

# Systematic, professional water analysis made easy.

The DR3900 photometer and LCK cuvette tests offer unrivalled benefits when it comes to challenging water analysis applications. The necessary work steps, and therefore sources of errors, are kept to a minimum. User errors are virtually eliminated thanks to sophisticated automation, linked processes and comprehensive test routines.

- Complete portfolio for water analysis in the laboratory and during processes
- Expert customer service
- Tailored technical service
- Environmentally friendly disposal chain for equipment and reagents



# Simple, fast and safe — systematically. From sample preparation to seamless documentation.

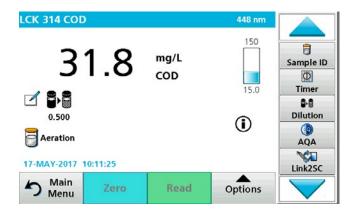
#### **Clear touch display**

- Excellent readability, text size and operating reliability
- Clear text information if the result is not plausible, e.g. if the measurement value is exceeded
- Same menu structure in all Hach® laboratory instruments



#### Toolbar so everything is at your fingertips:

- Allocate the sample ID without leaving the measurement window
- Enter dilution or comments
- Call up information on the method via the information icon
- Activate the quality measure, e.g. standard measurement, directly from the measurement window



#### RFID (radio-frequency identification) – contact-free transfer of information



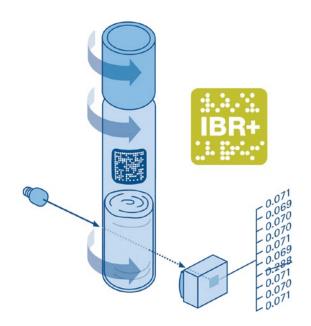
- User logs in
- Sampling location is read in
- Relevant batch certificate is called up
- Methods are updated in a matter of seconds



## Analysis that does not allow for any errors:

#### **Cuvettes with added value**

- Official approval because tests correspond to the standard methods
- Automatic test recognition and evaluation without having to press a single button.
- Each measurement is based on ten readings, ensuring that any dirt on the outside of the glass and any sample contamination and turbidity is detected
- Automatic documentation of the batch number using the 2D code
- Warning message if reagent shelf life is exceeded
- The test procedure is printed on all reagent packaging in the form of a pictogram.



#### Safe handling of reagents

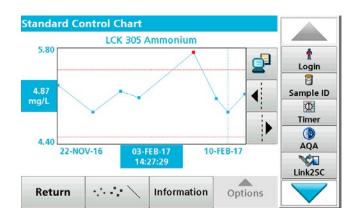
- Dosicap Zip extremely fast, accurate dosing of reagents that prevents contact with the skin.
- The opening of the cuvette has been optimised to make sure that virtually no liquid escapes, even if the cuvette tips over.
- Tests have shown that the optimised opening prevents any toxic vapours from being released during COD tests, even if the cap is not screwed on.



# Integrated quality assurance for official approval in accordance with DWA-A 704 (German Association for Water, Wastewater and Waste)

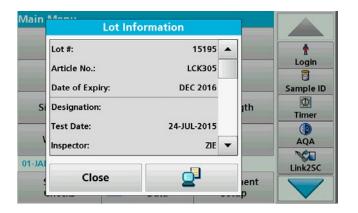
#### **AQA** wizard function

- Planning function for reminders of AQA measures such as standard measurement, multiple determinations, external equipment testing etc.
- Common standards are already stored in the photometer along with nominal values and tolerances.
- AQA measurements are evaluated automatically and documented accordingly.
- Ad-hoc display of standard control card
- Ad-hoc display of range control card



#### **AQA** for daily routine

- Password protection for different user levels to protect against data loss and manipulation
- Trend monitoring for measurement point with alarm function in the event that limit values are exceeded
- Monitoring of parameter ratios with alarm function
- Analysis certificates are read out from the packaging by an RFID sensor using a contact-free method.







## Test media as required and in compliance with ISO 9001:2008

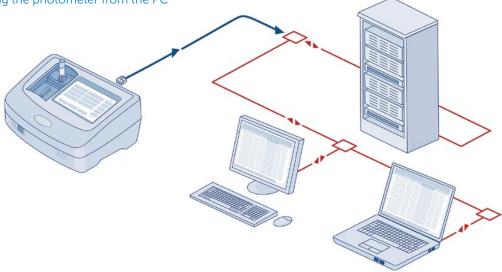
- Addista standards for system monitoring and free participation in external round robin test
- Standard-traceable liquid test filters for checking photometric accuracy
- Standard-traceable glass filters for checking wavelength accuracy and photometric accuracy
- Recalibration service for glass filters
- Pipette test set for checking volume
- Seminars for company training
- Traceable multi-standards for accredited laboratories



### Flexible data management

#### **Data transfer to network**

- Data transfer to data folders within network
- Password protection for data transfer
- Print-out of data or graphics from virtually all office printers, including in network
- Remote software for controlling the photometer from the PC



#### **Communication with plant information systems**

- Hach is a certified Acron Partner.
- Measurement data is easy to integrate via the Acron Provider function.
- The standard protocol supports data transfer to LIMS systems.

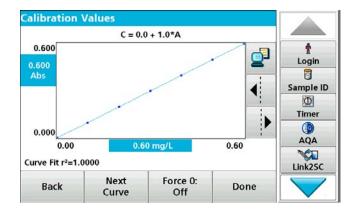




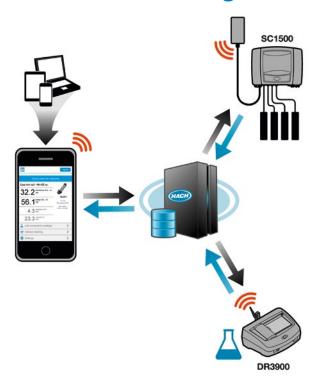
### **Two-in-one photometer**

## Open programming for own method development

- Step-by-step guide for creating calibration curves for own methods.
- Open programming of complex measurement processes, including calculation of analysis results. No need for additional software or a PC.
- Remote software for control of all photometer functions via PC



## Mobile sensor management



# Have confidence in your water analysis. Everywhere. Every time.

- Useful instrument information as guidance
- Simple maintenance instructions concise and at hand
- Ability to verify process data in accordance with DWA worksheet A 704, sheet 2 (German Association for Water, Wastewater and Waste)



#### **Automatic matrix correction of commonly used AN-ISE probes with Link2sc function:**

- Consideration of calibration history
- Automatic decision on one-point or two-point correction
- Extremely easy adjustment process
  Cut down on distances travelled

#### **Tailored service**

All photometers are designed by Hach and made by Hach. They know the instruments better than anyone.

- Commissioning and instruction
- Service on site
- Equipment qualification
- Inspection
- Repair
- Loan equipment and collection service



## Sustainability for environmental protection

# **Complete environmental product responsibility**

- Free return of used cuvettes from 12 countries and processing at Environmental Centre in Düsseldorf
- Recycling rate of 75 %
- Hach placed in the top three for the German Sustainability Award in 2009.



# A professional solution for every parameter and every measurement situation

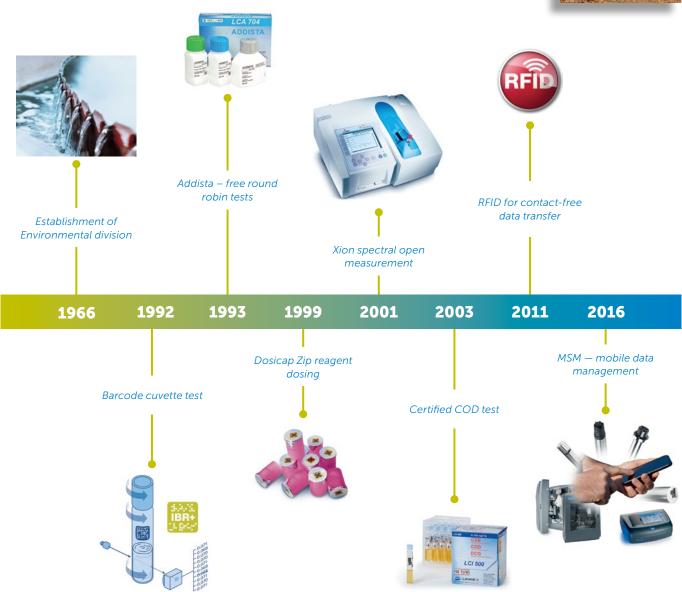
Portable instruments | Desktop instruments | Lab automation | Photometry and electrochemistry | Titration | Turbidity | Laboratory-Process-Sampling



## Photometry based on tradition and passion

- 1931 Development of selenium photocell by Bruno Lange
- 1933 Establishment of Dr. Bruno Lange GmbH in Berlin Dahlem and production of first Dr. Lange universal colorimeter
- 2016 Ground-breaking ceremony for expansion of site by 94-year-old Kathrin Hach





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