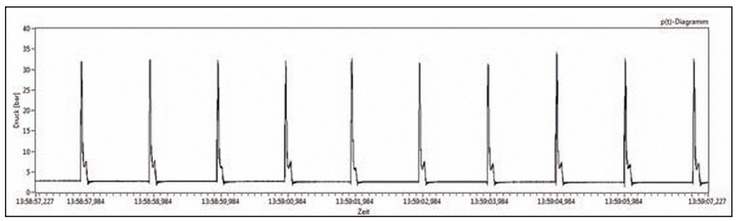


Figure: Test curve

PPM 253 Spike impulse test stand

Technical specifications:

- Spike impulses in 5 ms
- Pressure surges up to 50 bar
- Automatic leakage monitoring

Main features:

- Burst pressure and spike impulse testing
- Low pulsation thanks to memory
- No energy consumption after the final pressure is achieved
- Suitable for testing applications thanks to ultra-fine filtration

Pressure Cycling Test Bench with Climate Chamber and Shaker

This highly advanced pressure cycling test system was specifically developed for fatigue and endurance testing of components such as coolant hoses and thermofluid systems under realistic, highly dynamic operating conditions. The hydraulically driven, servo-controlled pressure intensifier enables pressure cycling tests up to 10 bar with freely programmable sinusoidal and trapezoidal pressure profiles at frequencies of up to 2 Hz. A separate test circuit allows controlled switching between vacuum and overpressure conditions (–0.5 to 2.5 bar).
For realistic simulation of automotive operating environments, the system is equipped with a high-performance climate chamber featuring a temperature range from –40 °C to +95 °C (optionally up to +140 °C) and high heating and cooling capacity. The chamber enables precise media conditioning, dynamic temperature profiles, and controlled thermal shock testing using a water–glycol mixture.

Performance Data (example):
Pressure range: up to 10 bar
Vacuum/overpressure cycling: –0.5 to +2.5 bar
Dynamic pressure profiles: sinusoidal and trapezoidal
Test frequency: up to 2 Hz
Test medium: water–glycol mixture
Servo-controlled pressure intensifier for high repeatability and stability
Adjustable flow rates: up to 30 l/min
Media temperature control: –40 °C to +95 °C (optional up to +140 °C)
Shaker frequency range: 2–3000 Hz
Shaker stroke: up to 50.8 mm peak-to-peak
Shaker acceleration: up to 200 g
Climate chamber temperature range: –40 °C to +140 °C

A powerful shaker with a frequency range of 2–3000 Hz enables vibration excitation along all required axes to realistically replicate the operating behavior of hoses installed in the engine compartment or on the vehicle chassis. The system supports sinusoidal, random, and shock profiles as well as high acceleration levels.

With six parallel test circuits, integrated flow measurement (2–30 l/min), multiple pressure sensors, thermocouples, and safety valves, this test bench provides a comprehensive solution for validating fatigue durability, leak resistance, thermal behavior, and vibration robustness of coolant hoses and other fluid-handling components.

As a result, the system is ideally suited for OEMs, Tier 1 suppliers, and R&D laboratories focused on cooling system validation, endurance testing, and the development of automotive components.

PPM 6,000-bar Impulse Pressure Test Bench

6,000 bar impulse pressure

The 6,000-bar impulse pressure test bench, developed in collaboration with Maximator, combines robust high-pressure technology with a modern, highly dynamic control and hydraulic architecture. Equipped with a Bosch Rexroth hydraulic power unit, a Siemens PLC, and a sealingless hydraulic pressure intensifier, the system ensures precise, low-wear, and highly repeatable pressure cycling tests for demanding endurance and fatigue applications.

Thanks to the integrated pressure boosting unit, additional supply capacity is available for high-load cycles. Temperature-controlled cooling of the pressure head ensures stable thermal conditions and high operational safety, even during long-term test operation. The modular design provides optimal maintenance access, allowing the pressure intensifier to be reached quickly and easily.

The test bench supports freely programmable sinusoidal and trapezoidal pressure profiles and achieves test frequencies of up to 20 Hz at pressures of up to 6,000 bar. This enables significantly accelerated lifetime, pulsation, and high-pressure testing of safety-critical components such as injection lines, fittings, valves, and other fluid-handling components.

For flexible automation and data analysis, the system is fully LabVIEW-compatible, including expandable interfaces for customer-specific test programs and data acquisition. For international deployment, the test bench can be supplied with either CE or UL certification.

The service-friendly, modular test architecture ensures maximum system availability, stable test processes, and highly precise qualification results – even under extreme operating conditions.

PPM 6,000-bar impulse pressure

Performance Data (example):
Sealingless high-pressure intensifier
Temperature-controlled pressure head cooling
Easy maintenance access to the high-pressure module
Pressure range: up to 6,000 bar
Test frequencies: up to 20 Hz
Programmable sinusoidal and trapezoidal pressure profiles
LabVIEW integration for automation and data acquisition
Bosch Rexroth hydraulics and Siemens PLC
CE or UL certification for global deployment

Pressure Cycling Test Bench with Climate Chamber for Battery Cooling Plates

PPM Pressure Cycling Test Bench

The test bench for validating battery cooling plates was specifically developed to meet the requirements of modern e-mobility thermal management systems. It combines dynamic pressure cycling tests, precise flow measurement, and controlled media temperature conditioning with an optional temperature test chamber, enabling comprehensive laboratory simulation of all real-world loads experienced by a vehicle battery.

With a pressure cycling range from −0.3 to 10 bar, static testing up to 20 bar, freely programmable pressure profiles (sinusoidal, trapezoidal, peak), and frequencies of up to 2 Hz, pulsation and lifetime tests can be carried out reliably. Adjustable flow rates of up to 80 l/min and the use of 100% coolant enable realistic simulation of the thermal and hydraulic operating behavior of battery cooling plates.

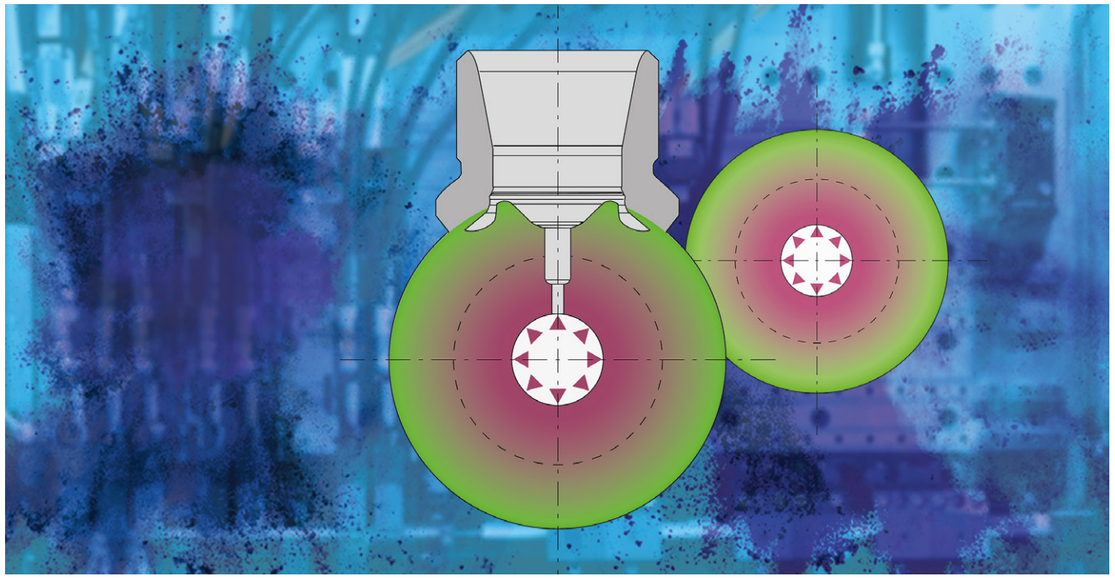
The optional temperature test chamber, with a volume of 9,600 liters and a temperature range from +20 to +90 °C, extends the test bench to include thermal shock and functional testing under varying environmental conditions. Eight parallel test circuits with integrated sensors (pressure, temperature, flow) ensure high test capacity and fast development cycles.

As a result, the system is ideally suited for OEMs, Tier 1 suppliers, and R&D laboratories that require robust, reproducible, and realistic testing for the qualification of battery cooling plates and other components of electric thermal management systems.

Performance Data (example):

Dynamic pressure cycling range: −0.3 to 10 bar; static testing up to 20 bar
Freely programmable sinusoidal, trapezoidal, and peak pressure profiles up to 2 Hz
Test medium: 100% coolant, identical to real battery systems
Flow control up to 80 l/min, including electromagnetic flow measurement
Measurement range: 9–80 l/min for precise analysis
Eight parallel test circuits for high test capacity
Integrated instrumentation: pressure sensors, thermocouples, pneumatic shut-off valves
Optional temperature test chamber: +20 to +90 °C, 9,600 l test volume
Suitable for endurance testing, leak testing, thermal shock, and functional validation

Withstanding varying pressure



Autofrettage system: Autofrettage systems serve to increase the stability of components for high and pulsating pressure applications. Poppe + Potthoff offers autofrettage systems for serial production and prototypes. High-pressure components are exposed to extremely high and low pressures. In our autofrettage system they are processed in a defined high-pressure treatment. We offer our autofrettage systems for common rail components as well as for high-pressure hydraulic tubes, gas cylinders, components for water jet cutters, plant and power station construction and for chemical apparatus engineering.

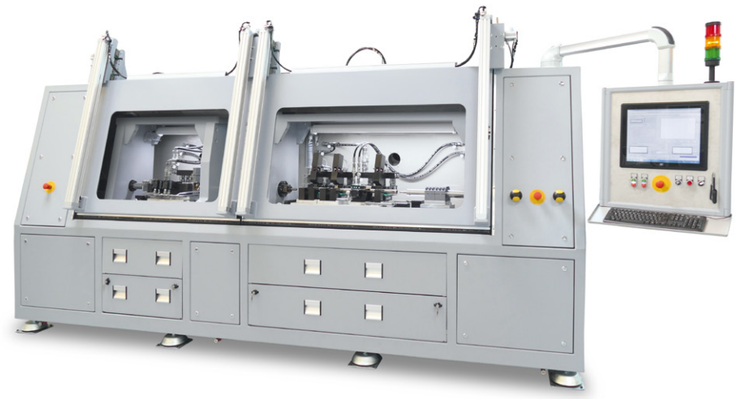
PPM 386 Serial production autofrettage for rails

Fields of application:

Wide range of components for automotive industry and shipbuilding

Technical specifications:

Pressure range up to 12,000 bar
Minimal set-up time for various components
Maximum span length 1,200 mm
Fully-automated positioning of closure disks



Autofrettage System

PPM 434 Serial production and development autofrettage (with clamp changing system)

Technical data:

Max. number per autofrettage	1
Conditions and tolerances Max. autofrettage pressure	 P_{max} = 15.000 bar
Pumps Pressure range Pressure intensifier Pressure transducer	Pumps max. 1.000 bar 15.000 bar 0–15,000 bar class 0.5
Working temperature	Room temperature
Max. media temperature	+50 °C
Test medium	High-pressure liquid
Filling quantity of the media tank	80 l
Dimensions of test stand Size W × D × H	 approx.: 3,000 × 1,400 × 2,200 mm
Colour	PPM Design
Total mass	approx. 10,000 kg

Function

The autofrettage system is an automated production system for serial production autofrettage of diesel injection lines. Thanks to the high level of product variability the system can be used to autofrettage various components. Retooling is carried out by changing the clamping devices. The clamping area is easily accessible from the front of the system.

The operator opens a protective glass panel at the front to set up serial autofrettage. The 10 lines are inserted and removed manually. The autofrettage pressure can be programmed flexibly. The control panel is located on the right hand side. All relevant data are displayed for the operator.

PPM 379 Serial autofrettage for fuel lines

Fields of application:

Pipe and injection lines

Technical specifications:

Pressure range up to 10,000 bar
Minimal set-up time for various components
Max. span length 1,200 mm
Fully automated positioning of the closure disks
Proportional clamping device

Autofrettage and Pressure Hold Test Bench for COPVs

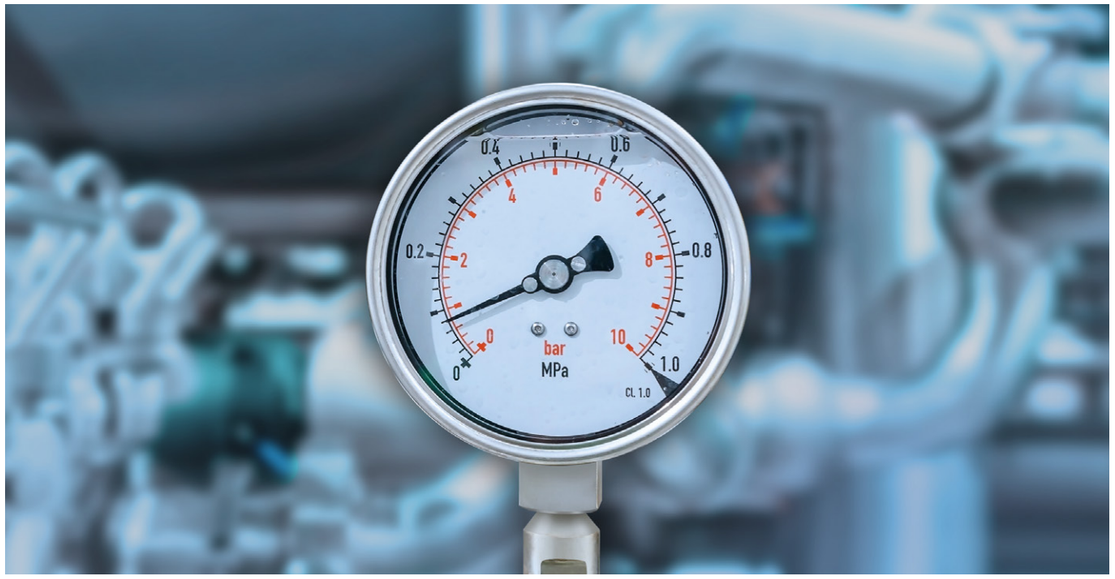
Our autofrettage and pressure hold test benches are specifically designed for composite overwrapped pressure vessels (COPVs) as well as other high-pressure vessels. Water is used as the test medium, enabling precise autofrettage and pressure hold procedures. These processes validate structural strength, enhance fatigue resistance, and extend the overall service life of the pressure vessels.

PPM Autofrettage and Pressure Hold Test Bench for COPVs

Performance Data:

Test medium: water (filtered, quality-monitored)	Safety chamber: Heavy-duty steel chamber designed to safely contain a potential burst event; engineered in accordance with applicable safety standards
Pressure range: up to max. 1,050 bar with water	Automation & data acquisition: Siemens PLC with intuitive HMI, recipe management, and full traceability (pressure profile, hold time, expansion volume, water temperature, etc.)
COPV dimensions: configurable – sizes and volumes customer-specific, safety limits defined by chamber design	Remote support: Integrated remote maintenance for updates, fault diagnostics, and service support
Pre-filling process: automated water pre-filling to minimize air entrapment, ensuring reproducibility and safety	
Pressure hold function: stable, controlled holding at proof or autofrettage pressure to validate vessel performance under sustained load	

Compressed air amplifier stations / Hydraulic units



Our compressed air amplifier stations can be used where the existing compressed air supply can no longer deliver the higher pressure requirement for special tools or units such as air-operated power wrenches; nailers; tire inflation systems; or similar. A PPM compressed air amplifier station can be integrated into the existing compressed air network wherever required using commercial hose couplings or directly connected to a mobile compressor, for e.g. during assembly work.

The pressure booster functions pneumatically and is driven exclusively by the existing compressed air, delivering compression performance at a transmission ratio of 1:2. This makes it possible to increase a classic compressed air network from, for e.g., 6 bar to 12 bar at specific locations. The volume requirement of a PPM compressed air amplifier station depends on the required output (volume flow rate).

DNV-simplex up to 16 bar

DNV-duplex up to 16 bar

DNV up to 50 bar

Amplifier unit up to 400 bar

Ready-to-connect hydraulic units

Our ready-to-connect hydraulic units and mobile pressure units / pressure generating units up to 4,000 bar have been specially designed for use in workshops. Used as pressure generators for the assembly and dismantling of oil pressure mountings (shaft-hub connection) the systems are suitable for both stationary and mobile applications. Pressure generation (regulation) for the pneumatically driven hydraulic unit is carried out manually by the operator. On request the mobile pressure unit / pressure generating unit – with electrohydraulic pressure generation – can also be equipped with a PLC (programmable logic controller) to allow the pressure increase and holding time to be defined.

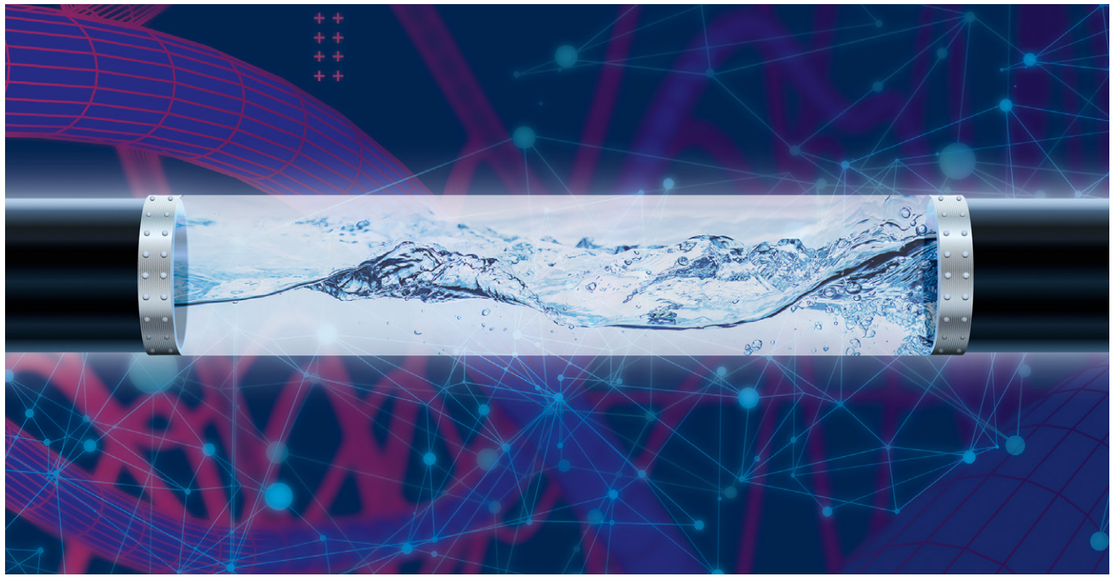
HP valve up to 4,000 bar

Hydraulic unit up to 1,600 bar

Hydraulic unit up to 4,000 bar

Mobile pressure regulation sytems

Leak test stands



Leak test benches: A leak test is a process utilized to determine if a pressure vessel functions within a specified leak limit. The leak limit is usually either specified by the client or specific industry standards (e.g. ISO, DIN). Leak tests are used in many industries and have become a key part in quality control and product validation. To test the quality of the material and the pressure vessels composition gas or liquid, such as water or oil, flow through the pressure vessel. A leak is identified when the test medium is exiting the test object through a crack, a malfunctioning seal, a manufacturing defect, a material defect or simply a hole. By performing leak tests prior to distribution or installation the manufacturer ensures measurable safety and quality standards.

At Poppe + Potthoff we offer advanced Leak and Flow test benches for automotive, industrial, medical and the packaging Industry. Utilize our know how in sealing versatile and reliable leak testing equipment to gather data on your components.

PPM 257 Leak test stand

Fields of application:

- Automotive testing
- Cooling circuit components
- Pump & valve housing

Technical specifications:

- Test medium: Emulsion
- Drive: High pressure pump
- Pressure: 65 bar
- Test parts: Flint and leg rings

Leak test stands

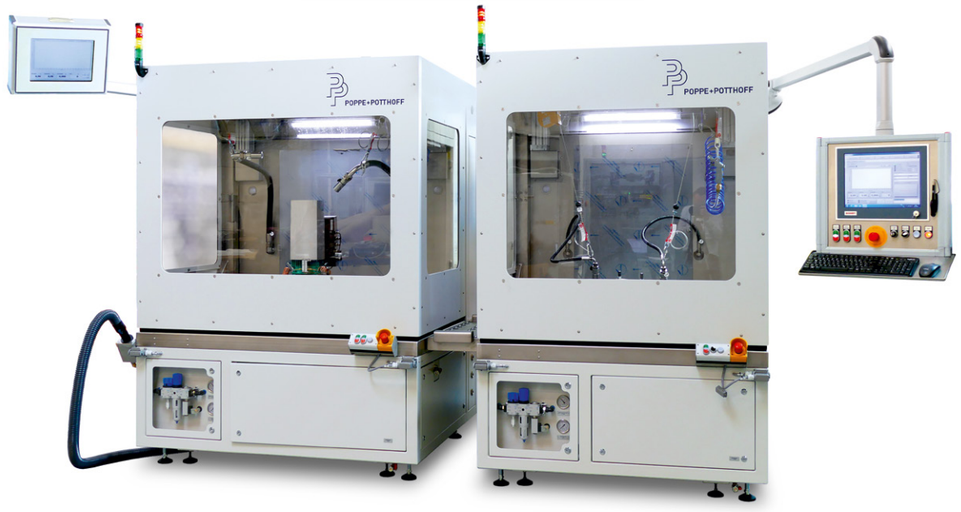
Fields of application:

- Home appliances
- Automotive testing
- Cooling circuit components
- Pump & valve housing

Technical specifications:

- Test medium: Water
- Drive: Fine pressure regulator
- Pressure: 50 bar
- End of production line, hydrostic pressure test

PPM 329 Leak test stand



Fields of application:

- Accumulators
- Tanks
- Very large pressure vessels (crane loading)

Technical specifications:

- Test medium: Water
- Drive: PPM Proprietary fine pressure control
- Pressure: 25 bar
- R & D and end of line production
- 3x Test circuits
- Optional: Heated test medium

PPM 410 Leak test stand

Leak test stands

PPM 453 Leak test stand | Medical technology

Fields of application:

- Medical technology
- Sensor industry

Technical specifications:

- Test medium: Air
- Drive: DNV (1:2)
- Pressure: 40 bar
- Programmable pressure ramps
- Compact design
- Seating for operator

Fields of application:

- Fittings and mountings
- Cooling circuit components
- Pump & valve housing

Technical specifications:

- Test medium: Water, emulsion
- HD-Volume: 3,681 ml
- Drive: Hydraulic
- Pressure: 100 bar
- End of production line
- Hydrostic pressure test
- Manual and / or robot handling

PPM 462 Leak test stand

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