

Weartech® SHS™ Coating and Overlay Wear Plate

Extend Blower Fan Blade Service Life by 300%



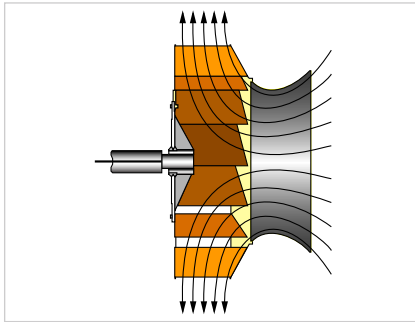
PROBLEM: **ABRASION, EROSION AND CORROSION**

Industrial centrifugal blowers in cement plants provide ventilation of hot gases ($\leq 500^{\circ}\text{C}$) rich with fine particle dust expelled from high temperature environments inside preheat towers, clinker ovens and clinker coolers.

At a cement plant in South America, blower fan blades mounted inside a pair of discs are fabricated from unprotected Q&T steel and not sufficiently resistant to the combination of abrasion, fine particle erosion and corrosion that they are exposed to during service. Material loss from wear and corrosion is severe, requiring replacement after only 2-4 months of service.

SOLUTION: WEARTECH THERMAL SPRAY COATING AND OVERLAY WEAR PLATE

A Weartech® SHS™9192U overlay wear plate, 0.236 in (6 mm) thickness, for resisting severe abrasion is installed on fan blade and disc ID surface exposed to greatest amount of wear. A Weartech SHS7170 WTWAS coating, 0.039 (1 mm) thickness, for resisting fine particle erosion and corrosion is applied to the overlay wear plate and remaining fan blade and disc ID and OD surfaces.



Distribution of hot gases ($\leq 500^{\circ}\text{C}$) inside cement plant industrial centrifugal blower.



Unprotected steel fan blades are worn and must be replaced after 2-4 months of service.



Fan blade with Weartech wear plate and coating after 12 months of service.

RESULT: WEARTECH SHS EXTENDS COMPONENT LIFE BY 3X

After only 2-4 months of service, unprotected steel fan blades are worn through and must be replaced. However, fan blade and disc surfaces protected by Weartech SHS9192U overlay wear plate and Weartech SHS 7170 WTWAS coating show minimal wear after 12 months.