

Coker drum automated weld overlay

High temperature operational capability

Comprehensive services

As a leading provider of specialized field services, we are global experts for plant retrofits and maintenance. Over 40 years of successful tower, drum 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 maintenance, revamping or installation activities which need to be performed.

Coker Drum repair and protection

Utilizing advanced automated welding equipment our teams can repair cracks and bulging in the vessel shell, repair corroded or eroded areas by building back the worn area, restoring to an acceptable thickness and applying an upgraded metallurgy utilizing temper-bead process.



Picture 1: On site coker drum repair

In addition Sulzer has extensive experience in the replacement of vessel heads, shell can sections and skirts if required.

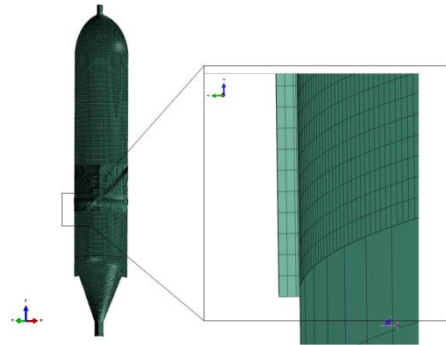
Technology

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 Inconel 625
- Elevated pre-heat operational capability

Finite Element Analysis

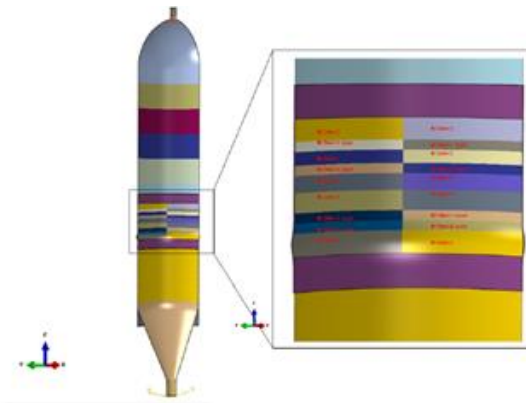
As part of our service we can conduct a Finite Element Analysis (FEA) to demonstrate overlay reducing stresses on the affected areas



Picture 2: Extract from FEA

Typical example of Coke Drum data

- Base material: SA 387 Gr11 Cl.1 and SA 240-410S
- Thickness: 36mm (bulging section) plus 3mm explosion cladding (410S)
- Inside diameter: 9 m
- Repair method: Alloy 625, utilizing temper-bead weld overlay method eliminating need for PWHT



Picture 3: Weld zones

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.



ISO9001 certification assures our customers of a quality service.

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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.