

Gebr. Heyl Vertriebsgesellschaft für innovative Wasseraufbereitung mbH



Marc Osterwald

Managing Director

CV:

1986-1990 Economic Studies, University UGH
Paderborn, Germany

1990-1991 Foundation Environment Consultant
Company

1991-2004 Shareholder & CEO Agimus
Umweltgutachterorganisation & -
beratungsgesellschaft mbH, Germany

1995-2008 Business Angel

2004-2005 Commercial and economical
Consultant, selfemployed

2005-2007 Shareholder & CEO in Case of a fusion
of two CI, CD and CC companies

2007-2008 Shareholder & CEO Human Resource
Management Company

2008-today CEO Gebr. Heyl Vertriebsgesellschaft
mbH, Hildesheim



Sustainable Experiences: Judge at the district
court Chamber of Commercial Affairs, Rating
Advisor Basel II, Specialist of work Safety, Speaker
experience

Company Profile

- Address: Max-Planck-Straße 16, Hildesheim, Germany
- 20 Employees
- Turnover in 2020: € > 6,9 million
- Equity ratio > 73 %
- Fully service partner network via D.A.CH. Area
- Contractual partner with dealer and service functionality in Turkey, South-East Asia, China, Russia, among others
- Extended service and distribution partner network in the Schengen area (UK, Poland, Czech Republic, Belgium...)
- DIN ISO 9001:2015 certified
- more than 2.100 active customers yearly
- Awards:
 - ✓ GreenTec Award (2015)
 - ✓ Top 100 Innovator in Germany (2017)
 - ✓ Fastest growing partner in ozone product development (2019)
- Founding Member of German Water Partnership
- Headquarters in Lower Saxony, Germany (about 20 minutes away from the Hannover Fairgrounds)



Company Profile

Milestones:

2009:

- Introduction second umbrella brand: **NEOMERIS**
- Complementation of the Heyl portfolio by adding third-party components and instruments
- Product solutions for requirements of the industrial water treatment going beyond the product-range of Gebr. Heyl Analysentechnik GmbH & Co. KG



2011:

- First participation at IFAT Shanghai: A further step towards a market success in China with the first large delivery of 200 Testomat 2000 units

2013/ 2014:

- Project: Wastewater treatment by ozonization; cooperation with the RWT Aachen - AOP pilot plant for the removal of micropollutants in wastewater treatment plants

Company Profile

Milestones:

2017:

- Market launch and sales start of the new Testomat 808 SiO₂ (silicate limit value measurement) - the world's most affordable silicate online measurement



2018:

- Completion of the new building
- Move to the new business premises, Max-Planck-Strasse 16, Hildesheim in April 2018.



Company Profile

Milestones:

2018

- Start of in-house service and laboratory operations



Company Profile

Milestones:

2019

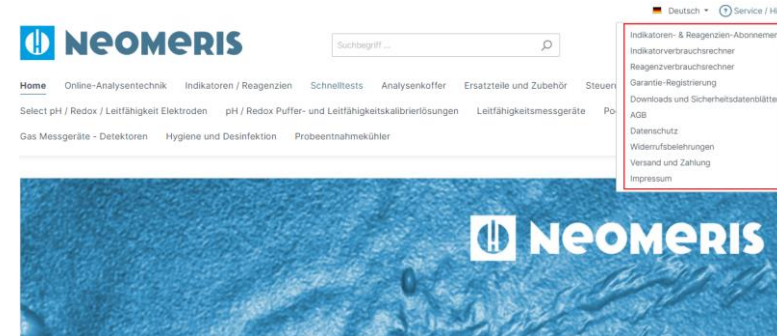
- Establishment of application and solution development department
- New Neomeris Select portfolio

2020

- Expansion of visibility and functionality on the web Re-launch and networking of our online store with link to our own inventory management system
- Publication of the world's 1st consumption calculator for indicators and reagents
- Start of the service process analysis (e.g. sterile goods processes), audit and validation activities

2021

- Online device registrationFirst extension of warranty periods for Testomat (Heyl products) in combination with automated delivery of reagents, indicators and professional service kits
- Sales launch of the 1st multiparameter capable Testomat instrument (Testomat LAB - Testomat Module), application areas TH, CLF, CLT

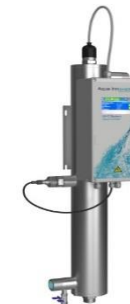


Heyl Product Portfolio

With our portfolio, we accompany you in the selection of customer-friendly system solutions and suitable services for industrial water treatment

Our product portfolio consists of:

- ONLINE-ANALYSIS INSTRUMENTS
- CONTROLLER
- PROCESS MEASURING INSTRUMENTS
- ANALYSIS SYSTEMS
- TEST KITS / REAGENTS / BUFFERS
- UV-TECHNOLOGY
- OZONE-TECHNOLOGY
- MULTIPARAMETER SYSTEMS



Heyl Product Portfolio - Online Analysis Instruments

- TESTOMAT® Instruments
- TITROMAT® Instruments (KH, M1, M2 (2.5-50 °dH and TH)
- Accessories
- Reagents

Examples of applications:

Water treatment (raw, drinking & process water), boiler feed water, breweries, bottle cleaning plants, purified water plants, food industry, and many more...



Testomat EVO TH



Testomat 2000 & Eco



Testomat 808 / 808 SiO₂



Testomat LAB TH

Heyl Product Portfolio - Online Analysis Instruments

- ❖ **Testomat EVO TH**
- ❖ **Testomat EVO TH CAL with additional calibration function**

These devices automatically determine the water hardness by means of titration and are suitable for controlling the water quality of water treatment plants, drinking water systems, industrial boilers and for monitoring process water.

Performance profile

- High-precision titration using a piston dosing pump
- Analogue output 0/4 - 20 mA
- Programmable hardness unit in ° dH, ° f, ppm CaCO₃, mmol / l
- 2 independent limits with adjustable switching functions as well as switching option in accordance with an adjustable number of negative analyzes
- Analysis initiation:
 - automatic interval operation (0-99 minutes)
 - depending on quantity via contact water meter
- Indicator quantities: 100 und 500 ml bottles



Heyl Product Portfolio - Online Analysis Instruments

❖ Testomat 808

It is a compact analyzer for the online measurement of water hardness according to the principle of "limit value monitoring by color change". Its applications are in areas like:

- Reverse osmosis plants
- Boiler feed water supply
- Soft water for commercial puposes
- Pure water systems

Performance profile:

- Limit value indication (not exceeded or exceeded: green / red LED)
- Modern indicator pump system
- Automatic measuring process with low water consumption
- Direct error and indicator quantity indication
- Internal and external flushing of the measuring chamber by manual control
- Three potential-free relays for:
 - 1) External rinsing valve control
 - 2) Limit value evaluation
 - 3) External control and / or alarm processing
- Safety check for 72 hours operation without supervision
- 4 - 20 mA interface for defined status and error messages
- RS 232 interface for firmware updates



Heyl Product Portfolio - Online Analysis Instruments

❖ Testomat 808 Silicate

The **TESTOMAT® 808 SiO₂** automatically monitors the limit value of silicate in water.

Applications are for example:

- Sterilizers and autoclaves in hospitals
- Monitoring of EDI - systems

Performance profile

- Automatic interval operation
- Interval pause adjustable from 0 – 480 minutes
- External control (quit alarms, stop analyzes)
- Manual start
- Extended operating periods due to 500 ml indicator storage
- RS 232 interface for optional firmware update
- Weekend - 72 hours operation monitoring – operation without supervision
- Output of status and error messages via power interface (0 / 4-20mA)



Heyl Product Portfolio - Online Analysis Instruments

❖ Testomat LAB TH / CL

The Testomat LAB TH automatically determines the water hardness by means of titration and is suitable for controlling the water quality of water treatment plants, drinking water systems, industrial boilers and for monitoring process water.

The Testomat® LAB CL is a robust, wet-chemical online transmitter that measures the content of total chlorine or free chlorine.

Testomat® LAB - TH and Testomat® LAB - CL have been developed for use in multi-parameter concepts or for connection to an existing higher-level control concept.

All data are continuously recorded on the integrated SD card or optionally available SDHC card (2Gbyte) as a file in CSV format in a structured way and can be used for detailed observations at any time.

Technical Highlights

- RS232 interface for transmission of the measured values and error messages.
- Execution of parameterization by means of SD card or the "Servicemonitor" software via mini-USB (device side) to USB 2.0 (for example PC/notebook)
- Multilingual menu navigation of the software in German, English, French and Dutch
- Firmware update via SD card
- Compact design
- Optimized water detection based on an optical measuring method
- Integrated self-test with continuous monitoring
- Automatic venting of the indicator line



Heyl Product Portfolio - Online Analysis Instruments

❖ Testomat 2000 family

Testomat 2000: The process photometer determines water hardness, carbonate hardness, value or minus m-value fully automatically by titration.

Testomat 2000 CrVI: The process photometer is an online analyzer for monitoring the content of chromate (CrO_4^{2-}) in the range of 0 to 11.15 mg / l or chromium VI (Cr VI) in the range of 0 to 5 mg / l. The device uses a photometric analysis principle based on DIN 38405.

Testomat 2000 Fe: The process photometer is an online analyzer for monitoring the dissolved Fe (II) + (III) content in the range of 0 to 1.0 mg / l (ppm) using the photometric analysis principle.

Testomat 2000 Phosphate: The process photometer is an online analyzer for monitoring the content of ortho – phosphate in the range 0 to 10.0 mg/l (ppm) by using the photometric analysis principle.

Testomat 2000 SO_3 : The process photometer **Testomat 2000® SO_3** is an online analyzer for monitoring the content of sulfite SO_3^{2-} in the range of 0 to 20 mg/l by using the photometric analysis principle.

For more instruments and information on the Testomat 2000 family, please visit our Online Shop: www.heylnemeris.shop



Heyl Product Portfolio - Online Analysis Instruments

❖ Testomat ECO and Testomat ECO C

Testomat ECO: The device is ideal for monitoring and controlling the water quality of water treatment plants and drinking water systems.

Testomat Eco C: It determines the carbonate hardness in the water by means of titration. In addition to monitoring and controlling the water quality of water treatment plants, the device is particularly suitable for determining the acid capacity in swimming pool water at low measuring ranges.

Performance Profile

- 2-line LC display for text display and self-explanatory, menu-driven user interface
- Programmable hardness unit in ° dH, ° f, ppm CaCO₃, mmol / l
- High-precision titration using a piston dosing pump
- Minimal indicator and water consumption
- 2 adjustable limits with programmable switching functions
- Monitoring of the analysis process and error message at dysfunction
- Analysis initiation:
 - automatic interval operation (0-99 minutes)
 - quantity dependent (contact water meter)
 - external analysis suppression "STOP"
- Analog output 0/4 - 20 mA for recorder connection



Heyl and Neomeris Product Portfolio Controller & Process Measuring Instruments

❖ Softmaster®/ Multicontrol Family

- SOFTMASTER® MMP compact, MMP 2, MMP 11, MMP 41 and MMP 83 Controllers for Water Softening Plants
- SOFTMASTER® ROE compact, ROE 2 and ROE 3 Controllers for Reverse Osmosis Plants
- Multicontrol CT for cooling towers
- Modular design:
Can be upgraded in various ways (e.g. via plug-in cards)



❖ Neomeris Control

- Neomeris Control - RO for reverse osmosis plants
- Neomeris Control - DES for conductivity dependent blowdown in cooling towers and air washers
- Neomeris Control - DOS for time dependent biocide dosing at cooling towers and air washers
- Unified hardware
- Visualization and simulation pc software



Heyl and Neomeris Product Portfolio Controller & Process Measuring Instruments

❖ Neomeris Multi-Controller

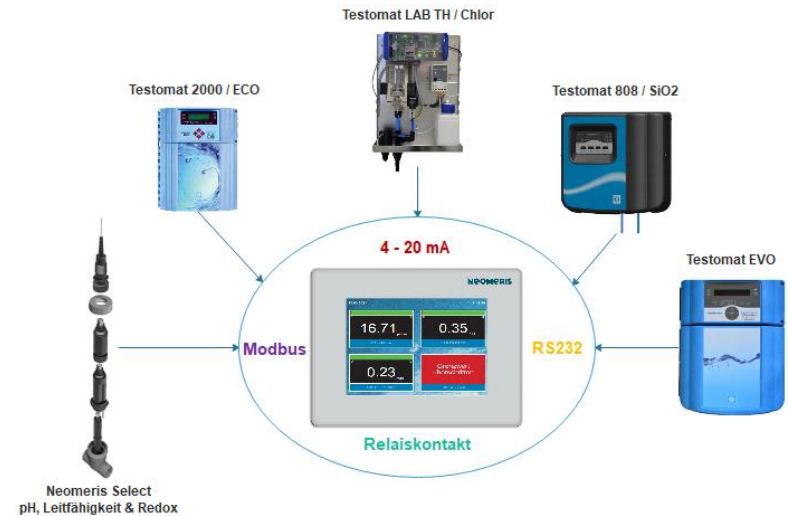
Data acquisition, visualization and processing are only some of the relevant topics in the environment of modern water treatment.

The networking of different measuring systems and their integration into the process automation is an elementary component.

The Neomeris Multi-Controller was developed especially for this task and is a multi-parameter system that is open to all manufacturers.

Technical Highlights

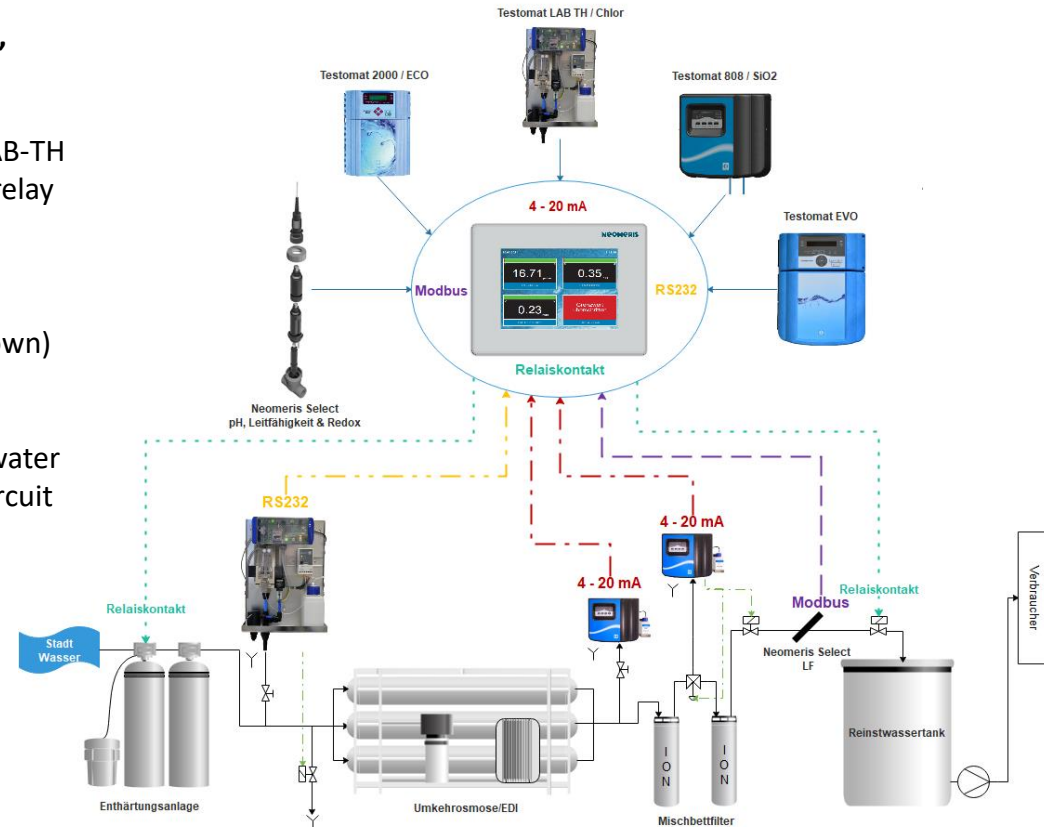
- Available as 4 or 8 channel system
- Modular concept for signal inputs (Modbus-RTU, 4-20 mA or RS232)
- Software architecture for integration of Testomat EVO/2000/Eco, Testomat LAB, Testomat 808/808 SiO2 and Neomeris Select
- Ethernet interface for network integration
- Visualization of status messages and measured values via web interface



Heyl and Neomeris Product Portfolio Controller & Process Measuring Instruments

Example of a multi-parameter concept with measurement, control & regulation function

- Monitoring of a softening plant by means of Testomat LAB-TH (triggering of qualitative regeneration via potential-free relay contact)
- Monitoring of a RO/EDI unit for SiO₂ (conductivity-independent SiO₂ monitoring to prevent silicate breakdown)
- Monitoring of a mixed bed filter system for SiO₂ and conductivity (SiO₂ monitoring to safeguard the process water before it is fed into the ultrapure water tank incl. relay circuit for shutting off the make-up water)



Heyl Product Portfolio Test Kits and Reagents

DUROVAL® Titration Kits



TESTOVAL® Colorimetric Test Kits



DUROGNOST® Limit Value Test Kits



NEOMERIS Product Portfolio Conductivity Measuring Instruments



N-Flash50

Technical Data

- Material housing: POM black Material
- Material Electrodes: V4A 4571
- Cell constant: $C = 0.6 \pm 10\%$
- Max. working pressure: 6 bar
- Max. working temperature: 60°C without temperature sensor



Conductivity measuring instrument N-LF10/ 100/ 1000 with Integrated or for separate measuring cell

Technical Data

- Measuring ranges: 0–10/100/1000 $\mu\text{S/cm}$, depending on instrument type
- Without temperature compensation, analogue outputs
- Indication of limit values: Optical via 2 LEDs, 2 limit values can be set within 0 and 100 % of the measuring range
- Limit value output (optional)
- 1 potential-free relay contact, max. 2 A/250 V AC, 60 W / 62.5 VA
- 12 V DC via wall transformer power supply 100–240 V AC
(Upon request: Power supply 22–26 V DC)
- Power consumption: approx. 1 W
- Polycarbonate housing, 82 x 60 x 57 mm, IP 65
- Measuring cell (versions with integrated sensor): $\frac{3}{4}$ ", PP, PN6, $T_{\text{max}} 80^\circ\text{C}$

NEOMERIS Product Portfolio

❖ UV Technology

- DVGW / ÖVGW certified UV Systems for the disinfection of drinking water
- LED UV Systems
- UV Systems for swimming pools, spas, garden ponds, food and beverage, pharmaceuticals

For further information please visit www.neomeris.de

❖ Ozone Generators

The ozone generators are completely assembled and ready for operation. Possible areas of application are :

- Laboratories
- Pharmaceutical water treatment
- Cooling tower water treatment
- Disinfection

For further information please visit www.neomeris.de



NEOMERIS Product Portfolio

❖ Neomeris Softwater Resin Sensor

It monitors the water hardness by a sensor and signals a hardness breakthrough by alarm. This device is suitable for water hardness monitoring in reverse osmosis systems, boiler feedwater supplies, ultrapure water systems or in the area of soft water production for commercial and industrial purposes.



N-16 Portable Gas leak detector



It is used for performing regular leak checks in gas storage areas, around process equipment, piping, or in confined spaces prior to entry.

Gas leak detector with smart sensor technology



It is designed for detection of a variety of toxic gases in hazardous area applications requiring Intrinsically Safe devices. In addition, it is also well suited for all general-purpose applications where toxic gas measurement is required.

2-Wire Gas transmitter



This transmitter is a loop-powered instrument that transmit a 4–20 mA signal linearly proportional to gas concentration. It is sufficient for most monitoring applications.

NEOMERIS Product Portfolio

❖ NEOMERIS Select



NEOMERIS Select was designed as a modular electrode platform.

Currently, electrodes are available for the measurement of pH, conductivity and redox potential.

With proven surface technology, the sensors provide reliable performance in demanding applications.

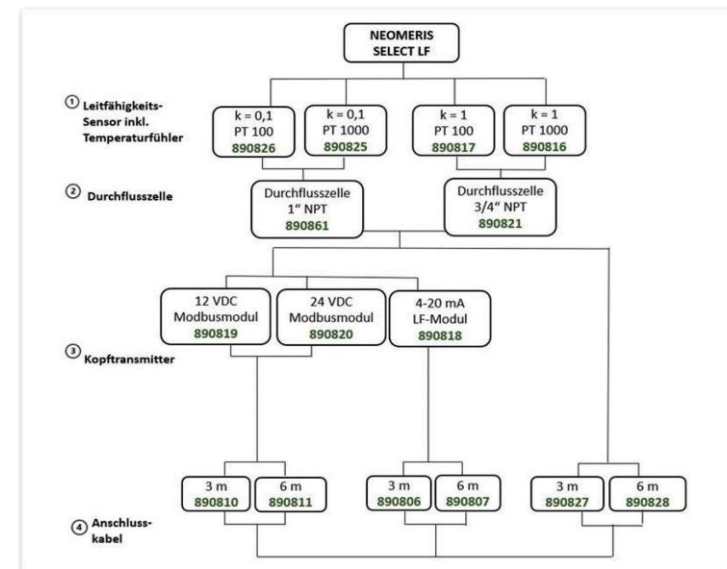
Flowing against the sensor naturally cleans the flat sensor head, reducing maintenance and downtime.

Areas of application

Cooling circuit water, industrial water treatment, process water, surface water.

Advantages

- Modularly adaptable to the respective application
- Can be used in-line and as an immersion sensor
- Detachable cable for easy installation or change of module
- Low purchase and operating costs with full flexibility



Community Involvement & Sponsorship:

- **PLAN gibt Kindern eine Chance (PLAN, give children a chance)**

Since 2009, we have supported „Plan's work“ by sponsoring two children in India.



- **Brasilien deepsea Seahorse Breeding Centre Visselhövede**

In 2012, a high-quality UV reactor for water disinfection was donated to the seahorse breeding centre.



- **Boxing**

We associate boxing with fair play, respect and acceptance.

Since 2011 we are top sponsor of the first division boxing club BSK Hannover-Seelze e. V.

German champion in the 2nd boxing league 2013/14.

German Champion in the 1st Boxing League 2017/18.



Mr. Benoit Laplagne, Product Sales Manager at Suez Water Technologies & Solution awarding Mr. Marc Osterwald, CEO Heyl Sales, in Lisbon, Portugal for achieving the largest over year growth in Ozon-Products (more than 30% growth in 2017) among channels partner in Europe.



Our company guidelines: Functionality, sustainability, creativity and professionalism

Our customers' satisfaction is our major focus. The challenge is to create the optimized solution for the customer needs and a win-win-situation.

