Your Partner in Chemistry Automation
Skalar is a Dutch company, established in 1965 as a producer of analyzers for the laboratory and process industry. The company has since grown into an international organization with its own subsidiaries in most European countries and North America, and with over fifty representatives throughout the world. All these organizations are focused daily on providing the best support to both existing and potential users. Skalar analyzers are reliably used in large and small routine laboratories, annually handling sample numbers of a few hundred up to hundreds of thousands. With over thirty years of experience in automating wet chemistry analysis procedures, the Skalar ISO 9001 certified organization has built up a wealth of knowledge and has generated a vast library of information and techniques which support well proven applications. This knowledge, in the form of application notes, methodology books, technical brochures, etc., is widely made available. In recent years Skalar’s own continuing research and development has added many new innovative analyzers to its product range. The new and existing range of Skalar analyzers have proven to be the most reliable and economical choice of today’s modern laboratories.
Automated Wet Chemistry Analyzer

San++
For all industrial and environmental applications

The Skalar San++ analyzer provides the most proven and reliable technology available today in automatic wet chemistry analysis. The analyzer is designed for environmental and industrial fields such as water, food/beverages (beer, wine and others), fertilizers, pharmaceuticals, soil/plant and tobacco.

The San++ is the recognized system for 24 hour a day reliable operation. The analyzer is modular in design and can be configured to meet the needs of any laboratory. Daily work loads of up to 800 samples can be analyzed for up to 16 parameters simultaneously. Extended sample capacity is provided during runs overnight or beyond the end of a shift with the unique automatic start-up and shut-down feature.

The San++ offers many in-line sample manipulations, such as UV-digestion, distillation, extraction, dialysis and ion-exchange. A unique automated background correction is provided by the “matrix-detector” which decreases the number of manual sample pre-treatments. The analysis of sub ppb to high ppm levels in one range is made possible with the new high resolution digital photometer. With the use of a wide range of other detection techniques (I.S.E., fluorimetry, flame photometry and others), the San++ suits the analytical requirements of over a thousand chemistry applications.

The state of the art FlowAccess® software package, operating under Microsoft Windows™, completes the automation concept of the San++ analyzer. The software provides full analyzer control, accurate data processing, complete QC/CLP control, customer defined report lay-outs and fully complies with 21CFR part 11 regulations. The easy integration into LIMS networks perfectly suits the modern routine laboratory environment.

FEATURES San++
- Fast sample through-put, 40 - 140 analyses per hour
- Analyse sub ppb to high ppm levels in one range with the new high resolution digital photometer
- Complete system control with Windows™ based software for data generation, QC/CLP procedures and complies with 21CFR part 11
- Auto samplers for 40 - 800 sample positions available
- Auto pre-run and/or post-run dilution of out of range samples
- Automatic preparation of working standards
- Fully unattended automated start up and shut down - for overnight runs or runs beyond the end of a shift
- Analyses according to Standard Methods, EPA, CEN, DIN and ISO, including Nitrate, Nitrite, TKN, Ammonia, Phosphate, Chloride, Phenol, Cyanide, MBAS and many more
TOC & Total Nitrogen Analyzers

The Formacs HT provides fast, reliable and accurate computer controlled TOC automation by high temperature catalytic combustion and NDIR detection for all water applications including waste, sea, process, river and ground waters. The compact design requires minimum bench space and sets up in minutes providing analyses for TC, TIC, TOC and NPOC. The user friendly analyzer allows quick and easy front panel access to all components and comes with a software package for complete instrument control, data acquisition, statistical calculations and report generation.

The Formacs HT/TN TOC/TN analyzer offers an attractive and economical configuration for simultaneous TOC and Total Nitrogen (TN) analysis. TOC & TN are determined via high temperature catalytic combustion. For TN analysis all nitrogen components are combusted to nitrogen monoxide (NO) and detected by the well proven concept of the ND10 chemiluminescence detector. Additional to TN analysis the analyzer can also be equipped with an optional NN reactor to determine NO3/NO2 separately. In this set-up the Formacs HT/TN TOC/TN analyzer offers, together with TOC, a fast and cost effective alternative for TKN analysis (TN - NO3/NO2 = TKN). This removes the routine need to use hazardous reagents as commonly required with conventional TKN analysis, saves valuable operator time and provides more precision. Dedicated TN and NO3/NO2 analysis is also available on our Formacs TN analyzer.

FEATURES Formacs HT
• Analytes TC, TIC, TOC & NPOC
• High Temperature Combustion and NDIR detection
• Random Access auto sampler
80 position
• Range from 100 ppb -5000 ppm Carbon
• Automatic stirring, acidification and sparging
• Handles particles up to 450 µm
• Method according to Standard Methods, EPA, CEN, DIN & ISO
• 21 CFR part 11 compliance
• Extendable with low cost solid sample module

FEATURES Formacs HT/TN
• Analytes TC, TIC, TOC, NPOC, TN & NO3/NO2
• Chemiluminescence detection for analysis of Total Nitrogen and/or NO3/NO2
• Range from 50 ppb -300 ppm Nitrogen
• Excellent alternative for Kjeldahl determination
• Method according to DIN 38409 H27, EN 12260 & ISO 11905-2
• 21 CFR part 11 compliance
TOC & Total Nitrogen Analyzers

Primacs SLC
TOC Analyzer in Solid & Liquid Samples

The Primacs SLC extends the Skalar range of high temperature combustion analyzers with an economical instrument for efficient and unmatched precision in TOC analysis for soils, sediments, environmental waste and liquid samples.

Motivated by the need for sample homogeneity, Skalar has created a stand-alone analyzer with NDIR detection which can handle a large sample capacity, up to 3 grams for solids and 1.2 ml for liquid samples.

The Primacs SLC is furthermore ideally suited for difficult sample matrices such as strong acids and alkaline samples, which are difficult to handle with conventional combustion instruments.

With a Windows™ based software control package, which includes Skalar’s usual user-friendly features, the Primacs SLC provides fast and accurate TOC results for solid and liquid samples.

Primacs SN
Total Nitrogen/Protein Analyzer

The Primacs SN has specifically been designed for fast, accurate and cost effective analysis of Total Nitrogen on solid and liquid samples using the DUMAS methodology for a variety of applications areas including soil & plant, animal feed, malting & brewing and food. Again with the need for sample homogeneity in mind the Primacs SN has been created to handle sample weights from 10 - 1000 mg. Quick front panel access to all components and a user friendly Windows™ based software package, including automatic balance interfacing, makes the Primacs SN the perfect tool for automating Total Nitrogen analysis on a wide application range of solid and liquid samples.

FEATURES Primacs SLC
- Analytes TOC, TC and IC
- Measurement in solids, sediments, sludges, liquids, strong acidic and alkaline solutions
- Sample weights up to 3 grams
- Re-usable crucibles
- TC oven range 500°C to 1100°C
- Automatic balance interfacing
- Method according to CEN, ISO and NEN-EN 13137
- Unique vertical sample introduction system
- Minimal bench space required

FEATURES Primacs SN
- Measurement of TN by combustion principle (DUMAS)
- Sample weights up to 1 gram
- Re-usable crucibles
- Random access auto sampler 20 positions
- Automatic balance interfacing
- Method according to Dumas, DIN 10467, EN 61010, AOAC 990.03, AOAC 992.15, AACC 46-30, AOCS Ba 11-65, ASBC
Robotic Analyzers

Automation for BOD, COD, pH, EC, turbidity, ISE, and titrations
Skalar’s extensive range of robotic analyzers offers laboratories flexible and affordable automation solutions for routine analytical testing, such as BOD, COD, pH, turbidity, ISE and titrations. Our robotics increase productivity, quality of results, while reducing turn-around time and decreasing errors and human/sample interaction.

Each analyzer series offer their own specific advantages, but all provide ‘hands-free’, ‘walk-away’ automation. Please contact Skalar to discuss which series may be appropriate for your specific needs.

SP10
Compact Analyzer

Designed for low cost automation. Single probe operation with optional diluter and dosing pump allows this unit to automate tasks such as BOD, pH, EC, turbidity and ISE in small batches. Trays are customized to fit customer specific sample cups.

SP100
Flexible Analyzer

This analyzer allows an affordable and reliable way to automate high sample loads. With all the options, this unit can be coupled with multiple probes, diluters and dosing pumps. This allows higher sample through-put for the busy laboratory.

SP1000
Extended Analyzer

The proven concept for advanced laboratory applications. The flexible, modular robotic analyzer can be configured either for single or multiple applications. This system can be easily expanded to accommodate the growing needs of your laboratory.

FEATURES SP10
• Full Automatic measurement for a parameters such as BOD, COD, pH, EC, turbidity, ISE, and titrations
• Windows based software for instrument control, data handling and result calculation
• Controlled automation functions such as pump and dispenser for automatic liquid handling, stirrers for mixing, a wide range of probe and manipulator holders
• Supports standard calculations EPA, ISO, etc.
• Bar code identification
• Minimal laboratory bench space
• Maximum container height 11 cm

FEATURES SP1000
• Wide range of parameters
• Fully computer controlled
• Configurations similar to SP10 with highest capacity and throughput
• Supports standard calculations EPA, ISO, etc.
• Configurable to adapt multiple probes, dispensers and pumps
• Incubator friendly sample trays
• Custom instrumentation easily integrated
• SP 1000 Analyzer also configured for high capacity COD titration in digestion tubes
• Maximum container height 22 cm

FEATURES SP100
• Automated BOD method conforming to US EPA, European Standards (EN) and ISO
• Up to 80% of analyst’s time saved
• High degree of automation with up to 120 bottles per batch
• COD, pH, turbidity, conductivity, titration and various sample preparation procedures
• Economical
Demands from industry and laboratories for fast and non-destructive analyses are becoming more and more apparent. To meet these new demands Skalar has developed the Fluo Imager, which is based on the Spectral Fluorescent Signature (SFS) technique. The Fluo Imager treats the sample as an integral spectroscopic sample, characterised by its specific SFS fingerprint. From the fingerprint qualitative and quantitative information is obtained on a range of compounds. Typical applications fields include oil in water, COD, chlorophyl, PAH and phenol.

The advantages of the SFS technique are its high sensitivity, the possibility of carrying out our fast analysis in remote mode without the necessity of sample pre-treatment and decreasing the number of routine time consuming laboratory analyses.

In recent years traditional chemical analysis methods were applied for monitoring the presence and toxic effects of chemical compounds. In general these methods were considered very sensitive and selective but often do not yield clear results. Micro-biotesting using bioluminescent bacteria with the Skalar ToxTracer system overcomes these limitation. The results produced are more realistic because bioassays integrate the effects of all bio-available substances and is furthermore fast, inexpensive, simple to perform and can be applied to a wide application range including waste water, surface water, soils, sediments and food. The Skalar ToxTracer system consists of a ToxTracer luminometer, a cooling block and a reagent kit which includes freeze dried bacteria. Optional accessories of software and training programs are available on request. With the Skalar ToxTracer toxicity results are obtained within 30 minutes and because its is inexpensive and reliable makes it the instrument of choice for rapid toxicity screening of aqueous samples.
Skalar’s head office in Breda, the Netherlands

USA
Skalar, Inc.
5995 Financial Drive, Suite 180
Norcross, GA 30071
Tel. +1 770 416 6717
Toll Free: 1 800 782 4994
Fax. +1 770 416 6718
Email: info.usa@skalar.com

United Kingdom
Skalar (UK) Ltd.
Breda House,
Millfield Industrial Estate
Wheldrake, York
YO19 6NA United Kingdom
Tel. +44 (0)1904 444800
Fax. +44 (0)1904 444820
Email: info.uk@skalar.com

Belgium
Skalar Belgium bvba
Antwerpsestraat 126
2850 Boom
Tel. +32 (0)3888 9672
Fax. +32 (0)3844 3441
Email: info.belgium@skalar.com

Germany
Skalar Analytic GmbH
Gewerbestraße Sud 63
41812 Erkelenz
Germany
Tel. +49 (0)2431 96190
Fax. +49 (0)2431 961970
Email: info.germany@skalar.com

Austria
Skalar Analytic
Steinfeldstraße 17/6
A-2351 Wiener Neudorf
Austria
Tel. +43 (0)2236 41310
Fax. +43 (0)2236 4131012
Email: info.austria@skalar.com

France
Skalar Analytique S.A.R.L.
79, Avenue Aristide Briand
94110 Arcueil
France
Tel. +33 (0)1 4665 9700
Fax. +33 (0)1 4665 9506
Email: info.france@skalar.com

Skalar reserves the right to change the specifications and the appearance of the equipment without further notification.