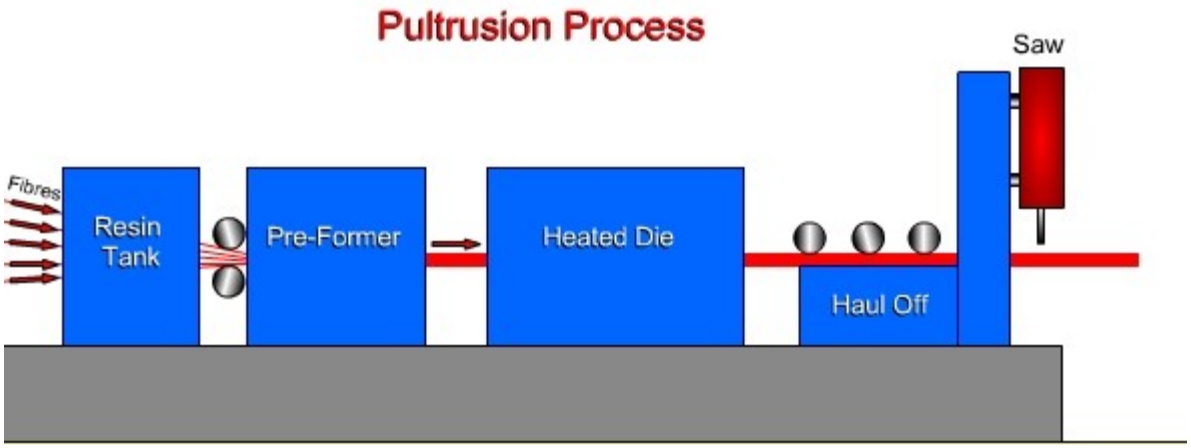
Pultrusion Process

The Pultrusion Process is used to create polymer composites consisting of a reinforcing material encased in a synthetic resin.

The process involves pulling fibre or mat reinforcing material through a polymer resin tank, then through preforming guides and then through heated dies that shape and cure the resin / reinforcement mixture. The fully cured composite is cooled and pulled to a circular saw or bandsaw where it is cut into designated lengths.



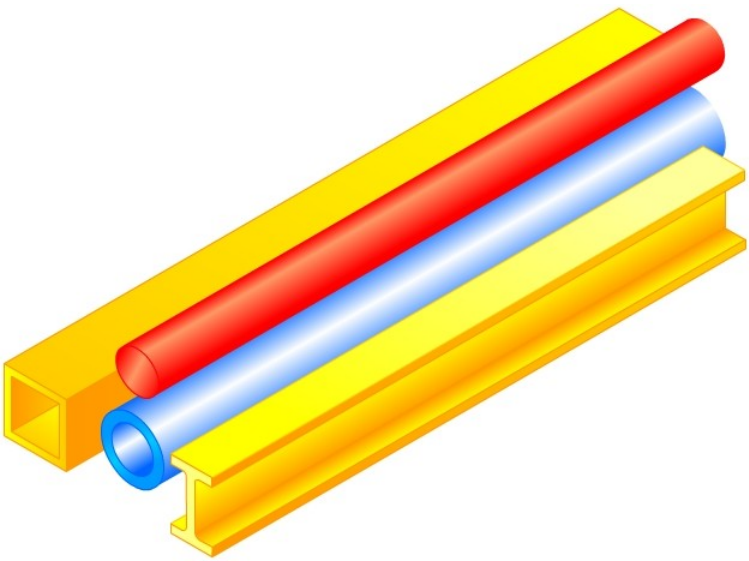
- Reinforcing fibres are pulled from bobbins.
- Fibres are pulled through the resin tank and coated in resin.
- Resin covered fibres are pulled through the pre-former which forces the fibres into shape.
- Resin covered fibres are heated and forced into the final shape
- The composite cures and hardens in the heated die.
- The hardened composite is hauled to a circular saw that cuts the composite as it travels.

Applications

Fibre reinforced plastic (FRP) composites are being used to replace metals in many applications. Large structural sections are being used in projects as large as bridges, walkways, tanks and decks.

Other applications include:

- rods and poles
  - gardening tool handles
  - broom handles
  - plant supporting poles
  - fence poles and posts
  - flag poles
  - lamp posts
  - tent poles
  - poles for sports
- electric conduit and sheathing
- rails and fences
- construction industry applications



and many others where a light, strong, non-corroding, low maintenance structural section is required.