

## Small-scale Nano Compounding

The nano compounding bundle for the Thermo Scientific HAAKE MiniLab contains tools to mix or compound nano particles (e.g. nano tubes) in a base polymer. Industrial or academic users recommend to:

- use the standard HAAKE MiniLab micro-compounder for temperatures up to 350 °C
- use the control panel for an easy handling and quick test runs
- feed the material with the manual feeding device
- compound nano particles with counter-rotating screws
- use the co-rotating screws for applications with additives requiring less shear force

### Features:

- both screw options (co- and counter rotating screws) to enhance flexibility
  - counter rotating screws for best mixing of nano tubes and stable volume
  - co-rotating screws to compound thoroughly even shear sensitive materials
- manual feeding device for a better feeding of the Nano particles
- small sample volume (5 g or 7 cm<sup>3</sup>)

## Nano Compounding Bundle for the HAAKE MiniLab

### The new nano compounding bundle for the HAAKE MiniLab (557-2188) consists of:

- 557-2190 HAAKE MiniLab with co-rotating screws
- 557-2266 Set of counter rotating screws with adjustment tool and gears
- 557-2256 Manual feeding device for HAAKE MiniLab

### Additional options:

- 557-2265 Set of rod dies (0.5, 1.0, 1.5 and 2.0 mm) for HAAKE MiniLab
- 557-2264 Slit die for HAAKE MiniLab
- 557-2263 Conveyor belt for HAAKE MiniLab
- 557-2254 Force Feeder 230V/ 50-60Hz
- 557-2255 Force Feeder 115V/ 50-60Hz
- 557-2258 Software for HAAKE MiniLab

### Further reading and references:

Numerous researchers are successfully using the HAAKE MiniLab for compounding polymers and additives using only a small volume of test material. Data from the test compound enables researchers to predict production on a larger scale.

Please ask your sales representative for additional information on "how to" compound agglomerate material homogeneously.



Fig. 1: HAAKE MiniLab

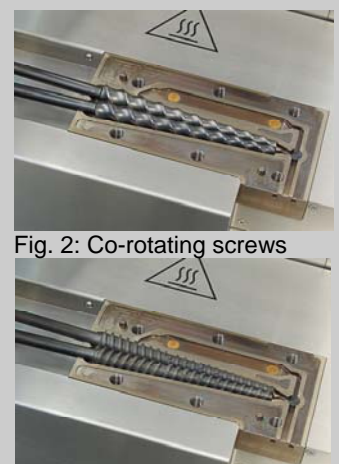


Fig. 2: Co-rotating screws

Fig. 3: Counter-rotating screws