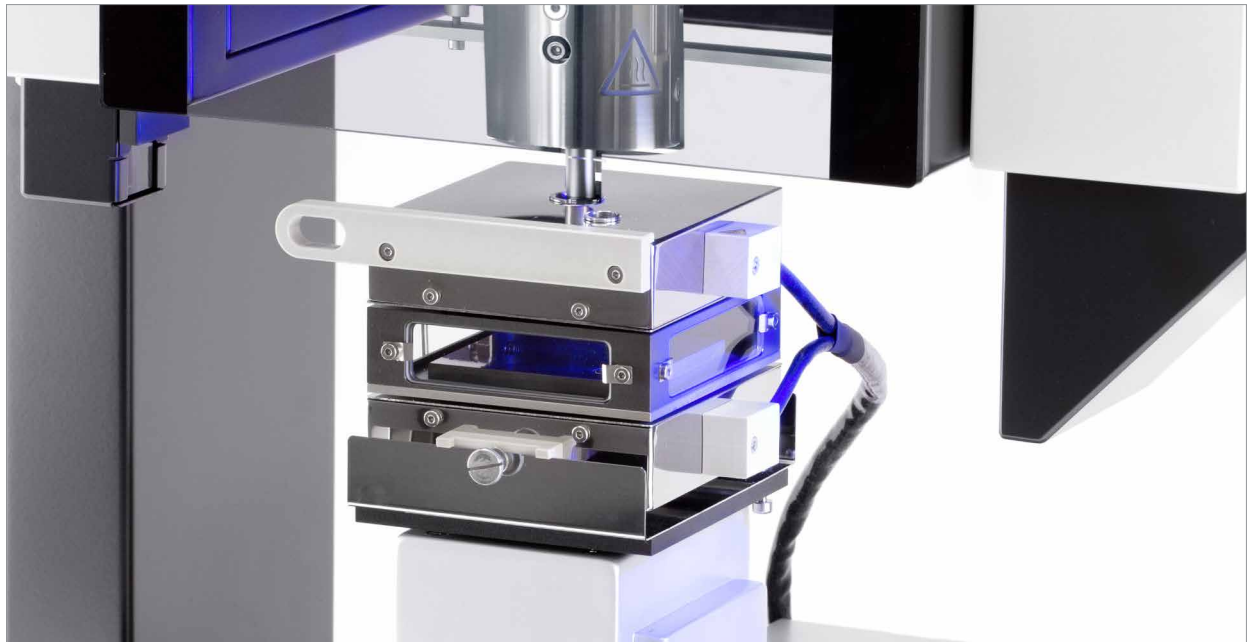


TEMPERATURE CONTROL EQUIPMENT AND ENVIRONMENTAL CHAMBERS

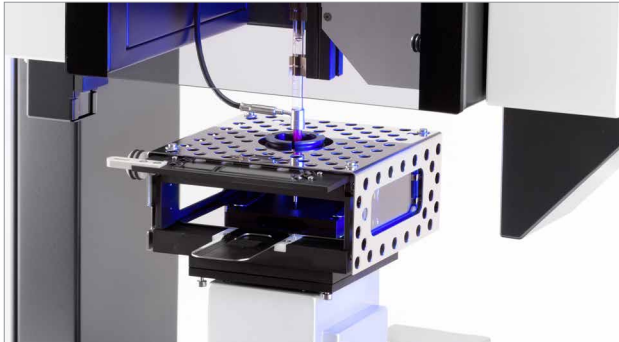
For the Drop Shape Analyzers – DSA25 | 30 | 100



KRÜSS

Advancing your Surface Science

TC11 – TEMPERATURE CONTROLLED CHAMBER FOR LARGE SAMPLES

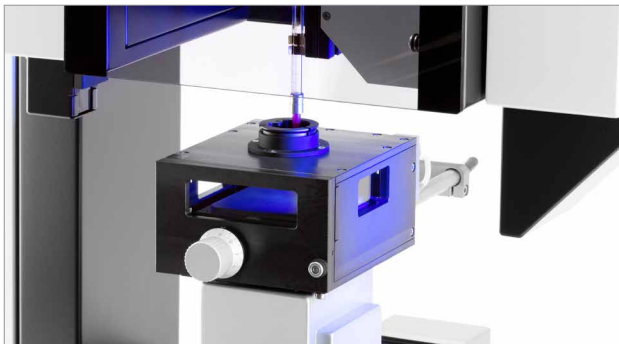


- For sample sizes up to 132 × 132 × 27 mm (W × D × H)
- Temperature range between -10 and 130 °C (suitable thermostats are available)
- Precision temperature sensor included
- Inert gas connector provided

The temperature controlled chamber TC11 has been specially developed for measuring the contact angle on large samples at temperatures of up to 130 °C. The slide-in sample tray is conveniently loaded outside the chamber and can be moved from the outside when the chamber is

closed and at the required temperature. Small samples are prevented from shifting by means of removable holding clamps. The front viewing window simplifies dosing in the required sample position.

TC30 – TEMPERATURE CONTROLLED CHAMBER UP TO 90 °C

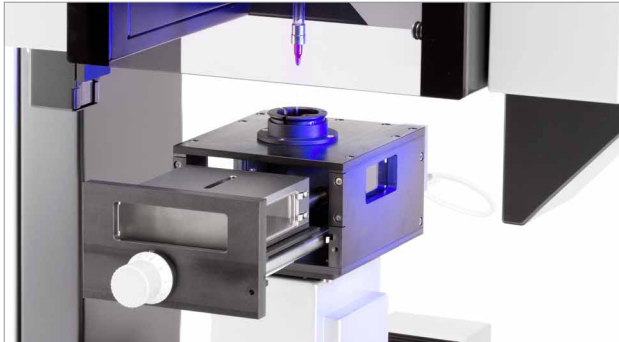


- Temperature range between 5 and 90 °C (suitable thermostats are available)
- Precision temperature sensor included
- Inert gas connector provided
- Can be ideally combined with the humidity chamber HC10

The wettability of solid samples can be reliably analyzed at temperatures up to 90 °C with the help of the temperature controlled chamber TC30. The well-sealed and insulated plastic housing and a copper heat-conducting hood ensure stable thermodynamic equilibrium.

Gas purging of the viewing windows is effective against condensation. The dosing position can be conveniently adjusted from the outside when the chamber is closed and at the required temperature.

TC40 – TEMPERATURE CONTROLLED CHAMBER FOR RAPID CHANGES

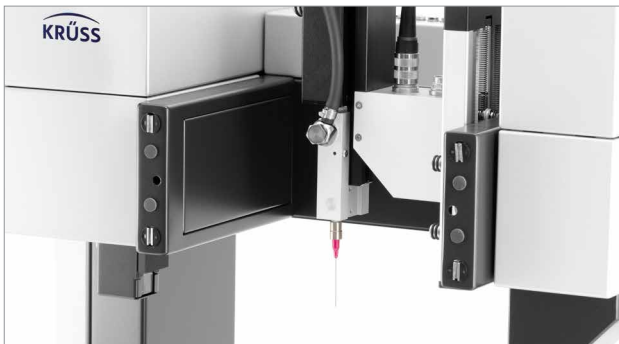


- Fast electrical temperature control between -30 and 160 °C
- Precision temperature sensor included
- Inert gas connector provided
- Can be combined with the humidity chamber HC10 between 5 and 90 °C

With rapid temperature changes between -30 and 160 °C, the temperature control chamber TC40 is our flexible solution for wettability analyses under different thermal conditions. The insulating plastic housing and a heat-conducting copper hood ensure

a uniform, stable internal temperature. A gas flow can be connected in order to avoid condensation and icing of the viewing windows. The dosing position can be conveniently adjusted from the outside when the chamber is closed and at the required temperature.

TC3212 – TEMPERATURE CONTROLLED UNIT FOR LIQUIDS



- Temperature range -10 to 130 °C (suitable thermostats are available)
- Precision temperature sensor included
- Also suitable in combination with temperature controlled chambers TC11, TC30 and TC40

The unit TC3212 tempers liquids for measuring contact angle or surface tension at up to 130 °C. Embedded in a heat-conducting metal sleeve, the filled syringe (excluded from delivery) quickly reaches the desired temperature. With the help of a sensor, the temperature is measured

directly at the syringe and assigned to the measurement in the software. The unit is easy to fit and ideally complements your software-controlled or manual single dosing unit.

TC21 – TEMPERATURE CONTROLLED CHAMBER FOR HIGH TEMPERATURES



- Electrically controlled temperature between 50 and 400 °C
- Precision temperature sensor included
- Ideal in combination with the high-temperature dosing unit DS3241/DS4241

The temperature controlled chamber TC21 enables liquid and solid surfaces to be analyzed at temperatures up to 400 °C. The target temperature is easy to specify and is reliably achieved at defined heating rates. The chamber's

excellent insulation ensures stable equilibrium during the measurement. With the help of the accurate temperature sensor, the current value is recorded by the software together with the contact angle or the surface tension.

DS3241/DS4241 – HIGH-TEMPERATURE DOSING UNITS

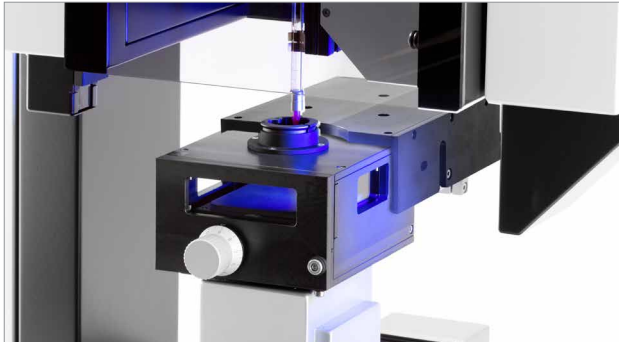


- Large temperature range of 50 to 400 °C
- For polymers, hotmelts or any other melts
- Exchangeable melting chamber for easy cleaning

We have designed the dosing units DS3241 (for DSA100) and DS4241 (for DSA30) specially for analyzing the wetting and surface tension of melts at temperatures between 50 and 400 °C. The melting cylinder is conveniently filled in the cold state and then heated rapidly in a controlled way. Dosing is carried out precisely with the help of a

micrometer screw, thus easily producing a drop of the desired size. The DS3241 or DS4241 are ideal when used in combination with the temperature controlled chamber TC21 for temperature control of samples to measure the contact angle.

HC10 – HUMIDITY CHAMBER



The wettability of a surface is affected by the climatic ambient conditions. Using the humidity chamber HC10 in combination with the tempering chamber TC30 or TC40 enables you to measure contact angles at precisely controlled humidity and temperature.

- **Relative humidity (without insulating hood): 15 to 85% at 22 °C, up to 89% at 10 to 15 °C, up to 5% at 70 to 90 °C**
- **Time to achieve target value: 20 to 300 s**
- **External compressed air supply required (3 to 6 bar, very dry air), a suitable compressor is available**
- **Temperature range between 5 and 90 °C (suitable thermostats are available)**

At temperatures above 50 °C and humidities above 65%, we recommend using the optional insulating hood TC3200. Inserted into the temperature controlled chamber, this enables the target humidity to be reached even more quickly and maintained with increased stability.

The following accessories
can be combined with the
DSA series:



DSA25



DSA30



DSA100

	DSA25	DSA30	DSA100
TC11	✓	✓	✓
TC30	✓	✓	✓
TC40	✓	✓	✓
TC3212	✓	✓	✓
TC21	✓	✓	✓
DS3241	-	-	✓
DS4241	-	✓	-
HC10	✓	✓	✓