

Application Profile



Application

Highlights

- Torque up to 214,000 Nm (157,838 lb.ft.)
- No lubrication required
- · Zero backlash
- High misalignment absorption capacity
- · Easy to assemble
- 300 Series stainless steel discs
- Anti-corrosive phosphating
- Modified and optimized disc profile provides superior stress distribution



Series PWF Disc Couplings

Papermaking Machines

A global manufacturer of papermaking machines needed a reliable coupling solution for a customer's machine rebuild/upgrade in Brazil. The OEM wanted to avoid using lubricated couplings that can generate undesired backlash. Approximately 25 electric motor-driven rolls move the paper web through the machine. Long couplings are required since the motors are positioned away from the machine to prevent damage to the electrical systems that can be caused by the steam used to dry the paper.

After considering a competitor coupling manufacturer, the OEM's Brazilian office contacted Lamiflex based on many previous successful coupling installations on papermaking machines throughout South America and around the world. Lamiflex engineers worked closely with the OEM's drivers and rolls engineering team to design cost-effective, custom PWF Series (Powerflex) disc couplings that met the machine's specific drivetrain operational conditions.

Lamiflex supplied smaller PWF couplings with standard DBSE for use on the drivetrain's high- speed side, between the electric motors and speed reducers. 4100 mm (13.4 ft.) long couplings were supplied for installation on the low-speed side, between the gearbox and machine's rolls. All couplings were custom engineered for reduced mass, adjusted for natural drivetrain frequency, and had special anti-corrosion paint applied. Low cost PWF couplings feature simple construction and high misalignment absorption capacity. Units are easy-to-assemble and maintain. The longer couplings were dynamically balanced and a Lamiflex service team was on-site during drivetrain commissioning.

The end user was extremely pleased with the new Lamiflex couplings' performance and reliability and has specified them as standard for all other machines at their facilities.

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