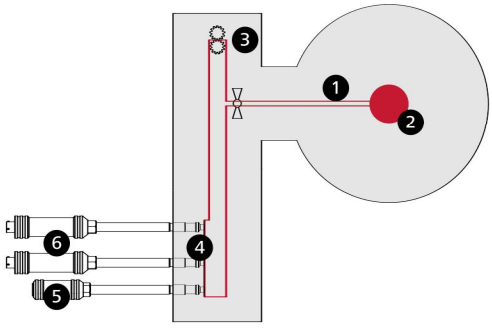
Measurement Technology
Online Viscometer VIS

The Gneuss Online Viscometer, VIS enables the continuous, real time measurement of the polymer melt viscosity in an extrusion line.

The Gneuss VIS is equipped with a precision gear pump which pumps a small quantity of material in bypass through a defined capillary slot. The two high precision melt pressure transducers in the capillary slot measure the pressure differential and a special software calculates the dynamic viscosity out of this value. The viscosity is shown in the display in real time and the control system can provide a viscosity – dependent analogue signal together with freely selectable min/max limits.

When processing hygroscopic materials (e.g. PET) on the MRS extruder (without the need for pre-drying) the VIS offers an additional feature: due to the intensive devolatilisation performance of the MRS extruder, changes in vacuum are quickly reflected in changes in the melt viscosity. The extruder's viscosity control system system automatically adjusts the vacuum level on the devolatilising section of the MRS to compensate for variations in the viscosity due to the variable residual moisture level. In spite of such variations, the melt viscosity (and therefore the IV) can be maintained within a narrow bandwidth and at the required level.

Function of Online Viscometer VIS



1. Bypass
2. Main melt flow
3. Gear pump
4. Measuring capillary
5. Temperature sensor
6. Pressure transducers

Technical Data VIS

Height mm	**1.065**
Length mm	**490**
Width mm	**185**