



## **Rheology Solutions**

*Rheology Solutions is the sole Australian distributor of this product range and we welcome the opportunity of discussing your application requirements.*

*We hope the information you are seeking is contained within this file.  
If you have any questions, or require further information please contact us.  
We look forward to being of further service.*

*Regards from the Team at Rheology Solutions.*

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# Application packages: Thermo Scientific HAAKE RheoStress 6000 "Measurements at higher pressures"

Order number 396-0043 and 396-0044

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## Application

These packages have been created for the determination of the pressure-dependent rheological characteristics of a sample. The universal rheometer Thermo Scientific HAAKE RheoStress 6000 is designed to perform rheological tests in CR (controlled rate) mode as well as CS (controlled stress) and CD (controlled deformation). Thanks to a liquid or electric temperature control unit, precise and fast temperature control of the sample can be achieved. Different versions of pressure cells are available: a version for standard applications made of stainless steel as well as a Hastelloy version to test chemically aggressive samples. The standard version can be pressurized up to 400 bar using a suitable pump whereas the upper pressure limit of the Hastelloy version is 70 bar. Both pressure cells are designed for temperatures up to 300 °C. A variety of measuring geometries is available for different applications: cylindrical rotors with different diameters for homogeneous samples and vane rotors for suspensions with larger particles [1].

With the configurations described above, the pressure and/ or temperature dependency of the sample can be easily monitored, e.g. the rheological behaviour of crude oil and drilling fluids as well as food products can be monitored directly under real-life conditions to improve performance in the respective application.



Thermo Scientific HAAKE RheoStress 6000

## Advantages at a glance

- Universal rheometer Thermo Scientific HAAKE RheoStress 6000 for standard applications in QC as well as R&D
- Easy-to-use, multilingual HAAKE RheoWin software for beginners and experts
- Solid material measuring geometries with high resistance
- Low torque measurements thanks to state-of-the-art sapphire-bedded measuring geometries and software-controlled torque correction
- High torque measurements thanks to a strong magnetic coupling between motor and measuring geometry

## Scope of delivery

### 396-0043 Application package with pressure measuring cell made of titanium

396-0040	Air-bearing rheometer Thermo Scientific HAAKE RheoStress 6000 incl. normal force sensor as well as measuring and evaluation software HAAKE RheoWin
222-1431	Liquid temperature-controlled cylinder unit (TEF/Z), temperature range -40 °C up to 200 °C (depending on the circulator used, electrical temperature-controlled cylinder unit (TEE/Z) for temperatures up to 300 °C)
222-1706	Pressure measuring cell D400/300, up to 400 bar and 300 °C, made of stainless steel
222-1710	Temperature sensor for pressure cell D400/300

### 396-0044 Application package with pressure measuring cell made of Hastelloy

396-0040	Air-bearing rheometer Thermo Scientific HAAKE RheoStress 6000 incl. normal force sensor as well as measuring and evaluation software HAAKE RheoWin
222-1431	Liquid temperature-controlled cylinder unit (TEF/Z), temperature range -40 °C up to 200 °C (depending on the circulator used, electrical temperature-controlled cylinder unit (TEE/Z) for temperatures up to 300 °C)
222-1566	Pressure measuring cell D75/300, up to 75 bar and 300 °C, made of Hastelloy
333-0726	Temperature sensor for pressure cell D75/300

#### Necessary accessories

- Air compressor or standard filter unit for available compressed air
- Measuring geometry for pressure cell
- Circulator or electrical temperature control unit

#### Literature

- [1] Thermo Scientific product information P21 "Vane rotors for pressure cells for HAAKE MARS and HAAKE RheoStress 6000", Cornelia Küchenmeister, Klaus Oldörp

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D-006\_09.09.08

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