

Typical Applications

Leak Testing

Method	Test Parts
Direct fillable test parts	Gear box covers, headlamps, reservoirs
Capsuled test parts	Micro electronic devices, sensors, clocks, lamps
Inner and outer leak tightness	Coolers, gear boxes, ball valves
Pressure rise	Valves, coolers, heat exchangers

Flow Measurement

Method	Test Parts
Flow test	Coolant passages, tubes, exhaust-gas-systems, membranes, valves
Mass flow test	Large volume test parts with small leakage rates
Continuity test	Pipes, valves, openings
Dimensional accuracy	Cross section of tubes and pipes

Pneumatic Controls

Method	Application
Existence test	Assembly control
Pressure test	Pneumatic tests, multiple pressurisation
Functional test	Opening points, closing points
Volume determination	Adaption control, error prevention („poka yoke“)

Examples for Test Parts



Automotive Industry

Electronic control units
Lamps
Sensors
Switches
Valves

Climate Industry

Heat exchangers
Pipes

Consumer Products

Spray cans
Text markers

Electromobility

Electric axle drives
Displays for e-bikes
Charging boxes
Charging connectors
Fuel cell stacks

Electronics Industry

Connectors
Photoelectric barriers
Microswitches
Relays

Fittings Industry

Ball valves
Fittings
Sanitary armatures

Household Appliances Industry

Clocks
Thermostats
Electric toothbrushes
Electric razors

Medical Technology

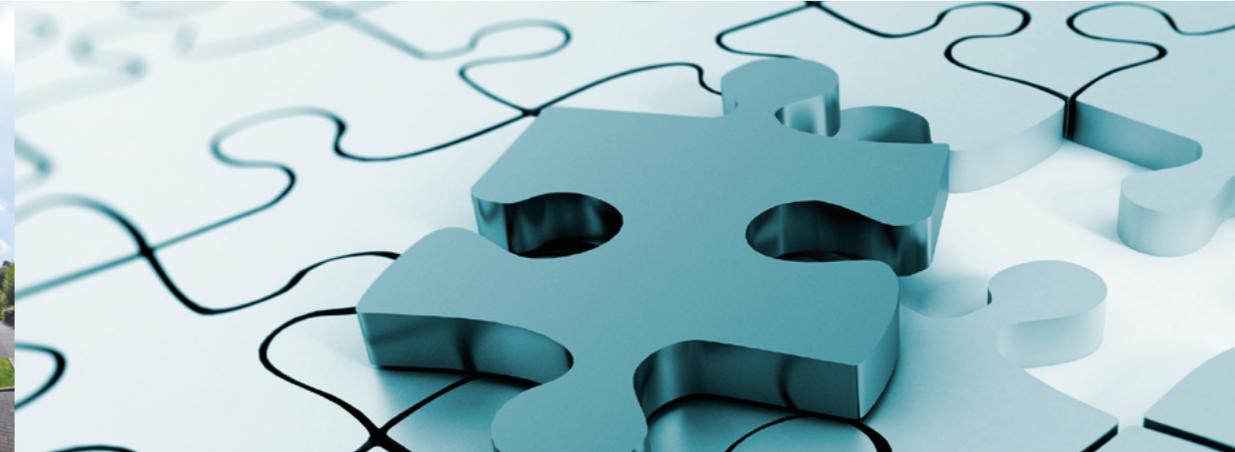
Inhalator cartridges
Insulin pumps
Medicine bottles
Syringes

Packaging Industry

Doypack pouch with spout
Bags for concentrates
Intermediate Bulk Container (IBC)
Drums, Bottles

Valves

Overpressure valves
Pneumatic valves
Tyre valves
Hydrogen valves



CETA Testsysteme GmbH

CETA is a German manufacturer of physical test devices „Made in Germany“ for **industrial leak testing and flow measurements** in the production line. Due to different test device technologies and a wide scope of pressure and measurement ranges nearly every test requirement can be fulfilled.

Customers from the **automotive industry, medical technology, heating and air conditioning industries, energy sector, fittings and household appliances industry, packaging industry and E-mobility** use CETA test devices for quality control and production assurance.

CETA is certified according to ISO 9001. The calibration laboratory accredited by the **German Accreditation Body DAkkS** is approved for the measurands pressure and flow of gases according to **DIN EN ISO/IEC 17025**. (D-K-19566)

With more than **35 years of experience, longstanding excellent creditworthiness, international representations** as well as **several thousands of test devices worldwide**, CETA Testsysteme GmbH presents itself as a competent solution partner for industrial leak testing and flow measurement.

CETA Testsysteme GmbH

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CETA Testsysteme GmbH Solution Partner for Industrial Leak Testing and Flow Measurement

- Leak testers devices for leakage rates down to 10^{-3} mbar • l/s
- Flow testers for gas flow rates up to 200 l/min
- Test medium: compressed air
- Internationally recognised calibration certificate
Compliant with DIN EN ISO/IEC 17025
As standard for test devices and calibration standards



Gauge Pressure Test Devices

CETATEST XS Series



Leak testers with gauge pressure sensor

- Compact, cost-efficient test device
- Suitable for leak-testing with short test times
- Test mode: pressure decay
- Pressure ranges: ± 1 bar, 0,2 bar, 1 bar, 8 bar
- Measurement range up to 10,000 Pa
- 8 test programs
- Interfaces: RS-232, Digitale I/O

Differential Pressure Test Devices

CETATEST 525 Series



Leak testers with differential pressure sensor

- Optimised for leak testing of small parts in short test times
- Test device variants:
Sealed Components - High Resolution
Pressure Decay - High Speed
- Pressure ranges: -1 bar, 200 mbar, 1 bar, 6 bar
- Measurement ranges: 500.0 Pa, 5,000 Pa
- Setup support: Setup of the leakage rate, Determination of system capability
- Ethernet as standard | Further interfaces available

Differential Pressure Test Devices

CETATEST 825 Series



Leak testers with differential pressure sensor

- Suitable for many applications
- Various pressure ranges, test modes, options available
- Measurement ranges: 500.0 Pa, 5,000 Pa
- Special variants: High pressure (max. 400 bar), Low pressure (max.50 mbar)
- Setup support: Setup of the leakage rate, Determination of system capability
- Ethernet as standard | Further interfaces available

Volume Flow Testers

CETATEST 925 Series



Flow Testers for volume flow measurement

- Flow determination by measuring the pressure decay in a laminar flow element (LFE)
- Measurement ranges: 3 ml/min bis 200 l/min (depending on LFE)
- Electronical pressure regulator
- Calibration at different pressures available
- Special variant for large flows and low pressures
- Setup support: Determination of system capability
- Ethernet as standard | Further interfaces available

Gauge Pressure Test Devices

CETATEST 725 Series



Leak testers with gauge pressure sensor

- For leak testing of parts with large leakages
- Various pressure ranges, test modes, options available
- Measurement range up to 10,000 Pa
- Special variant for large-volume products (up to 1,000+ l)
- Setup support:
Setup of the leakage rate
Determination of system capability
- Ethernet as standard | Further interfaces available

Differential Pressure Test Devices

CETATEST 820 Series



Leak testers with differential pressure sensor

- High quality and cost-effective test device
- Suitable for direct fillable products
- Test mode: pressure decay
- Pressure ranges:
 $+1$ bar, -1 bar/ $+1$ bar, -1 bar/ $+10$ bar, 1 bar, 10 bar
- Measurement range: 500.0 Pa
- Ethernet as standard interface
- Option: Profinet protocol activation for external gateways

Mass Flow Testers

CETATEST 625 Series



Mass flow testing of large-volume test parts

- Test device with gauge pressure sensor and thermal mass flow sensor
- Various measurement ranges from 10 Nml/min to 60 Nl/min
- Indirect mode: Small leakages
- Direct mode: Large mass flows
- Reference conditions parameterisable
- Setup support: Determination of system capability
- Ethernet as standard | Further interfaces available

DAkKS-accredited Calibration

CETA test devices and calibration standards are delivered with a DAkKS-accredited and internationally recognised calibration certificate (compliant with DIN EN ISO/IEC 17025) as standard and at **no extra charge**. (*)

The calibration fulfills the requirements of the international automotive standard IATF 16949.

(*) For measuring ranges within the scope of the DAkKS-accredited CETA calibration laboratory (D-K-19566)

DAkKS = German Accreditation Body

Accredited ranges of the CETA calibration laboratory

- Negative and positive gauge pressure from -1 to 100 bar
- Absolute pressures up to 40 bar
- Gas flow rates from 0.1 ml/min to 420 l/min
- Leakage rates:
Gases: $1 \cdot 10^{-6}$ mbar · l/s to $5 \cdot 10^{-3}$ mbar · l/s
Helium: $1 \cdot 10^{-9}$ mbar · l/s to $1 \cdot 10^{-6}$ mbar · l/s