Examine Scale Deposition and Blocking

with the

mobile Differential Dynamic Scale Loop

Characteristics

- Mobile tube blocking system for measurements in the field
- Semi automated
- Up to +150 / +250 °C (302 / 482 °F) up to 45 / 172 bar (700 / 2,500 psi)
- Live water extension
- Transport case

The mobile Differential Dynamic Scale Loop (mDSL) is a tube blocking system designed for scale deposition measurements inside and outside the laboratory.

The mDSL can be taken to customer site or into the field if the sample can't be transferred to your lab.

With our transport case the mDSL can be moved safely to its operation site.

Mode of operation
The mDSL is a two-pump system. The standard test procedure uses artificial, separated brines with a fix inhibitor concentration and a manual switch between brines and cleaning solutions. Test of tube blocking tendency, inhibitor performance and dissolver effectiveness are the typical applications.

Heating cartridge - test capillary
The mDSL has a specially designed heating system for the test capillary. Instead of a tube coil the capillary is in a pressure-tight cartridge system. This cartride allows an easy opening of the coil, giving access to the precipitated scale particles. Also it makes the cleaning process more simple.

PSL Systemtechnik
Germany

Live water extension

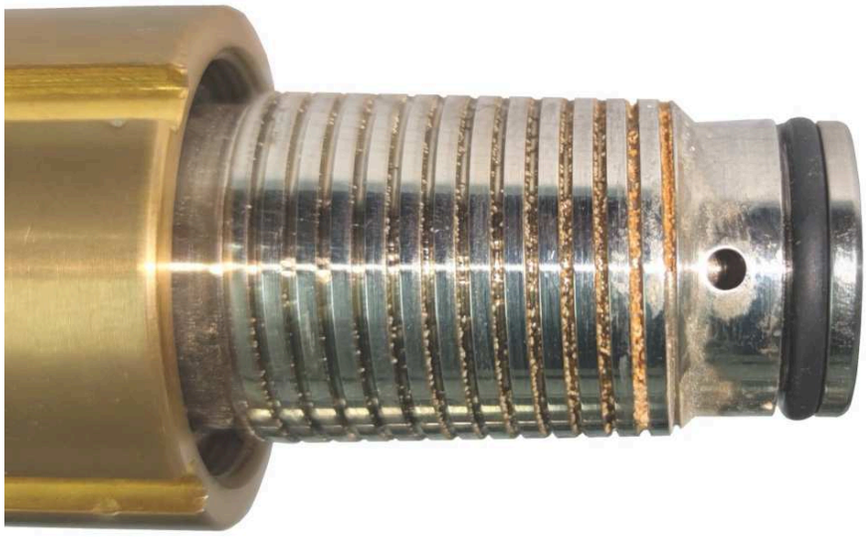
For our instrument two extensions are available. Both allow the direct injection of real live water samples.
For **carbonate** scale forming waters with dissolved gas or particles the sample can be injected pressurized and is drained in a second pressurized waste container. The sample will not depressurize in the whole process.
For sulfate scale forming waters the injection line is additionally heated and the test capillary can be cooled for testing the temperature dependence of the scaling process.

Results from field tests as from the lab

Test conditions in regard to flow rates, temperature and pressure rating are comparable to the scale loops known from the labs. This allows you to obtain results in field tests that are comparable to those found in the laboratory.

Software control

Our software *WinDSL* permits to control all parameters for the experiments, records all data and automatically stops the scaling test when scale formation is detected to ensure the capillary is not blocked.



Test capillary with precipitated scale

Specifications:

Temperature range:	+30 ... +150 or +250 °C (+ 86 ... 302 or 482 °F)
Working pressure range:	3,4 bar ... 45 / 172 bar (50 psi ... 700 / 2,500 psi)
Flow rate:	single pump: 0,1 .. 5 ml/min
	overall flow, max. 10 ml/min
Test pipeline:	length: 1 m, ID: 0.75 mm, material: stainless steel
Filter:	integrated, mesh size 2 µm
Power consumption:	max. 2,500 W
Voltage input:	110 .. 230 V~, 50/60 Hz wide-range
Weight:	45 kg (60 kg in transport case)
Dimensions (WxDxH):	45 x 65 x 60 cm (main unit)

PSL Systemtechnik
Germany

PSL Systemtechnik GmbH
Baumhofstrasse 116
D-37520 Osterode am Harz

Tel +49 5522 31250-0
info@psl-systemtechnik.com
www.psl-systemtechnik.com