

OPTICAL FIBER MANUFACTURING

The Client

The client is an Indian manufacturer and one of the world leaders in manufacturing optical fiber, telecom cables and power transmission cables. It's involved in Fiber-to-home (FTTH) deployment along with many other cutting edge solutions. With revenues more than USD 500 Million, the client is a leader in optical fiber industry in India.

The Process

The quartz preform up to 200 mm are mounted at the top of the draw tower as high as 30 meters in height, which is then melted using the induction furnace and converted into a 125 micron fiber. The fiber is then passed through cooling tubes and to give physical strength to the fibers, they are coated with UV curable resin, which are further cured by UV curing lamps. Once cured, the fibers are rolled onto high-speed Take-up.

The Objective

The client wanted to create a next generation fiber draw tower that could run at some of the highest speeds seen in this industry without compromising on quality of the fiber.

Our Solution

We offer a unique knowhow in designing the hot zones and controlling the gas flows. Besides preform feeding, the tower included induction furnace, non-contact tension gauges, cooling tubes, auxiliary capstan, coatings system, UV curing units, fiber spinning unit, capstan and dual take-up. We guaranteed a perfect fiber alignment all along the drawing line. Take up and dual winders were the key to top quality production and ensured a 100% reliable fiber winding. Engineers designed sophisticated PLC systems to ensure automated control of the process. Another innovations our engineers developed were the dual spool machine that features the changeover from full to empty spool without reducing the draw speed.

The Results

Based on decades of experience in the art of winding, our take up systems offered mechanical speeds of up to 2500 mpm. Our mechanical installation of the draw tower took a mere 4 days, including fiber alignment.

Contact us to know more

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