

# Viscometry Site

DIN 53019 / ISO 3219



Control unit (right), cooling/heating unit (left), with Thermo HAAKE viscometer

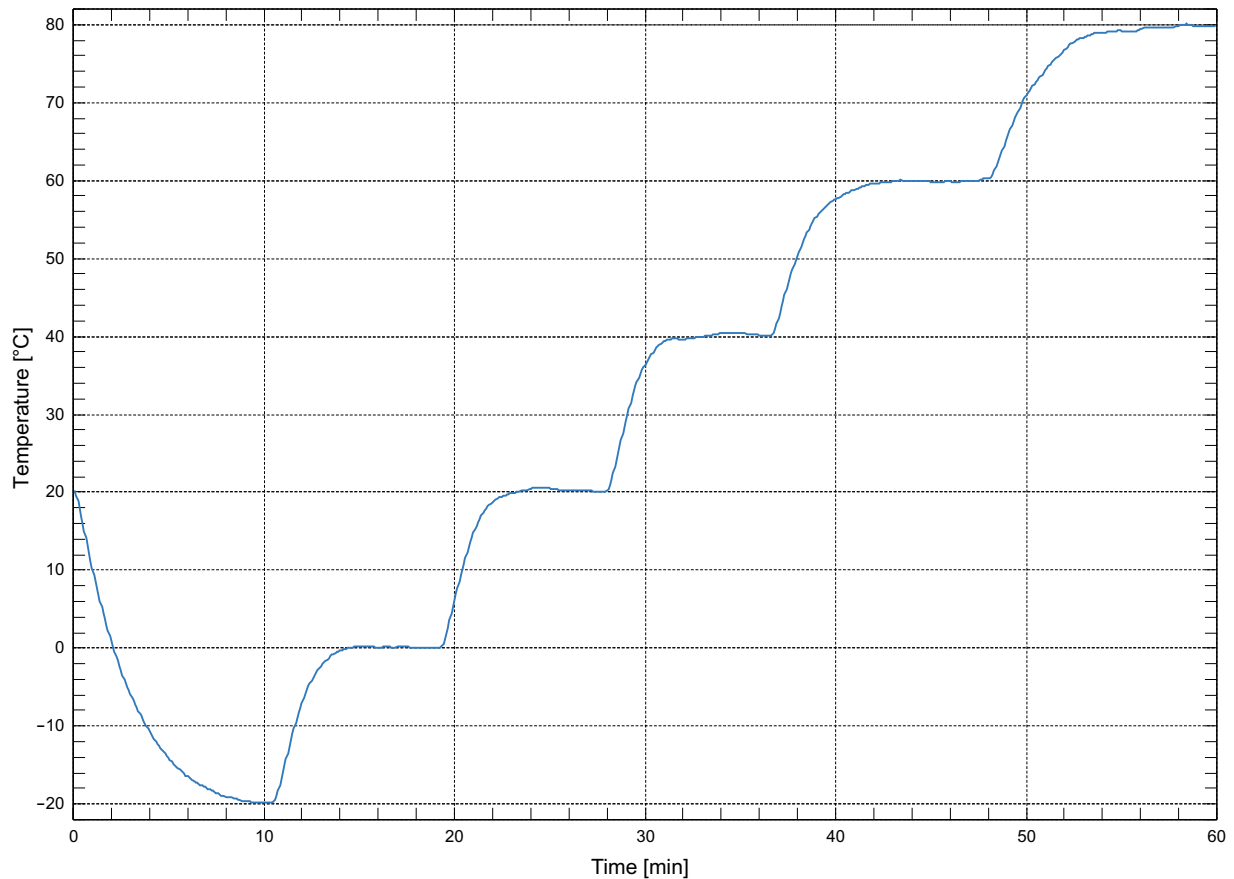
This complete viscometry site fits into a suitcase. The system comprises a rotational viscometer (Thermo HAAKE VT 550) and a high dynamic and very accurate heating and cooling unit.

The viscometer is equipped with a cylindrical measuring system. Flow curves deliver a rheological determination of Newtonian and non-Newtonian behavior. Application properties like sedimentation, spreadability or running properties of higher viscosity products are determined by measuring the yield point.

The heating/cooling unit's temperature range is  $-30^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$ . It does not require any environmentally hazardous cooling liquids and is superior to conventional circulators. Temperature overshoots are reduced to a minimum. The set temperature is reached extremely fast. This reduces measurement periods. The temperature distribution is 16 times more homogeneous as with conventional circulators. The vertical temperature gradient is less than  $0.5^{\circ}\text{C}$  on 10cm.

The measuring site can be controlled by Thermo Electron's RheoWin control software.

- Viscosity range: 1 to 1,000,000 mPas, cylindrical DIN 53019 / ISO 3219  
Yield point
- Speed range: 0.5 to 800 rpm
- Torque range: 0.1 to 30 mNm
- Reproducibility:  $\pm 1\%$
- Comparability:  $\pm 2$  bis  $4\%$
- Temperature range:  $-30^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$  or  $+150^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $+176^{\circ}\text{F}$  or  $+302^{\circ}\text{F}$ )  
Resolution 0.1K, accuracy 0.1K
- Cooling rate: 10K/min max.
- Control: Instrument's keypad or by software (Thermo Electron RheoWin )



*Temperature profile  
-20°C to +80°C  
in 20K steps*

## Options:

- Cylindrical measuring adaptors for different viscosity ranges and applications
- Transport case, air transport capable, for the entire measuring site
- Voltage input 0-10V for temperature setting
- digital calibration thermometer for fully automatic calibration (replaces yearly calibration service)
- PC or laptop, 2x RS232, RheoWin control software preinstalled

## Further technical data:

Dimensions: Control unit (WxHxD): 26x16x38cm, cooler: H: 16cm, : 20cm,  
Transport case (WxHxD): 60x36x50cm

Weights: Control unit: 4.9kg, cooler: 6.1kg, viscometer: 1.1kg,  
Measuring site incl. transport case: 22kg

Power consumption: max. 2100W, 230V/50Hz or 115V/60Hz auto range

Cooling/heating power: 480W max. / 1050W max.

Counter cooling: Water, 3°C to 30°C, approx. 1 l/min.  
(-30°C sample temperature at 15°C cooling water temperature)



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