Extruding

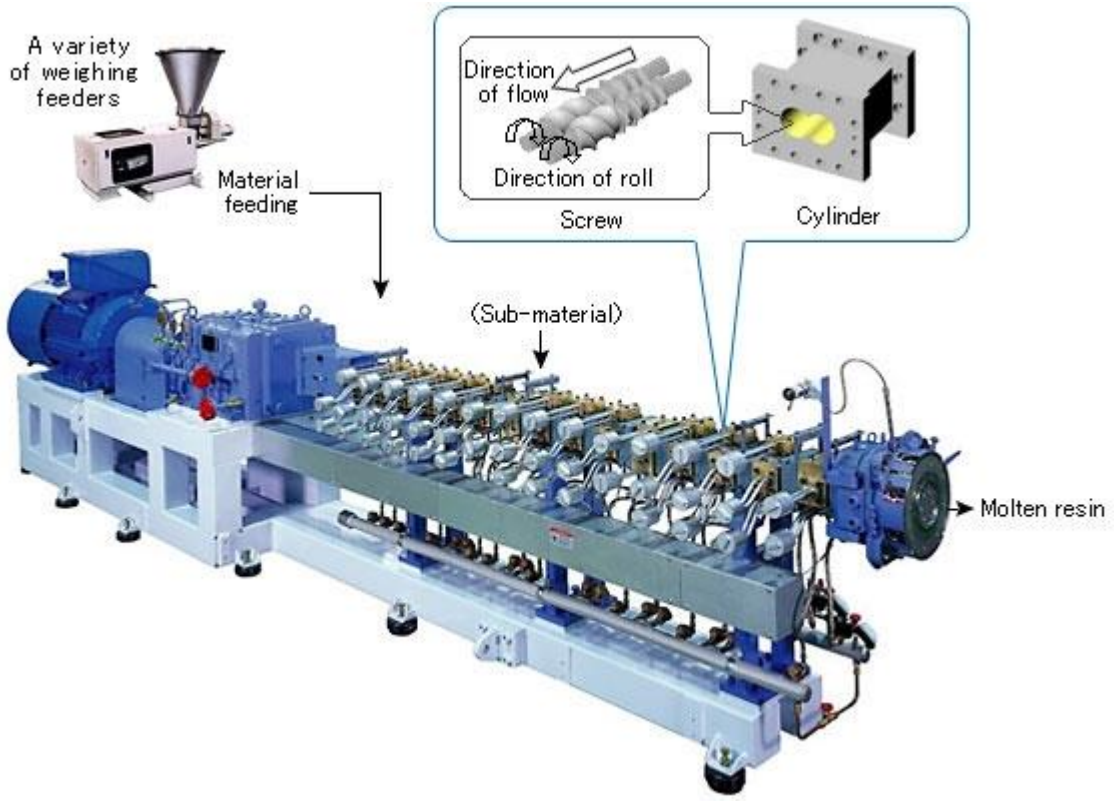

Fig. 1: Parts of an extruder.
Image courtesy of https://www.hxfeedmill.com.

Overview
Extrusion is a high-volume manufacturing process in which raw plastic is melted and formed into a continuous profile. Extrusion produces items such as pipe, tubing, weatherstripping, fencing, deck railings, window frames, plastic films and sheeting, thermoplastic coatings, and wire insulation.
This process starts by feeding plastic material (pellets, granules, flakes or powders) from a hopper into the barrel of the extruder. The material is gradually melted by the mechanical energy generated by turning screws, as well as heaters arranged along the barrel. The molten polymer is then forced into a die, which forms the polymer into a shape that hardens during cooling.

Example Applications:
- PET without pre-drying
- PP
- PP filler
- Elastomers
- EVA sheet forming
- Porous separate sheet