

Cladding and welding services

STEAG Technischer Service GmbH is an expert in on-site manual and mechanized cladding

STEAG Technischer Service provides its customers with complete planning and performance of all technical maintenance, inspection, repair and improvement services required for safe plant operation. The company also provides services for electrical grids and systems, from engineering and construction up to operation and maintenance. One of the special areas of expertise of STEAG Technischer Service is manual and mechanized cladding work on construction sites. In Germany there are only a small number of companies that are able to apply this technique and offer it to customers. The welding technicians and welders at STEAG Technischer Service are downright specialists in their field. Their expertise makes STEAG Technischer Service a sought-after service partner. The term “cladding” refers to a deposition welding process in which a high-alloy welding filler metal (a nickel-based material, for instance) is applied to heavily stressed metal components to protect their surface. The choice of the respective filler metal depends on the type of wear/damage the component is to be protected against (corrosion,

erosion, abrasion etc.). In “normal” welding work, two or more parts are joined together by a weld seam. Cladding welding, on the other hand, involves the application of a protective overlay to large surfaces of a component by hand or by machine in order to achieve a considerably longer component service life.

STEAG Technischer Service carries out the work on site, using its own machinery and qualified personnel. Cladding work can be done on both “black” membrane walls and partially eroded clad surfaces (recladding). Despite the higher cost of clad components, their use still pays off for the customer since, viewed over a longer period, installation costs can be saved and downtime avoided owing to the components’ longer service life.

As a premium cooperation and sales partner of Uhlig, a renowned manufacturer of piping and tubing components based in Langelsheim, Germany, we also offer workshop production of clad single pipes or tubes and tube walls as a complete package.

Our range of services in detail:

- Supply of clad single pipes or tubes with various welding filler materials, such as Thermanit 625, Thermanit 686, UTP A73G4 etc., layer thickness 1 mm, 2 mm or to customer specifications, including any necessary bends and/or assembly to complete flat coil packages
- Supply of clad headers, with dimensions, welding filler materials and layer thickness to customer specifications or as necessary
- Supply of clad membrane walls, with dimensions, filler metals and layer thickness to customer specifications or as necessary
- Installation of the above-mentioned components supplied in steam generators, including performance of post-cladding work at transitions and/or joints
- Performance of large-area cladding work and repair cladding work in the steam generator
- Use of automatic cladding machines with double torches for larger, coherent areas
- Use of automatic cladding machines with single torch for work on furnace roof tubing
- Manual cladding for small areas or in inaccessible places (corners etc.) or for repairs



Our portfolio of cladding machines:

- 10 automatic cladding machines with 2 push-pull torches each
- 2 manual cladding machines with 1 push-pull torch each
- 32 Fronius power sources
- various machine guide rails of different sizes
- Welding fume extraction systems

Our certificates and licenses:

- Manufacturer and welding company to AD2000 – Data Sheet HP 0 and DIN EN ISO 3834-2
- System for transferring the identification marking of materials
- Welding certificate for welding of steel structures to DIN EN 1090-2

Our welding procedures (special welding procedure qualification):

- Manual arc welding (EN ISO 4063, process 111)
- MIG/MAG welding (EN ISO 4063, processes 131, 135)
- TIG welding (EN ISO 4063, process 141)
- TIG/Manual arc welding (EN ISO 4063, processes 141, 111)
- Oxy-fuel welding (EN ISO 4063, process 311)

For these procedures, 132 procedure qualification tests for:

- Material groups 1,4, 5, 6, 7, 8, 43, 44, 45 according to CEN ISO/TR 15608
- Dissimilar welded joints (mixed joints) to ISO 15614 Part 1, Table 3
- Cladding to ISO 15614 Part 7 and VdTÜV – Data Sheet 1166



STEAG Technischer Service GmbH

Forellstraße 100
44629 Herne (Germany)

Your Contacts:

Torsten Beyer
P +49 2323 202-2411
F +49 2323 202-2401
torsten.beyer@steag.com

Heino Sinn
Sales Director North-East
P +49 5193 966-4058
heino.sinn@steag.com

Another 6 procedure qualification tests for pipe bends

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