



PASSION FOR METALS





SMS group

The SMS Group, with its head office in Dusseldorf - Germany, is a global player in plant design and construction for the steel and metals processing industry. It is internationally acclaimed and respected for its supply of advanced, industry leading technologies... quality is part of our DNA. The sole owner of the holding company, SMS GmbH, is the Familie Weiss Foundation.

Metix, operating from Johannesburg - South Africa, is a market leader for providing process plants and engineering services to the pyrometallurgical industry spanning both the ferrous and non-ferrous sectors. Founded in 2003, Metix joined SMS Group in 2011 and was announced as the Centre of Competence (COC) for all Submerged Arc Furnace (SAF) related business in 2018. Since then, the company has grown in a sustainable and profitable manner, leveraging its strengths and global reach.

Our team of passionate and skilled engineers have developed specialized patented equipment and turnkey abilities for various smelter applications. Metix combines in-depth design and operational experience with the know-how of >700 SMS Group smelter projects worldwide. These tools are continuously stress tested against the market and best practices (BIM, Design for Construction, BAT) - improving both product and customer service.

Metix has developed industry leading smelter solutions in order to decrease power consumption and improve durability, availability, environmental performance and production. These designs, combined with innovative applications such as slag cleaning, promote cost-effective production and Total Cost of Ownership (TCO) reductions. As the COC for SAF related business within SMS Group, Metix' services include all aspects of project management from concept design, feasibility studies, detail design and execution to handover. Based on customer requirements, projects can be managed and executed through various contract formats. Civil -, Structural -, Process -, Mechanical -, Electrical -, Instrumentation and Control Engineering form part of our design scope, supported by a full-time BIM design office.

Together with our SMS Group subsidiaries (SMS Non-Ferrous, SMS Environmental, Paul Wurth, TMT, Dango & Dienenthal, etc.) we have customized and tailored our customer solutions; in particular for base metals and PGM's. This allows us to match our furnaces with many types of material handling, converting, gas handling, product handling, granulation and other Balance of Plant (BOP) items for which Metix has a library of proven solutions.



PROJECT FORMATS

- ◆ Engineering, Procurement & Construction (EPC or LSTK)
- ◆ Engineering, Procurement & Supply (EPS)
- ◆ Engineering, Procurement & Construction Management (EPCM)
- ◆ Feasibility studies (PFS, DFS, FEED, BE, etc.)
- ◆ Pilot scale test furnace
- ◆ 3D plant scanning
- ◆ After sales service & support

CORE TECHNOLOGIES

- ◆ AC Furnaces (circular / rectangular)
- ◆ DC Furnaces
- ◆ Submerged-, brush-, shielded- and open arc operations

SPECIALIZED FURNACE EQUIPMENT

- ◆ Electrode columns (Söderberg, composite, pre-baked carbon, graphite)
- ◆ Power distribution (bustubes, bars, star-delta, rectifiers, compensation)
- ◆ Furnace roofs (copper, suspended brick, pipe-to-pipe, channel cooling, water- / air cooled)
- ◆ Charging bins, -chutes and -tips (copper, refractory, water cooled)
- ◆ Hydraulic power (electrodes, gates, valves)
- ◆ Furnace shells (water- / air cooled)
- ◆ Shell cooling components (copper plate / - fingers, CFM)
- ◆ Refractory linings (freeze / insulating)
- ◆ DC furnace anodes (conductive hearth / multiple pin)
- ◆ Tap hole blocks (copper, refractory, water cooled)
- ◆ Metal- and slag launders (copper, refractory, water cooled)
- ◆ Off-gas equipment (quenchers, venturi scrubbers, wet ESP's)
- ◆ Cathedral- and combustion ducts
- ◆ Emergency safety devices
- ◆ Balance of plant (BOP) & auxiliary (AUX) equipment

TAILORED PROCESS SOLUTIONS FOR (BUT NOT LIMITED TO):

FERROUS	NON-FERROUS
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- | | |
|-----------------|-----------------------|
| Ferrochrome | Copper |
| Ferromanganese | Platinum |
| Silicomanganese | Calcium Carbide |
| Ferrosilicon | Ilmenite |
| Ferrovandium | Metallurgical Silicon |
| Ferronickel | Precious Metals |
| Ferroniobium | High Purity |
| Pig Iron | Alumina |
| | Fused Magnesia |





LEADING PARTNER IN THE WORLD OF METALS

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