

# Technical Specifications

# NETZSCH

|                              | Rosand RH2000   | Rosand RH7  | Rosand RH10   |
|------------------------------|---|---|---|
| Number of bores              | <ul style="list-style-type: none"> <li>■ Single bore</li> <li>■ Double bore</li> </ul>  | Double bore   | Double bore   |
| Maximum force                | 12 kN standard<br>(20 kN option)  | 50 kN   | 100 kN  |
| Frame stiffness              | 100 kN  | 250 kN  | 250 kN  |
| Maximum speed                | 600 mm/min standard<br>(1200 mm/min high-speed option)  | 600 mm/min  | 1200 mm/min   |
| Dynamic range in speed       | 200,000:1<br>(400,000:1 with high speed option)   | up to 200,000:1   | up to 400,000:1   |
| Speed uncertainty            | < 0.1 %   | < 0.1%  | < 0.1%  |
| Temperature range            | Ambient to 400°C (500°C option)<br>5°C to 300°C (low-temperature cooling coil option)   |   |   |
| Temperature control          | < ± 0.1°C   | < ± 0.1°C   | < ± 0.1°C   |
| Bore diameter                | 15 mm standard (9.5, 12, 19 and 24 mm bore options)   |   |   |
| Barrel bore length           | 250 mm  | 290 mm  | 290 mm  |
| Barrel material              | Nitrided steel standard (Hastelloy or stainless steel options)  |   |   |
| Pressure transducer ranges   | 30000, 15000, 10000, 5000, 3000, 1500, 1000*, 500* or 250 psi   |   |   |
| Pressure transducer accuracy | ± 0.25%   | ± 0.25%   | ± 0.25%   |
| Dies                         | Tungsten carbide, precision ± 5µm   |   |   |
| Die diameter                 | 0.5 to 2 mm (in 0.5 mm increments) and 3 mm standard<br>(other diameters, including fine bore dies, available to special order) |   |   |
| Maximum shear rate           | up to ≈ 10 <sup>8</sup> s <sup>-1</sup><br>(depending on die and barrel diameter)   | up to ≈ 5 * 10 <sup>7</sup> s <sup>-1</sup><br>(depending on die and barrel diameter)   | up to ≈ 10 <sup>8</sup> s <sup>-1</sup><br>(depending on die and barrel diameter)   |
| Height                       | Rheometer 1.1 m<br>Electronics box 0.65 m   | 2.45 m  | 2.45 m  |
| Width                        | Rheometer 0.55 m<br>(without accessories)<br>Electronics box 0.34 m   | 715 mm for transport<br>(unpacked), 780 mm with<br>cable connected  | 715 mm for transport<br>(unpacked), 780 mm with<br>cable connected  |
| Depth                        | Rheometer 0.65 m<br>(without accessories)<br>Electronics box 0.53 m   | 765 mm for transport<br>(unpacked), 900 mm with<br>fume extraction  | 765 mm for transport<br>(unpacked), 900 mm with<br>fume extraction  |
| Weight                       | Rheometer 120 kg<br>(without accessories)<br>Electronics box 30 kg  | 350 kg<br>(without accessories)   | 350 kg<br>(without accessories)   |
| Power requirements           | Single phase, AC, 230V<br>± 10%, 50-60 Hz, 16 A   | <ul style="list-style-type: none"> <li>■ 3 x 230 VAC (3P+N+PE) ± 10%, 3 x 16 A</li> <li>■ 3 x 220 VAC (3P+PE) ± 10%, UL/CSA 3 x 20 A</li> </ul> | <ul style="list-style-type: none"> <li>■ 3 x 230 VAC (3P+N+PE) ± 10%, 3 x 32 A</li> <li>■ 3 x 220 VAC (3P+PE) ± 10%, UL/CSA 3 x 30 A</li> </ul> |

\* With an accuracy of ± 0.5%