# **Test Absolute Viscosity**

with the

# **Viscosity Measuring Site 30150**

### **Characteristics**

- Portable for -30 to +150 °C (-22 to 302 °F)
- · In lab down to -45 °C (-49 °F)
- Capable of measuring viscosities ranging from very low to very high
- Extremely fast cooling and heating by thermoelectrical modules
- · Vane sensor for yield testing



## Viscosity range from very low to very high

With the portable Viscosity Measuring Site VM 30150, the rheological characteristics of crudes, other fluids and non-newtonian fluids can be determined according to DIN 53019 / ISO 3219.

The Viscosity Site consists of the control unit ViscoTemp 30150 with a cooling unit and the rotational viscometer Haake® Viscotester 550 to measure absolute viscosity. It includes sensors for measurement in low and medium viscosity ranges for Searle-type measurements.



#### Portable viscosity site

The complete Viscosity Measuring Site is portable and has a weight of 26 kg including its trolley case. The measuring site is the ideal choice to determine viscosity on site.

#### Low temperature down to -45 °C

Our Viscosity Measuring Site is extendable with a cooling-water recooler for temperatures down to -45 °C (-49 °F) - a costeffective alternative to cryostats with the same capacity.

### Wide temperature range -30 to +150 °C

The ViscoTemp covers a temperature range from -30 ... +150 °C (-22 ... +302 °F) without requiring an external cryostat. Thermoelectric modules are used to cover this range with only tap water as cooling liquid. The advantage of these modules compared to common thermostats is that no exchange of cooling liquid is necessary to reach temperatures outside the range of 0 ... +100 °C (+32 ... +212 °F).

#### Short measuring times

The thermoelectric modules also allow faster measurements. The measurement duration can be shortened by more than half of the time needed with a common cryostat. With its cooling rate from +25 ... -25 °C (+77 ... -13 °F) in 15 minutes only, the Visco-Temp increases your throughput distinctly.



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#### More accurate results

When compared with other double jacket systems, the ViscoTemp 30150 can achieve a significantly more homogeneous temperature distribution. The vertical temperature gradient of the wall is less than 0,3 K, which provides more accurate results.

#### Ambient or pressurized

Measurements under normal pressure as well a pressurized model is possible. The software *RheoWin* enables an easy, comfortable design and evaluation of test runs by controlling the site via PC.

#### Flexible with Haake® Viscotester VT550

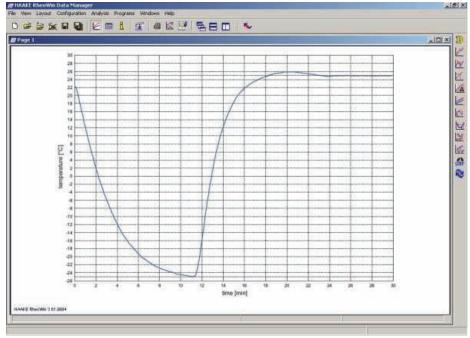
The Haake® Viscotester VT550 measures the viscosity of fluids and pastes in a fast, easy and reliable way. The results - viscosity, shear stress, shear rate, yield point and operating

temperature - are digitally displayed. Measuring the torque with a non-contact, low displacement sensor increases the measurement precision, signal linearity and measuring range.

#### Additional measuring sensors

Additional measuring sensors, e.g. vane sensors for yield point measurement are available. With the vane sensor you can examine thixotroph media like critical shear force for wax deposition. More challenging tasks, e.g. the automatic measuring of flow behavior of non-Newtonian substances can be directly executed with pre-defined routines. Via a PC, experimental runs can be freely programmed, controlled and evaluated.

The Viscosity Measuring Site can be adapted to your requirements.



Temperature profile VT 30150: +25°C to -25°C (+77°F to -13°F), cooling and re-heating

## **Specifications:**

Application:	Absolute viscosity for Newtonian and non-Newtonian fluids
Standard:	DIN 53019 / ISO 3219 and DIN 54453
Temperature range:	-30 +150 $^{\circ}$ C (-22 +302 $^{\circ}$ F), down to -45 $^{\circ}$ C (-49 $^{\circ}$ F) with recooler
Viscosity range:	3 10 <sup>5</sup> mPas (extended range possible)
Accuracy:	0,1 °C / ± 0,1 K
Rotational speed:	0,5 800 rpm
Cooling water usage:	approx. 1 I/min
Cooling water temperature:	+3 +25 °C (+37 +86 °F)
Cooling water pressure:	1 6 bar (14,5 87 psi)
Power consumption:	1.900 W
Voltage input:	85 V~ 264 V~ (47 63 Hz) - wide range
Weight:	18,1 kg, with trolley-case 25,6 kg
Dimensions (WxDxH):	Visco Temp: 26 x 38 x 16 cm, cooling unit with VT550 (ø x H): 20 x 70 cm



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