

# Wax Content Testing

## with the Cold Finger

### Characteristics

- Convincing improved handling
- Up to 15 measuring places for simultaneous tests
- Samples can be separately removed during a test
- Highly precise measurements with weight-calibrated cold finger caps
- Software for documentation
- **Option:** Coaxial Shear model

The Cold Finger is an old acquaintance for those who examine the wax content of crude oil and condensate.

The Cold Finger by PSL Systemtechnik improved the established test method in its operation and provides measurement recording by Software.

The PSL Cold Finger is equipped with up to 15 measuring places for multi-place testing in lab. Combining multiple cold fingers in one heating bath facilitates screenings on wax inhibitors, e.g. simultaneous testing of different chemicals on a single sample or testing of different inhibitor concentrations with the same sample.



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Separately removable during tests

### Our Solution

Use the modern way to measure wax deposition with the multi-place Cold Finger. Make it possible with the Cold Finger by PSL Systemtechnik. Using the Cold Finger the behavior of up to 15 samples can be monitored simultaneously for quick screening and analysis.

Run your test with different temperatures and stirrer speeds in one test run. Remove the cold finger caps separately to monitor deposition vs. time effects.

### The Simple Handling is Convincing

Three drawers with 5 measuring places each are set in a robust aluminium-frame. The drawers can be easily pulled. Insert the filled sample beakers to the measuring places and lower the cold finger caps into the sample. Adjust the test conditions either

directly at the instrument or via software and start the experiment.

After the test is finished you pull the drawer out again. Push the cold finger up to its holding bracket. You can just pull off the cold finger cap with the wax deposits. This is easy, as the knurl at the upper, dry rim of the cell is used as gripping surface. You can then weigh the cell and with the software you can save the weight of the wax deposit.

### Further Advantages

The cold finger caps are all calibrated with a deviation of <0,01 g. So the caps can be arbitrarily changed between the measuring places and need not be weighed before a test to determine the tare weight.

The drawers with their integrated temperature control enable the removing of single samples during a test. Thus you can determine the time-behavior of deposits for one sample or start different tests separately.

The low sample amounts of max. 75 ml help to save test material.

Every drawer has its own temperature control, so samples can be tested simultaneously under different conditions.

With the high precision balance exact results can be provided with a relative measuring accuracy of 0,01 g.

### The Software

By using the Cold Finger with a PC and the software *WinCFC* you can control the temperature via PC and directly save the measuring data of the balance. With the software you can set the required parameters, which are documented for a test run. You can record single measurements or several measurements in an interval and evaluate the recorded data later.

We adapt the Cold Finger to your requirements.

### Specifications:

Temperature range:	
Cold Finger	-5 ... +65 °C (23 ... +149 °F)
Dry bath for sample	+30 ... +120 °C (+86 ... +248 °F), other temperatures on request
Wet bath for sample, optional	-10 ... +80 °C (+14 ... +176 °F)
Coaxial shear:	alternative model
Number of measuring places:	5 (basic setup), 10 or 15 places
Sample volume:	max. 80 ml
Stirrer speed:	0 / 100 ... 2.000 rpm
Power consumption:	1.450 W (CF) + 3.600 W (thermostat)
Voltage input:	230 V~ (110 V~ on request)
Weight:	95 kg (CF) + 40 kg (thermostat)
Dimensions (WxDxH):	55 x 59 x 118 cm