



EAF DC

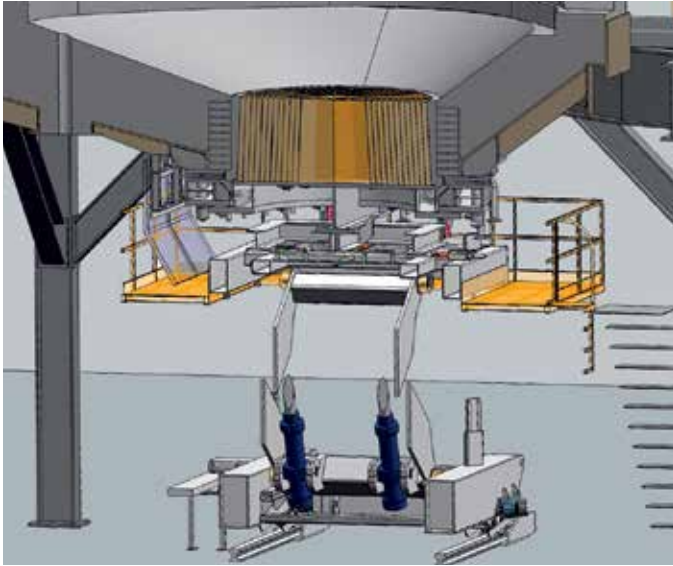
HIGH POWER SOLUTION FOR WEAK POWER GRIDS

Primetals DC EAFs with our patented FinType anode system have proven their reliability, even in areas with weak and unstable power grids.

Thin steel plates embedded within a rammed magnesia mass are vertically welded to horizontal plates in an annular arrangement at the base of the furnace hearth. The favorable thickness-to-surface ratio of the sheets eliminates the need for bottom water cooling, contributing to increased furnace safety and availability. The unique design of the anode promotes a smooth and uniform transfer of the electric current through the melt, fins, steel plates, and the high-current transition elements. Furnace types include UHP DC EAFs with one or two electrodes, twin-shell arrangements, and shaft furnaces.

FEATURES

- FinType anode system with low current density
- No water-cooled anode necessary
- Current up to 160 kA
- Twin-electrode design in ultrahigh-powered EAFs for fast melting of 100% DRI charges



Electric arc furnace - bottom anode



Anode lifetime of more than 2,000 heats

SELECTED REFERENCES

- Hangzhou Iron & Steel, Hanggang, China
- Natsteel, Dynamic EXIM PTE Ltd., Singapore
- Grupo Alfonso Gallardo Stahlwerk Thüringen GmbH, Germany
- Gerdau Ameristeel, St. Paul, USA
- SSAB Iowa, USA

MAIN BENEFITS

- Ideal melting unit for areas with weak power grids
- Highly suitable for 100% DRI feedstock (single- or double-electrode design)
- Reduced flicker effect (up to 50%)
- Reduced arc deflection
- Anode lifetime of more than 2,000 heats
- No repair work necessary during anode lifetime
- Safe and reliable operation
- Fast and easy anode exchange

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A joint venture of Mitsubishi Heavy
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