

Challenge

Goals

- Restore coal burner to optimum efficiency
- Avoid stress cracking and fire hazards associated with weld repairs
- Provide effective alternative to ceramic tiles which damage the mill when they disbond
- Mitigate EHS issues caused by coal dust leaks

Root Cause

Abrasion from coal particles wears internal sections of pulverizers, reducing the performance of the mill.

Solution

Preparation

- Abrasive blast mill parts on-site to a Sa 2.5 with 3 mil (75 µm) profile

Application

- Apply 5 mm of **ARC BX2*** to high wear zones outside of grinding zone (dampers, chutes, doorways, throw-rings, classifier cones, exhauster pieces, outlet elbows)

*ARC BX2 is the "Bulk" package size of ARC 897

Results

Inspection

After over 5 years of operation less than 5% of the total ARC protected area required repair.

Client Reported Cost Savings

Option 1:

Replace all worn components with new
 Cost per mill: € 150,000

Option 2:

Applied ARC costs per mill: € 25,000
 Savings per coal mill: € 125,000

Total savings for 8 coal mills: €1,000,000



Classifier section before protection



Top section protected internally with ARC being lowered into place



Outlet pipe after 40K hours showing small spots requiring repair with ARC