

Product

# portfolio

*forté*

Laboratory



Test & Measurement



Environmental



Petrochemical



Food, Feed & Beverage



# Laboratory Solutions

Our extensive laboratory portfolio features an expansive range of world-leading brands and instrument categories. We also provide high quality consumables and laboratory essentials.

## Pipettes

GILSON



Single Channel

Multi Channel



Positive Displacement



Electronic



Repetitive



96 Well



Pipette Controller



Pipette Tips



## Centrifuges

SIGMA

Microcentrifuge

Benchtop

Floor-Standing



## Laboratory Essentials

KERN 2mag Cole-Palmer

Overhead Stirrers

Ultrasonic Baths

Microscopes



Balances / Scales

Tubing

Shakers



Hotplates

Vortexers

Stirrers



## Ovens, Incubators &amp; Climate Chambers

memmert

Heating/Drying  
Ovens

Incubators

Peltier-Cooled  
Incubators

Climate Chambers



Vacuum Ovens



## Freeze Dryers

LABCONCO

Benchtop



Compact Stoppering



Tray Dryer

Mini Stoppering  
Chambers

## Heated Drying

VACUUBRAND

LABCONCO

Rotary Evaporators

Centrifugal  
EvaporatorsNitrogen  
Blow Down

Heating Blocks



Schlenk Line Vacuum



Chemistry Vacuum



## Temperature Control

Julabo

Heating Circulators

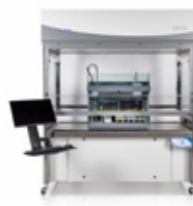
Heating/Refrigerated  
CirculatorsRecirculating  
ChillersTemperature  
Control Systems

## Hygiene

VACUUBRAND

LABCONCO

UV Cabinet

Water Purification  
SystemsBiological Safety  
CabinetsAutomation  
EnclosuresFloor to  
Ceiling Hoods

Vacuum Aspirator













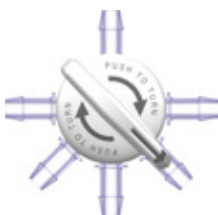
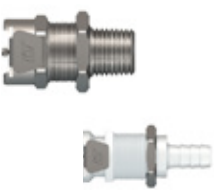



## Reactors



Our team is available to come onsite and provide a safety training course for users of acid digestion vessels and laboratory pressure vessels.

Economical Microwave Synthesis	Programmable Microwave Synthesis	Scale-Up Microwave Synthesis	Economical Glass Reactor	Automated Glass Reactor
				
Pilot Scale Reactor	High Pressure Reactors	Custom Reactors	Research Flow Chemistry	Scale-Up Flow Chemistry
				

Gas Generation		Water Baths		Fridges & Freezers	
					
Complete Systems		Water Baths	Shaking Water Baths	Complete Systems	Spark-Free Fridges
					

Fluid Management			Peristaltic Pumps	
				
Components	Quick Connect Couplings	PumpTubing	Industrial Pumps	General Laboratory Drives
				



## Metering & Dispensing Pumps

Fluid

OEM Dispensers &amp; Metering Pumps

Specialty Pumps



## Syringe Pumps

TELEDYNE ISCO

High Pressure

Hazardous Location



## Refractometry

ATAGO

Refractometers



## Ultrasonic Processors

SONICS

Laboratory Scale

Pilot Scale



## Clinical Solutions

ADVANCED INSTRUMENTS

Single Place Osmometers

High Throughput Osmometers

Anaerobic Growth Chambers



## HPLC Pumps

TELEDYNE ISCO

Compact

Economical



High Pressure

Preparative



## Purification Systems

TELEDYNE ISCO

Flash Chromatography

Flash/Prep HPLC

Large Scale Flash Purification



Super Critical Fluid Chromatography

Fraction Collectors

Columns &amp; Media



Request a sample

## Spectrometers



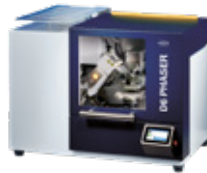
### X-Ray Fluorescence



### Optical Emission Spectrometers



### X-Ray Diffraction



### Single Beam



### Split Beam



## Peptide Synthesis



### Manual Peptide Synthesis



### Automated Peptide Synthesis



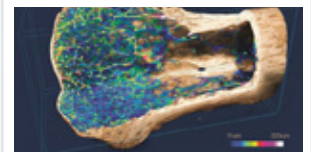
### Parallel Peptide Synthesis



### Peptide Cleavage



### X-Ray Microtomograph



# Environmental Monitoring Solutions

Our environmental monitoring solutions include the systematic collection, analysis, and interpretation of data related to various environmental factors, including air quality, water quality, soil health, climate conditions, and biodiversity.

## Water Sampling



### Manual



### Portable Compact



### Portable Full-Size



### Portable Refrigerated



### Refrigerated



## Water Flow Monitoring



### Area Velocity



### Ultrasonic



### Non-Contact Laser



### Portable Flowmeter Controller



### Permanent Flowmeter Controller



## Water Analysis



HotBlock Digestion



Water Analysis Spectro



Total Kjeldahl Nitrogen



3 Minute Nitrogen Analyser



Cyanide Determination



Trace Metal Digestion



ASTM TOC



SPE Oil &amp; Grease



Benchtop Titrators



Automated Titration



## Oxygen Demand



Respirometric BOD



10-minute BOD/COD



Automated BOD



Traditional BOD



COD Thermoreactor



BOD Bottles



BOD Lids



DO Meter



Sensor Options



## Water Analysis



Filtration



Digestion Vial



Flocculation Testers



Lab or Field Meter



Multi-Parameter




pH Meters





## Plant Health Analysis

Hansatech

Chlorophyll Fluorescence	Gas Exchange Analyser	Oxygen Measurement	Portable CO <sub>2</sub> Analysers	Soil CO <sub>2</sub> Analysers
				
Pulse Modulated Fluorescence	Greenhouse CO <sub>2</sub> Monitoring	Integratable CO <sub>2</sub> Monitor	Soil Moisture	Soil Compaction
				

## Food, Feed & Beverage Solutions

Our Food, Feed & Beverage Solutions encompass a range of scientific techniques and technologies aimed at evaluating the composition, nutritional content, contamination levels and overall integrity of food, feed and beverage products.





### Moisture & Ash Analysis

CEM

Rapid Microwave Moisture	Rapid Microwave Sulfate Ashing
	

### Fibre Analysis

ANKOM

Total Dietary Fibre Analysis	Crude Fibre Analysis	Fibre Digestibility
		



## Fat Analysis

BRUKER CEM Gerhardt ANKOM

### Indirect Crude Fat



### Direct Crude Fat



### Hydrolysis For Total Fat



### Automated Fat



### Zero Chemistry Fat



### Microwave Hydrolysis



### Automated Acid Hydrolysis



### Solid Fat Content



## Extraction

Gerhardt

### Automated extraction



### Manual extraction



## Protein Analysis

xylem CEM Gerhardt

### Block Digestion



### Kjeldahl Analysis



### Titration



### Dumas Nitrogen



### Dairy Protein Analyser



## Particle Size Analysis

spex FRITSCH BRUKER

### Laser Light Scattering



### Image Analyser



### Droplet Size Analyser



### Sieve Shakers



## Milling, Grinding & Cutting

spex FRITSCH

### Knife Mills



### Rotor Mills



### Cross Beater Mills



### Cutting Mills



### Ball Mills



### Cryo Mills



## Moisture & Drying Solutions

memmert+ KERN CEM

Rapid Microwave Moisture	Halogen Moisture Analysers	Accelerated Muffle Furnaces	Rapid Drying Oven	Drying Ovens
				



## Sample Digestion

environmental express Gerhardt CEM

Microwave Digestion	Hot Block Digestion
	
Kjelhal Digestion	Multi-Matrix Microwave Digestion
	

## Colorimetry



Absorbance

Reflective


## Steam Distillation

Gerhardt

Alcohol Determination	Automated Ammonia & Nitrate Determination
	
Separation of Volatile Components	Manual Distillation SO2
	

## Nutritional Information Analysis

ANKOM CEM YSI Bioré

Vitamins (A,D,E,K)	Sugars & Carbohydrates	Salt	Calorimeter	Amino Acids
				

# Petrochemical Analysis Solutions

Our Petrochemical Analysis Solutions use a range of analytical techniques and processes to characterise the physical, chemical, and performance properties of petroleum products, ensuring the quality, safety, and efficiency of petroleum products throughout their lifecycle, from extraction and refining to distribution and consumption.

We can assist you in developing a high-quality solution that will meet your stringent testing needs.

## Elemental Analysis



LPG & Gas Sampling



Nitrogen & Sulfur Analyser



X-Ray Sulfur Analyser



## Density



Handheld Density Meters



Viscometer/ Density Meters



## Cold Properties



Cloud Point



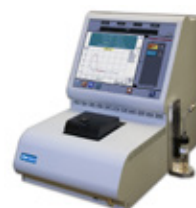
Pour Point



Cold Filter Plugging Point



Freeze Point



Wax Appearance Test



## ASTM Compliant Customised GC



Crude Oil Analysers



SIMDIS Analysers



Trace Analysers



Percent Level Analysers



ASTM D2504 & D2504 /D2505 Analysers



## Viscosity



Viscometer/Density Meters



Houillon Viscometers



Viscometer Baths



Solvent-Free, High Throughput



Automated ASTM D445



## Fuel Analysis



FTIR Fuel Analysers



Jet Fuel Oxidation Test



Benchtop Particle Counters



JFTOT Heater Tube Reader



Gum Testers



FAME Analysis



Water Separation Index



Multi-Filtration Analyser



H<sub>2</sub>S Analysis



Handheld Fuel Conductivity



Vapour Pressure Analysis



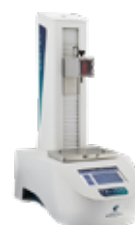
Handheld Biodiesel Analyser



## Texture Analysis & Viscometry



Texture Analysis



Viscometers/Rheometers



Viscosity Standards



Gel Timer



Lubricant Viscosity



Ring & Ball Testing



Economical Viscometer



High Precision Density





## Process Instruments



On-Line  
Viscometer



In-Line  
Oil in Water



On-Line  
ASTM D86



## Distillation



Atmospheric  
Distillation



Micro-Distillation



Vacuum  
Distillation



## Hot Properties



Flash Point Testers



Micro Carbon  
Residue Tester



Pensky Martens  
Flash Point Testers



Evaporation  
Loss Analysers



# Test & Measurement

Our Test & Measurement solutions encompass a wide range of tools, equipment, and techniques designed to assess, quantify, and validate the performance of various components, devices, and systems.

Our team has extensive experience in designing solutions for both small- and large-scale applications.

## Modal Analysis



Modally Tuned  
Impulse Hammers



Vibration Shakers  
Modal Exciters



Dynamic Signal  
Analysers



Test Accelerometers



Modal Testing &  
Analysis Software



## Testing & Simulation Systems



### Applications:

Testing & simulation systems for product design, manufacturing and research, used in automotive, aerospace, biomedical, energy, & civil engineering.

IMI SENSORS ENDEVCO PCB PIEZOTRONICS Scanivalve MTS

### Civil/Seismic Testing



### Hydraulic Wedges



### Hybrid Simulation



### Fatigue Testing



### Material Testing



### Ground Vehicle Testing



### High Temperature Furnaces



### System Controllers & Software



### Data Acquisition Units



### Hydraulic Power & Distribution



### Servo-hydraulic Test Actuators



### Advantage Optical Extensometer (AOX)



### Extensometers



### Electro-Dynamic Shakers



### Head Expanders & Fixtures



### Mono Base Slip Tables



### Acumen® Electro-dynamic Test Systems



### Shaker Amplifier



### Environmental Test Chambers



### Vibration Test Controllers



### Resonant Inspection System



### Biomedical Test Systems



## Sensors for Test & Measurement

THE MODAL SHOP PCB PIEZOTRONICS

### Applications:

Sensors for the measurement of acceleration, acoustics, force, load, pressure, shock, strain, torque, and vibration. We have a sensor for every stage of product development.

#### Accelerometers



#### Microphones



#### Pressure Sensors



#### Strain Sensors



#### Load Cells



#### Torque Transducers



#### Cables



#### Supportive Instrumentation



#### Preamplifiers



#### Signal Conditioners



#### Data Acquisition Systems



#### Dynamic Signal Analysis Software



#### Seismic Sensors



## Calibration Systems

THE MODAL SHOP

#### Handheld Vibration Calibrators



#### Portable Vibration Calibrators



#### Accelerometer Calibration Workstation



#### Dynamic Pressure Calibration Systems



#### Portable Microphone Calibration Kits



## Wind Tunnel Pressure / Temperature Sensors & Instrumentation

Scanivalve

### Applications:

Wind Tunnel Test, Flight Test, Aerodynamic & Aeroacoustics Sensors

#### Miniature Ethernet Pressure Scanners



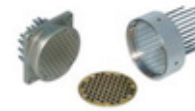
#### Thermocouple Scanners



#### Data Acquisition



#### Pneumatic Connectors & Tubing



#### Aerodynamics & Aeroacoustics Sensors





## Rotating Shaft Telemetry

THE MODAL SHOP

### Applications:

Rotating shaft telemetry instruments can help measure strain, torque, RTD temperature, and voltage, on rotating shafts and provide torsional vibration monitoring.

Single Channel Telemetry	Multi-Channel Rotor Telemetry	Rotor Health Monitor AT-8300	Wind Turbine Monitoring	Rotor Telemetry
				

## Industrial Vibration Sensors, Switches & Instrumentation

IMI SENSORS  
AFCOR DIVISIONCRYSTAL  
INSTRUMENTSPCB PIEZOTRONICS  
AN INSTRUMENTATION COMPANY

### Applications:

Vibration switches sense vibration due to faults such as imbalance, misalignment, looseness, worn bearings, cracked gears or lack of lubrication.

Industrial Accelerometers	4-20 mA Transmitters	Vibration Switches
		
Industrial Cables	BNC Switch Boxes	Bearing Fault Detector (based on PeakVue™)
		
Vibration Data Collector	Machine Condition Monitoring Software	Hand-Held Data Collectors
		

