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TATA STEEL



SMMT Regional Forum

Ritchie Hart

July 2026

Together we make the difference

Contents

- Transition to EAF - background
- What are we doing?
- Project update and latest photos



Transition to EAF - UK

Key **Decision Point** for Tata Steel at Port Talbot by 2030:

- **Ageing assets** require £~billion to renew
- **Unprofitable** through the cycle – merger with TKS fell through
- **Environmental demands** increasing - loss of CO₂ credits

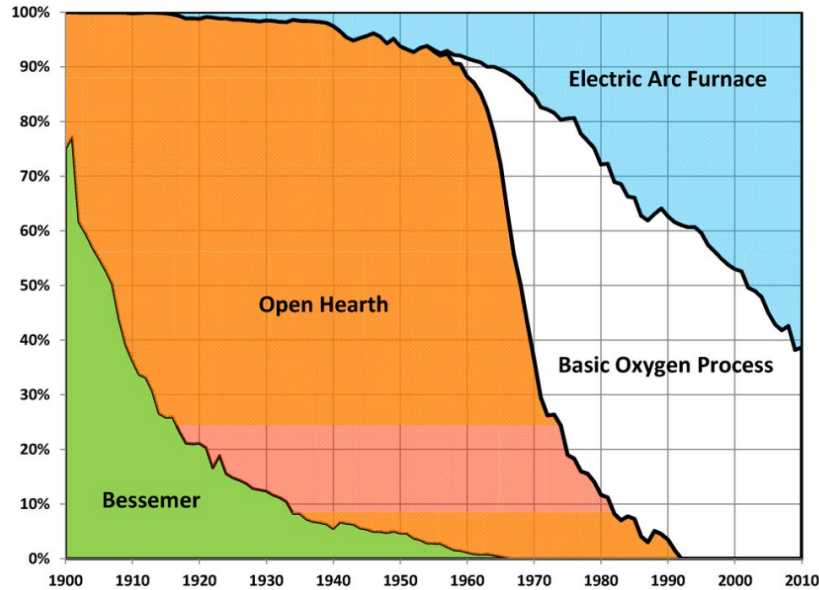


Tata see **opportunity**:

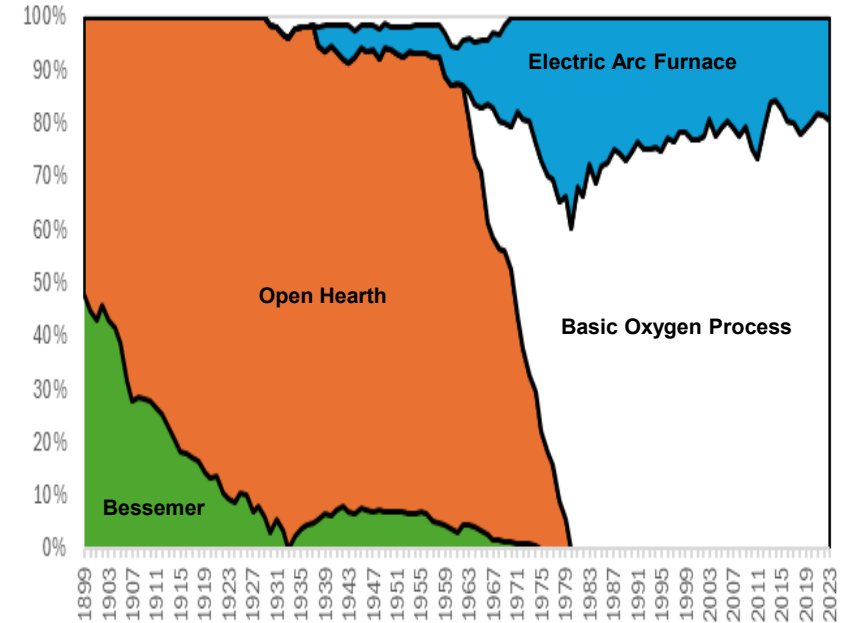
- High **availability of scrap** in UK
- Move swiftly to **100% EAF** production
- **Local demand** for green steel – serviced by local production
- UK **government support**
- Improvements in **local environment**



Transition to EAF – The US Experience



US Steelmaking by Process



UK Steelmaking by Process

The **US** has seen a **steady increase** in the percentage of EAF Steelmaking.

Since the 1980s the **UK** has seen **no penetration**.

In the US this penetration has been achieved by the **ability to produce strip** from the EAF.

The US Experience

The first flat product EAF mill was Nucor in 1989

Nucor Crawfordsville	(1989)
Nucor Hickman	(1992)
Arvedi ISP	(1992)
Nucor Gallatin	(1995)
SDI Butler	(1995)
Trico (British Steel)	(1995)
NorthStar Bluescope	(1995)
Nucor Berkely	(1996)
ArcelorMittal Sestao	(1996)
ArceloMittal Riverdale	(1996)
Arvedi ESP	(2007)
SDI Columbus	(2007)
Tokyo Steel	(2008)
Big River Steel	(2016)
SDI Sinton	(2022)
Big River Steel 2	(2024)
Nucor W. Virginia	()



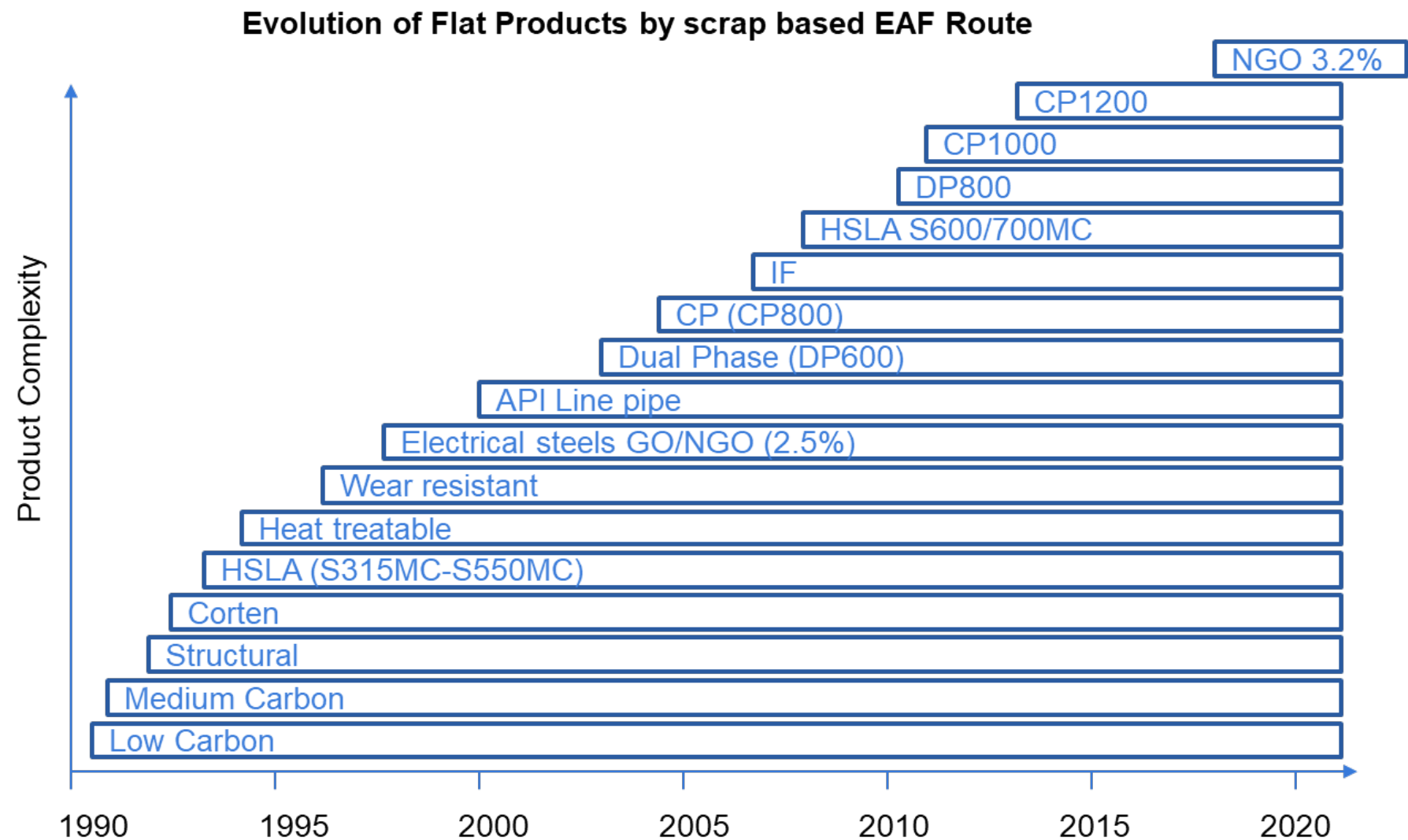
SDI Sinton Texas



Nucor West Virginia

The USA dominates manufacture of flat products from EAF
local scrap, cheap electric, mini mill culture.

Grade Evolution from EAF for Flat Products



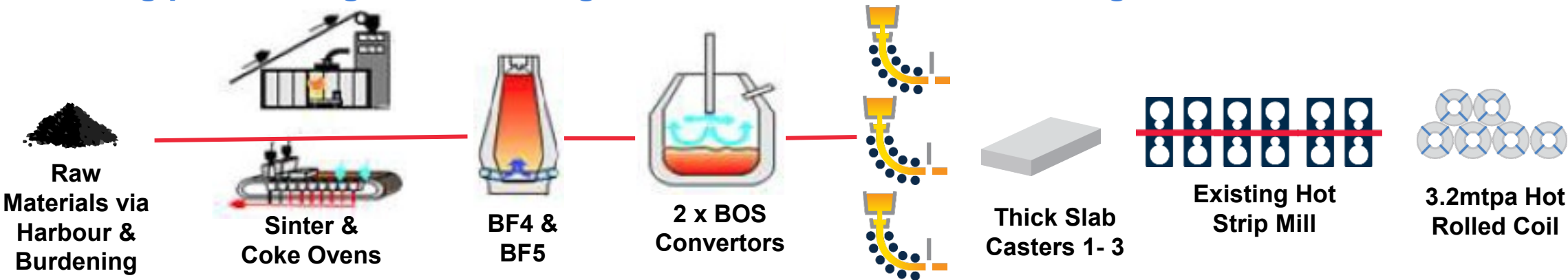
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Moving from Integrated Steelmaking to EAF Technology

Existing plant configuration – Integrated Blast Furnace Steelmaking



Invictus plant configuration – EAF Meltshop feeding existing Thick Slab Casters & Hot Strip Mill



Invictus = Decarbonised Steelmaking reutilising existing casting and hot rolling plant

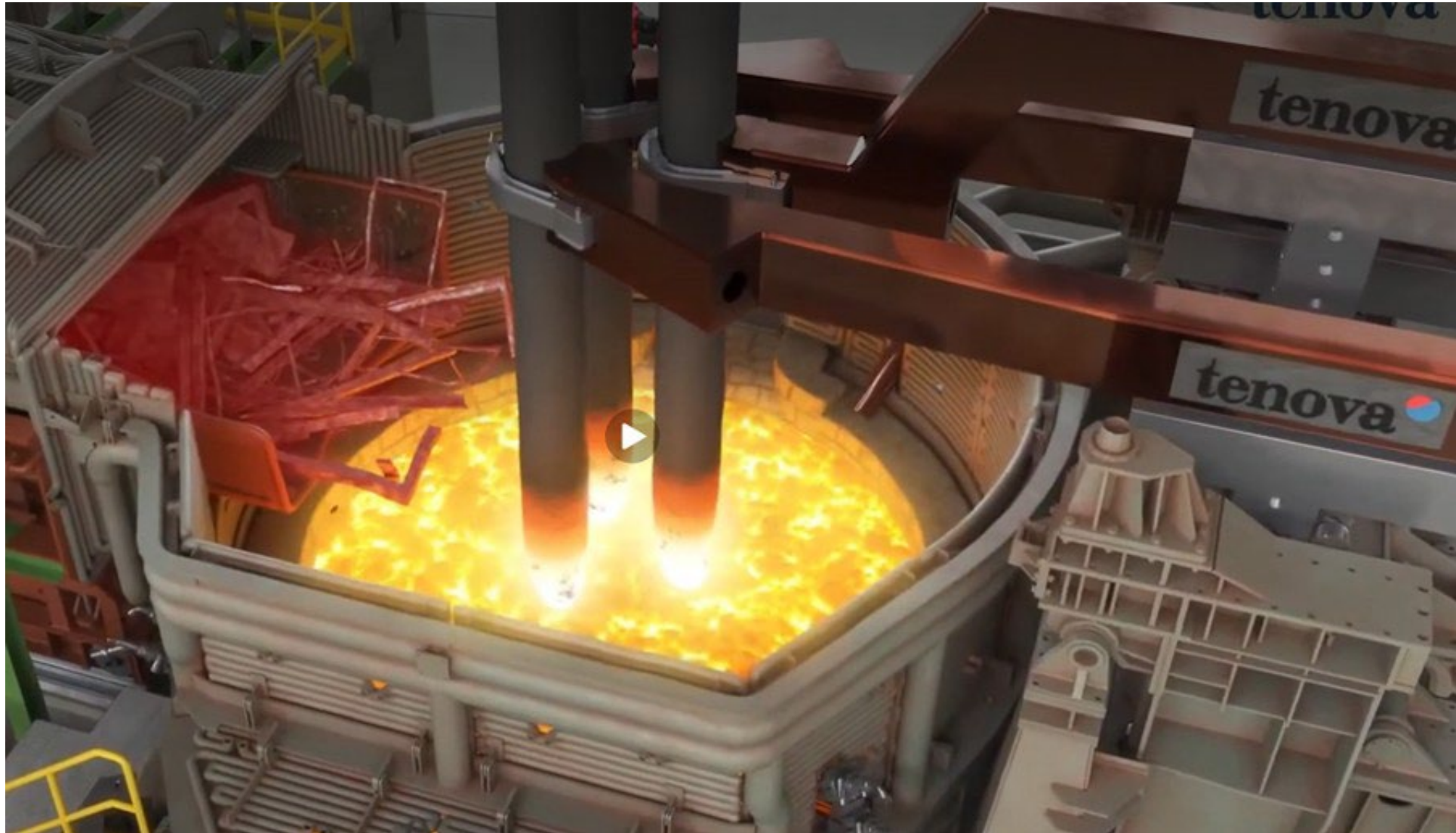
General Layout of EAF



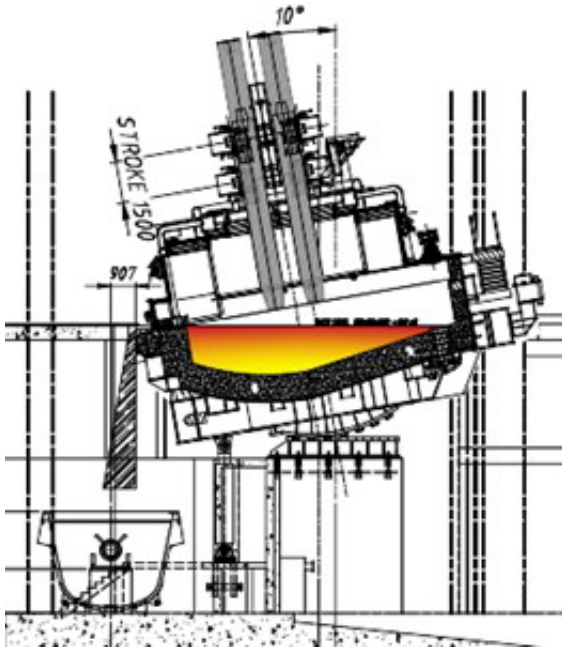
Preheating tunnel & Furnace



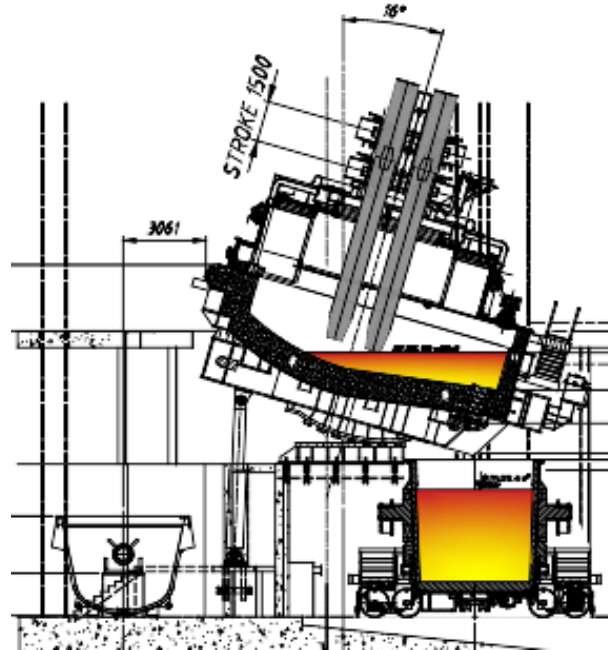
Continuous Charging for Stable Operation



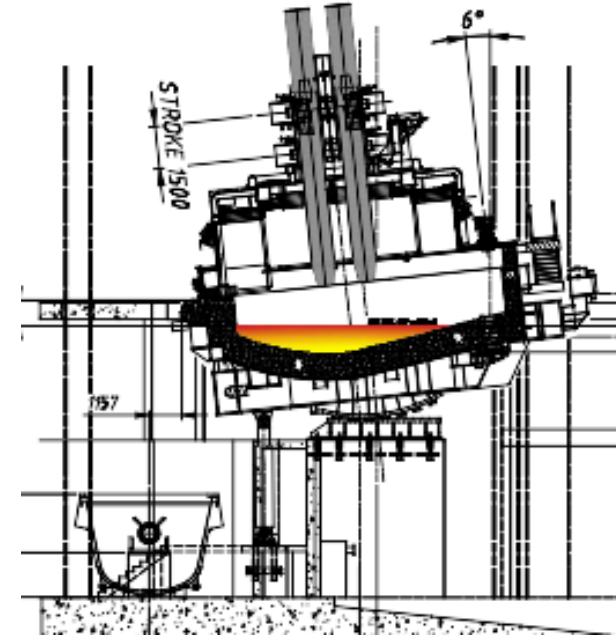
150t hot heel on a 9m diameter shell for 320t tap weight



Deslag



Slag free tap



Fast back

270MVA transformer - means RMS current of 110,000 Amps at peak power

This delivers 320t tap weight in 43 minutes tap to tap time

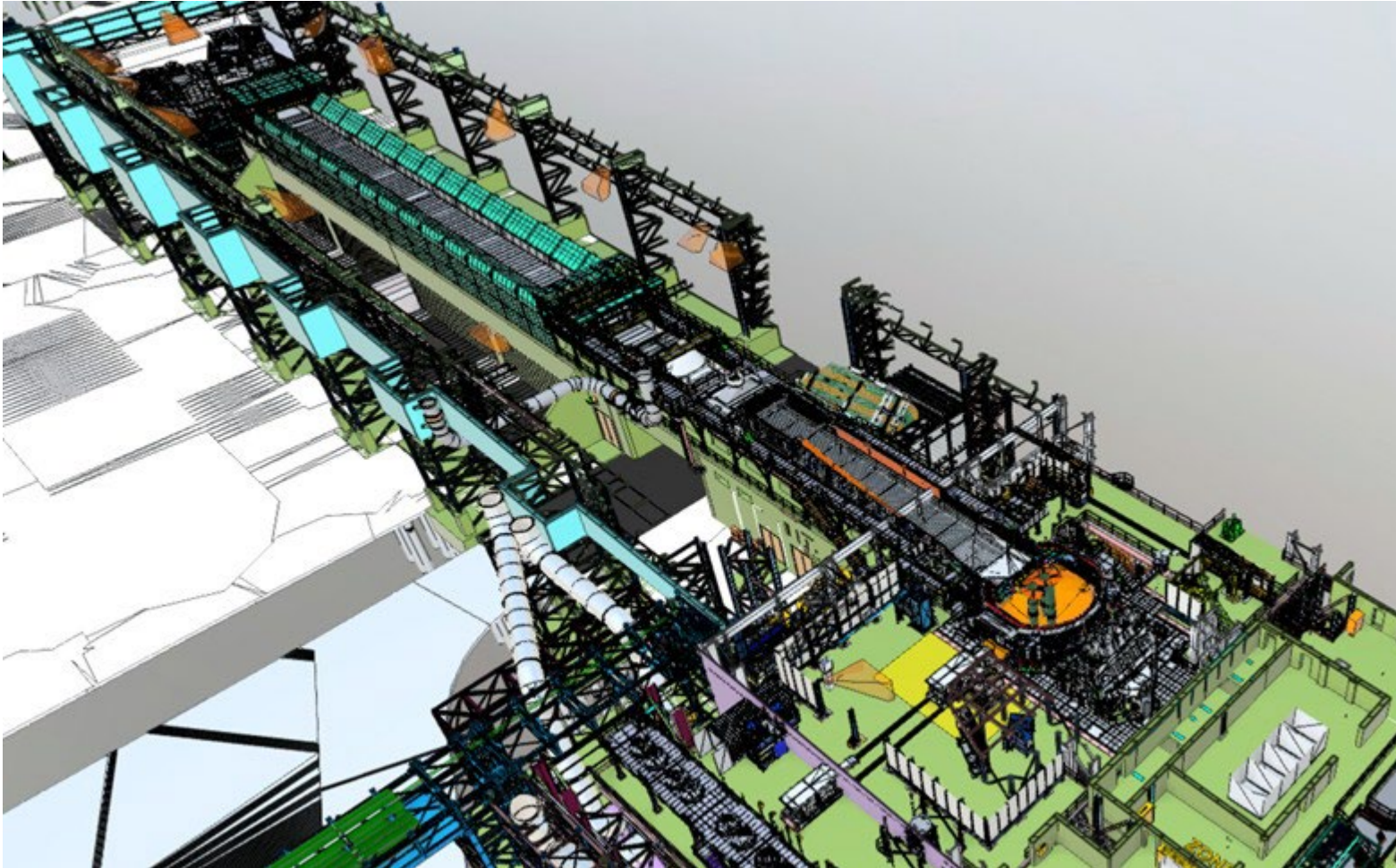


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Engineering Complete



- Detailed 3D model.
- Combines all suppliers drawings.
- Enable clash detection.

















Sensitivity: general



EAF Manufacturing



Injection System Vessels



Finished Tiling Platform



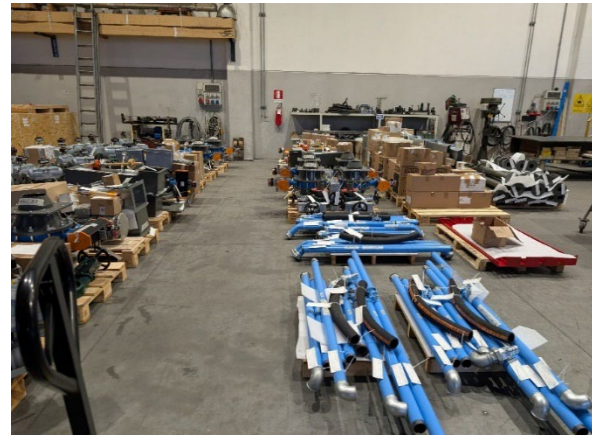
Stirrer from FAT Test



Consteel Offtaking and Settling Chamber



Assembly of Shredded Scrap Conveyor at Magaldi.



Material Handling System



Finished Upper Shells



Finished Lower Shells

Summary

- **Once in a generation** investment.
- A big step in the direction of **Net Zero**.
- Taking **advantage of UK scrap** and renewable energy.
- Using **proven technology** well established in the USA.
- Construction well under way.



Do you have any questions?

Tata Steel

Department

www.tatasteeleurope.com

Scan to give your feedback

Thank you for attending

