

LANGE
LABORATORY AUTOMATION

» GANIMEDE



SERIAL DIGESTION



The serial analysis system for total P and N (TN_b) with integrated digestion.

ANALYSIS AND
DIGESTION UNIT

N

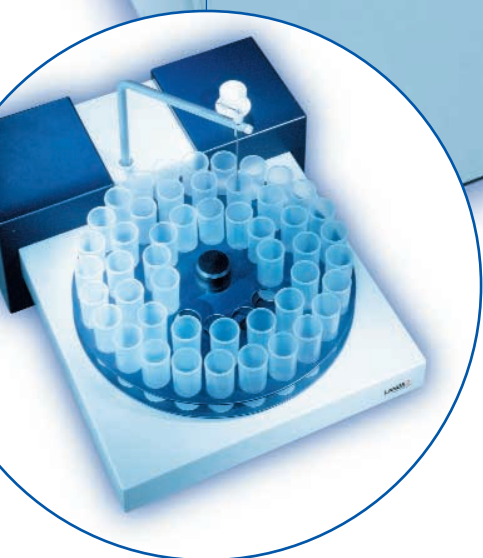
P

+

GANIMEDE



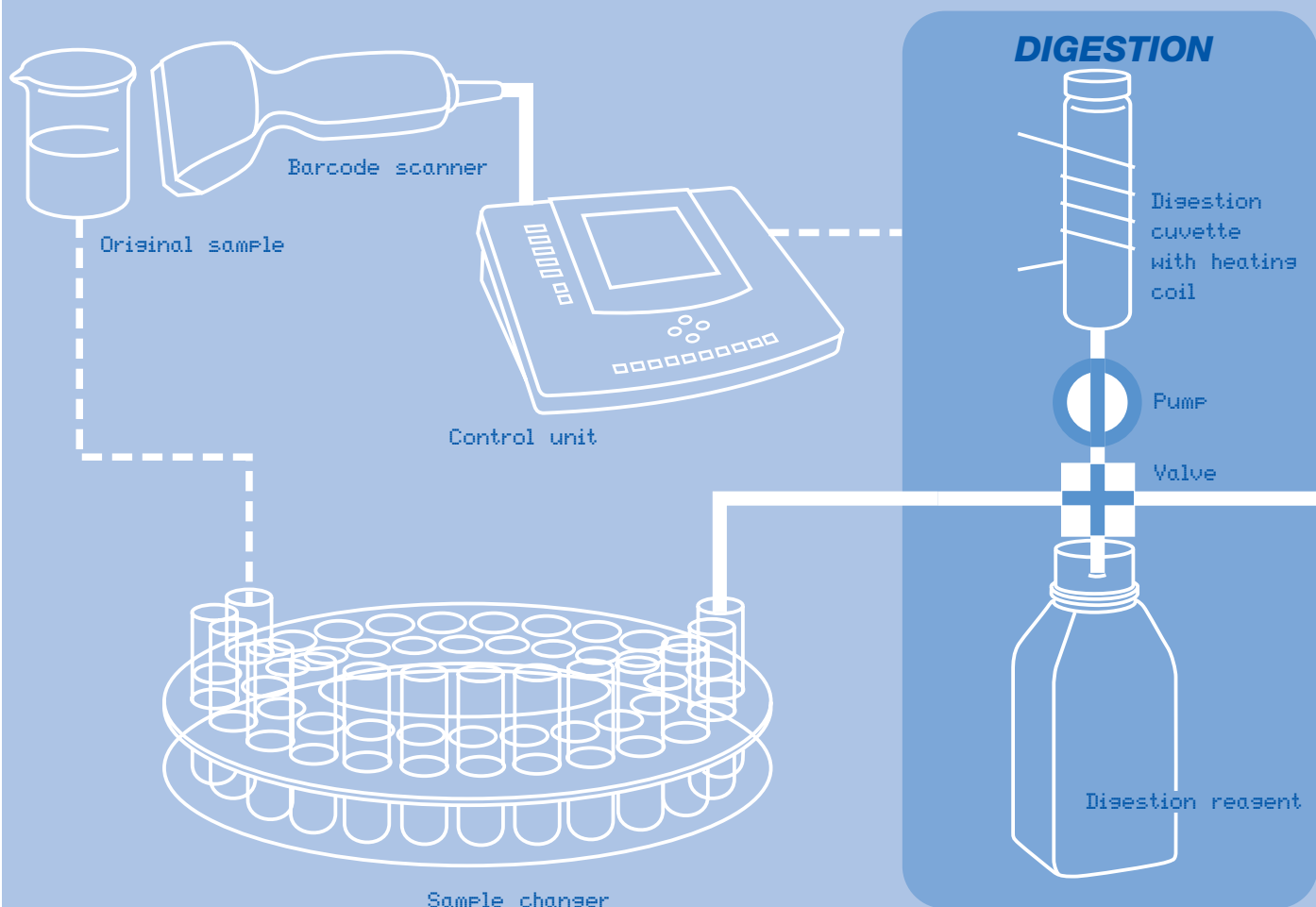
Control unit with
infrared port



Sample changer

GANIMEDE P and N: The convenient automatic laboratory analyser for large series of samples

LANGE's GANIMEDE automatic laboratory analyser marks the start of an innovative instrument generation for serial laboratory analysis. The compact, space-saving system consists of three components: the sample changer, the analysis unit and the control unit. The analysis unit is optionally available for the determination of orthophosphate and total phosphate or for the determination of total nitrogen (TN_b).



THE COMPLETE SYSTEM

Digestion cuvette



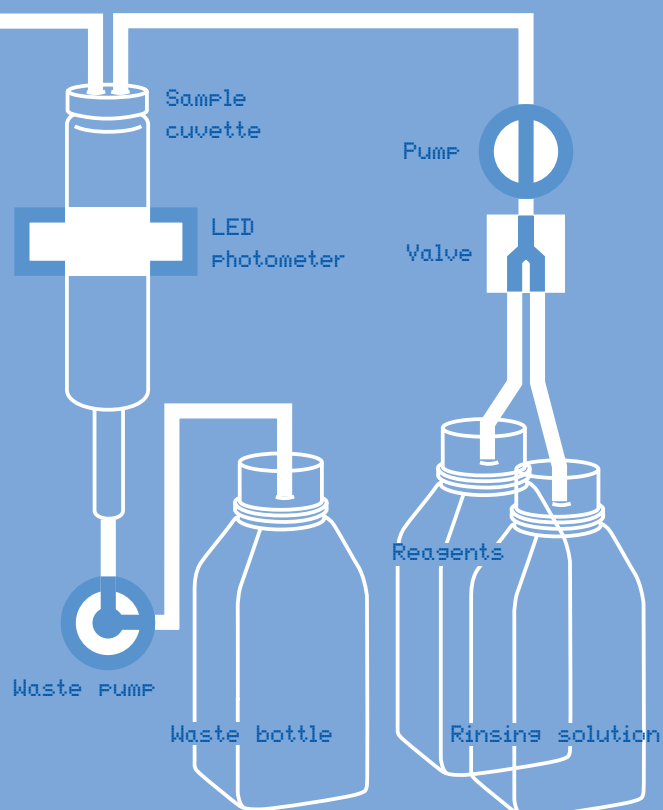
Nothing simpler: Fully automated analysis.

50 samples can be positioned in the sample changer then they are automatically transported into the analysis unit. GANIMEDE P evaluates the samples optionally as orthophosphate or total phosphate, while GANIMEDE N evaluates them as total nitrogen (TN_b). The automatic needle rinse and sample mixing ensure contamination-free sampling. A complete GANIMEDE system consists of a control unit, sample changer, digestion and analysis unit; one control unit can be used for both systems.

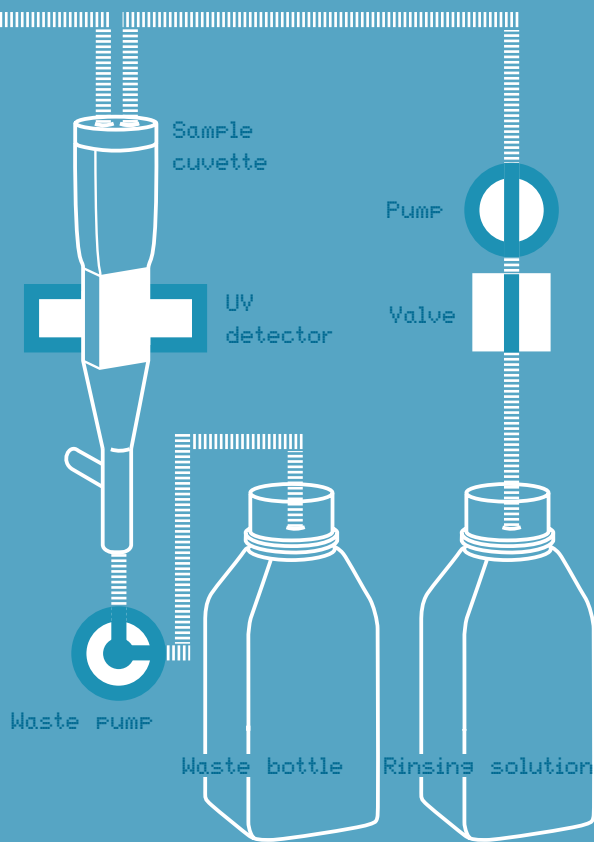
Saves time: Patented fast digestion.

The integrated high-temperature unit (150°C), including flash cooling system, yields results in the shortest possible time – in 4 – 7 minutes, depending on the sample. Complex phosphate or nitrogen compounds are also detected. $PO_4\text{-P}$ is digested and evaluated in the measuring range 0.01 – 3.8 mg/l in line with DIN EN 1189, while TN_b is determined in two measuring ranges from 0.5 – 150 mg/l in line with DIN EN ISO 11905-1.

P ANALYSIS



N ANALYSIS



ANALYSIS UNITS FOR P + N FOR SERIAL ANALYSIS.

GANI CHEM



Infrared port



GANI CHEM: Effortlessly reproducible chemicals.

GANI CHEM, the ready-to-use reagent set, can be used to carry out up to 100 determinations, without having to prepare any reagents. Easily accessible reagent compartments in the analysis unit enable chemicals to be switched quickly and simply. Naturally LANGE disposes of all waste materials free of charge.

More mobility with intelligent data management.

The ability to work flexibly at different workstations starts with input of the sample data via a barcode scanner or a PC keyboard. The cord-free control and evaluation unit with an infrared port then controls all subsequent processing. The actual sample data and measurement results can be transferred to a PC at the touch of a button.

GANIMEDE P AND N: SERIAL ANALYSIS FOR ORTHOPHOSPHATE, TOTAL PHOSPHATE AND TOTAL NITROGEN.

LABORATORY

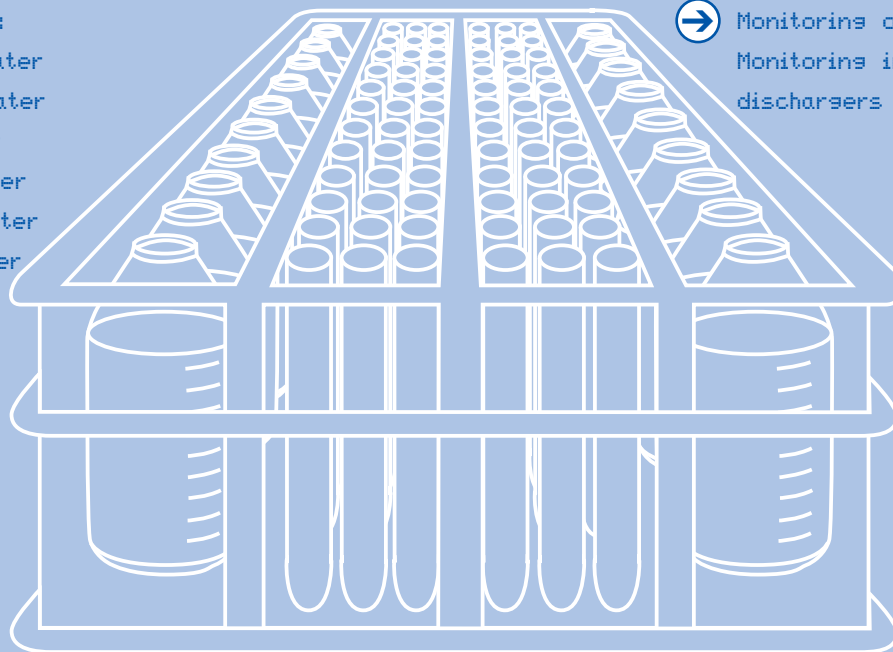


Monitorings:
surface water
process water
wastewater
spring water
cooling water
boiler water

SEWAGE TREATMENT PLANT



Monitorings outflows
Monitorings indirect
dischargers



WATERWORKS



Treatment of raw water
Monitorings drinking water



A P P L I C A T I O N S

GANIMEDE: More efficiency in laboratory analysis.

Practical experience has shown that parameters such as total phosphate and total nitrogen, which require a sample preparation step to be carried out, are often complicated and labour-intensive. Laboratories that have to analyse large numbers of samples are therefore interested in time-saving and favorably priced analysis systems.

LANGE has the solution: a practical analysis system with integrated digestion. Simple to handle, convincing in practice. Especially in industrial and municipal service laboratories, in large sewage treatment plants and power utilities.

Experience is the key.

The development of GANIMEDE sets a new benchmark in laboratory analysis. LANGE has used components that have proved themselves over years in process instrument technology. Drawing on its considerable experience, it has developed a practical and low-maintenance solution.

MEASURABLY MORE. TEST US.



**LANGE means measurably more than good measuring instruments.
Our service makes analysis a fully integrated system.**

GANIMEDE
INFO SHEETS
APPLICATIONS
OPERATING MANUAL



TECHNICAL SPECIFICATIONS

GANIMEDE P and GANIMEDE N: The secret is in the details.

Control unit	Sample changer	P analysis unit	N analysis unit	Interfaces
Colour display 5.7 inch, port for barcode reader or compact PC keyboard	With automatic needle rinse and stir function	Measurement method to DIN EN 1189	Measurement method to DIN EN ISO 11905-1	1 x serial, 1 x parallel, 1 x sampler
IR port for cord-free data transfer	Sample turntable P for 36 x 30 ml and 53 x 15 ml vessels	Measuring range 0.01 – 3.8 mg/l PO4-P	Measuring range 0.5 – 150 mg/l TNb	Mains power supply 230 V/50 Hz (110 V optional)
Battery or mains powered operation	Sample turntable N for 36 x 30 ml vessels	Reproducibility at 1 mg/l: +/- 2%	Reproducibility at 10 mg/l: +/- 2%	
		Measurement wavelength 880 nm	Measurement wavelength 210 nm (Transm. Max.)	
		Calibration Automatic 2-point calibration. Optional standard series	Calibration Automatic 2-point calibration. Optional standard series	

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