

Tower and vessel automated weld overlay

Cost effective solutions

Comprehensive tower and vessel service

As a leading provider of specialized field services, we are global experts for plant retrofits and maintenance. Over 40 years of successful tower and vessel experience assure our customers of a partner who is safe, cost-effective, and technically experienced.

Weld overlay capabilities

During your shutdown or turnaround we can mobilize our specialist teams for specific repairs and corrosion protection projects; alternately we can integrate the requirement within our wider scope of services including any internals maintenance, revamping or installation activities which need to be performed.

Vessel shell overlay repair and corrosion protection

Utilizing advanced automated welding equipment our teams can repair corroded or eroded areas by building back the worn area, restoring to an acceptable thickness and applying an upgraded metallurgy to reduce future issues.



Picture 1: On site automated weld overlay

Typical applications include: towers, separators, coker drums, reactors, tanks, digesters, heat exchangers and more.

CladFuse™ characteristics

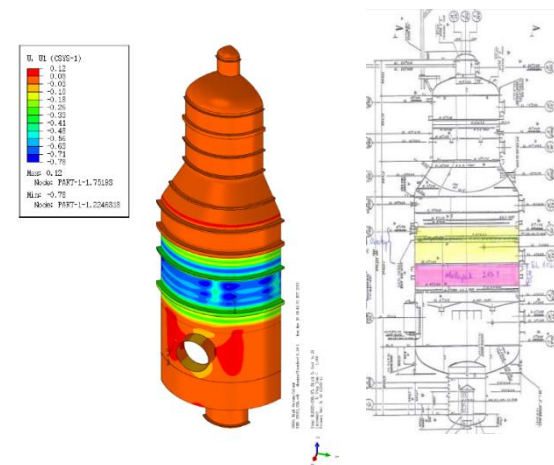
CladFuse enables Sulzer to provide a high quality product.

- Advanced automated welding equipment
- GMAW-P and GTAW-P processes
- Controllable and minimal dilution rates, <10%
- Accurate control of parameters to achieve high quality overlay claddings
- Optimized material thickness application
- High speed rates reducing turnaround down time
- Wide range of alloy materials including 625 Inconel, 300/400 series stainless steel, C276 Hastelloy, etc.
- Elevated pre-heat operational capability

Finite Element Analysis

As part of our service we can conduct a Finite Element Analysis (FEA) to calculate the shell characteristics during welding demonstrating minimal deformation and integrity of the vessel.

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Picture 2: Deformation analysis

Onsite ID nozzle repair, upgrades and new build

State-of-the-art automated welding equipment for small bore cladding and spiral cladding capable of welding diameters as small as 55 mm to 800 mm (2" to 31.5") and up to 1,6m (63") deep in 2G, 5G and 6G configurations.

Alternatively we can replace the nozzle completely with a new nozzle having an ID with upgraded metallurgy by weld overlay processes fabricated in our facility and then installed by our field service teams.



Picture 3: On site nozzle repair

Qualifications

We hold a comprehensive range of welding certifications, including ASME, National Board, and European, permitting us to provide a complete range of welding services covering your needs.



ISO 9001 certification assures our customers of a quality service.

Sulzer's comprehensive weld overlay offerings

Sulzer is offering a wide range of automated weld overlay services for both customer sites and in our fabrication facilities including:

- Nozzle ID welding
- Tower and vessel overlay
- Coker drum overlay
- Boiler waterwall membrane panels
- Boiler tube overlay
- Pipe and fittings
- CRA pipeline ID overlay welding

Typical applications:

- Towers and vessels
- Reactors
- Separators
- Coker drums
- Heat exchangers
- Digesters
- Coal-fired boilers
- Waste to Energy boilers
- Biomass boilers
- Furnaces
- Storage tanks
- And more

Global capability

Sulzer has a global network that is well placed, equipped and experienced to service our customers in any needs and requirements

Our facilities are located around the world with service facilities in:

- USA
- Canada
- Mexico
- Brazil
- UK
- Germany
- Saudi Arabia
- India
- Thailand
- Singapore
- China
- Australia

Each service facility has the capabilities to meet the demand of the local market, supported by the skills and expertise of the complete service organization including Sulzer's vast network of engineers and technical experts.

Mobilizing from our facilities we have the ability and proven track record to execute projects at any location around the world.