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.
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