

## 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 leak 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  
Charger 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

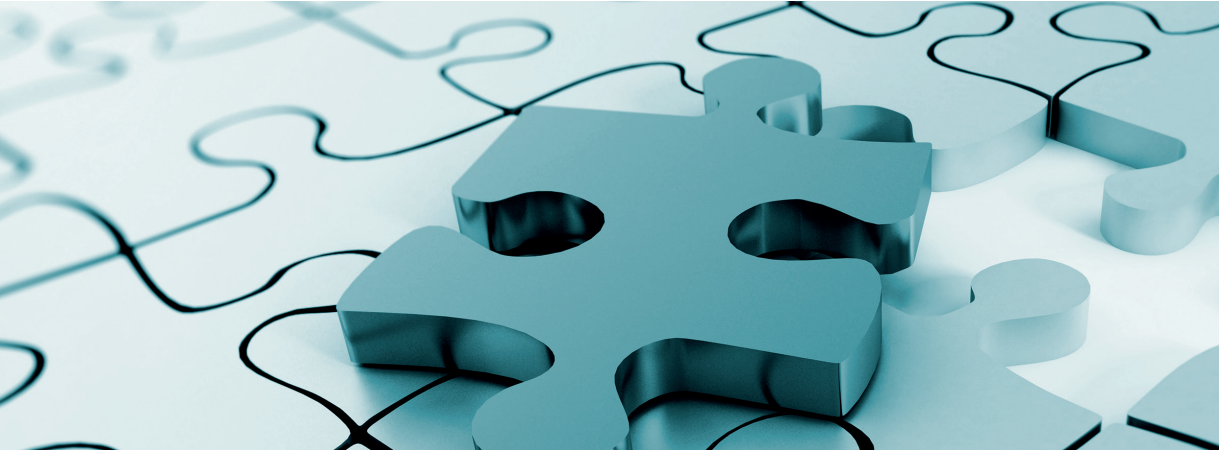
Inhalator cartridges  
Insulin pumps  
Medicine bottles  
Syringes

### 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 house-hold appliances industry, packaging industry and E-mobility** use CETA test devices for quality control and production assurance.

CETA is certified according to DIN 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 leak rates down to  $10^{-3}$  mbar • l/s
- Flow testers for volume flows up to 200 l/min
- 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
- Test medium: compressed air
- Compact, cost-effective test device
- Suitable for leak-testing with short test times
- Measurement range up to 10,000 Pa
- Interfaces: RS-232, Digital I/O (Standard)

## Gauge Pressure Test Devices

### CETATEST 725 Series



- Leak testers with gauge pressure sensor
- Test medium: compressed air
- Industrial PC with 7" touch-screen
- For the leak testing of parts with large leakages
- Multitude of pressure ranges and test modes available
- Measurement range up to 10,000 Pa
- Ethernet as standard interface
- Further industrial interfaces available

## Differential Pressure Test Devices

### CETATEST 525 Series



- Leak testers with differential pressure sensor
- Test medium: compressed air
- Industrial PC with 7" touchscreen
- Test device variants
  - Sealed Components – High Resolution
  - Pressure Decay – High Speed
- Optimised for the leak testing of small test parts in high speed production processes with high resolution
- Measurement ranges: 500 Pa, 5,000 Pa
- Ethernet as standard interface
- Further industrial interfaces available

## Differential Pressure Test Devices

### CETATEST 825 Series



- Leak testers with differential pressure sensor
- Test medium: compressed air
- Industrial PC with 7" touchscreen
- Multitude of pressure ranges and test modes available
- Measurement ranges: 500 Pa, 5,000 Pa
- Ethernet as standard interface
- Further industrial interfaces available

## Mass Flow Testers

### CETATEST 625 Series



- Mass flow testing for the detection of small leaks in large volume test parts.
- Leak testers with gauge pressure sensor and thermal mass flow sensor
- Test medium: compressed air
- Industrial PC with 7" touch-screen
- Measurement ranges: 10 Nml/min, 25 Nml/min, 60 Nml/min, 150 Nml/min, 300 Nml/min, 600 Nml/min, 60 Nl/min
- Ethernet as standard interface
- Further industrial interfaces available

## Flow Testers

### CETATEST 925 Series



- Flow Tester for volume flow measurement
- Test medium: compressed air
- Flow determination by measuring the pressure decay in a laminar flow element (LFE)
- Measurement range: 3 ml/min to 200 l/min (depending on LFE)
- Electronic pressure regulator | mechanical on request
- Calibration with up to 4 LFE pressures possible
- Ethernet standard | further interfaces available

## Calibration Standards



### Test leaks and Master jets

#### Test leaks

- Use for leak tests
- Connection in addition to the test part
- Connection to the front test leak plug of all CETA leak test devices

#### Master jets

- Use for flow tests
- Connection instead of the test part

## DAkkS-accredited Calibration

All leak and flow test devices as well as pressure manometers 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.\*

\*Condition: The pressure and flow ranges are within the accredited scope of the DAkkS-accredited calibration laboratory of CETA Testsysteme GmbH. (D-K-19566)

### Accredited ranges of the CETA calibration laboratory

Negative and positive gauge pressure from -1 to 60 bar

Absolute pressures up to 40 bar

Gas flow rates from 0.1 ml/min to 420 l/min

Leak rate in gases from  $1 \cdot 10^{-6}$  mbar · l/s to  $5 \cdot 10^{-3}$  mbar · l/s

Helium leak rates from  $1 \cdot 10^{-9}$  mbar · l/s to  $1 \cdot 10^{-6}$  mbar · l/s