

optimus
INSTRUMENTS

CHEMISTRY

& Life Science



Solutions

beyond lab equipment

Reactors & Lab Equipment

For chemical, pharmaceutical and biotech industries

Optimus Instruments supports innovative progress by delivering quality improving instruments and services. Over 35 years of experience in supplying instruments and service in these industries allow us to serve our customers with great expertise.

Optimus Instruments is your premium distributor and service partner for:



HWS Labortechnik

huber

PILODIST®
laboratory & process technology

bionet®

VAN DER HEIJDEN
Labortechnik GmbH

heidolph
research made easy

vacuubrand

KERN®

Asynt

AM Technology
Engineering Chemistry

JUCHHEIM
Laborgeräte GmbH

HITEC ZANG

“In industries where quality is key, there is no such thing as a standard solution.”

By providing streamlined and integrated combinations of quality instruments we aim to deliver that one solution you are looking for.

Optimus Instruments supplies the complete package including application analysis, supply and installation, user training, maintenance, calibration and repair.

optimus
INSTRUMENTS

Total Care

Management

Optimus Instruments is dedicated to deliver carefree confidence in lab operation. This starts with supplying high quality lab equipment and continues in excellent after sales service performed by highly skilled personnel according to standardized working methods.

ARE YOU SURE?

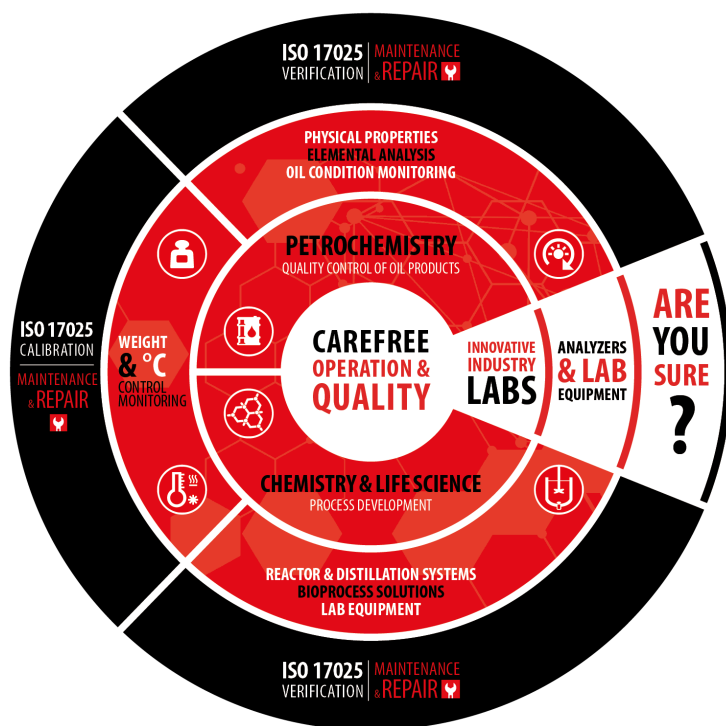
A close collaboration with our service company European Lab Services allows you to answer 'yes' to that question without hesitation. By supplying high level verification and calibration services, the right certification is provided for carefree operation.



Delivering

Carefree

Operation & Quality



Reactor Systems



AMT

Flow Reactors

Volumes: 0,1 ... 100L

Precise, flexible Continuous Flow technology

Increased productivity over traditional batch chemistry

Easy route to scale up

Compatible with wide scope of chemical processes



Chemglass

Process Reactors

Volumes: 0,5 ... 100L

Optional manifold system for easy draining

Tool-free connections

Unique mobile open frame design

Standard systems delivered from stock

Extended customization options



HWS

Made To Measure

Made to measure systems from lab to pilot

Extended temperature range: -90°C ... 300°C

Extended pressure range up to 3 bar

Materials: Borosilicate glass & Stainless Steel

Triple jacketed glass vessels available

Highly customizable and application based



Juchheim

Laboratory and pilot plants

Volumes: 0,05 ... 200L

Up to 500 bar and 500°C

Autoclaves, bench top reactors

and pilot plants

Specialized in custom projects

Unique central operation interface



HiTec Zang

Laboratory and pilot automation

Suitable for every application

Scalable LabManager system

Connect any sensors and devices

Create automated test sequences

Freely configurable user interface



Asynt

Process Reactors

Volumes: 0,1 ... 30L

Highly ergonomic handling

Tool-free connections

Unique reactor lift system

Triple jacketed glass vessels available

Extended customization options

Optimus Instruments supplies complete controlled synthesis reactor systems including temperature control unit, stirrer, dosing equipment, vacuum pumps. As a single point of contact we aim to deliver application based solutions, expert advice and technical support without compromise.

Temperature Control



Van Der Heijden

Chillers

Applications:

Lab instrument cooling
Condenser cooling
Building cooling

Range:

5 °C ... 25 °C

Cooling Power:

0,18 kW ... 38,5 kW



Huber

Minichiller & Unichiller

Applications:

Rotary evaporators
Distillation systems
Industrial cooling

Range:

-25 °C ... +100 °C

Cooling Power:

0,2 kW ... 50 kW



Huber

Unistat Thermostats

Applications:

Cold behaviour testing
Pilot plants
Industrial regulation

Range:

-125 °C ... +425 °C

Cooling Power:

0,7 kW ... 130 kW



Water Baths



Immersion Coolers



Heating & Cooling Bath Circulators



With over 35 years of experience in liquid thermoregulation solutions, Optimus Instruments is your number one technical partner for temperature control of reactor systems, lab equipment, heat exchangers and industrial systems. The Huber TCU's find their application between -125°C and +425°C in lab, pilot plant and production

BIO Process



Bionet F0

Basic Bioreactor

Applications:
Process development
Training and education

Volume (L):
1 - 3 - 5

Configurations:
Microbiology
Cell cultivation



Bionet F1

Advanced Bioreactor

Applications:
Process development
GMP compliance

Volume (L):
1 - 3 - 5 - 8 - 10

Configurations:
Single or parallel
Microbiology & cell culture



Bionet F2/F3

Pilot Bioreactors

Applications:
Process development
GMP compliant prod.

Volume (L):
15 ... 500

Configurations:
Microbiology & cell culture
Fed-batch & perfusion



Photobioreactors for algae



Tangential Flow Filtration



CIP/SIP Solutions

We offer a complete range of stand-alone bioprocess upstream and downstream equipment for laboratory and pilot use, both for cell cultivation and microbiology applications. An easy to use interface and advanced easy customization options allow you to get the most out of your reactor system.

Distillation & Evaporation



Pilotist

Batch Distillation

Applications:

Separation of narrow boiling point mixture
Production of Pure substances
Aromatic compounds & fatty acids

Features:

Gentle distillation (oil bath/mantle)
Optional fraction collector



Pilotist

Continuous Distillation

Features:

Fully customized systems
Highest separation efficiency
Auto-level control of all vessels
Dry-up protection
No volume restrictions
Batch operation also possible



Heidolph

Hei-VAP Evaporators

Features:

Up to 20L flasks
Highest separation efficiency
Continuous evaporation as option
High safety standards
Easy centralized operation
3 years warranty, extended lifetime



Extraction

Solid-Liquid
Liquid-Liquid



Pilotist

Thin-film/Short-Path
Customizable for a wide range of applications



With our partners Pilotist and Heidolph Optimus Instruments supports the customer in application design, selection of equipment, installation and testing, operator training and after-sales support of world leading solutions for distillation, evaporation, extraction and various other applications.

Lab Equipment



Heidolph

Stirring Solutions

High Viscosity Stirrers

Magnetic Stirring Hotplates

Accurate and powerful stirring of high viscous products and smooth agitation of low viscous liquids.



Heidolph

Peristaltic Pumps

Single and multi channel

Pumps for fluid transfer or precise dosing

The Heidolph dosing pumps combine power, precision and durability. It is a flexible solution with a special pump head for each application.



Heidolph

Shakers & Mixers

Plate shakers

Flask shakers

Incubated shakers

Bottle shakers

High performance and all possible movements.



Centurion

Lab Centrifuges

Analytical Centrifuges

Research Centrifuges

Micro Centrifuges

ASTM-Centrifuges

Centrifuges for each application in all sizes.



Kern

Laboratory Balances

ANALYTICAL

Range: 100 ... 510 g
Accuracy: 0,1 ... 0,01 mg

PRECISION

Range: 60 ... 6000 g
Accuracy: 1 ... 0,001 g



Vacuubrand

Pumps & Control

Precise vacuum control systems

Rotary vane pumps

Vacuubrand is the primary choice for precise vacuum control of lab applications. Their systems are precise and have excellent chemical resistance.

Temperature Monitoring & Calibration



WIKA

Handheld Thermometers

Applications:

Lab reference
On-site temp. checks
Calibration reference

Sensors:

Pt100, TC, Thermistor

Range:

-200 ... +962 °C



WIKA

Precision Thermometers

Applications:

Lab reference
On-site temp. checks
Calibration reference

Sensors:

Pt100, TC, Thermistor

Range:

-210 ... +1820 °C



Sika

Calibration Furnaces

Multi-function:

Dry block
Micro bath
Infrared (black body)
Surface probes

Range:

-55 °C ... +1300 °C



Data Loggers



Wireless Monitoring



Huber Unical Calibration Baths



Optimus Instruments has been specialized in temperature measuring and calibration equipment since the start. European Lab Services performs BELAC-accredited temperature calibration (ISO 17025) and offers the required expertise and technical knowledge regarding metrology and calibration.



EUROPEAN LAB SERVICES

VALIDATION OF LAB EQUIPMENT **ACCORDING TO ISO 17025**



ELS offers on-site performance evaluation of laboratory equipment. ELS has an ISO 17025 accreditation for a variety of parameters such as temperature, rotation speed, volume, flow, pressure and much more.

Typical applications are the validation of water baths, ovens, freezers, climate chambers, centrifuges, and autoclaves. Facing some special calibration or testing challenges in your lab? Thanks to our flexible scope we are able to write made-to-measure procedures for new analyzers, test methods or custom R&D test programs.

TOTAL CARE & MAINTENANCE SERVICE

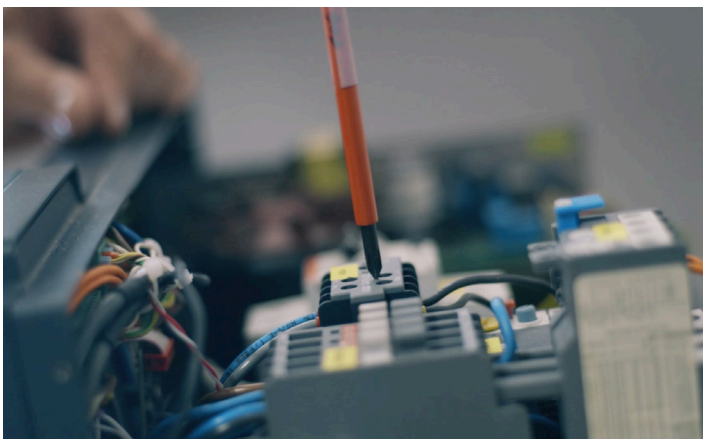


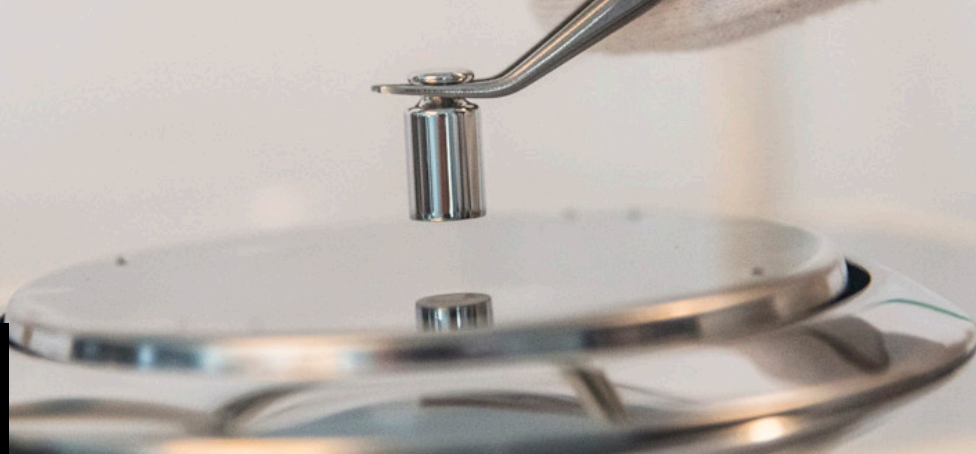
ELS offers on-site repair, maintenance and total care for petroleum analyzers and laboratory equipment.

ELS offers total care solutions:

- Planned periodic calibration and verification
- Proactive maintenance and repair
- Quick action in case of failure due to local offices
- Extensive parts stock
- Online portal for service status
- Certificate management
- Total cost of ownership reports

By providing customer based Service Level Agreements, ELS is able to deliver exactly the right support for your lab in order to have carefree confidence in your equipment.





CALIBRATION OF THERMOMETERS

CALIBRATION OF LAB BALANCES

VERIFICATION OF LAB EQUIPMENT

ENVIRONMENTAL VALIDATION/MAPPING



ACCORDING TO ISO 17025

CALIBRATION CAPABILITIES (ISO 17025)

TEMPERATURE Digital thermometers, Pt100, liquid-in-glass, ...	-80°C to 660 °C
STANDARD FIXED POINT TRIPLE-POINT OF WATER	0,01 °C
MASS Precision balances, analytical balances	1 mg to 20 kg
HUMIDITY	10% RH to 95% RH

VERIFICATION CAPABILITIES (ISO 17025)

Petroleum test equipment, climatic and thermostatic chambers

TEMPERATURE	-80 °C to 1000 °C
RELATIVE HUMIDITY	10% RH to 95% RH
REVOLUTIONS	20 to 15000 rpm
VOLUME	0,1 to 500 ml
FLOW	20 to 60000 ml/min
TIME	0,01 to 1440 min
PRESSURE	-1 to 60 / 900 to 1100 bar
LENGTH	5 to 25 mm
MASS	1 mg to 20 kg

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