

Unifuse® I 80 Boiler panel life extension



Panel on the fixture

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.

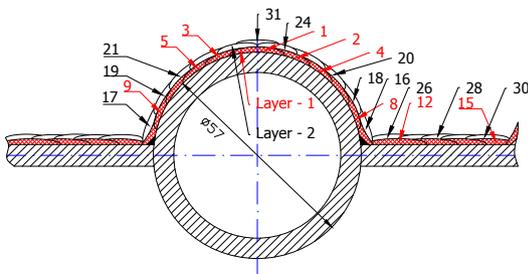
Fuel and heat source variables, plus the complexities of boiler operating parameters, can challenge and degrade any surface exposed to the heat and combustion gasses. Unfortunately, damage mechanisms are insidious and may not be obvious until there are widespread issues and failures. Using the high-quality **Unifuse I 80** weld metal overlay solution can maximize the value and extend the lifetime of the asset.

A market-leading solution

AZZ 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 AZZ WSI's **Unifuse I 80** weld metal overlay is unequalled 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 I 80** weld metal overlay outperforms all other alternative coating applications, which cannot match its pressure boundary strengthening and restoration consistency.



Double layer pattern for higher chemistry of weld overlay

Established, unrivaled capability

AZZ 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, AZZ WSI is unequalled in the ability to deliver an optimal solution for boiler tube protection.

Shop production services

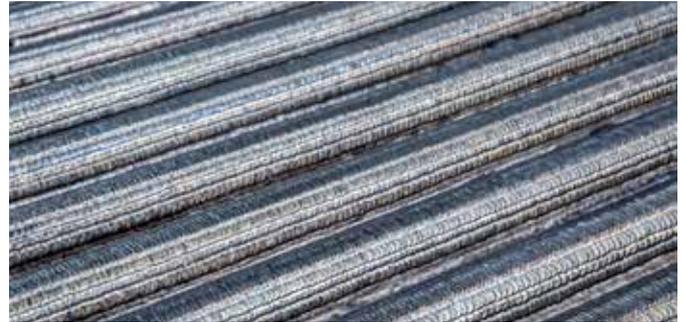
As a global organization, AZZ WSI maintains two production facilities (USA and Europe) for the application of **Unifuse 180** weld metal overlay, offering excellent heat-transfer with the longest reliable working life. Our resources and expertise enable us to handle the largest and most complex panel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

Field production services

AZZ 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

AZZ 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 AZZ 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 AZZ WSI.

For more information, please email wsi-europe@azz.com or visit www.azz.com/wsi-europe

AZZ WSI® is a specialized global services company offering innovative maintenance through automatic weld repair solutions that extend the lifetime and maximize the value of our customers' assets in the energy industry.

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