



Product

BCMA Backstops and BSFI Caliper Brakes

Application

Coal Mine Conveyor System

Highlights

Svensborg Brakes BSFI 300 DS Series Brakes

- Fail-safe, spring-applied, hydraulically-released brakes
- Two sets of spring packs allow for longer intervals between required brake adjustments

Marland Clutch BCMA Backstops

- Highest reliability
- Self-lubricated, sealed oil chamber
- 20-year, 24/7/365 typical service life
- Full torque load testing available

Robust braking and holdback solutions were required for use on a conveyor system at Sasol's Impumelelo coal mine expansion project in South Africa. The multi-conveyor system includes a 26.9 km (16.7 mile) long overland conveyor, one of the longest single-flight conveyors in the country, that transports the coal from the mine to a distant storage bunker facility.

The conveyor OEM contacted Svensborg Brakes based on previous successful mine conveyor collaborations. While discussing the braking package specifications, it was determined that Marland Clutch, another Altra Industrial Motion company, could provide the conveyor system's required backstops. The OEM was aware of Marland's industry-wide reputation for designing and manufacturing rugged, reliable backstopping clutch solutions.

To meet the challenging application requirements, Svensborg supplied BSFI 360 DS Series dual-spring caliper brakes with 47,941 ft.lbs. (65,000 Nm) braking torque for use on the conveyor system's midstation pulley. BSFI 325 models with 19,914 ft.lbs. (27,000 Nm) braking torque were utilized on the high-speed shafts of both the midstation and head drive gearboxes.

Marland provided various sized backstops for the conveyor system including, Model BC-45MAs with 45,000 ft.lbs. (61,012 Nm) holding torque for the tippler conveyors and BC-375MA models with 375,000 ft.lbs. (508,432 Nm) torque rating for use on the inclined conveyor. A model BC-90MA with 90,000 ft.lbs. (122,024 Nm) torque rating was utilized on the bunker feed conveyor.

Similar brake and clutch powertrain components were supplied for conveyors at the Sasol's Shondoni mine expansion, also located in South Africa.

Contact Svensborg Brakes

Contact Marland Clutch

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Asia Pacific

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