



Dist Line - Steam Distillation

Providing highest flexibility for every application

The versatile way to analyze your samples

Thanks to a wide variety of ready-made applications

Multiple parameters can be simultaneously determined in each sample. With these applications compliance to specific norms and regulations can be achieved to suit your specific needs.

Beverages



Food



Common Sample Types

Beer, wine, fruit juice, dairy products, water

Cereals, dairy products, meat, pastry, seafood, ready meals, plant-based food

Analytes

Alcohol, sulfite and sulfur dioxide (SO₂), volatile acids, vicinal diketones (VDKs), essential oils, protein, Total Kjeldahl Nitrogen (TKN)

Protein, Total Kjeldahl Nitrogen (TKN), Non-Protein Nitrogen (NPN), Total Volatile Basic Nitrogen (TVBN), casein, sulfite and sulfur dioxide (SO₂), hydroxyproline

Compliance to Norms & Regulations

Alcohol: OIV MA-AS312-01A:R2016

SO₂ Monier-Williams: AOAC 990.28 / OIV-MA-AS323-04A/B

Protein: AOAC 920.53 / 991.20 / 981.10 / ISO 8968-3

Protein: AOAC 2001.11 / 920.87 / 925.31 / 928.08 / 930.25 / 950.48 / 979.09 / 981.10 / 991.20 / ISO 937 / 3188 / 8968-3

SO₂ Monier-Williams: AOAC 892.02 / European Regulation 2003/89/EC

Feed / Agricultural Products



Mixed and finished feed (ruminant, swine, poultry), ingredients such as oil seed meals, cereals, hulls & bran

Protein, Total Kjeldahl Nitrogen (TKN), Non-Protein Nitrogen (NPN)

Protein: AOAC 2001.11 / 920.87 / 930.25 / 945.39 / 950.09 / 979.09 / 981.10 / ISO 1656 / 3188 / 20483

Chemicals / Fertilizers



Basic chemicals, petro-chemicals and specialty chemicals, fertilizers, cosmetics, lubricant oils

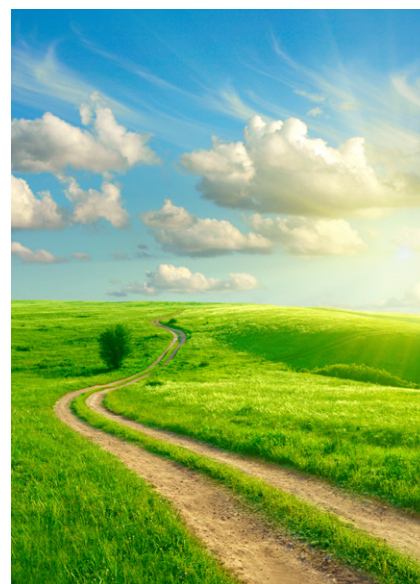
Ammonia, nitrate/nitrite, cyanide (CN⁻), formaldehyde, Total Kjeldahl Nitrogen (TKN)

Nitrate/nitrite: DIN 38409 Part 28 / DIN CEN/TS 15476

Cyanide: EPA 9010 C/335.2

Nitrogen: AOAC 955.04 / 981.1 / DIN EN 15750

Environmental Samples / Testing



Water samples, soil samples, waste water, fly ash

Ammonia, Total Kjeldahl Nitrogen (TKN), phenol, formaldehyde, nitrate/nitrite

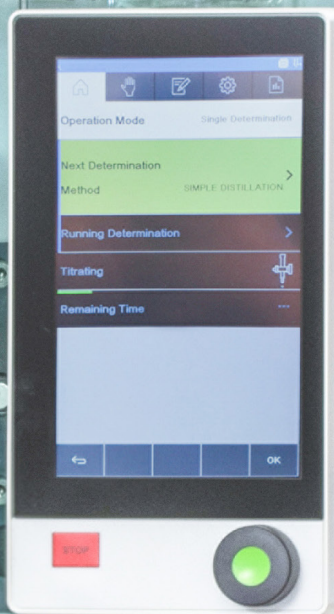
Formaldehyde, Phenol: DIN 38409-H

Nitrate/nitrite: DIN 38409 Part 28 / DIN CEN/TS 15476

Nitrogen: DIN EN 13342 / 38409 Part 28



BUCHI MultiKjel



Dist Line

Designed for every application

The Dist Line is extremely versatile and is designed for a broad range of analytes while offering the highest operational safety. The instruments perfectly fit your individual needs and enable the highest performance in the most flexible way.



Experience Highest Flexibility & Convenience

with tailor-made solutions to fit your needs

Application flexibility and modular upgradeability is what stands out in all Dist Line configurations. Key elements are:

- Perform a broad variety of applications for a versatile analysis
- Intuitive touch screen for easy process handling
- Upgradeable on demand to automate your analysis in the most convenient way

Maximize Accuracy & Performance

thanks to OnLevel sensor and automatic titration

The Dist Line enables the highest accuracy for analyte determinations. Several features contribute to a maximum performance:

- Automatic recognition of distillation start for perfect reproducibility
- Distillation endpoint is recognized automatically for highest accuracy
- Automated titration with connected titrators for minimum user interaction

Work Securely & Save Time

with advanced sensor technology and AutoDist function

Simple instrument operation that is safe, quick and efficient is made possible thanks to innovative features such as:

- Innovative sensor technology minimizes exposure of the user
- No preheating required resulting in higher time-efficiency
- Automated distillation and titration enable unattended operation
- Intelligent cooling water control for reduced user interaction



Experience Highest Flexibility & Convenience

Tailor-made solutions to fit your needs

With the instruments from the Dist Line, you experience the highest flexibility possible. Choose from a broad range of applications that enable the determination of multiple analytes in a particular sample. With the various upgrades available you can get a nearly customized solution to fit your needs.



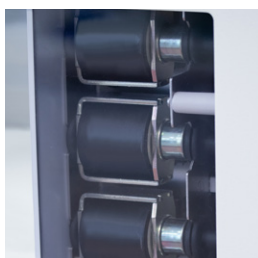
Broad Application Flexibility

The Dist Line covers a broad range of applications and samples thanks to the built-in acid-resistant pump in BasicDist and MultiDist. With the help of our application notes, you can easily measure multiple analytes, such as alcohol, sulfite, cyanide, formaldehyde, phenol, essential oils, volatile acids, but also protein, ammonia, nitrate and nitrite, in your specific sample matrix.



Exceptional User Experience

Our instruments can be easily incorporated into your lab, so that you can immediately use them. The intuitive touch screen provides fast feedback and enables easy process handling. With StatusLight, the process can be easily monitored from a distance. Use of glass parts enables direct visibility of the steam distillation and titration, giving you better control of the process. These features combine to optimize user interaction, reduce operational risks and save time.



Upgradeable on Demand

With our versatile components you can easily upgrade and automate your system for highest convenience. All parts can be chosen separately and can be combined one after the other. The modular design allows you to achieve an optimal combination of features to suit your individual needs. In this way, you receive the optimum combination of features and peripherals according to your needs.



Maximize Accuracy & Performance

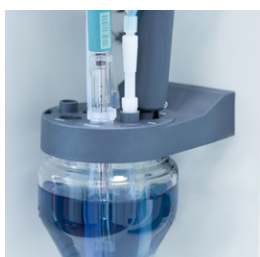
High-tech components for highest reproducibility

The Dist Line is designed to provide the most reproducible results at highest accuracy levels. With our innovative features, you will experience an outstanding performance with a highly automated system.



OnLevel Sensor

With the OnLevel sensor, we deliver highest accuracy in each measurement. The desired distillation volume can be set for any vessel size and shape, using a simple and intuitive mechanism. This leads to an accurate measurement that is highly reproducible. With this feature, we meet the specific accordance to norms for which the distillate volume is of particular importance.



Automatic Titration

Automated titration is key to achieving the highest performance possible in Kjeldahl protein determination. Titration dosage, as well as endpoint recognition via suitable electrodes, is carried out automatically. This allows for minimum user interaction and high throughput at the same time.



MaxAccuracy Mode

In laboratories, deviations of the supply voltage are possible within a range of up to 10 % of the original value. This can potentially affect the steam power output. In order to avoid these deviations, a voltage stabilizer is integrated to maintain the required supply voltage. This enhances measurement accuracy and ensures highest reproducibility for every result.



Work Securely & Save Time

Automation for higher efficiency and safety

It is of utmost importance to support and protect our most valuable resources – our lab personnel. With our innovative features, you will benefit from quick, simple and safe system operation. Improve your overall lab efficiency by gaining more time to focus on other projects.



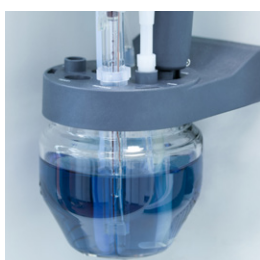
Safe Operation

The Dist Line instruments reduce user exposure to a minimum thanks to innovative sensor technology. Safety sensors monitor cooling water flow, steam generator pressure and if the sample tube is put correctly in place. Tank level sensors detect water, waste and reagent levels. The safety shields are fully transparent and equipped with secure control sensors. If the safety shields are opened during operation, the process is stopped automatically. The steam power is adjustable (10 - 100 %) and steam ramps are programmable to handle foaming samples.



AutoDist Function

Thanks to the AutoDist function, measurements are unaffected by temperature differences within the device. This function recognizes the start of the condensation process and adjusts the distillation start time automatically in the individual measurement. This is achieved with a built-in temperature sensor within the condensate vessel and leads to more reproducible results.



High Degree of Automation

With the Dist Line you profit from a highly automated system with minimum user interaction. The distillation procedure is carried out automatically. Furthermore, the units can be equipped with titrators and electrodes for automatic titration. High levels of automation enable unattended operation, freeing up your time for other tasks.



Cooling Water Control

The cooling water control automatically saves water by intelligent flow limitation. Once steam distillation starts, water begins to flow through the condenser and the distillate is collected. Before and after distillation, the device automatically closes the cooling water valve. This feature saves approximately 20 % of water during determinations and eliminates concerns regarding the water supply.

Product Overview

The best solution for every need

	EasyDist	BasicDist	MultiDist
Color Display	Yes	Yes	Yes
Acid Pump	-	Yes	Yes
AutoDist	-	Yes	Yes
Sample Disposal	-	Optional	Yes
Pro Touch Screen	-	Optional	Yes
Dilution with H ₂ O pump	-	-	Yes
Receiving Solution Disposal	-	-	Yes
Kjeldahl Applications: Alkalization with NaOH Pump, Boric Acid Dosing	-	-	Yes
Titration Vessel on Distillation Unit with Stirrer	-	-	Optional
Peripherals	OnLevel Sensor, Chiller + Connection Set, Tank Level Sensors, Status Light	OnLevel Sensor, Chiller + Connection Set, Tank Level Sensors, Status Light	OnLevel Sensor, Chiller + Connection Set, Tank Level Sensors, Status Light, Reaction Detection Sensor, Barcode Reader, Titrator, Dosing Unit
Analytes	Alcohol, Essential Oils	Alcohol, Sulfite, Volatile Acids, Cyanide, Phenol, Formaldehyde, Essential Oils	Alcohol, Sulfite, Volatile Acids, Cyanide, Phenol, Formaldehyde, Kjeldahl Nitrogen Determination, Nitrate, Nitrite, Ammonia, Protein, Essential Oils



Accessories



OnLevel Sensor

The OnLevel sensor is available for all configurations where no titration vessel is mounted. The sensor stops the distillation automatically after a defined condensate volume is reached. The sensor can be easily set and adjusted manually via a magnetic backplate. Obtain reproducible condensate volumes independent of the system lifetime.



Recirculating Chiller

The recirculating chiller is available for all configurations. The chiller eliminates temperature fluctuations when tap water is used. Enhance instrument performance and benefit most from OnLevel sensor and the AutoDist function by ensuring a high cooling capacity.



Instrument Upgrade Kits

Instrument upgrade kits are available for BasicDist and MultiDist configurations so that you can upgrade the system on demand. Get started with a lower priced system and upgrade later on if necessary.



Tank Level Sensors

Tank level sensors are available for all configurations. The sensors alert the user if a tank is empty or overflowing. In this way, the sensors eliminate measurement losses that can result from a missing liquid supply and avoid potential mess in the lab due to tank overflow.



IQ/OQ

IQ/OQ is available for BasicDist and MultiDist configurations which enables a system operation according to required specifications. Obtain a signed document that proves the instrument functionality and use the system in regulated environments.



Splash Protectors

Glass and plastic splash protectors are available. Glass splash protectors enable you to monitor the process to support method development and optimization. Plastic splash protectors are more robust and durable. Depending on the application, different splash protector variants enable the best performance.



StatusLight

This practical accessory is available for all configurations. With StatusLight, you can monitor the state of the system from a distance, so you can immediately recognize when determinations are finished and react to warnings accordingly.



External Titrator

The external titrator is available for MultiDist configurations. The titrator enables you to start the titration automatically, for fully automated determination from the steam distillation unit until the final titration step. To save time, the titration can be already started during an ongoing distillation.



Reaction Detection Sensor

The reaction detection sensor is available for MultiDist configurations. It can save up to 30 % of NaOH reagent solution for the alkalization process. Work more cost-efficiently and environmentally friendly.



Consumables

BUCHI offers not only high quality instrumentation but also approved consumables and chemicals for Kjeldahl that are tested for the most common reference applications. Kjeldahl tablets, boric acid solutions, weighing boats, indicator, buffer solutions, potassium chloride, activated charcoal and reference substances for fast and reliable digestions, proper operation and reliable qualifications are available.



Service & Training



The BUCHI Bluetooth Dongle – The key to access BUCHI Cloud Services

The BUCHI Bluetooth Dongle establishes a wireless connection to the BUCHI Cloud via the BUCHI Monitor App on your mobile device. You can use the Monitor App and easily update your instrument to the latest firmware in a few minutes. www.buchi.com/en/buchi-cloud-services

BUCHI Service packages

BUCHI START – The highest efficiency from the very beginning

From a professional installation to a carefree agreement that will leave you with full cost predictability and the highest possible system efficiency. www.buchi.com/start

«Install»

- Product installation and testing
- Hands-on training from a certified technician
- Evaluation of the immediate surroundings of your new product
- Best integration of your new product into the existing infrastructure

«IQ/OQ»

- Product or system installation
- Installation and Operational Qualification

BUCHI EXACT – Certified accuracy for highest level of confidence

Receive comprehensive qualifications with all of your BUCHI products. We perform qualification services on a level that can only be achieved by the manufacturer. www.buchi.com/exact

«OQ»

- Our one-time OQ service will provide you with all the necessary documents and certificates.
- The service team will remind you about the option for a follow-up OQ before the certificates expire.

«OQ Circle»

Buying an OQ package will grant you an additional discount on the documents and offer you priority service with automated visit scheduling.

BUCHI CARE – Unbeatable Reliability

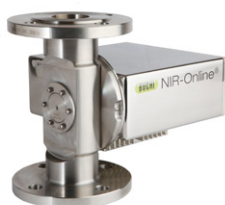
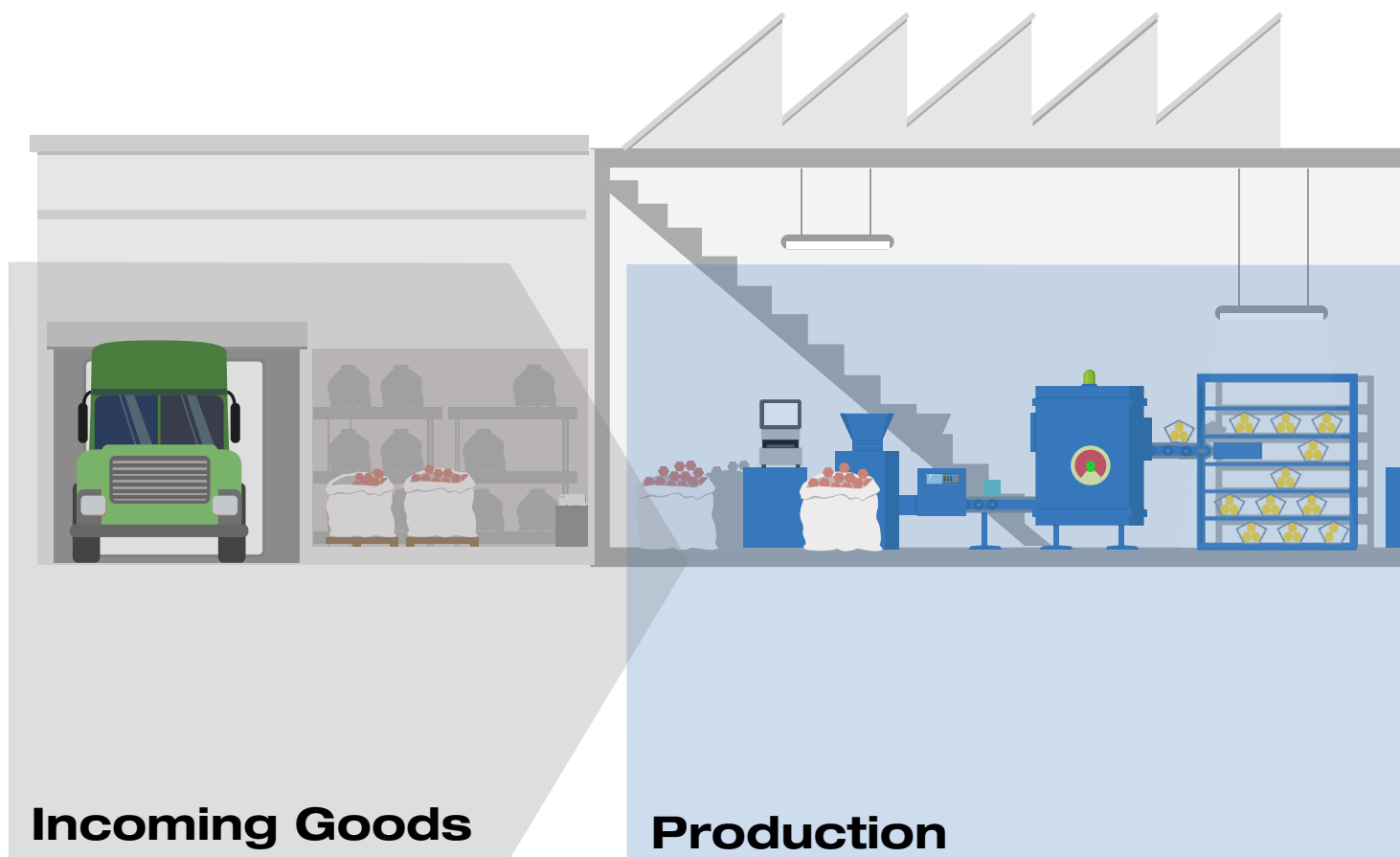
Maintaining a heavily used device requires different parts and inspection frequencies than units that are operated occasionally. Our approach takes factors like these into consideration to provide you with an optimal yet cost-efficient solution. www.buchi.com/care

BUCHI ACADEMY – Increase your know-how, get the edge over your competition

Expert know-how is provided by the application chemists in our competence centers in Flawil, Beijing and Mumbai and the locally available experts at our market organizations. Our scientific support offers pre-sales feasibility studies, tailored solution offers, after sales onsite support, regular basic to advanced courses and on demand customized training.

www.buchi.com/academy

Complete your portfolio



NIR-Online

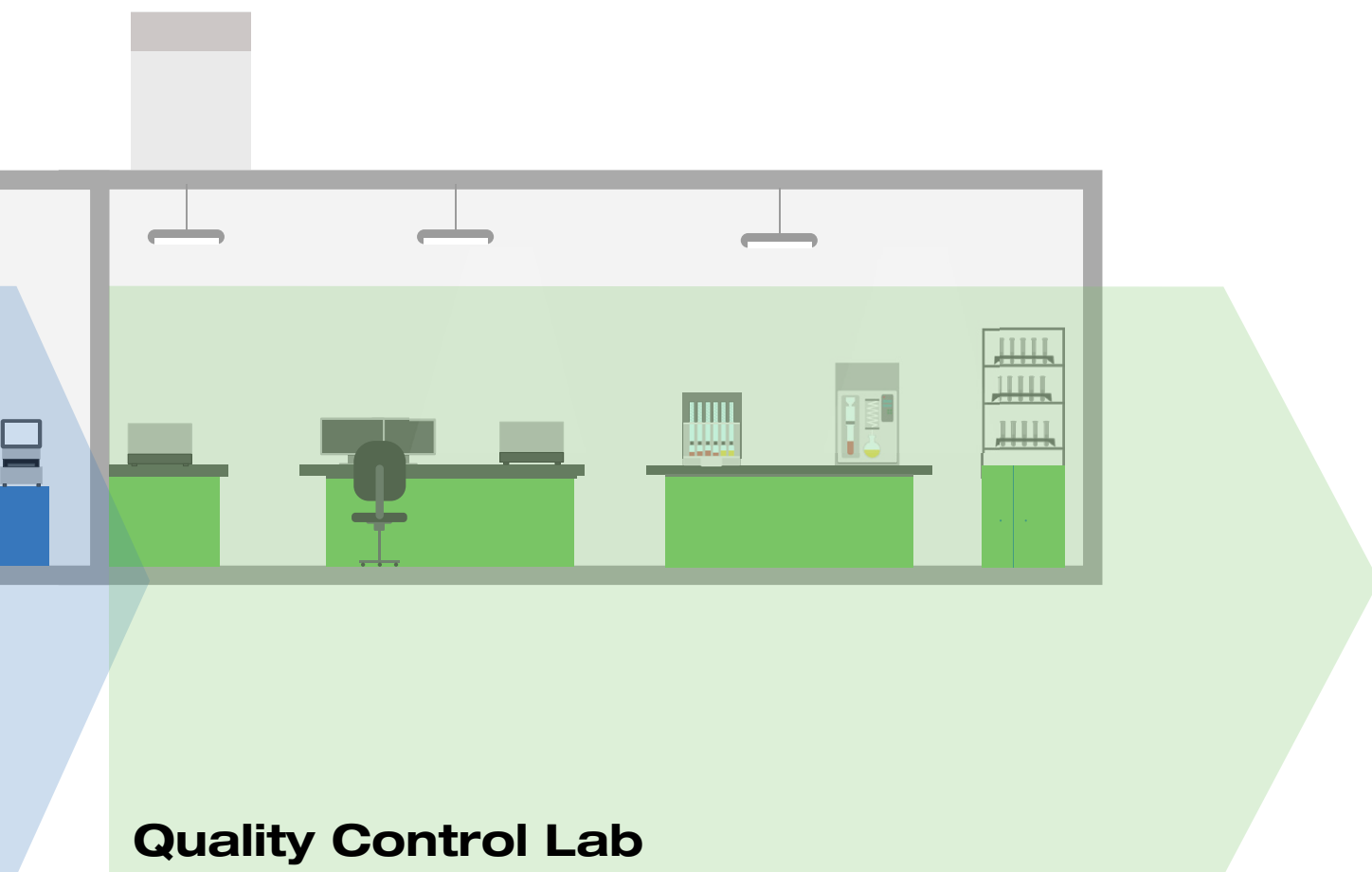
Closely monitoring key parameters such as moisture, fat or protein is crucial in correcting deviations that may occur during any manufacturing process. BUCHI NIR-Online® analyzers continuously provide accurate measurements within seconds to guarantee maximum production efficiency.



NIR

During production, it is important to be able to control quality efficiently and quickly at each step of the process, from raw materials to finished products. The BUCHI NIR Solutions are easy to use by any operator and provide reliable results even in harsh production environments.





Quality Control Lab



Kjeldahl

In the most demanding of quality control environments, for high throughput, the KjelMaster K-375 automates the measurement of nitrogen and protein. First-in-class in usability, automation, user administration and advanced data management. For both potentiometric and colorimetric titration methods.



Extraction

Extraction is not only sample preparation, it is a crucial step for an accurate and reliable result. Whether it is to simply measure fat, or the most demanding residue and contaminants in different matrices, our solutions cover the whole range of automated extraction methods; from Soxhlet, to hot extraction and pressurized solvent extraction.

Core messages to our customers

BUCHI creates added value

«Quality in your hands» is the guiding principle that shapes our philosophy and our actions. It challenges us to provide outstanding services that are precisely tailored to your needs. This means that we must stay in close contact with our customers. That is why we keep in touch and continue to work very hard to understand you and your business even better.

We help you by providing high-quality products, systems, solutions, applications and services that offer you added value. This allows you to focus entirely on your processes and your work.



Competent

We have the technological expertise and decades of experience needed to provide competent support and work with you to continually improve our services.



Reliable

We guarantee the quality and functionality of our equipment and will continue to help you quickly and efficiently whenever something does not operate to your satisfaction.



Safe

By collaborating closely with you, we do everything in our power to make our products, systems, solutions, applications and services as safe as possible for people and the environment.



Cost-effective

We strive to create a high level of economic benefit and maximum added value for you.



Global

As an international family-owned business with own subsidiaries and qualified distributors, we have a presence wherever you are located.



Easy

We support you by providing carefully designed solutions as well as instruments and systems that are easy to operate.



Sustainable

We support environmentally friendly processes and manufacture products that have a long service life. We utilize advanced technologies to leave the smallest environmental footprint possible.

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Quality in your hands

