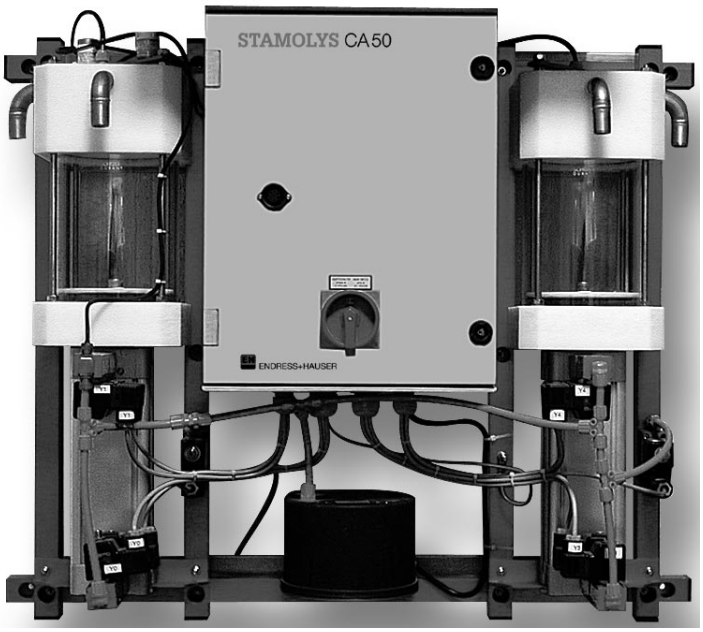
Technical
Information
TI 222C/07/en
No. 51502643

stamolys CA 50 / CA 30

Sedimentation Unit for Sample Conditioning



The Stamolys Sedimentation Unit CA 50 with Probe Sampling System CA 30 is a system for conditioning of water and sludge samples for sediment-free analysis.

Applications

- Conditioning of water and sludge samples in waste water treatment plants

Benefits at a glance

- Integrated compressed air-lift system eliminates the need for a sampling pump
- Automatic self-cleaning
- No need for cleaning chemicals
- Long life
- Low maintenance requirements

Endress+Hauser

The Power of Know How

Measuring system

The complete measuring system consists of
- Sedimentation Unit CA 50
- Probe Sampling System CA 30
- Stamolys Analyzer CA 70

The first two metres to the basin edge are generally realized separably and with accompanying heating.

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Complete measuring system

Stamolys Analyzer CA 70 with Sedimentation Unit CA 50 and Probe Sampling System CA 30

Functional description

The Sedimentation Unit CA 50 is used for off-line conditioning of water, waste water and sludge samples.

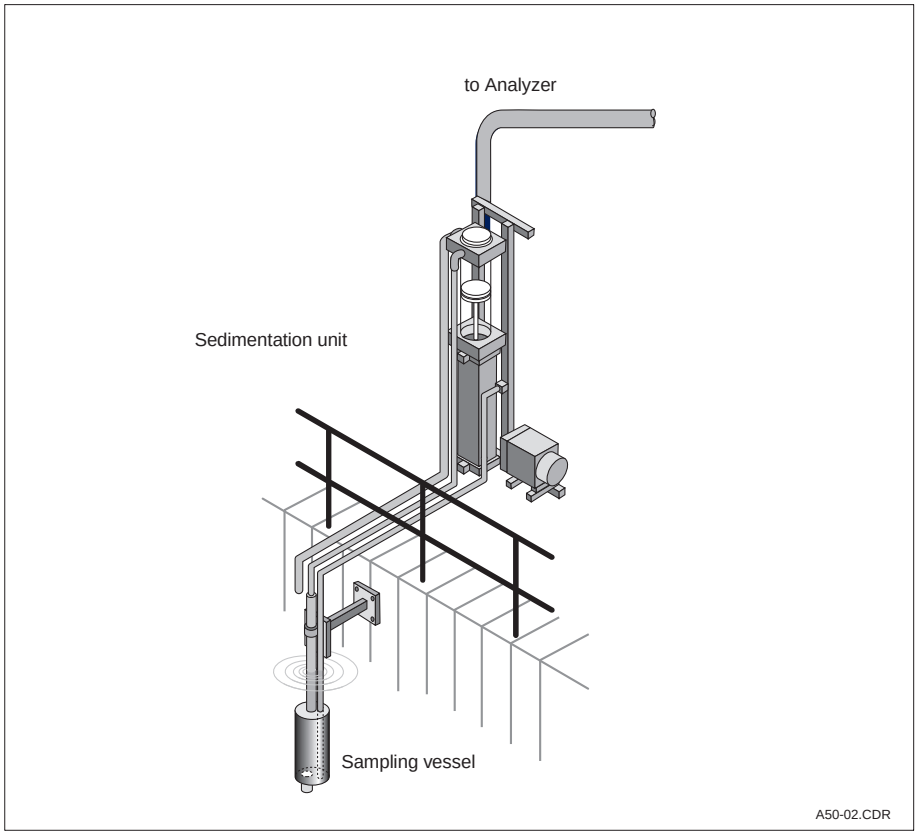
A compressed air-lift system integrated in the sedimentation unit conveys the sewage or sludge to the sedimentation cylinder. A low-noise compressor generates the compressed air required for this purpose.

The settling time can be adapted to the settling behaviour of the sludge using PLC control. After the settling time is expired, suspendend solids and water are separated and the water sample can be sent to the Analyzer from the upper clear region almost sediment-free.

A sinter filter in the sampling pipe performs an additional protection, no suspended particles can clogg the Analyzer. The filter is back-flushed with compressed air. After a sample is taken, the settling cylinder is evacuated and cleaned by an internal O-ring piston.

The control unit of the Sedimentation Unit CA 50 switches to automatic mode automatically after the operating voltage is switched on. A PLC fully assumes time control and sychronisation with the Analyzers.

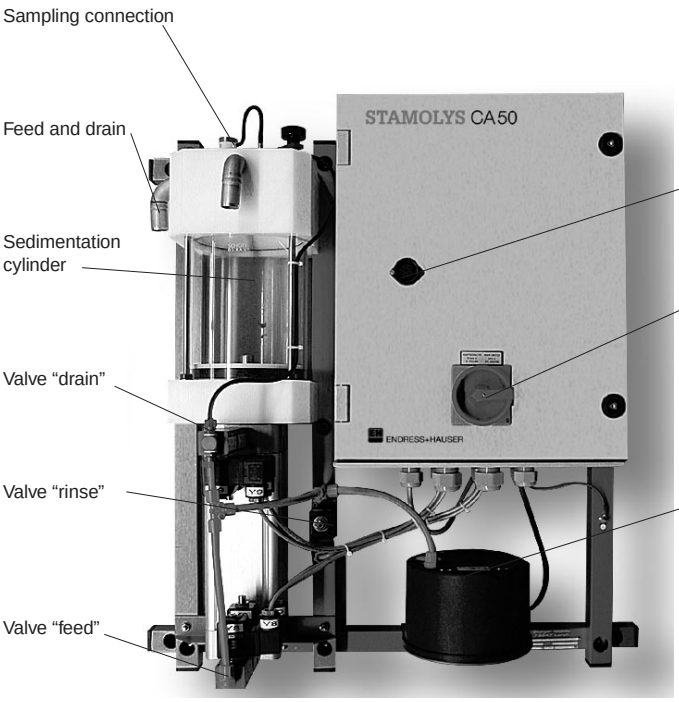
For parameter entry and service, an LCD display can be connected to the control interface. This permits control of all functions manually, selection of operating times in automatic mode and display of current system modes. A potential-free contact can be used either for the sedimentation unit or as collective interference for the up to three Analyzers. Furthermore, up to three Analyzers can be connected via the main switch of the sedimentation unit.



Sampling in basin

Sedimentation unit
CA 50 with Probe
Sampling System CA 30

Instrument variants



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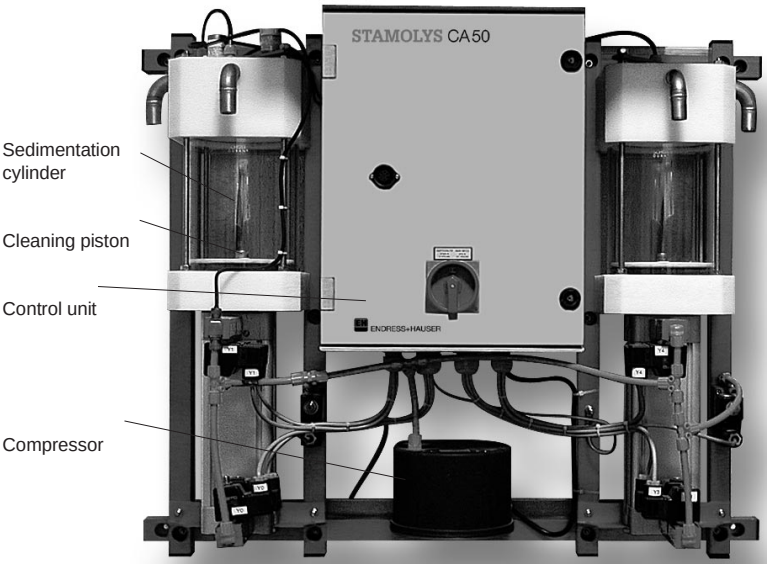
Sedimentation Unit
Stamolys CA 50

Sampling from a measuring point



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Sedimentation Unit
Stamolys CA 50

Sampling from two measuring points

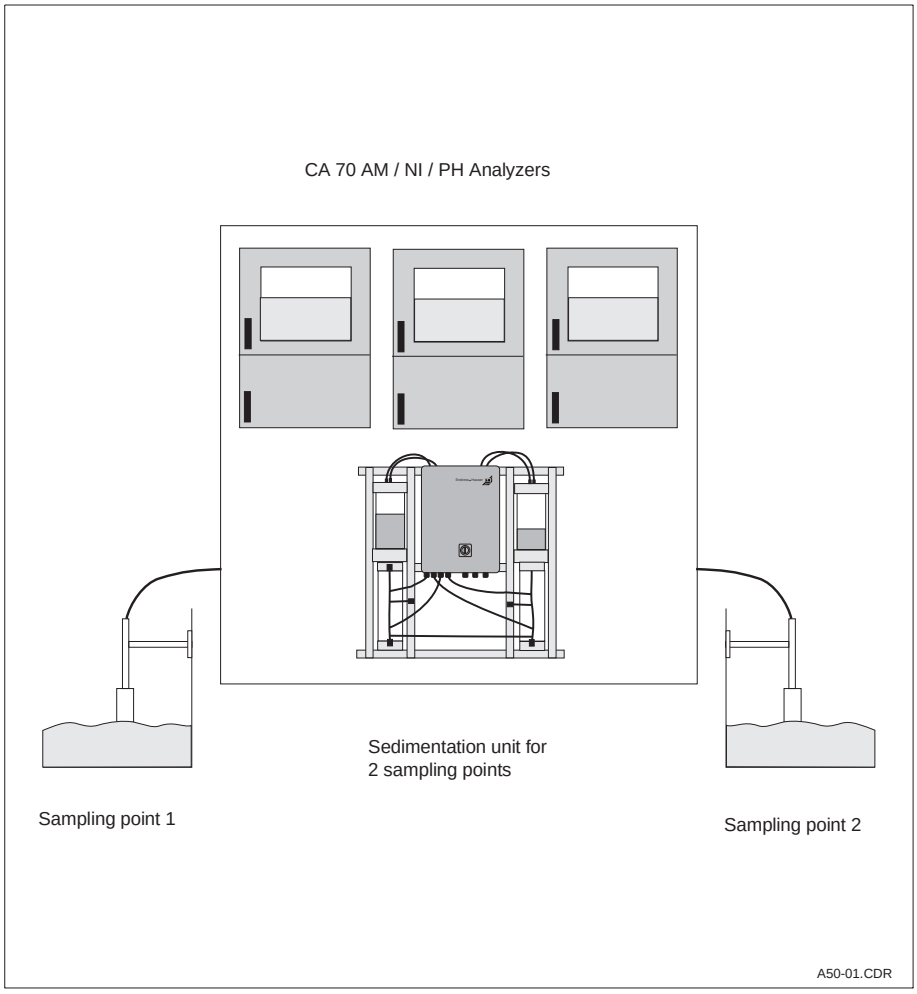
Expansion stages

The sedimentation unit for a sampling point supplies sediment-free samples for up to 3 Analyzers.

The Duo-sedimentation unit samples at two measurement points and feeds the conditioned samples frequently to one Analyzer. The minimum measuring interval per channel is only limited by the process period of the connected Analyzers or – for poor sedimentation behaviour – by the sedimentation period.

The maximum expansion stage is a sedimentation unit for two sampling points which supply 3 Analyzers.

Maximum expansion stage



Technical data

General data

Manufacturer	Endress+Hauser
Instrument designation	Stamolys Sedimentation Unit CA 50

Mechanical data

Dimensions (h × w × d) Sampling from one measuring point Sampling from two measuring points	 720 x 690 x 300 mm 720 x 870 x 300 mm
Weight Sampling from one measuring point Sampling from two measuring points	 approx. 28 kg approx. 44 kg
Sedimentation volume of glass cylinder	3100 ml/channel
Volume of sampling vessel CA 30	6500 ml

Materials

Enclosure	anodised Al
Sedimentation cylinder	glass cylinder Schott Duran®
Feed and drain	Stainless steel
Permeate hose	Norpren® ID 1.6
Sampling hose	textile hose Griflex ID 19 x 4

Process connection

Tube dimension sampling hose and drain hose	3/4"
Max. distance between sampling point and Analyzer	35 m
Drain	free outlet with min. 3% slope
Compressed-air hose	ID 6

Signal output

External use: Potential-free contact “ready for operation” or “collective interference”	 contact capacitiy 230 V / 3 A
Internal communication to Analyzer: contact “no sample” contact “ measurement 1/2”	start signal for up to three Analyzers measuring point assignment for up to three Analyzers

Electrical data

Power supply	115 V AC / 230 V AC, 50/60 Hz
Power consumption	150 VA
Current drain	0.65 A

Ambient conditions

Temperature	5 ... 40 °C
Ingress protection	IP 54

Maintenance

Cleaning interval	1 ... 2 weeks (depending on sludge consistency)
Cleaning effort	15 ... 30 min/week (depending on type)
Maintenance interval	3 months

Supplementary documentation

Technical Information CA 70 AM	Order No.: 51502581
Technical Information CA 70 NI	Order No.: 51502639
Technical Information CA 70 PH	Order No.: 51502641

Subject to modifications.

Product structure

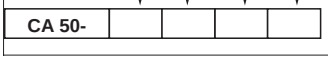
Stamolys Sedimentation Unit CA 50

Probe sampling
1 one measuring point
2 two measuring points

Probe outlet
A . for 1 Analyzer
B . for 2 Analyzers
C . for 3 Analyzers

Power supply
0 230 V AC
1 115 V AC

Operator terminal
A without terminal
B with terminal



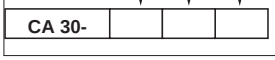
Complete order code

Stamolys Probe Sampling System CA 30

Sample feed
A 5 m tube feed without heating
B 15 m tube feed without heating
C 30 m tube feed without heating
D 5 m tube feed with heating
E 15 m tube feed with heating
F 30 m tube feed with heating

Immersion tube
2 . immersion tube 2 m
3 . immersion tube 3 m

Immersion tube holder
A immersion tube holder with 300 mm wall spacing
Y special version



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