PRODUCT INFORMATION

Overview parallel plates and cone & plate geometries

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Key words

Thermo Scientific HAAKE MARS, Thermo Scientific HAAKE Viscotester iQ, parallel plates, cone & plate, disposable geometries

Various parallel plates and cone & plate geometries are available for the Thermo Scientific™ HAAKE™ MARS™ 40/60* and the Thermo Scientific™ HAAKE™ Viscotester™ iQ rheometers. Every geometry consists of the upper plate or cone rotor and a lower exchangeable plate. The lower plates can be easily mounted on every standard temperature control module for cone or plate geometries with a bayonet ring (Fig.1). All lower plates match the corresponding upper rotor in diameter and surface finish.
The matching diameter of upper rotor and lower plate simplifies sample loading and trimming and can contribute to a higher reproducibility and overall data quality.

Parallel plates and cone & plate geometries are available from 8 to 60 mm diameters (Fig. 2). All standard parallel plates and cone & plate geometries consist of an upper rotor (Fig. 3) with

- ceramic shaft with low heat conductivity for fast temperature setting and lower temperature gradient within the sample
- quick fit coupling for easy mounting
- automatic rotor recognition
- integrated fluid reservoir as part of a solvent trap, when used with a sample cover
- plate or cone made of titanium for low inertia and high chemical resistance**

and an exchangeable lower plate made of stainless steel**.

The lower plates have a maximal thickness of 3 mm and therefore a low thermal mass, which allows for fast temperature setting. Except for the 60 mm version, all lower plates have an integrated outer fluid reservoir that serves as an additional solvent trap when used with a standard sample cover (Fig.4) [1].

*geometries with same dimensions but different shaft and coupling system are available for predecessor models as well as HAAKE RheoStress instruments.
**other materials are available upon request.

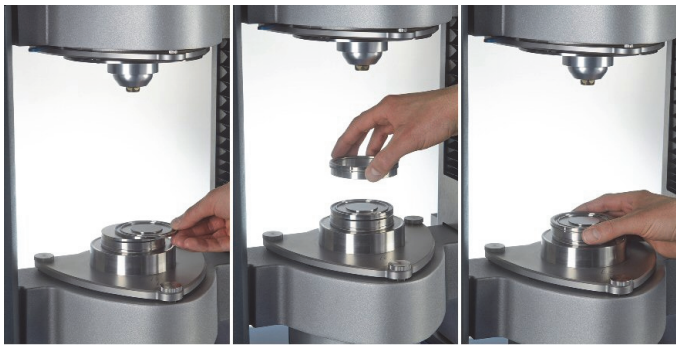

Fig. 1: Mounting of a lower plate on top of a temperature module.

Fig. 2: Selection of parallel plates geometries with different diameters (20 mm, 35 mm and 60 mm).

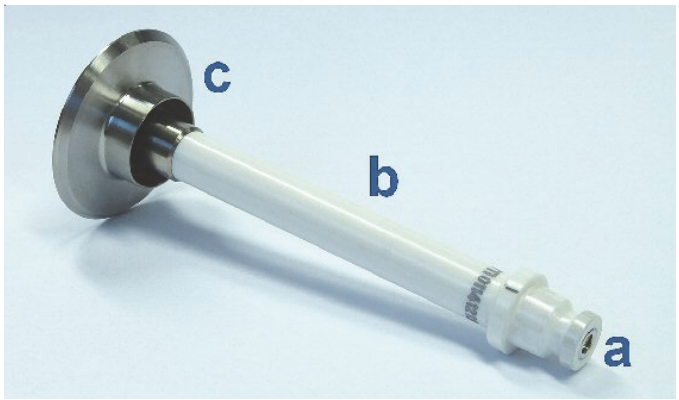

Fig. 3: Upper plate rotor with a) quick fit coupling and tag for automatic recognition b) ceramic shaft and c) titanium plate with integrated fluid reservoir.

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Besides a smooth surface finish, all parallel plates measuring geometries are also available with a sandblasted or serrated finish to reduce slippage effects during measurements.

For testing curing materials or abrasive samples, disposable parallel plates geometries with different diameters are available (Fig.5). All disposable geometries consist of

- an exchangeable lower plate made of aluminum
- an exchangeable upper plate made of aluminum
- an adapter with quick fit connection, automatic recognition and ceramic shaft

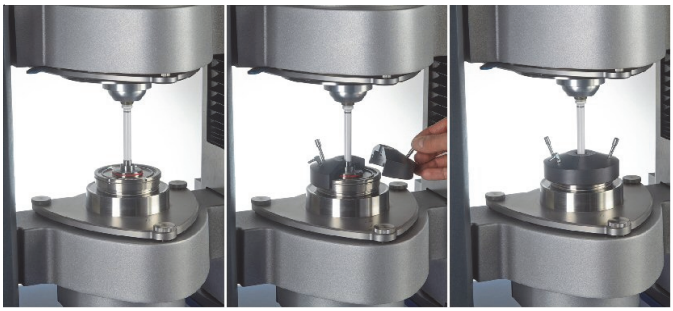

Fig. 4: Parallel plate geometry in measurement position without and with sample cover.

Fig. 5: Adapter for disposable plates with plate inserts of different diameters.

Reference

[1] Thermo Fisher Scientific Product information P035 "Overview sample covers with integrated solvent trap" Cornelia Küchenmeister-Lehrheuer, Jint Nijman and Fabian Meyer

Ordering information

Diameter*****	8 mm	20 mm	25 mm	35 mm	60 mm
Lower plates TMP					
stainless steel, smooth finish	603-1208	222-1893	222-1928	222-1892	222-1891
stainless steel, serrated finish		222-1896	603-0611	222-1895	222-1894
stainless steel, sandblasted		603-0721	603-0823	603-0722	603-0743
aluminium,disposable, 100 pieces	222-1921	222-1924	222-1925	222-1926	222-1910
Upper plate Rotors					
titanium, smooth finish	222-2106	222-2090	222-2105	222-2089	222-2063
titanium, serrated finish	603-2106	222-2093	222-2107	222-2092	222-2091
titanium, sandblasted		603-2119	603-1150	603-2168	603-2169
aluminium,disposable, 40 pieces***	222-2152	222-2154	222-2155	222-2156	222-2157
Cones					
titanium, 4° cone angle		222-2118		222-2114	222-2186
titanium, 3° cone angle				222-2184	222-2185
titanium, 2° cone angle		222-2117	603-2114	222-2113	222-2104
titanium, 1° cone angle****		222-2116		222-2128	222-2110
titanium, 0.5° cone angle****		222-2115		222-2111	

***adapter 222-2290 required.
****not available for HAAKE Viscotester iQ rheometers
*****other diameters upon request.

Find out more at thermofisher.com/rheometers

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