



## Product

## CECON Clutch

## Application

## Steel Mill Cooling Fan Drive

## Highlights

- Completely enclosed and designed for high-speed, continuous-duty applications
- 12,000 lb.ft. torque rating
- 2,500 RPM max speed
- Sealed self-circulating and self-filtering lubrication
- SAE 52100 alloy steel rollers
- Precision-machined roller pockets

A leading industrial fan OEM needed a clutch solution for a large cooling fan installed at a steel mill. The heavy-duty fan required a low-speed turning gear drive that keeps the fan impellers rotating slowly when the main drive is shut down. Without the slow rotation in the high-temperature mill environment, the impeller would heat or cool unevenly and distort the fan blades and/or shaft. Additionally, slow rotation is necessary to insure proper lubrication of the fan bearings. When the fan's main drive is shut down, the overrunning clutch engages the smaller, turning gear drive.

The low-speed drive is also used to start the fan from rest before the larger high-speed motor is turned on. The overrunning clutch will automatically disengage the low-speed drive when the main high-speed motor is powered up, preventing potential damage to the low-speed drive.

A Marland CECON 12M clutch with a 12,000 lb.ft. torque rating and a max speed of 2,500 RPM was supplied to meet the application requirements. The clutch is positioned between the low-speed drive and the fan.

CECON clutches are completely enclosed and designed for high-speed, continuous-duty applications in unprotected, adverse environments. Lubrication is self-contained in the sealed housing and provides self-circulation and self-filtering through stainless steel filter strainers. All models feature SAE 52100 alloy steel rollers, energized springs that ensure positive engagement and an aluminum alloy cage with precision-machined roller pockets which provide controlled spacing and load sharing.

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