

## Technical specifications :-

### 1. SM Xplore™ 5cm<sup>3</sup> twin-screw extruder

- Total capacity: 5 cm<sup>3</sup>
- Net. capacity: 4.5 cm<sup>3</sup>
- Screw length: 107.5 mm
- Maximum operating temperature 350°C. Heating time from 20°C to 240°C is 10 min. Cooling time from 240°C to 80°C is 10 min.

### DSM Xplore™ 3,5 cm<sup>3</sup> Laboratory Injection-Moulding Machine

- Barrel capacity: 3.45 cm<sup>3</sup>
- Mold area: 90 x 25 mm<sup>2</sup>
- Compressed-air cylinder (3-16 bar)
- Maximum operating temperature: 350°C Heating time from 20 to 240°C: 3 minutes.

### 2. Haake Mini Jet pro

- Total capacity: 2 to 5mL of material
- Max. injection pressure: 1100 bar
- Max. air pressure bar 10; filtered (50 µm), oil-free, dry compressed air
- Max. cylinder temperature: 450 °C
- Max. mold temperature: 250 °C

### 3. Process 11 parallel twin screw extruder

- Minimum required material: 50 g
- Process 11 Set of die Inserts: 0.5, 1.0, 1.5, 2.5 mm
- Barrel length: 40 L/D (440 mm)
- Ratio screw outer dia./ inner dia.: 1,72
- Temperature range: RT to 350 °C
- Maximum pressure: 100 bar (1450 psi)
- Screw Speed Range: 10 ... 1000 rpm

### Process 11 melt pump

- Pump volume: 0.6 cm<sup>3</sup>/rev
- Pump speed: 0.1 - 60 rpm
- Volume stream: 0.036 - 1.8 l/h
- Max pressure: 500 bar

- Temperature: RT to 450 °C
- Die adapter to connect

### **Filament Spooler**

- Coiling speed: 0.5 to 20 m/min
- Max.  $\varnothing$  of round plastic material: 4.0 mm

### **Spool data**

- Outer diameter/width:  $\varnothing$ 200 x 100 mm
- Hole for spool shaft min: 16 mm
- Spool core diameter 60 mm min. equal to the diameter of the peel-off rolls

### **4. Single screw extruder**

- Single Screw
- Sheet die