CEMENT

Weartech® SHS™ Coating and Overlay Wear Plate

Extend Rotary Vane Feeder Drum Life by 200%



PROBLEM: EROSION AND CORROSION

Rotary vane feeders in cement plants deliver material in process to the next station. Components inside rotary vane feeders operate in a high temperature environment and wear quickly from exposure to sliding abrasion, fine particle erosion and corrosion.

Vane pockets on a rotating drum inside the rotary vane feeder are fabricated from unprotected steel and not sufficiently resistant to sliding abrasion, fine particle erosion and corrosion. During service, surface material loss on the vane pockets from wear and corrosion is severe and the drum requires replacement after 6 months.



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SOLUTION: WEARTECH OVERLAY WEAR PLATE AND THERMAL SPRAY COATING

To extend the life of rotary vane feeder drums at a cement plant in South America, Weartech® SHS™9192U wear plate, 0.748 in (19 mm) thickness, is installed in the center of each vane pocket for abrasion and impact resistance. A Weartech SHS7170 WTWAS coating, 0.039 in (1 mm) thickness, is applied to the wear plate and remaining drum surface for wear and corrosion resistance.



Vane pockets are damaged by wear and corrosion and must be replaced.



Weartech overlay wear plate and thermal spray coating are for resisting wear and corrosion.



Vane pockets show minimal wear and no corrosion damage.

RESULT: WEARTECH® EXTENDS COMPONENT LIFE BY MORE THAN 2X

After 6 months of service, the unprotected drum suffered significant wear and corrosion damage and required replacement. An inspection after 12 months, the drum protected by Weartech SHS showed minimal material loss from surface wear to be 0.059 in (1.5 mm) and no corrosion damage.

