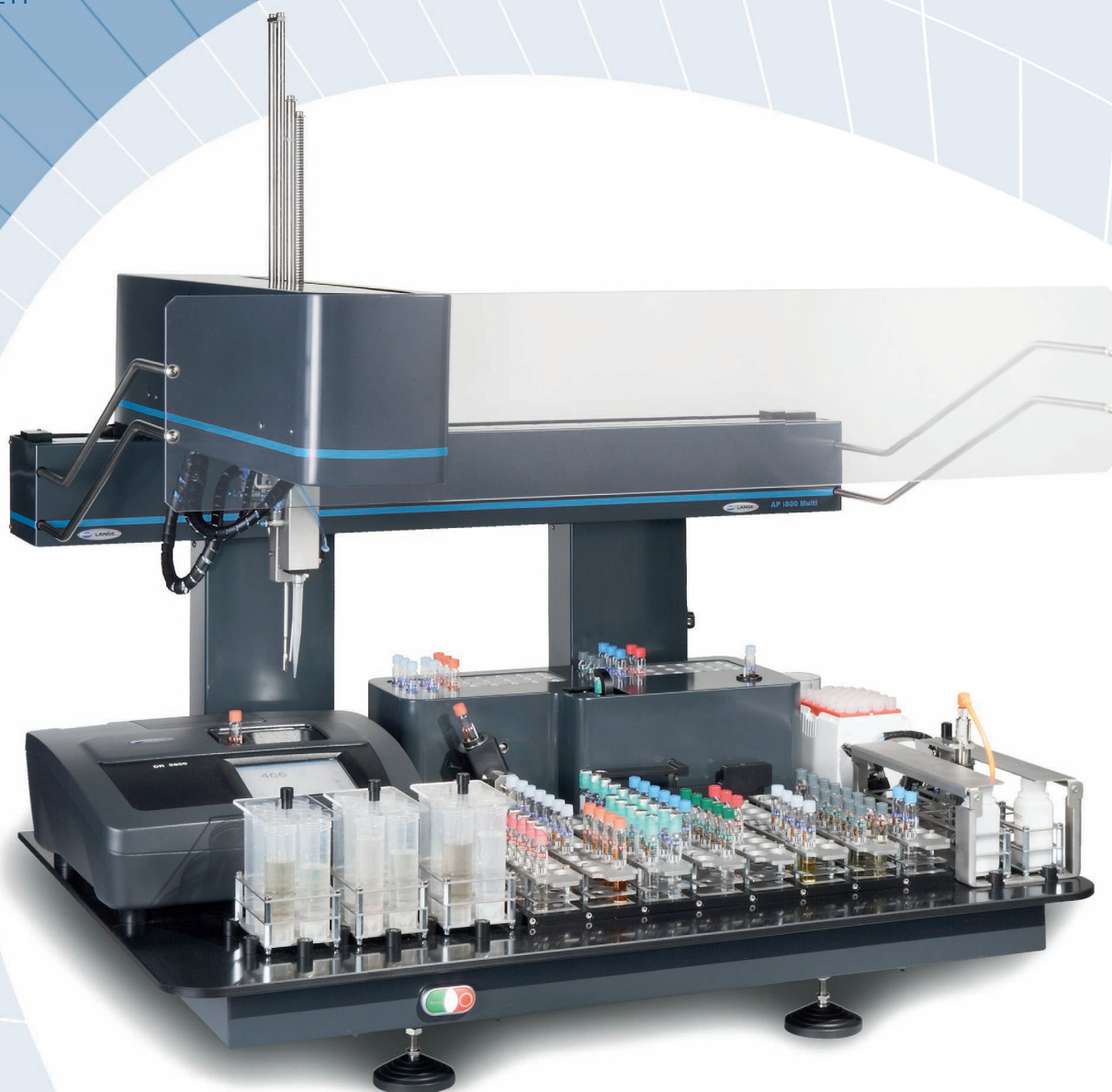


PRODUCT INFORMATION
LABORATORY AUTOMATION
LABORATORY ROBOT
AP 3800 MULTI



Automated water analysis AP 3800 multi laboratory robot



UNITED FOR WATER QUALITY

Fully automated! From the start to the measured value

The AP 3800 multi laboratory robot carries out total water analysis procedures, including sample preparation. Even when a digestion step is needed. The basic version incorporates the pre-programmed LANGE cuvette tests for COD, Total Phosphorus, Total Nitrogen, Ammonium, Nitrate and Nitrite. The method directory can be extended by additional parameters as required.

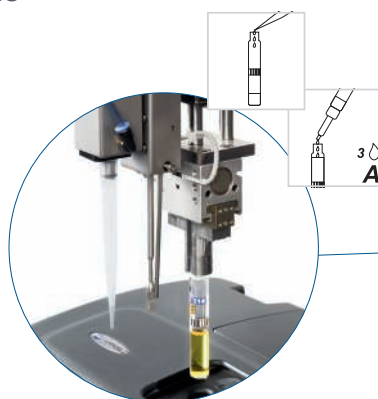
- **Total wastewater analysis including sample preparation and digestion**
- **Several parameters in a single run: COD, P_{tot}, TN_b, NO₂, NO₃, NH₄**
- **Intelligent time management**
- **Flexible use in single and serial mode**

Optimal use of analysis time

The intelligent time management of the AP 3800 multi ensures that sample sequences are processed as efficiently as possible. Methods are automatically interleaved, but can be prioritised by the user. Simple methods are carried out while complex samples are digested.

Highly flexible

The AP 3800 multi laboratory robot offers a high level of flexibility in single and serial mode. Different parameters can be analysed and evaluated in parallel. The easy-to-operate control software shows the current status of the sample sequence in graphic overviews. During the run, additional samples can be added to the sequence.



Multifunctional arm

For gripping, transporting, stirring, pipetting with disposable tips. The central tool of the AP 3800 multi.

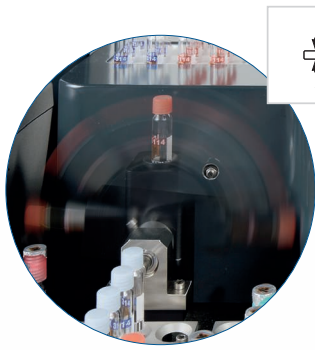
Detector

A DR 3800 sc VIS spectrophotometer measures the completed LANGE cuvette tests.

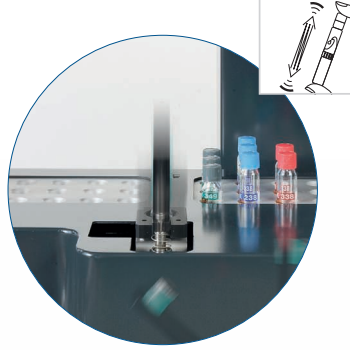
Sample rack

Up to 24 samples can be accommodated.





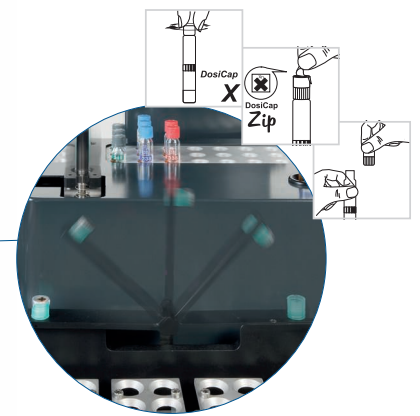
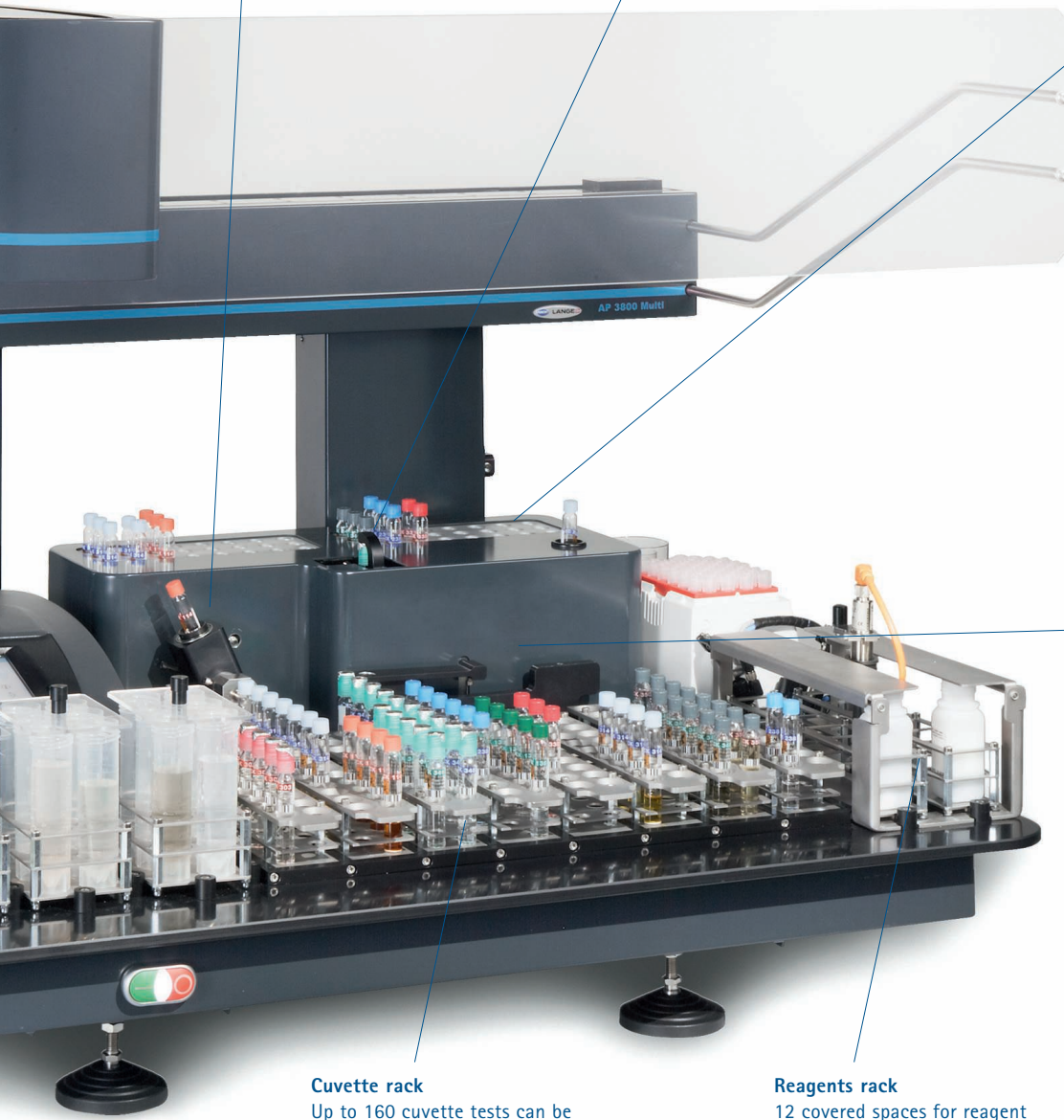
Invert carefully!
The LANGE cuvette tests are inverted in accordance with the instructions.



Shake vigorously!
A special device vigorously shakes the LANGE cuvette tests.



Digestion blocks
Two separately controlled digestion blocks, each of which can accommodate 24 cuvettes.



DOSICAP
Open, invert, screw on: all work steps for DOSICAP applications proceed automatically.

Cuvette rack
Up to 160 cuvette tests can be accommodated here.

Reagents rack
12 covered spaces for reagent containers

Technical data and order information



DR 3800 sc VIS spectrophotometer
The laboratory robot uses a fully functional DR 3800 sc VIS spectrophotometer as a detector. A separate brochure (DOC032.52.20001) lists all the advantages and technical data.



LANGE cuvette tests
Many LANGE cuvette tests (LCK) can be automated on the laboratory robot. A selection of these tests are available specifically for the AP 3800 multi as APC tests in bulk packs.



MICRODIST
AP 3800 multi can be combined with the MICRODIST digestion system. This enables parameters such as cyanide, phenol, sulphide and ammonium to be determined in liquid and solid samples.

Technical data

Test method	PC-controlled robot with automated LANGE cuvette tests
Detector	DR 3800 sc VIS spectrophotometer (for technical data see separate brochure)
Method directory	6 methods in standard configuration (COD, P _{tot} , TN _b , NO ₂ , NO ₃ , NH ₄)
Number of samples	Up to 24
Number of test cuvettes	Up to 160
Adjustable temperature regulation	2 x 24 digestion positions, temperature freely adjustable
Dimensions, weight	Approx. 110 cm x 70 cm x 120 cm (W x D x H), approx. 60 kg

Order information

SMAP3800-MultiS	AP 3800 multi automated analysis system
LPV424.99.00001	DR 3800 sc VIS spectrophotometer
LZX521	Compressor including adapter kit; 2 fittings (1/4" OD), 5 m tube
LYW369.52	PC with 17" TFT monitor, Win XP English, specifications as required
TSE887	Installation and training

LANGE cuvette tests for AP 3800 multi

Parameter	Test	Measuring range	Tests/Packing	Hazard code
Ammonium	APC303	2-47 mg/l NH ₄ -N	100	Xn, N
	APC304	0.015-2 mg/l NH ₄ -N	100	Xn, Xi, N
Nitrite	APC341	0.015-0.6 mg/l NO ₂ -N	100	Xi
	APC342	0.6-6 mg/l NO ₂ -N	100	Xi
Nitrate	APC339	0.23-13.5 mg/l NO ₃ -N	100	C, Xi
	APC340	5-35 mg/l NO ₃ -N	100	C
Total Nitrogen (LATON)	APC138	1-16 mg/l TN _b	50	C, Xn, Xi
	APC238	5-40 mg/l TN _b	50	C, Xn, Xi
	APC338	20-100 mg/l TN _b	50	C, Xn, Xi
Phosphorus, total	APC348	0.5-5 mg/l PO ₄ -P	100	C
	APC349	0.05-1.5 mg/l PO ₄ -P	100	C, Xi
	APC350	2-20 mg/l PO ₄ -P	100	C
COD	APC114	150-1,000 mg/l	100	T, C
	APC314	15-150 mg/l	100	T, C
	APC400	0-1,000 mg/l	100	T, C
	APC500	0-150 mg/l	100	T, C

Subject to change.

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HACH LANGE services



Ordering, information and advice:
Just call us!



On-site support from Technical
Customer Service.



Legal compliance and
environmental protection through
collection of used reagents.

Hazard symbols	
	Toxic
	Corrosive
	Harmful
	Irritant
	Dangerous for the environment

