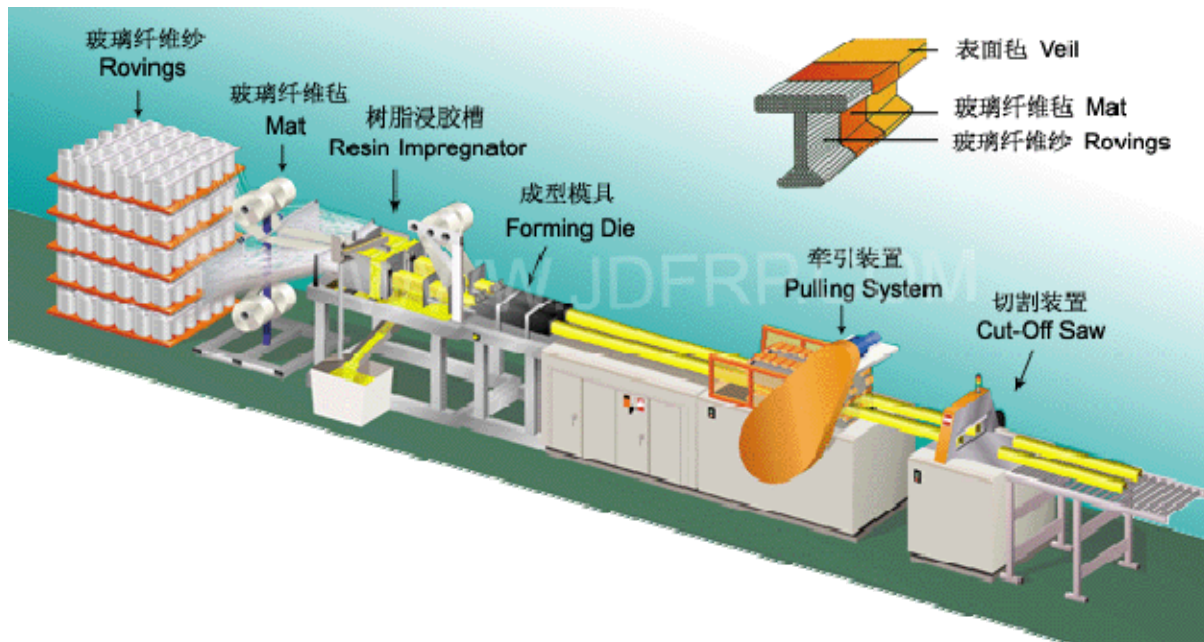


Pultrusion is a continuously forming technology by which same cross-sectional FRP profiles of unlimited length are produced. The raw materials are mixtures of liquid resin (include resins, fillers and some agencies) and reinforced fibers (include fiberglass roving and mat, etc.). Under the pulling force, the reinforced fibers are saturated with mixtures of liquid resin and passed through a heated steel forming die. After the whole process, the FRP profiles are hardened and at last are shaped continuously. See the following picture to better understanding of Pultrusion.



- Reinforced fiber

Reinforced fiber include fiberglass roving, continuous mat, stitched chopped strand mat and some surfacing veil etc. Fiberglass roving is located in the profiles' length direction to improve the strength in lengthwise direction; Fiberglass mat is arranged in the cross-sectional direction to improve the force in crosswise direction; Surfacing veil is thin issue, be wrapped outside the product to increase the anti-age, etc.

- Mixtures of resin

The resins include unsaturated polyester resin, vinyl ester resin, epoxy resin, phenolic resin etc. All or parts of the fibers are saturated with the liquid resin mixtures in the impregnator. Besides resin, filler, pigment, addictive and other agent, etc are all put into the mixture.

- Forming die

Made of steel, the forming die has heating system with controllable temperature peripherally by which the product quality can be adjusted effectively.

- Pulling system

Two pulling systems are used: a caterpillar counter-rotating type and a hand-over-hand reciprocating type. The part of clamp system which contacts directly with the profiles is made of urethane foam to avoid any damage to the profile after it just depart from the die.

- Saw device

Saw device is usually arranged at the end of the production line to cut the profiles according to the order.