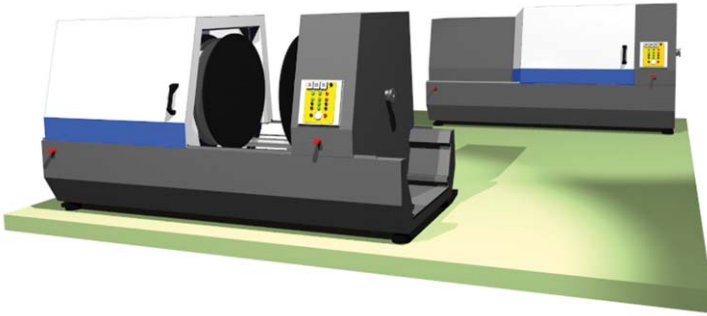


# 1 MD-VL

## Rotational Casting Machine

The 1MD-VL is a rotational casting machine designed for the production of variable length cast nylon tubes with outside diameters from 250 to 1000 mm.

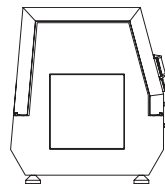
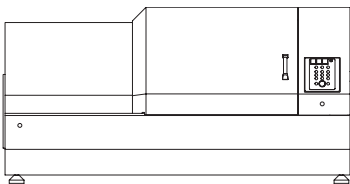
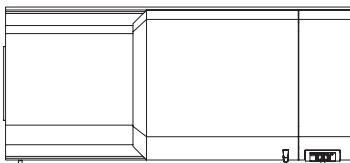


- Variable rotational moulding system for nylon tubes
- Hydraulic clamping system
- Accurate heating provided by both electronically controlled incoloy and ducted forced air convection heating units
- Electronic fault tracing and monitoring

### SPECIFICATION

Tube Length:	100 to 1000mm
Tube Outside Diameter:	250 to 1000mm
Tube Inside Diameter:	100 to 990mm
Speed Range:	50 to 1000rpm
Max. Power Consumption:	21kW

Power supply is available in a range of industry standards to accommodate local services.



**The 1MD-VL is designed to produce cast nylon tubes with lengths between 100 and 1000mm, coupled to outside diameters from 250 to 1000mm and inside diameters from 100 to 990mm. The tool is clamped then rotated and heated within a sealed enclosure, with the monomer melt being introduced when the tool temperature and rotational speed are correct for the required product size.**

The structure of the machine consists of a robust frame fabricated from heavy-gauge rectangular and square hollow section steel. The frame is clad with sheet steel panelling and all surfaces of the frame and panelling are fully protected against corrosion. All external surfaces of machined components are electroplated, again to prevent corrosion.

Access to the heating/casting chamber is provided by means of a fabricated sheet steel sliding door. The inner surfaces of the door and casting chamber are lined with reflective stainless steel, and the wall cavities are filled with ceramic blanket insulation to maximise thermal efficiency.

Within the variable length casting chamber are two aluminium platen heaters mounted behind the rotating endplates. Each heater is fully protected against overheating by integral electronic temperature controllers. Supplementary heating is provided by a ducted forced air convection system that directs hot air at the rotating tool. The ducting system is so designed that it automatically adjusts in length with the movement of the pour end of the unit. The ducted air is heated by star heaters and circulated by an electric fan.

The pour tube end of the machine is a separate fabricated structure, as above, mounted on slideways integral to the main frame and may be moved laterally relative to the fixed end of the machine by means of a hydraulic cylinder.

Two detachable machined aluminium endplates for locating, clamping and sealing the tool cylinders in the heating chamber are provided with the machine. Each endplate is machined with matching profiled grooves, which are self-centring, to accept a wide variety of tool diameters to customer requirements. Additional endplates can be provided as extras if so required. Tools are clamped and rotated between the endplates which engage and disengage by means of a hydraulic cylinder. The cylinder generates a predetermined clamping force to ensure correct sealing pressure. Both the drive and driven plates feature a self-aligning facility to compensate for minor irregularities in the squareness of tool ends, and the hydraulic system is designed to automatically compensate for heat-induced expansion of the tool during the casting cycle. The rotational drive is provided for by a variable speed motor.

The 1MD-VL has been designed to require only minimal periodic maintenance, resulting in high production efficiency and reliability. Fault tracing is greatly simplified by the use of electronic control and monitoring equipment.

**Global EPP reserves the right to alter specifications without prior notice.**