

PRODUCT



XL Series Nylon Pulley



Sodium Distortion Racer seeks land speed records at the Bonneville Speed Flats.

THE CUSTOMER: Sodium Distortion

PROJECT HIGHLIGHTS

- Aluminum pulleys failed at 40,000 rpm
- Torque Transmission standard XL timing pulleys held firm at 63,000 rpm
- The team want to drive the supercharger at 80,000 rpm, but the timing belts disintegrated
- The nylon pulley dissipated the heat very well at high speeds

500CC MOTORCYCLE ACHIEVES 158MPH!

Bill Woods and his Sodium Distortion motorcycle building buddies are not the run of the mill hobbyists. They want to go as fast or faster than anyone ever has on a 500cc motorcycle and when they and about 175 others gather at the Bonneville Speed Flats, they get to find out who really is the fastest.

These guys have a great story, so great in fact that there is a movie called 'Out of Nothing' about their exploits.

Check out the trailer here: <https://www.youtube.com/watch?v=MMliBYhuk08>

THE CHALLENGE: have every inch-lb of torque going to the wheel and minimize the power required to drive peripheral auxiliary devices. One way to do this is to lower the inertia to drive the supercharger at 63,000 rpm—the current drive used aluminum XL pitch timing pulleys. The pulleys were heavy and would fail above 40,000 rpm.

THE SOLUTION: Torque Transmission 60XL molded nylon with aluminum hub timing pulley. The XL pulley is 60% lighter and held up at 63,000 rpm.



CLIENT TESTIMONIAL

We have used aluminum pulleys but found that they would fail above 40,000 rpm whereas the nylon pulley showed no ill effects. The aluminum pulley teeth would begin to "melt" or wear off at those speeds. We found that the nylon pulleys would dissipate the heat very well. The nylon pulleys outlast the belts.



Bill Woods, Sodium Distortion Racing