Application Bulletin

Kennametal Conforma Clad[™] Screens

Extend the life of SCR popcorn screens 5–8x longer than stainless steel.

Superior Erosion Resistance

Kennametal Conforma Clad cladding provides significantly higher erosion resistance versus stainless steel. Our cladding enables the substitution of less expensive carbon steel screens for more costly stainless steel screens.

Metallurgical Bond

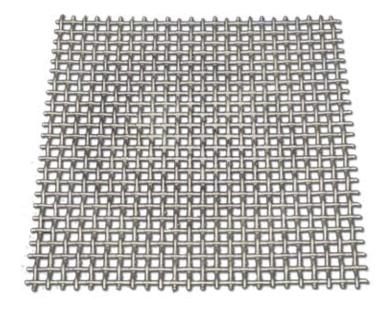
Much more resistant to impact than thermal spray coatings.

Advanced Cladding Process

The Kennametal Conforma Clad proprietary process blends hard tungsten carbide particles and tough nickel chrome particles to create a durable, high-density cladding. Applied to components in a controlled atmosphere brazing furnace, the tungsten carbide particles metallurgically bond to the nickel chrome lattice and substrate component, preventing spalling, chipping, and peeling.

Proven Results

It would take 1" of chrome carbide weld overlay or 3" of plain carbon steel to equal the erosion resistance provided by 1/16" (1,5mm) of Kennametal Conforma Clad cladding.



Common Screen Types













Woven Mesh

Wedge Wire and Grates Expanded Diamond

Perforated



Technology

Kennametal Conforma Clad[™] tungsten carbide cladding provides unmatched resistance against abrasion, impact, erosion, and corrosion. Other types of protection may guard against one form of wear, but only Kennametal Conforma Clad cladding protects against multiple modes of wear — and our application creates a true metallurgical bond. Kennametal Conforma Clad screen capabilities include screens up to 4' x 12' (longer lengths may be possible), with screen openings 1/4" and larger (screen opening size may need to be adjusted to accommodate coating thickness).

Proven Results

One coal-fired power plant installed stainless steel screens to protect it's SCR equipment. In less than six months, the screens were torn apart and had to be replaced. Kennametal Conforma Clad screens were then used and after nine months, the screens showed little wear.



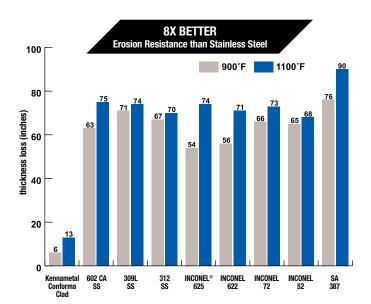
Stainless steel screens after less than six months performance.



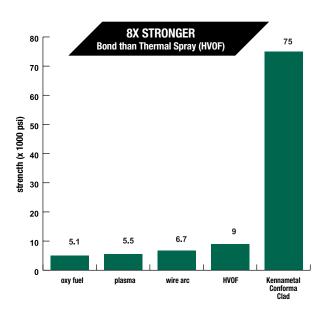
Kennametal Conforma Clad screens after nine months.

Performance Data

Erosion Resistance Testing (EPRI)



Bond Strength Comparison



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