Extrusion

- process used to make continuous shapes
- a wide range of different continuous shapes can be produced
Extrusion

- hot, molten plastic is pushed out of a specially shaped die
- steel die shapes the plastics material to the continuous form required
- plastics material is cooled as it comes out of the die to maintain its shape
- different die shapes produce different shapes of product
Extruder principles

Extruder screw
- rotates in a close-fitting fixed steel barrel
- barrel is heated and accurately temperature controlled
- plastics materials are heated, compressed, sheared and mixed as they are moved along the screw
- plastics materials emerge as a homogenous melt at high pressure off the end of the screw
- melt is forced through the extrusion die
Extruders - major components
Extruders

Extruder and diehead for pipe production
Extrusion lines include

- extruder
- sizing and cooling equipment
- haul-off equipment
- marking equipment
- measuring and testing equipment
- cutting and trimming equipment
- winding and coiling equipment
Sheet extrusion line