

# Unifuse 180

Boiler panel life extension



## The solution for heat transfer pressure boundary surfaces

The performance of heat-transfer pressure boundary surfaces in a boiler is critical to reliable operations – not just for the boiler itself but also for the whole system.

Fuel and heat source variables, plus the complexities of boiler operating parameters, can challenge and degrade any surface exposed to the heat and combustion gasses. Unfortunately, damage mechanisms are insidious and may not be obvious until there are widespread issues and failures. Using the high-quality Unifuse® 180 weld metal overlay solution can maximize the value and extend the lifetime of the asset.

## A market-leading solution

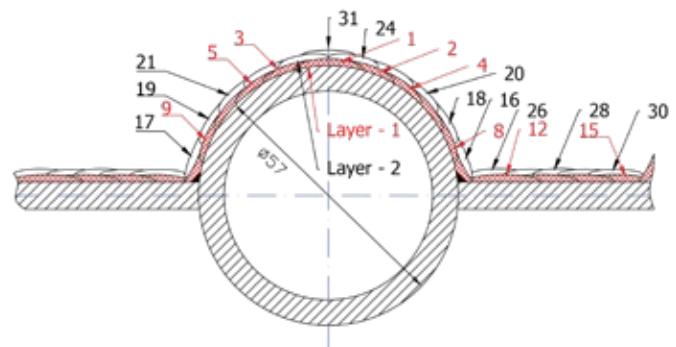
WSI has over 30 years' experience in the protection of boilers using the advanced Unifuse technology. Unifuse ensures long-term, reliable performance, which is a key objective for the mechanical integrity of critical components.

Specifically developed to counteract these problems, the performance of WSI's Unifuse 180 weld metal overlay is unequaled in this sector. Its outstanding technology is supported by the most sophisticated engineering talent in welding processes, equipment design, alloy selection, code requirements and weld stress minimization techniques.

Essentially, the Unifuse 180 weld metal overlay outperforms all other alternative coating applications, which cannot match its pressure boundary strengthening and restoration consistency.



Panel on the fixture



Double layer pattern for higher chemistry of weld overlay

## Established, unrivaled capability

WSI has the longest track record and most extensive experience in delivering solutions for pressure boundary restoration or preservation. As a leader in the development of engineered solutions and the application of specialty welded metal overlays, WSI is unequalled in the ability to deliver an optimal solution for boiler tube protection.

## Shop production services

As a global organization, WSI maintains two production facilities (USA and Europe) for the application of Unifuse® 180 weld metal overlay, offering excellent heat-transfer with the longest reliable working life. Our resources and expertise enable us to handle the largest and most complex panel configurations in the world.

## Field production services

WSI's largest business segment is related to field service delivery. No other company can offer the logistical support, equipment and personnel resources to refurbish very large areas in the shortest amount of time. The key commercial advantage for customers is that this process is generally less expensive than in-kind panel replacement.



*Repair in a Waste to Energy Facility*



*Panel with Unifuse 180 overlay*

## Unique manufacturing facility

WSI offers an unrivaled fabrication resource. We can handle large panels up to 18 m long and 2 m wide, giving you a lower cost per panel. Plus, we can apply an overlay thickness of 1.2–3 mm, or even more, to suit your specific requirements.

Our Unifuse panels are manufactured according both PED and ASME regulations.

## Unifuse Technology

The technological value of WSI's Unifuse 180 is embedded in the integration of many elements that result in the best-performing field- or shop-delivered weld overlay panel protection.

- Sophisticated engineering analysis to resolve predicted welding stresses
- Metallurgical support for alloy selection optimized for customers' interests
- Precision application equipment systems for consistent deposition control
- Minimization of heat input for best chemistry and lowest distortion stress
- Trained and experienced application specialists

When it comes to boiler tube panel life extension, experience, innovation, and quality make a critical difference, so rely on the experts and choose WSI.

**For more information, please email**  
**[wsi-usa@availinfra.com](mailto:wsi-usa@availinfra.com) or**  
**visit [availinfra.com/wsi](http://availinfra.com/wsi)**



An Avail Infrastructure Solutions Company

[availinfra.com/wsi](http://availinfra.com/wsi)

WSI  
560 Horizon Drive  
Suite 100  
Suwanee, GA 30024  
T: 678.728.9100