

Laboratory Equipment
 Measuring Instruments
 Control Systems
 Scales and Balances



Laboratory Instruments

"Laboratory instrument" is a general term for all kinds of instruments, vessels, and other tools needed for operations in various laboratories, synthesis and analysis. Laboratory Instruments are exposed to some extreme chemical and physical influences and must simultaneously provide accurate measurement results, must have a long life and provide safety for the user. Therefore, laboratory instruments have to have a high quality and be durable in order to meet the high standards in laboratory technology.

Modern laboratory instruments have interfaces and can therefore be used not only by professionals but also by untrained personnel due to the user-friendly software operation. Tested and equipped with ISO calibration certificates, laboratory instruments deliver meaningful results in the shortest possible time. These tested laboratory instruments can be delivered and also be provided with calibration certificates (ISO) (optionally available). ISO is available either with the initial order or for recalibration (for example annually). The following alphabetical list gives an overview of the different laboratory instruments and their versatility. The technical data sheets for each laboratory device are stored in the corresponding sub-sites. An additional overview of the entire range of laboratory instruments provides virtual sheets of the catalogue.

If you don't find the laboratory instruments you are looking for, please contact us and we will help you find the best solution to suit your needs by calling our offices on: [UK customers +44\(0\) 23 809 870 30](#) / [US customers \(561\) 320-9162](#) and our technical staff will advise you regarding our laboratory technology. Our engineers and technicians will be happy to help you with the laboratory instruments, and of course, with the other products in the field of [measuring instruments](#), [regulation and control](#), or [scales and balances](#) of [PCE Instruments Ltd.](#)



PCE Instruments Laboratory Instruments

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[Autoclave](#)

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[Burettes](#)

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[Cleaning equipment \(ultrasonic\)](#)
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[Metering](#)
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O

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T

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W

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[Water jet pump](#)



General information on the use of laboratory instruments in the laboratories

To perform an analysis or synthesis of a substance, you need laboratory instruments, e.g. various special devices. The laboratory instruments discussed here are essential for every laboratory, because you can't carry out analyses and syntheses without technical laboratory instruments. Since there are various methods for analysis and synthesis, it is important that you are previously aware of the method you want to use. Subsequently, you can find a suitable product from the range of laboratory instruments. A distinction is made between the division and the separation of mixtures. With the cerium division that is done via laboratory instruments, direct mechanical strength is exerted onto the chemical compound, which in turn is then split, torn or broken apart. The compounds' connection therefore is broken by the mechanical influence of one of our laboratory instruments and the analysis was conducted.

Compounds can be likewise broken with the help of one of our laboratory instruments if no direct strength is exerted on the compound by a lab device. Here, the laboratory instruments used usually exerts merely indirect mechanical strength or direct thermal energy on the compounds. In this procedure, laboratory instruments usually exert centrifugal and centripetal power on the compounds.

In most laboratories, analysis and synthesis are only the first steps in dealing with specimens. After these processes, the real work often begins. Thus, laboratory instruments such as microscopes, pH knives, scales and distributors are indispensable. Nevertheless, a well-equipped lab should not only feature laboratory instruments which serve to execute a series of experiments, but furthermore devices which are needed in the post-process must be also purchased. Exact and unadulterated measurement results in subsequent experiments can only be achieved by a suitable follow-up to the experiment itself, such as for example sterilisation. This is important because neither bacteria, nor any other foreign bodies may be on the test object or on any of the other many laboratory instruments.

So you can find out more about the different options, we have compiled an overview of the Laboratory Instruments we have in our range:

- Laboratory instruments for the fragmentation of compounds
- Laboratory instruments for the division of links
- Laboratory instruments for visual inspection
- Laboratory instruments that can perform any operation in the experiment
- Laboratory instruments for the cleaning of laboratory equipment



PCE Germany offers everything that is important for the perfect equipment of a laboratory. Here, you can find laboratory instruments from A like Atomic absorption spectrometer to Z like centrifuge. Due to their simplicity, our laboratory instruments are designed for both professionals and laymen. Furthermore, our laboratory instruments were made under the highest security standards, so that every customer can look forward to a long life span in one of our laboratory instruments.

Because the laboratory instruments of the PCE are made for both professionals and laymen, it is our wish not only to acquire new costumers but also to maintain and care for already existing customers. However, at this point we would like to give to our new customers a small introduction to the world of the laboratory instruments.

Laboratory instruments for the cerium division of connections

As previously described, laboratory instruments are used for the analysis of various materials. The range of products in these supporting devices is large and includes mortars and pestles, mills and dispensers. The mills vary in design and size and are therefore designed for various materials. Thus, such diverse materials such as ground samples or ceramics can be ground and optimally prepared for inspection.

Laboratory instruments for the cerium separation of connections

The separation's aim is to detach the compound materials from each other in order to afterwards have merely homogeneous materials at one's disposal. To separate the single materials from each other, there are various procedures and laboratory instruments at a lab employee's disposal. Simple sieves as well as distillators and centrifuges are used during the separation. The centrifuges are probably the most-used laboratory instruments when it comes to the separation of different material compounds. These centrifuges can separate emulsions as well as suspensions. An emulsion is a connection of two or several liquids and a suspension the connection of liquids and solid materials. To reach of a division of the materials, the centrifuge works on the basis of physical principles. During the separation the material that has a higher density is pressed outwards. Simultaneously, the material with the lower density goes inwards and the division via our lab device is complete. To use the suitable physical technical terms necessary in the explanation of our laboratory instruments with, it must be said that the forces which exert strength on the compounds are called centrifugal and centripetal strength. The centrifugal strength works on the materials which move outwards and the centripetal strength causes the materials with lower density to move inwards.

Laboratory instruments for the optical investigation

An optical investigation is part of the agenda with most series of experiments in. Hence, we likewise have microscopes, refractometers and thermometers in the PCE's laboratory instruments program. While observing the various experiments, it is important to use high-quality microscopes that allow a precise observation of the specimens. This is, of course, the case for most laboratory instruments, but is of especially high importance when it comes to microscopes. PCE has a large number of microscopes. If you are interested, you will find the corresponding classifications of these laboratory instruments on our Internet pages. Furthermore, please don't hesitate to contact us with your questions concerning our laboratory instruments. Our advisors will gladly consult you.

The laboratory instruments which take over other tasks with the investigation

This category includes laboratory instruments which take on supporting tasks during the experiment, such as for example magnetic stirrers, pumps and stoves.

The laboratory instruments which serve the cleaning of lab utensils

As previously mentioned, all laboratory instruments and lab utensils must always be clean and sterile in order to deliver flawless test results when used again. Hence, we not only offer laboratory instruments which are used for testing, but also such laboratory instruments which are used for sterilisation. The washers are especially important in this category since they guarantee a quick and hundred per cent cleaning of your laboratory instruments.

If you have further questions about laboratory devices please use our contact form or our Hotline: ▶ UK customers +44(0) 23 809 870 30 / ▶ US customers (561) 320-9162. Our engineers and technicians will gladly advise you.



PCE-322A Class II noise meter with memory of 32,000 values, USB connector cable and software, Resolution of 0.1 dB, range from 30 to 130dB, ...



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- ▶ US customers (561) 320-9162

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in Czech Republic in Bulgarian in Polish in Russian in Turkish and in Portuguese

Below you will find an overview of the different product groups of measuring instruments

Absolute Humidity Meters	Fiberscopes	Megohmmeters	Roughness tester
Accelerometers	Flow Meters Air	Micrometers	Scales
Alert Meters	Flow Meters Gas	Microscopes	Sensor (Temperature)
Air velocity meters	Force Gauges (digital)	Modular signal Converters	

<p>Analyzers (Colour) Analyzers (Combustion) Analyzers (Gas) Analyzers (Lan) Analyzers (Noise) Analyzers (Oxygen) Analyzers (Ozono) Anemometers</p> <p>Barometers Balances Borescopes</p> <p>Cable detectors (electrical) Calibrators Calipers Cameras (Infrared Thermal Imaging) Capacitance Meters Coating Thickness Meters Chlorine Meters Clamp Meters Climate Meters Colour MetersClamp MetersConductivity Meters Contact Thermometers Current detectors</p> <p>Data Loggers Differential Pressure Meters Digital Multimeters Densimeters Detectors (Humidity, Radiation, Voltage) Dose Meters (Noise) Durometers Dust particle analyzers</p> <p>Electric Tester Endoscopes</p>	<p>Function generators Frequency Meters</p> <p>Gas Detector Gaussmeters</p> <p>Handheld Tachometers Hardness Meters Humidity Testers (Building material) Hygrometers</p> <p>Indicator Sound Level Indicator (Humidity) Instruments (Environmental) Impedance bridges Infrared Thermometers Insulation Meters</p> <p>Lan Network Testers Laser Distance Meters Laser level Laser meters Laser thermometers LCR Meters Length Meters Light Meters Lux Meters</p> <p>Magnetometers Manometers Material Thickness Meters Measurement Devices (Force) Measuring Meters (Distance) Measuring Wheels Meters (Combustion, Distance, Earth, Energy, Environmental, Gas, Gloss, Ground pH, Power, Pressure, Radiation, Salt, Temperature)</p>	<p>Moisture Indicator Multimeters Multi-Parameter Photometers</p> <p>Noise Meters</p> <p>Odometers Ohm Meters Oscilloscopes Oxygen Meters Ozone Meters</p> <p>Paper Moisture Meters Penetrometers Phase rotation meters Photovoltaic meters Pitot tube air flow meters Pocket pH-meters Power Analyzers Pressure Gauges Pyrometers</p> <p>Quality Meters (Air)</p> <p>Radiation Counters Radioactivity meters Reader (Temperature) Recorders Data Redox Meters Refractometers Relative Humidity Meters Resistance Testers Rotation meters Roughness tester Rotation meters</p>	<p>Signal converters Signal Level Analyzers Single-parameter Photometers Sound Level Meters Systems for Environmental Stethoscopes (electronic) Stroboscopes Surface Thickness Meters</p> <p>Tachometers Telescope Meters Thermo-anemometers Thermo-Hygrometers Temperature Probes Testers Air Testers Conductivity Testers Earth Testers Insulation Testers Noise Testers pH Testers paper Testers Sound Testers Temperature Thermal stress Thermal Imaging Cameras Thermometers Thermocouples Thickness Meters Torque meters</p> <p>Ultrasonic Flow Meters</p> <p>VDE tester Vibration Meters Video endoscopes Voltage meters</p> <p>Weather Stations Wood (humidity)</p>
<p>Below you will find an overview of the different product groups of scales and balances</p>			
<p>Accurate scales Analytical scales Animal scales</p> <p>Baby scales Basic scales Bench scales</p> <p>Cask scales Crane scales Compact scales Counting scales</p> <p>Density scales Dosing scales</p> <p>Electronic scales</p> <p>Floor scales Force meter</p> <p>Hanging scales</p>	<p>Hook scales Hopper scales Household scales Humidity scales</p> <p>Industrial scales Inventory scales</p> <p>Jewellery scales</p> <p>Kitchen scales</p> <p>Laboratory scales Lifting scales Load cranes Load scales</p> <p>Mechanical scales Micro scales Moisture scales Multifunction scales</p>	<p>Package scales Pallet truck scales Pallet scales Paper scales Pharmacy scales Piece counting scales Platform scales Pocket scales Postal scales Precision scales Probe cutter</p> <p>Retail scales</p> <p>Scales for analysis Scales for carat Scales for colleges Scales for dentistry Scales for gold Scales for people Scales for school Scales for transit</p>	<p>Scales for weighing pallets Scales with a support Scales with counter Scales with software Shipping scales Spring scales Surface scales Systems (Hanging)</p> <p>Tabletop scales Thermo scales Trade scales</p> <p>Vehicle scales Verifiable scales Veterinary scales</p> <p>Water resistant scales Weighing hooks Weighing platforms Weighing scales Weight indicator</p>