

## The Plastic Extrusion Manufacturing Process Explained

- 1** A pelletised compound is placed in the hopper
- 2** A combination of heat and pressure melts the compound into a pliable state.
- 3** The screw(s) moves the material along the length of the barrel and into the head.
- 4** A breaker plate and screen packs are used in the head to create pressure and help mix the material thoroughly.
- 5** The pliable material continues through the sleeve and out of the die - which has the profile shape cut into it.
- 6** Once leaving the die, the profile enters the water bath passing through a Former or Forming Plates
- 7** Cold water cools the profile as it is held into the correct shape by the formers
- 8** The Haul Off pulls the profile through the production line, maintaining a steady and regular size
- 9** Secondary Operations such as inline tape application can be applied
- 10** Profile shape at the Die is generally 10-15% larger than the finished profile, the Haul Off helps stretch this down to a constant size.
- 11** Large profiles run very slowly while smaller ones are produced at greater speed.
- 12** Rigid Extrusions are cut using the inline saw which moves with the extrusion to ensure a straight and accurate cut - Discuss your req with the sales team at point of ordering
- 13** Smaller profiles can be cut to shorter lengths using a Flycutter
- 14** An offline cutting service is available if required, minimum cut is 100mm
- 15** Flexible Profiles will be coiled and cut at this stage, replacing the inline saw.
- 16** After the saw comes the Collection table, this is where the lengths are collected and taken for packing

