

I MICRO GUARD HEAT DISPLACEMENT GUARD

EUROPE & ASIA SHARE QUICK WIN SOLUTION



MICRO GAUZE HEAT DISPLACEMENT GUARD

**Sites share an innovative
idea 8,100km apart to solve
a similar problem**

**“As the excavator is close to the
pit wall the cabin is exposed to
temperatures > 500°C. ”**

BACKGROUND

The removal of hot slag from our customers sites involves our employees and assets working near extremely hot materials. The assets are subject to this harsh environment and need periodic planned maintenance and unplanned maintenance interjections by our dedicated AM&M teams.

On one customer site in Europe, the hot slag is extracted from a deep pit through the use of a hot work excavator driven by a Harsco employee. As the excavator is close to the pit wall the cabin is exposed to temperatures > 500°C during the operation. The extreme heat is unpleasant for the operator and causes the excavator cabin screen to crack, regularly causing asset downtime and potential delays to the service.



Highlighting the extreme temperatures drivers experience

THE SOLUTION

The maintenance leader researched heat resistant glass and materials that could be retrofitted to the screens of the excavator cab. After a series of unsuccessful trials, a micro-gauze material was installed the full length of the cabin front screen.

A simple steel frame was fabricated and installed in front of the screen guard, with the micro-gauze secured into the frame with bolts.



THE OUTCOME

This innovative solution provides an array of advantages:



The micro-gauze **deflects the heat**, preventing it from penetrating the cabin



Replacement excavator screen costs have **reduced** by \$4,500 per year (one machine)



Since the micro-gauze installation, there have been **no cracks of the excavator front screen**



Excavator screen replacement **downtime reduced** from 8hrs per instance to Zero



Excavator in-cabin temperatures during the hot work operation have been **reduced significantly**

The operations team in Leiting, China were experiencing a similar operational problem whilst raking a steam box pit. After seeing the idea on the Solutions Hub, the team purchased and installed similar material to that used in Europe.

MAKING A WORLD OF DIFFERENCE™

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