

MACHEREY-NAGEL

NANOCOLOR[®] robot tests

10
different
parameters

Water Analysis



Increase your efficiency

- Automated sample preparation, digestion and measurement
- Save time by automating all analysis steps
- Customer-specific configuration for high flexibility
- Analysis of all important wastewater parameters

MACHEREY-NAGEL

www.mn-net.com



MACHEREY-NAGEL and Skalar



- Global company for chemical and biomolecular analysis from Düren (Germany), founded in 1911
- Family-run in the 4th generation
- Worldwide sales of over 25,000 products
- More than 700 employees in branches in Germany, Switzerland, France and USA
- Continuous development and innovation of our products
- Reliable partner with delivery stability and security of supply

Innovative and reliable products for your analysis

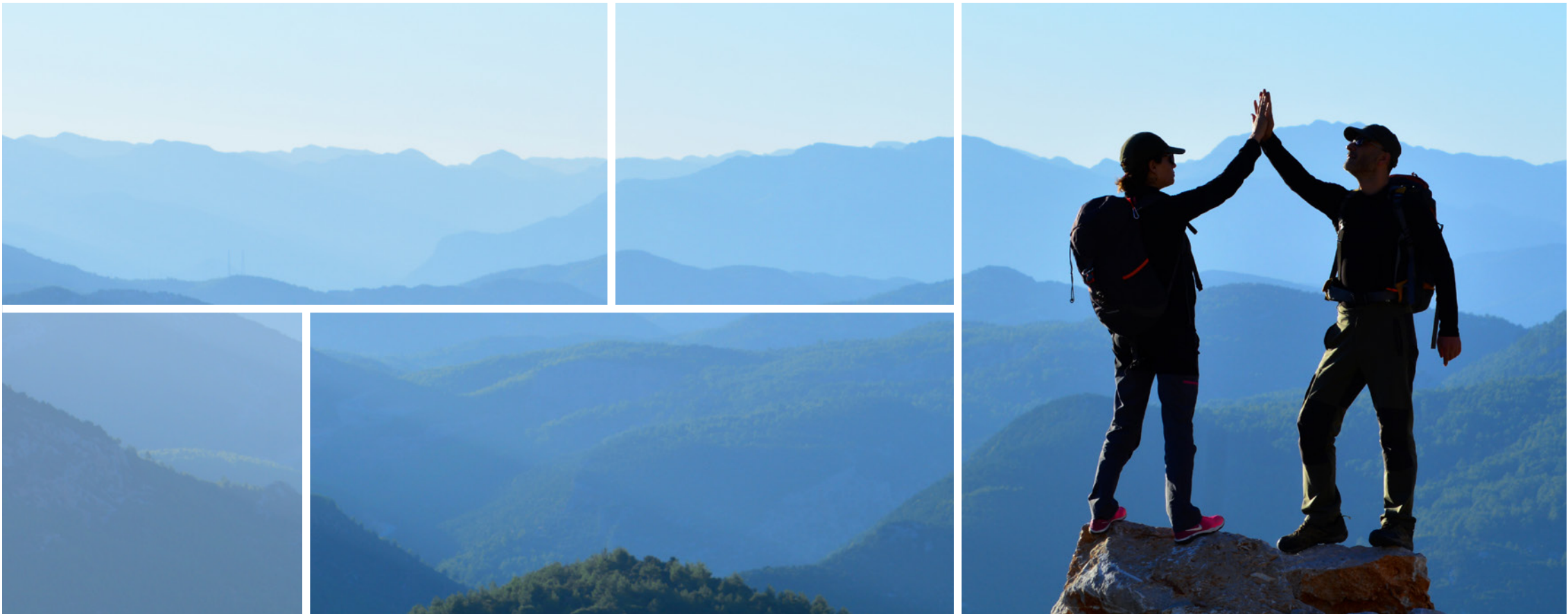


A partnership with tradition and future

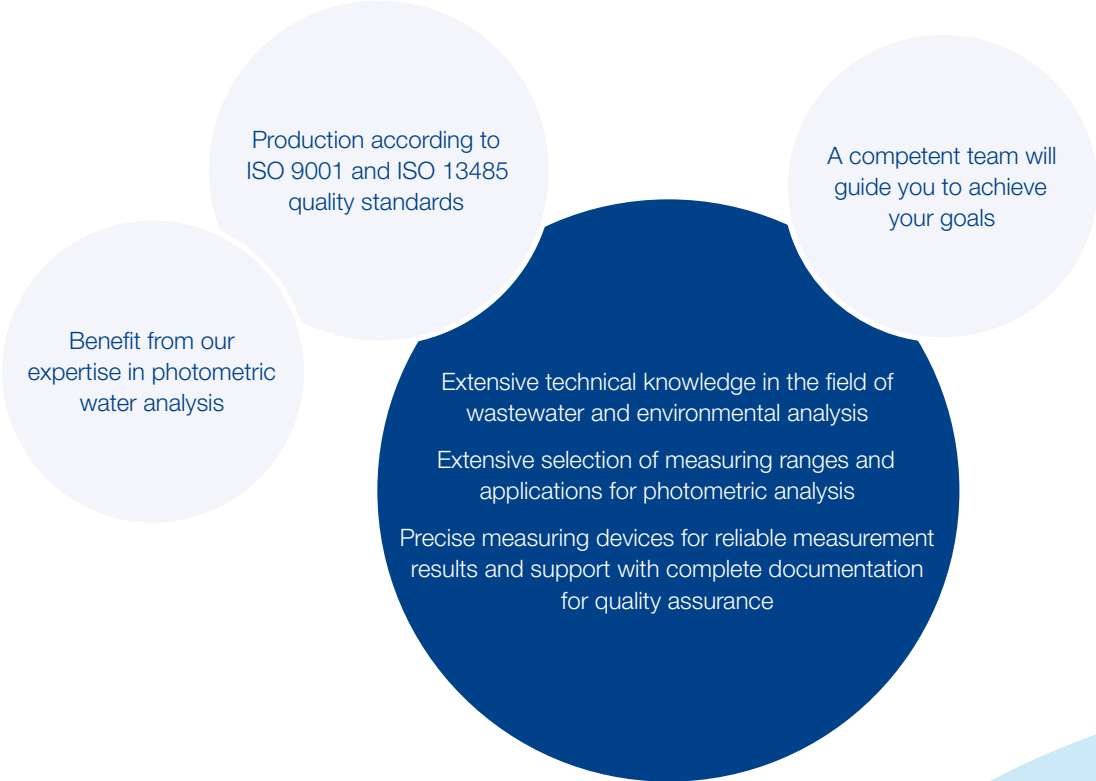


- Global manufacturer of chemical analyzers for laboratory automation and process industry from Breda (Netherlands), founded in 1965
- 8 branches worldwide and over 80 international representations
- In-house research and development department with over 40 years of experience in the field of laboratory automation
- Reliable specialist for automation with the highest quality standards

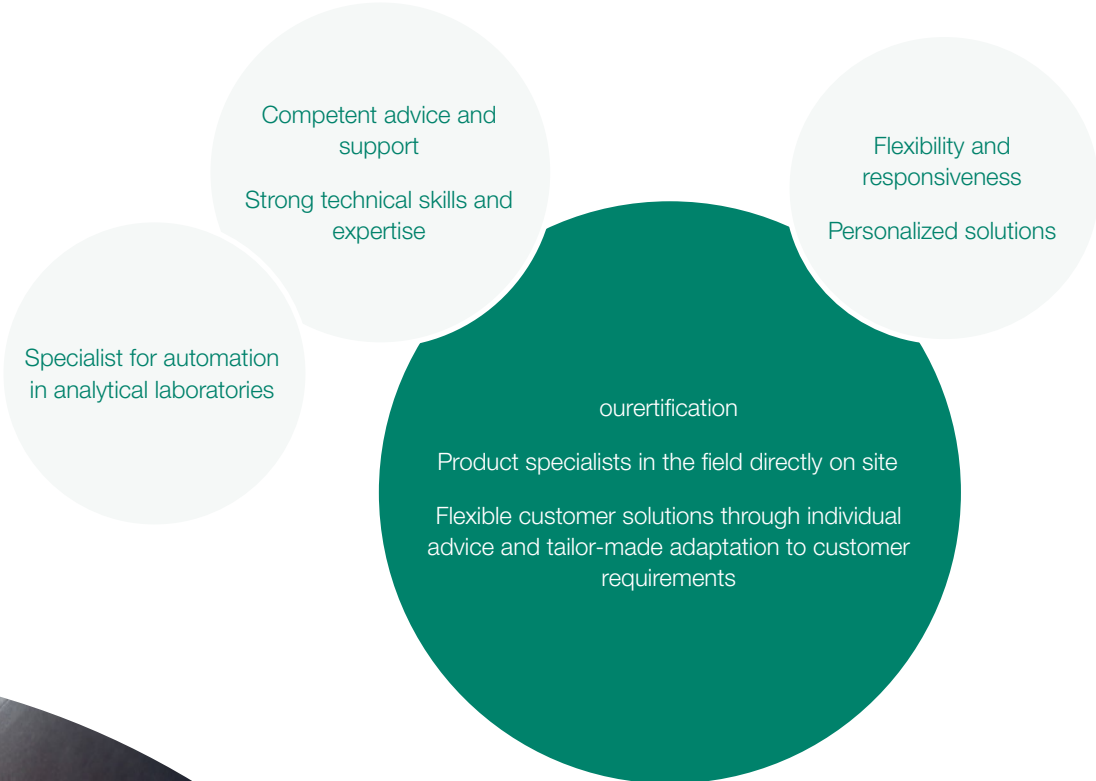
Your partner in chemistry automation



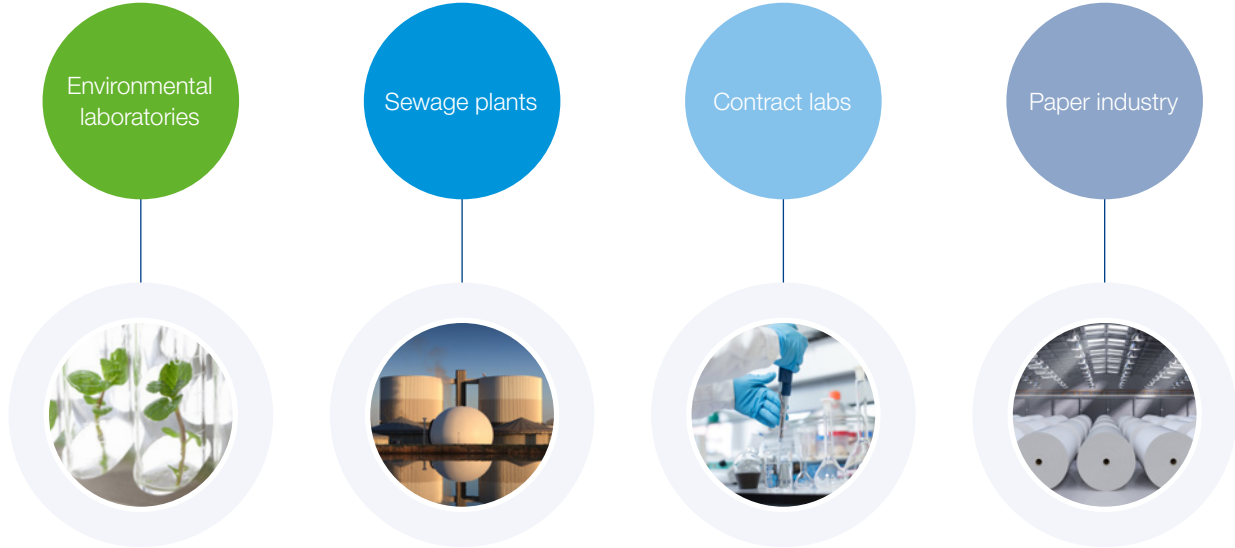
MACHEREY-NAGEL and Skalar



Trust our joint expertise



MACHEREY-NAGEL and Skalar



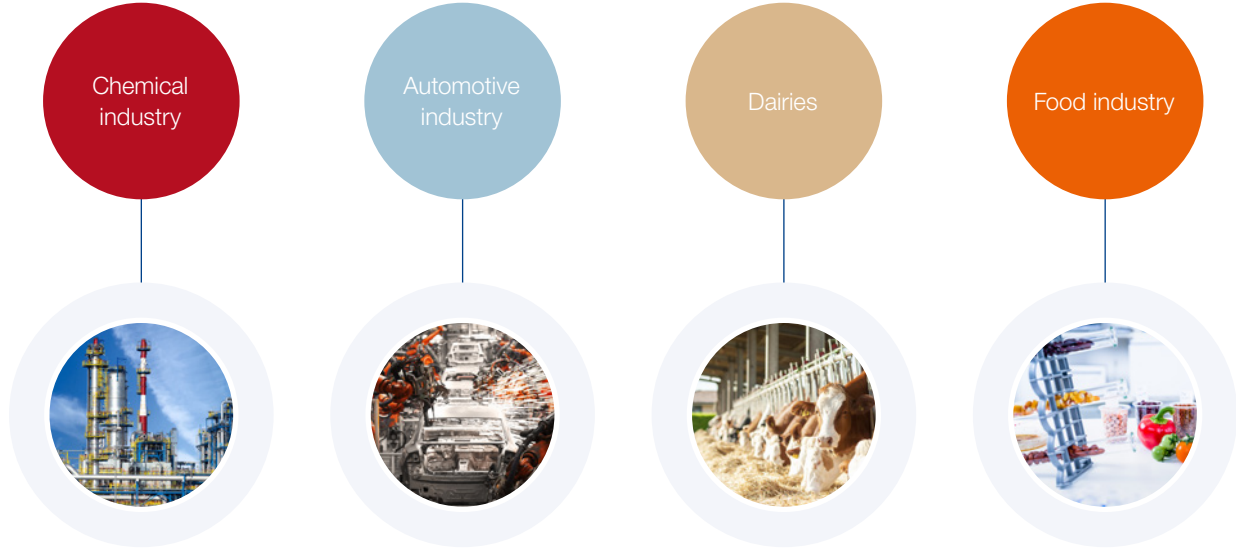
Your benefits

- Time and cost savings
- Increased productivity and flexibility
- Increased precision and accuracy
- Less user errors
- Parallelization of processes
- Complete documentation

NANOCOLOR® robot tests

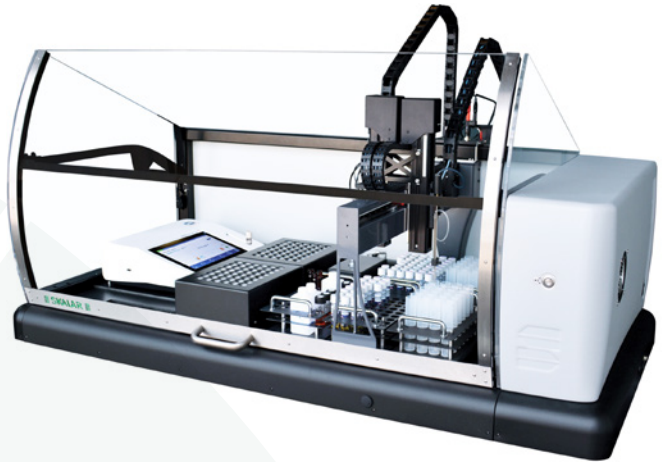
- Precisely pre-dosed reagents for reliable results
- Method validation data and lot specific certificates
- Consistently high quality from batch to batch
- Reaction bases conform to internationally recognized standards
- No direct contact with hazardous chemicals
- No reagent blanks required *

A solution for every application



Skalar SP2000

- Complete automation
- Simultaneous processing of different samples and methods
- ST-COD analysis analogous to ISO 15705 and EPA 410.4
- Enormous sample capacity from 48 – 192 cuvettes
- Removal of the sample and reagent racks for easy loading
- Automatic sample dilution
- Extensive software package including quality control functions and data export options
- Optional combination with pH and conductivity measurement

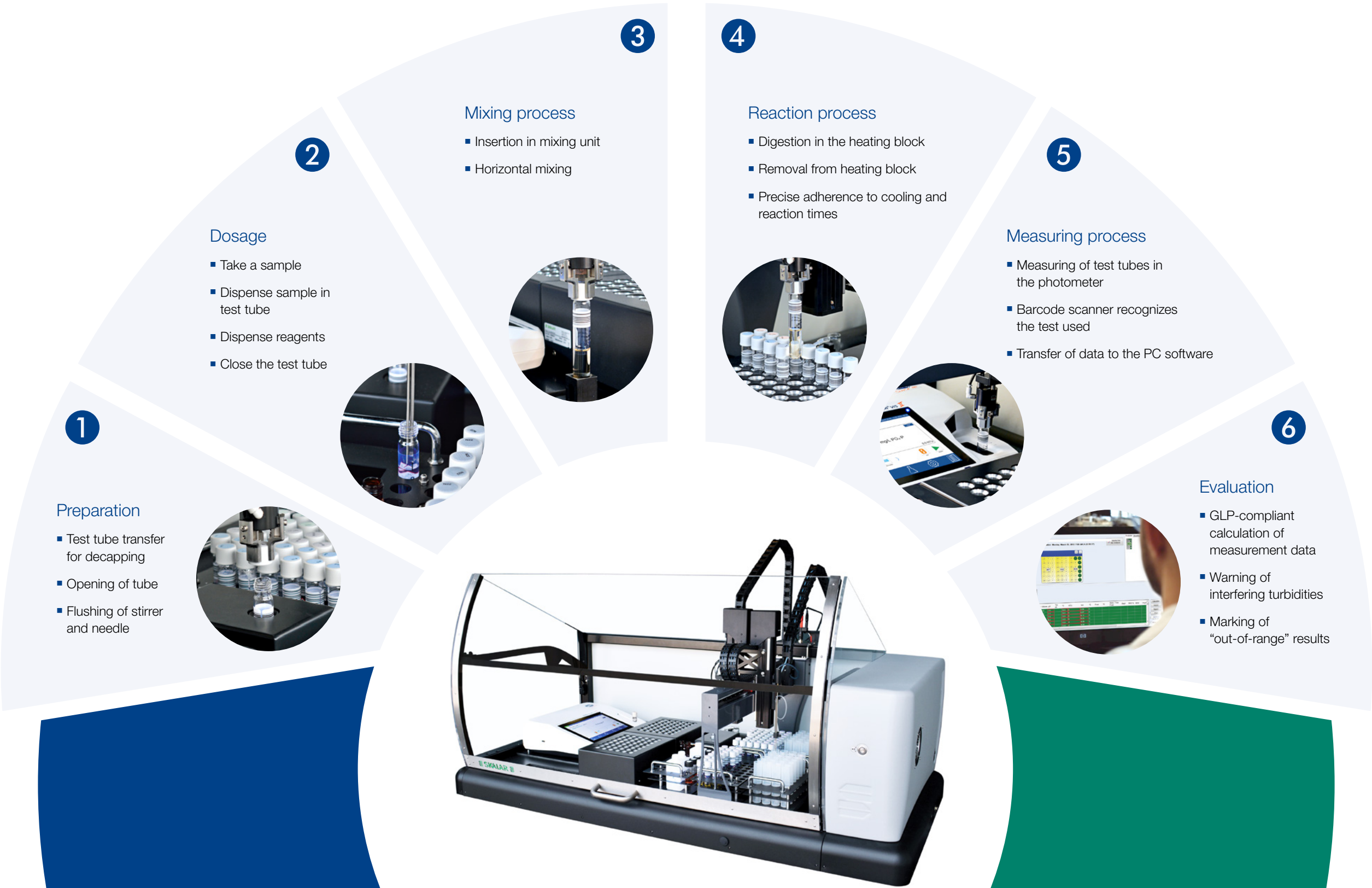


Service

- Specialist advice from initial contact to installation
- Analysis protocols tailored to your application
- Technical support for questions of any kind
- Operating procedures for manual execution for quality assurance and matrix comparison
- 2 year guarantee

MACHEREY-NAGEL and Skalar

The complete walk-away solution for your laboratory



NANOCOLOR® robot tests

Order information NANOCOLOR® robot tests

| Test | REF | Measuring range NANOCOLOR® VIS II 1) | | Shelf life | Methode |
|------------------------------------|-------------------------|--------------------------------------|---|--------------------|---|
| Ammonium 3 | 985603 | 0.04–2.30 mg/L NH ₄ -N | 0.05–3.00 mg/L NH ₄ ⁺ | 1 year | Indophenol |
| Ammonium 50 | 985605 | 1–40 mg/L NH ₄ -N | 1–50 mg/L NH ₄ ⁺ | 1 year | Indophenol |
| Chloride 50 | 985621 | 0.5–50.0 mg/L Cl ⁻ | | 1 year | Mercury(II)-thiocyanate / Iron(III)-nitrate |
| Chloride 200 | 985619 | 5–200 mg/L Cl ⁻ | | 1 year | Mercury(II)-thiocyanate / Iron(III)-nitrate |
| COD 60 | ISO 15705 985622 | 5–60 mg/L O ₂ | | 1 year (2–8 °C) | Potassium dichromate |
| COD 160 | ISO 15705 985626 | 10–160 mg/L O ₂ | | 1 year | Potassium dichromate |
| COD 600 | ISO 15705 985630 | 50–600 mg/L O ₂ | | 1 year | Potassium dichromate |
| COD 1500 | ISO 15705 985629 | 100–1500 mg/L O ₂ | | 1 year | Potassium dichromate |
| COD LR 150 | ISO 15705 985636 | 3–150 mg/L O ₂ | | 1 year | Potassium dichromate |
| COD HR 1500 | ISO 15705 985638 | 20–1500 mg/L O ₂ | | 1 year | Potassium dichromate |
| COD 15000 | ISO 15705 985628 | 1.0–15.0 g/L O ₂ | | 1 year | Potassium dichromate |
| Nitrate 8 | 985665 | 0.30–8.00 mg/L NO ₃ -N | 1.3–35.0 mg/L NO ₃ ⁻ | 2 years | 2.6-Dimethylphenol |
| Nitrate 50 | 985664 | 0.3–22.0 mg/L NO ₃ -N | 2–100 mg/L NO ₃ ⁻ | 2 years | 2.6-Dimethylphenol |
| Nitrite 2 | 985668 | 0.003–0.460 mg/L NO ₂ -N | 0.02–1.50 mg/L NO ₂ ⁻ | 1 year | Sulfanilic acid / 1-Naphththylamine |
| Nitrite 4 | 985669 | 0.1–4.0 mg/L NO ₂ -N | 0.3–13.0 mg/L NO ₂ ⁻ | 1.5 years | Sulfanilic acid / 1-Naphththylamine |
| Phenol-Index 5 | 985674 | 0.2–5.0 mg/L Phenol | | 1.5 years | 4-Aminoantipyrine |
| total phosphate 1 | 985676 | 0.05–1.50 mg/L P | 0.2–5.0 mg/L PO ₄ ³⁻ | 1 year | Phosphomolybdenum blue |
| total phosphate 5 | 985681 | 0.20–5.00 mg/L P | 0.5–15.0 mg/L PO ₄ ³⁻ | 1 year | Phosphomolybdenum blue |
| total phosphate 15 | 985680 | 0.30–15.00 mg/L P | 1.0–45.0 mg/L PO ₄ ³⁻ | 1 year | Phosphomolybdenum blue |
| ortho-phosphate 1 | 985607 | 0.05–1.50 mg/L P | 0.2–5.0 mg/L PO ₄ ³⁻ | 1 year | Phosphomolybdenum blue |
| ortho-phosphate 15 | 985657 | 0.30–15.00 mg/L P | 1.0–45.0 mg/L PO ₄ ³⁻ | 1 year | Phosphomolybdenum blue |
| Organic acids 3000 | 985650 | 30–3000 mg/L CH ₃ COOH | 0.5–50.0 mmol/L CH ₃ COOH | 1.5 years | Ethylenglycole / Iron(III)-Ions |
| total nitrogen TN _b 22 | 985683 | 0.5–22.0 mg/L N | | 1 year | 2.6-Dimethylphenol |
| total nitrogen TN _b 220 | 985688 | 5–220 mg/L N | | 1 year | 2.6-Dimethylphenol |
| Sulfide 3 | 985673 | 0.05–3.00 mg/L S ²⁻ | | 3 years | Methylene blue |

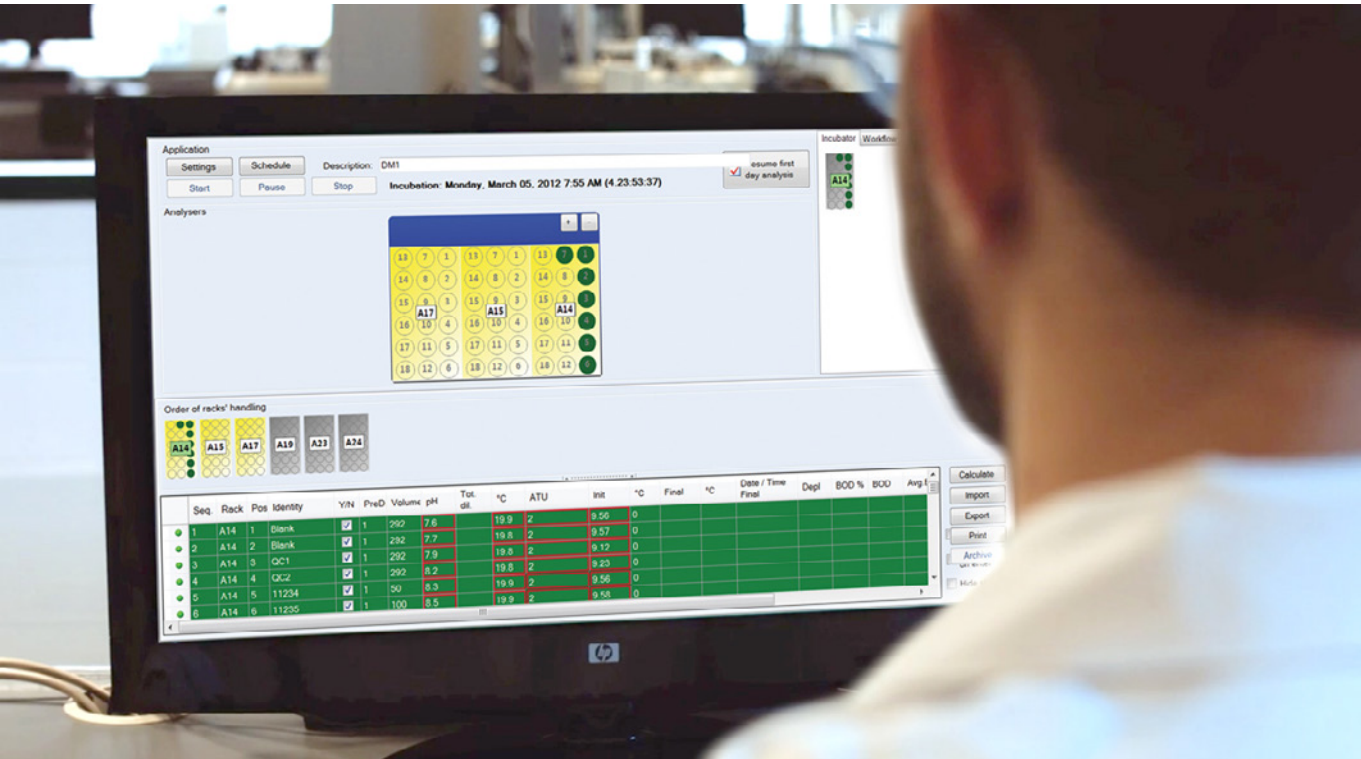
GHS: Globally Harmonized System. This product contains hazardous substances that must be labeled. For detailed information please refer to the safety data sheet.



NANOCOLOR® robot tests

Technical data SP2000

| Hardware | |
|--|---|
| Sample capacity | Up to 192 test tubes |
| Sample throughput | 96 samples in 7 hours 96 samples in 4 hours (with second robotic arm) |
| Movement mechanism | XYZ axis with safety protection |
| Configuration | Up to 2 robotic arms, each with 4 independently moving manipulators |
| Modular parts | <ul style="list-style-type: none">■ Removable sample rack■ Removable reagent rack■ Customized racks possible |
| Temperature adjustable heating reactor | Adjustable to 20–160 °C |
| Mixing mechanism | Horizontal shaking |
| Safety | Interlocked front and side protection covers complying with CE regulations |
| Dimensions | (H × T × B): 75 × 70 × 146 cm |
| Power supply | 220–240 V, 50 Hz or 110–120 V, 60 Hz. |
| Software | |
| Safety | Definable access levels and password protection |
| Operation | Drag and drop setup of the sample list, editing during the analysis possible |
| Data export | Transfer to LIMS and spreadsheet programs even during analysis |
| Automatic functions | <ul style="list-style-type: none">■ GLP-compliant backup of raw data and calculation of measurement data■ “Out-of-range” results flagging■ Dilution if the measuring range is exceeded■ Averaging of the measurement results■ Start and stop using the analysis planner |



Curious about MACHERY-NAGEL?

If you are interested in testing a manual MACHERY-NAGEL measuring system including reagents, please do not hesitate to contact us or your local distributor.

Contact us via:

Phone: +49 24 21 969-333

E-Mail: support@mn-net.com

Or contact your local distributor.

Visit our
website!



www.mn-net.com

MACHERY-NAGEL



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