Improved roll reliability with loading shoe upgrade

Valmet shoe type roll upgrade low-friction shoe

The loading shoe is one of the most critical elements in a shoe type deflection-compensated roll: it has to transmit heavy loads to the rotating shell during the roll operations. A film of oil between the shoe and a shell protects them from the metal-to-metal contact. On those occasions when there is a lack of lubrication, the superior material properties of Valmet’s new low-friction shoe provide the safest running conditions for the shell and loading shoes.

**Benefits**

- Improved roll reliability
- Improved wear resistance against piston / piston seal wear
- Ensures long roll running time

**Lack of lubricating oil means high risk of shutdown and major roll damage**

The film of oil between the loading shoe and rotating shell protects them from metal-to-metal contact, providing the roll with a long frictionless running time. If the film of oil is disturbed during the run, there is a high risk of major roll damage – which often leads to an unscheduled shutdown and the high costs associated with a long repair time.

**Superior material properties improve roll reliability**

A Valmet shoe type roll upgrade low-friction shoe provides safer running conditions for shoe type rolls if metal-to-metal contact occurs due to a lack of lubrication. The new material properties result in less friction and slower material wear compared to traditional loading shoes. Thus, the shell and loading shoe can last longer in running conditions where the film of oil is too thin or dissipates. In addition, the shoe’s inner surface can be heat-treated for improved wear resistance against pistons and/or piston seal wear.

The Valmet shoe-type roll upgrade low-friction shoe is available for most shoe type rolls.

Damage on loading shoe and inner surface of shell due to lack of lubricating oil. The new shoe material ensures safer running conditions for the roll if there is not enough lubricating oil available for the loading shoes.

For more information, contact your local Valmet office.

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