

Challenge

Issue

Ship loading capability from failed rubber lined granulated slag chute was reduced by abrasive wear. Materials and labor cost to replace chute exceeded maintenance budget.

Goals

- Increase MTBR and increase productivity during ship loading
- Reduce the product losses

Root Cause

Severe sliding abrasion from granulated slag discharged through the chute created holes in rubber liner and steel body of loading chute.



Granulated slag creates holes in the loading chute

Solution

Preparation

Abrasive blast to Sa 2.5 with 4 mil (100 µm) angular profile.

Application

1. Apply .240" (6 mm) **ARC MX1** to the upper 3 sections of the chute with highest wear
2. Topcoat and smooth with **ARC S2**



The telescoping granulated slag chute at discharge pier in steel mill

Results

Client Reported

New replacement chute:	\$140K
Labor cost installation:	\$ 10K
Total annual cost to client:	\$150K

Cost of ARC Solution

ARC coatings:	-\$ 50K
Application cost:	-\$ 10K
Total cost to client:	\$ 60K

Total savings to client: \$ 90K

\$=USD



Finished section of the slag chute