

On-line Sample Homogenizer



Environmental regulations have caused some analytical parameters in waters, such as TOC, total phosphate and total nitrogen, to be elevated in importance. For accurate on-line analysis of these parameters it is important to introduce a representative sample to the analyzer.

Traditional stirring and mixing methods are not always successful when used for blending tasks and with filtering out larger suspended solids the sample becomes less representative. Skalar has therefore designed an on-line sample homogenizer. This new pre-treatment system provides an ideal alternative to filtration.

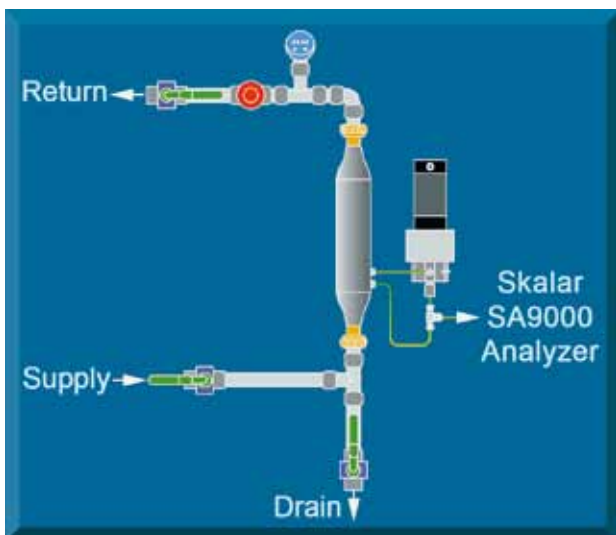
The heart of the homogenizer is a rotor, which turns at high speed, mounted in a stator. The blades of the rotor and the stator "grind" the suspended solids in the sample to a size smaller than 20 microns. The high speed of the rotor, more than 15,000 rpm, generates ultrasonic energy, which guarantees the homogeneity of the sample. The sample, collected in the stainless steel overflow vessel, passes through the homogenizer to the monitor via the sample valve and returns to the overflow vessel at an approximate sample-loop speed of 4000 litres/hour.

Stator / Rotor Assembly



FEATURES:

- * Unique slanted rotor slots for fast processing
- * Improved mixing turbulence
- * Interchangeable dispersing tools some with ceramic seals
- * Exchangeable rotors and stators
- * Optional continuous flow chambers
- * Choice of 9 powerful drive units some with integral LCD speed displays
- * Compressed air motors for hazardous areas



Closed loop homogenizer system

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Especially for industrial sample streams a completely closed loop sampling system is required. These samples may contain hazardous and/or toxic components. Also the sample-loop pressure can be high. The compact closed loop systems protect the operator against the dangerous components in the sample and makes pressure-regulation possible.

Specifications

Motor	- Electronic controlled high speed motor 5.000-22.000 rpm
Power	- Max 1500 VA
Capacity	- 20 microns by 500 l / hour
Sample flow-rate	- Minimal 1000 l / hour
Dimension plate	- 150 x 100 cm.

The lay-out of the system will allow for maximum access for maintenance and easy removal of the individual components.

Other on-line pre-treatments system available from Skalar

PAPER BAND FILTER



DISC FILTER



OVERFLOW UNIT



CROSSFLOW FILTER



For more information on these pre-treatments contact Skalar or see the Skalar On-line filtration systems leaflet Publication No. 0206008B. US

Skalar's Headquarters
Skalar
 P.O. Box 3237
 4800 DE Breda
 The Netherlands
 Tel. +31 (0)76 5486 486
 Fax. +31 (0)76 5486 400

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

United Kingdom
Skalar (UK) Ltd.
 Breda House,
 Millfield Industrial Estate,
 Wheldrake, York, YO19 6NA
 Tel. + 44 (0)1904 444800
 Fax. + 44 (0)1904 444820

Germany
Skalar Analytic GmbH
 Gewerbestraße Süd 63
 41812 Erkelenz
 Germany
 Tel. + 49 (0)2431 96190
 Fax. + 49 (0)2431 961970

Austria
Skalar Analytic GmbH
 Am Anger 22
 A-7451 Oberloisdorf
 Austria
 Tel. + 43 (0)2611 2023411
 Fax. + 43 (0)2611 2023412

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

Belgium
Skalar Belgium bvba
 Antwerpsestraat 126
 2850 Boom
 Belgium
 Tel. + 32 (0)3888 9672
 Fax. + 32 (0)3844 3441



Email: info@skalar.com

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Publication No. 0206007B. US

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