

PRODUCT



Glass Reinforced Nylon Pulley

INDUSTRY:

Telecommunications

PROJECT HIGHLIGHTS

THE CHALLENGE:

Develop three uniquely designed custom pulleys that govern the raising, lowering, and rotation of a television reception satellite dish for mounting atop recreational vehicles.

THE SOLUTION:

Torque Transmission's engineers designed a custom drive consisting of three L pitch pulleys with 14-, 32- and 36-teeth – all made to order. The custom pulleys were injection molded of fiberglass reinforced nylon. The resulting fiberglass reinforced nylon pulleys are both lighter in weight and lower in cost by 75%.



RV Satellite dishes required custom pulleys to be raised and lowered.

REINFORCED NYLON REPLACES ALUMINUM IN CUSTOM PULLEY SYSTEM

An Iowa-based manufacturer of satellite and telecommunications equipment, developed a television reception satellite dish for mounting atop recreational vehicles. The design requires a system of three uniquely designed custom pulleys that govern the raising, lowering, and rotation of the dish.

THE DOWNSIDE OF ALUMINUM

Initially, the pulley system had been prototyped in aluminum. In testing, however, the customer experienced problems with both the weight and price of the production pulleys.

NYLON DELIVERS A SUPERIOR PRODUCT

Torque Transmission's engineers designed a custom drive consisting of three L pitch pulleys with 14-, 32- and 36-teeth – all made to order. The custom pulleys were injection molded of fiberglass reinforced nylon. The material and process would yield consistent, repeatable quality with a high value-to-cost ratio. The resulting fiberglass reinforced nylon pulleys are both lighter in weight and lower in cost by 75%. Further, all three pulleys exhibit consistent high tolerance levels. They maintain tensile and flexural strength through wide-ranging weather and environmental conditions, and they resist corrosion from road salt, acid rain and other chemicals. And their performance as a system is enhanced by the natural lubricity inherent in the engineered nylon.