



Product

Modified Centric Overload Clutch

Application

Missile Launcher Stabilizer System

Highlights

- Modified ORC overload clutch
- 336 in.lbs. preset torque
- Bi-directional operation
- Special rigid coupling and extended shaft
- Manual reset
- Fully enclosed

A leading global aerospace and defense OEM required a durable overload protection solution for use on the U.S. Army's mobile Patriot surface-to-air missile launcher. The truck- and trailer-mounted tactical air defense missile system is designed for rapid deployment in ever-changing battlefield conditions. An entire battery, including radar, fire control, antenna, power plant and launcher components, can be set up in less than an hour. Portable drills are often used to create holes to securely anchor the launcher stabilizers in hard, rocky terrain.

An overload clutch is mounted on the large, motor-driven drills to prevent damage to the drivetrain when drills hit exceptionally hard surfaces which can cause the drill shaft to lock-up. The clutch instantly dis-engages the drill's shaft from the drivetrain during an overload condition.

Boston Gear designed a modified Centric overload clutch to meet the application requirements. The ORC model supplied features a preset torque of 336 in.lbs. with a special rigid coupling and extended shaft. The bi-directional overload clutch has a manual reset. Units are completely enclosed for protection against dirt, sand and dust, which is critically important for this battlefield application.