

HOW TO FLEXIBLY ADAPT TO MARKET REQUIREMENTS IN LONG PRODUCT CASTING

SEASI, NOV 2022

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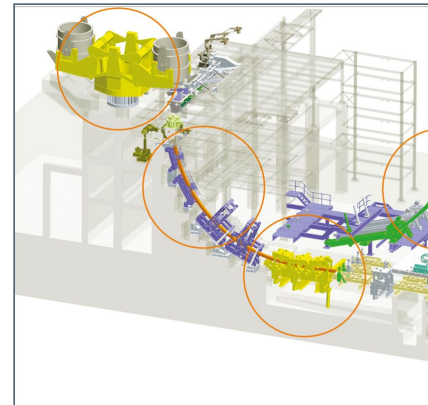
Content

voestalpine
Donawitz CC4
**HIGHEST
FLEXIBILITY
& QUALITY**



GPH
**LOWEST
OPEX**

Starwire
**MOST DEMANDING
STEEL GRADES**



CIL Caster
**LOWEST
CAPEX**

4-strand bloom caster CC4 voestalpine Stahl Donawitz, Austria



4-strand bloom caster CC4

voestalpine Stahl Donawitz, Austria



PLANT DATA

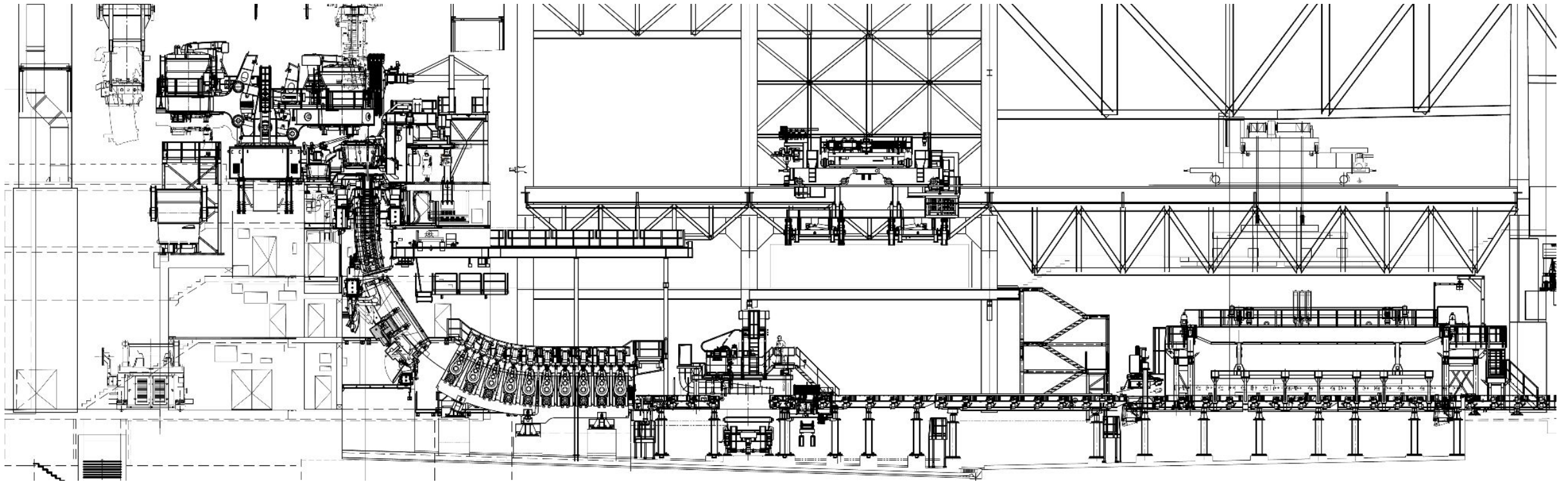
Caster capacity	0.95 (1.2) Mtpy
Heat size	67 t
Machine radius	10.5 m
Metallurgical length	32 m
Bloom sections	270x360 mm 440x330 mm ø230 mm
Cut length	3.8–12.5 m
Casting speed max.	1.8 m/min
Startup	2020

Steel grades:

rail steels, case hardening steels, free cutting steels, steels for seamless pipes, heat treatable steels, spring steels, cold heading and cold forging steels, tyre cord, cold working steels, ball bearing steels, steels for welding electrodes

4-strand bloom caster CC4 voestalpine Stahl Donawitz, Austria

Longitudinal section



4-strand bloom caster CC4 voestalpine Stahl Donawitz, Austria



Main Features

Maximum automation
” monitoring and not operating ”

High-end caster with most modern technological packages like

- DynaPhase
- Dynacs 3D
- DynaGap Soft Reduction 3D
- Nozzle Expert
- Quality Expert
- Intermix
- Equipment Expert
- Speed Expert

Customer statement

“The CC4 allows a fully automated production process as well as fully automated manipulation and loading of the Continuously cast ingots. The high degree of digitization of the system allows us to term parameters in relation to the purity or the homo-to control the quality of the product even more precisely and thus the specific requirements of our customers even better to be able to come. The successful operation of this system and the high product however, the quality that we achieve with it is still entirely based essentially on the unique metallurgical know-how of our employees here in Donawitz”

Franz Kainersdorfer, member of the board of voestalpine AG and head of Metal Engineering Division

BHM 11/2020

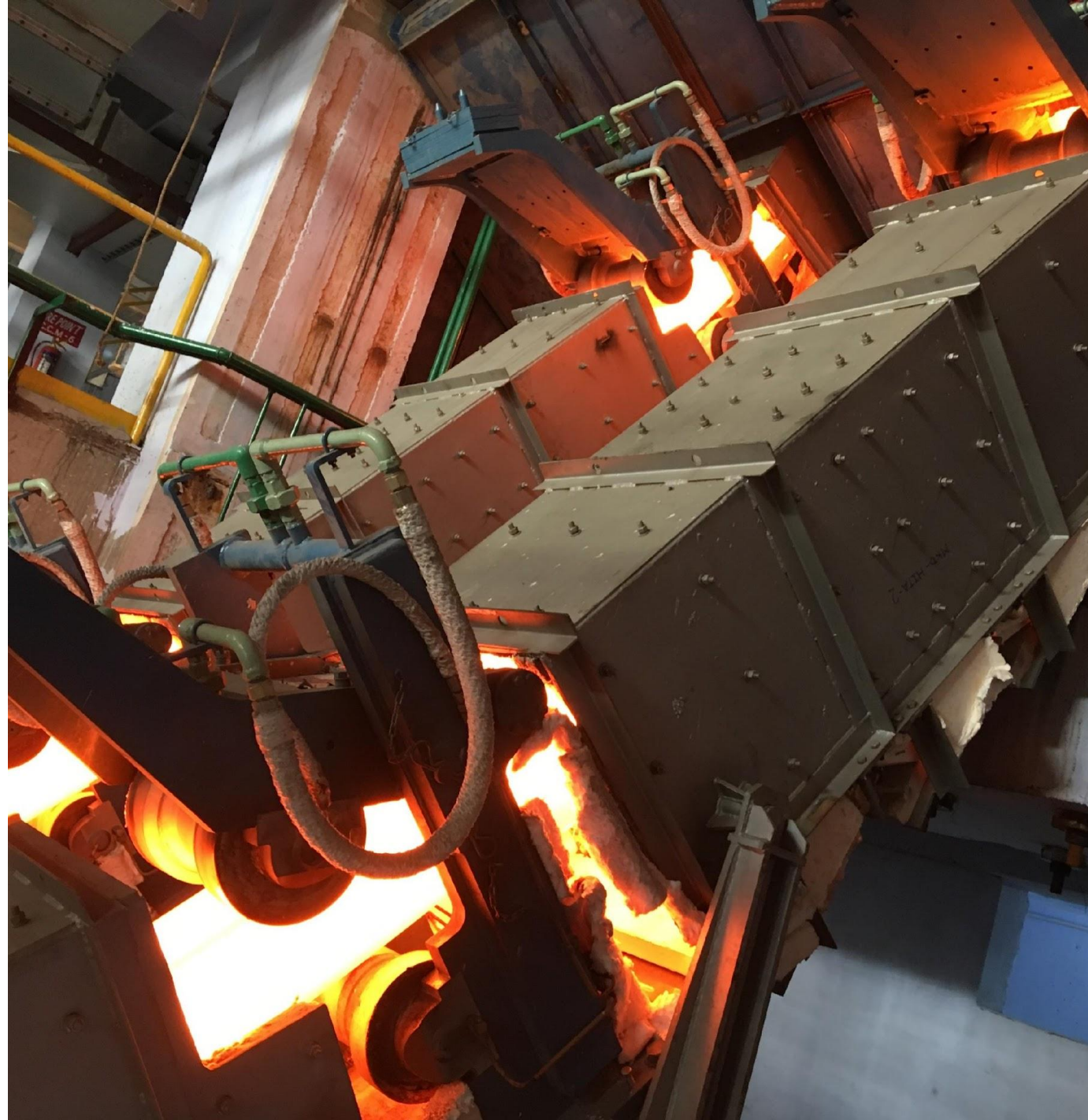


Token of recognition

voestalpine Donawitz honors the successful collaboration with Primetals Technologies by presenting a slice of the rail from the first cast of the new CC4 caster.



2-strand billet / bloom caster Star Wire India Ltd., Ballabgarh, India



2-strand billet / bloom caster Star Wire India Ltd., Ballabgarh, India



PLANT DATA

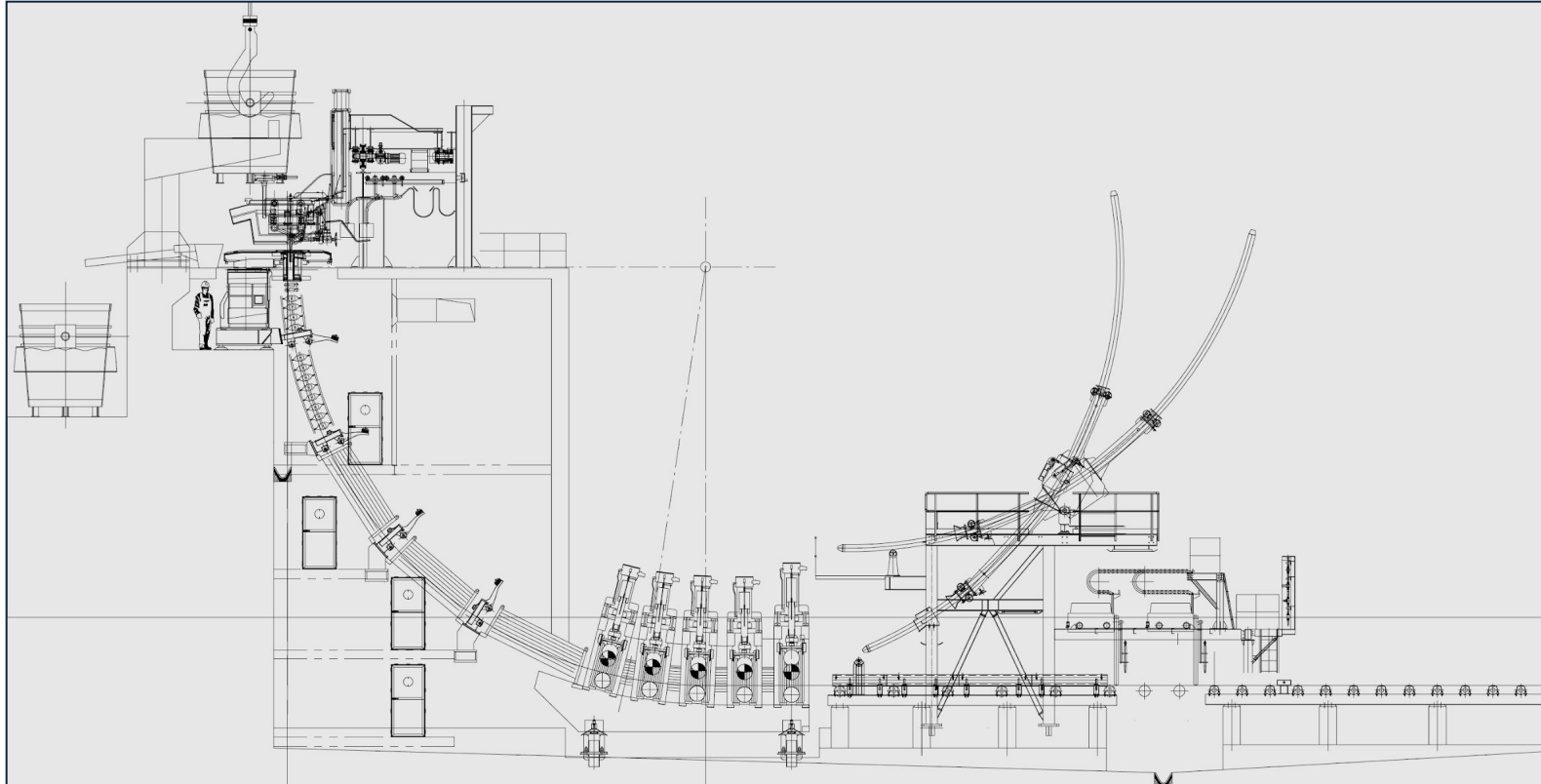
Caster capacity	60,000 tpy
Heat size	27 t
Machine radius	12 m
Metallurgical length	20 m
Billet sections	sq145 sq195 mm
Bloom sections	sq350 mm (future)
Startup	2019

Steel grades:

austenitic and martensitic heat resistant steels |
tool and die steels | ferritic, martensitic and
austenitic stainless steels | other special steels

- **Worldwide first caster with this range of special steel grades**

2-strand billet / bloom caster Star Wire India Ltd., Ballabgarh, India



Main features:

LevCon | DiaMold | DynaFlex hydraulic oscillator | Dynacs 3D | DynaGap Soft Reduction 3D

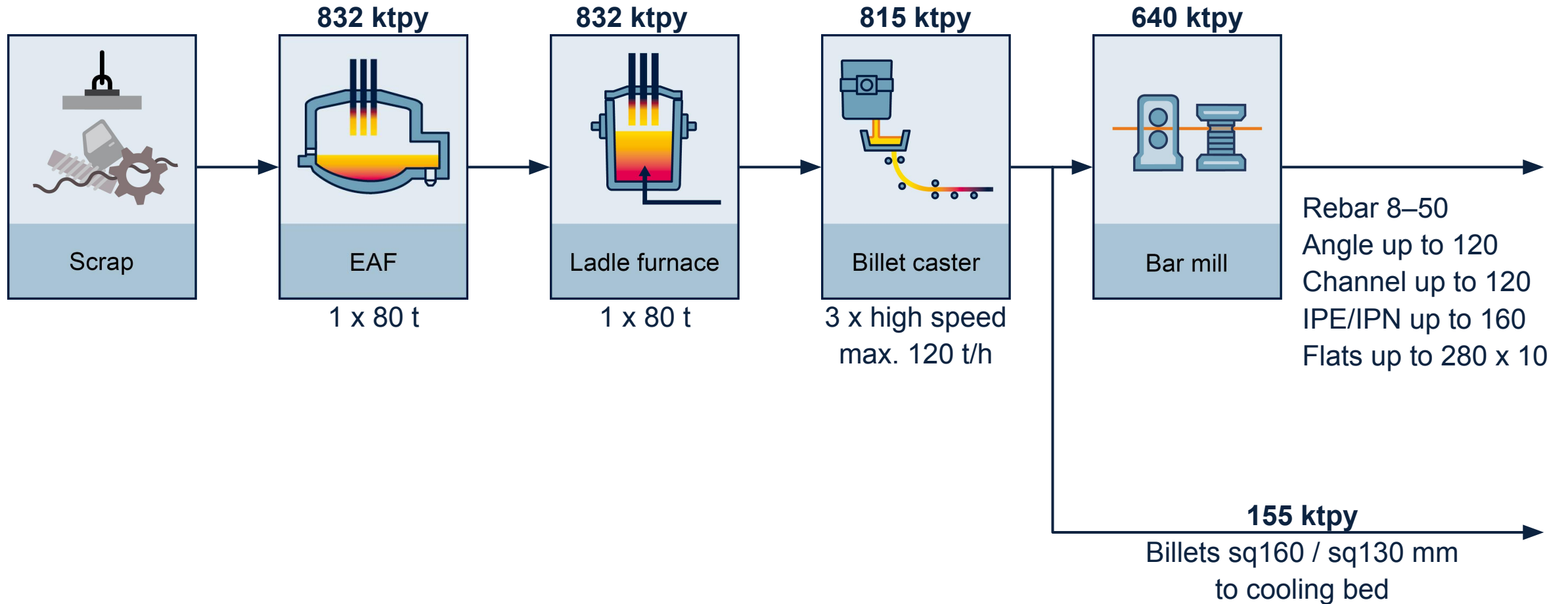
2-strand billet / bloom caster Star Wire India Ltd., Ballabgarh, India



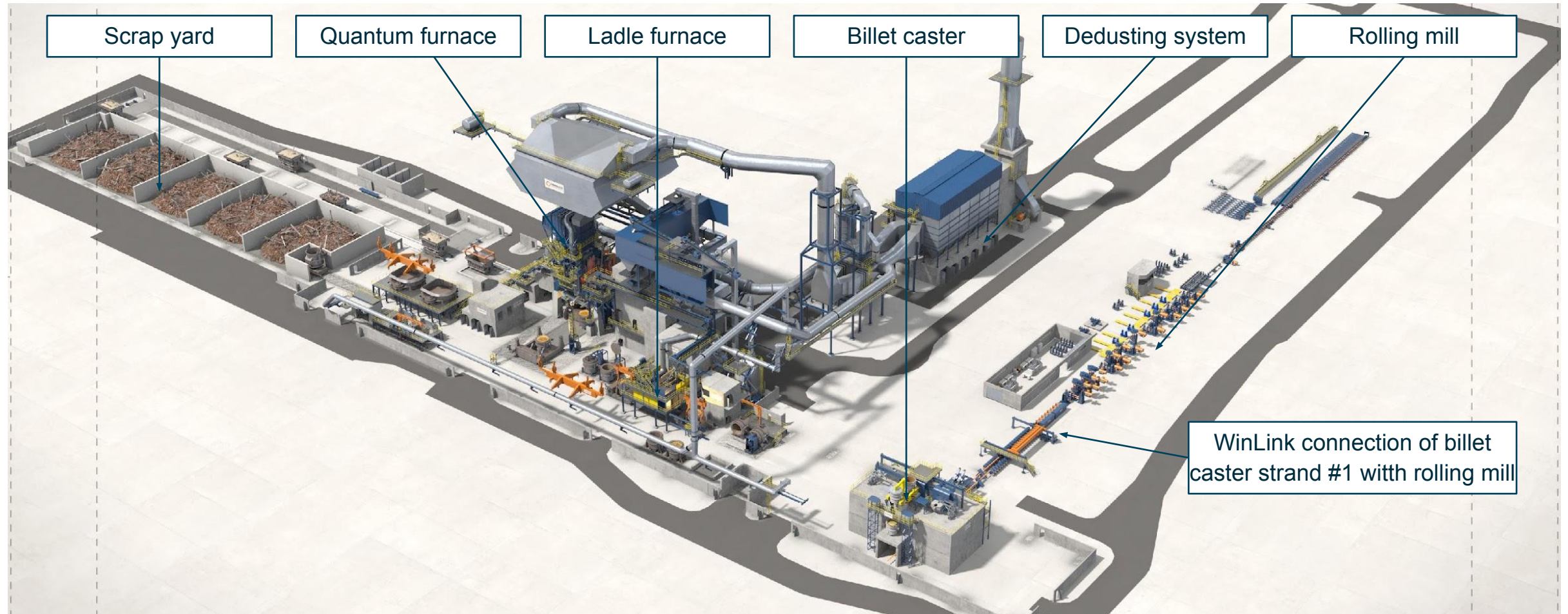
High speed casting and the innovative WinLink Mini Mill at GPH Bangladesh



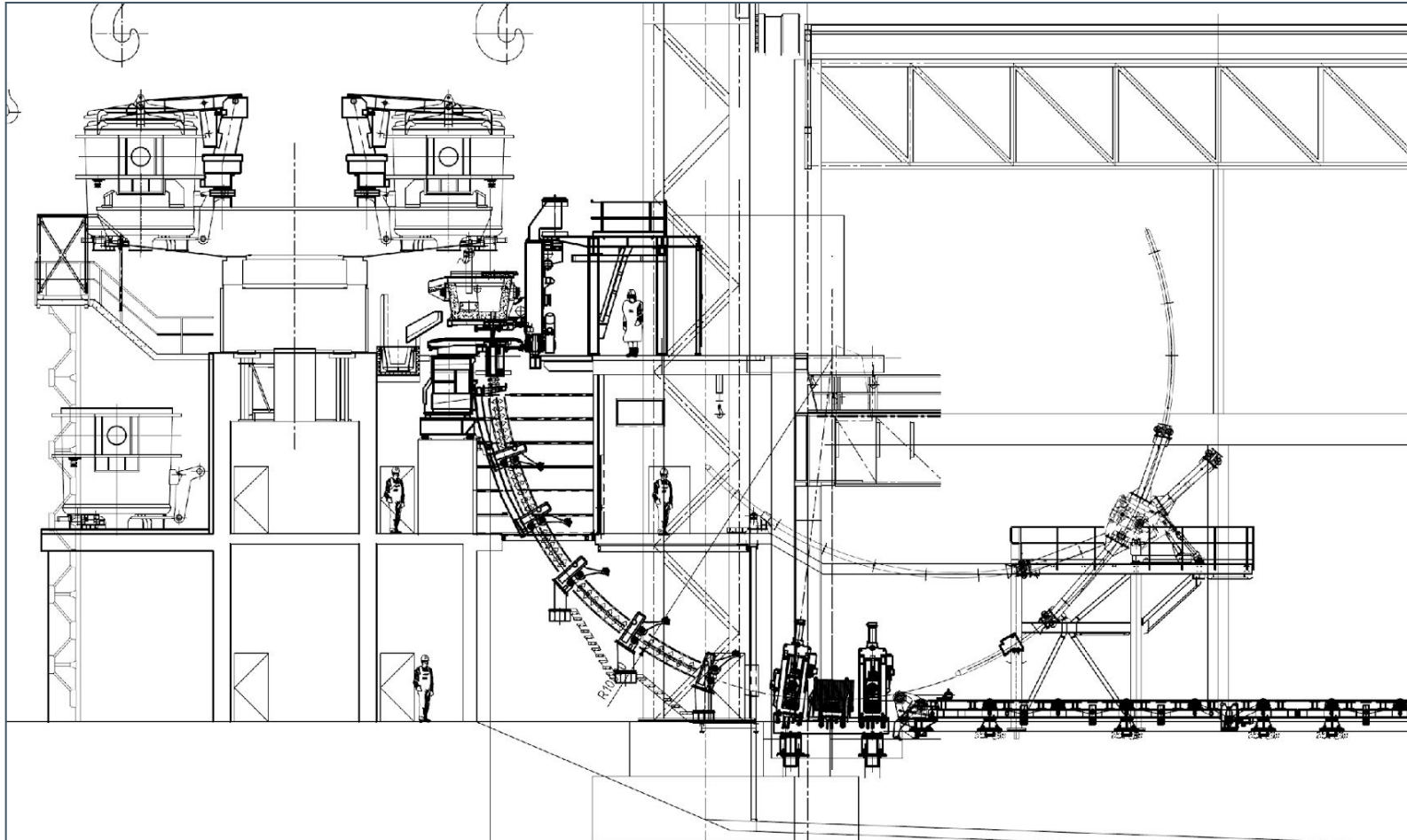
Main plant data / Process flow



Overall plant configuration



3-strand WinLink billet caster GPH Ispat Ltd., Bangladesh

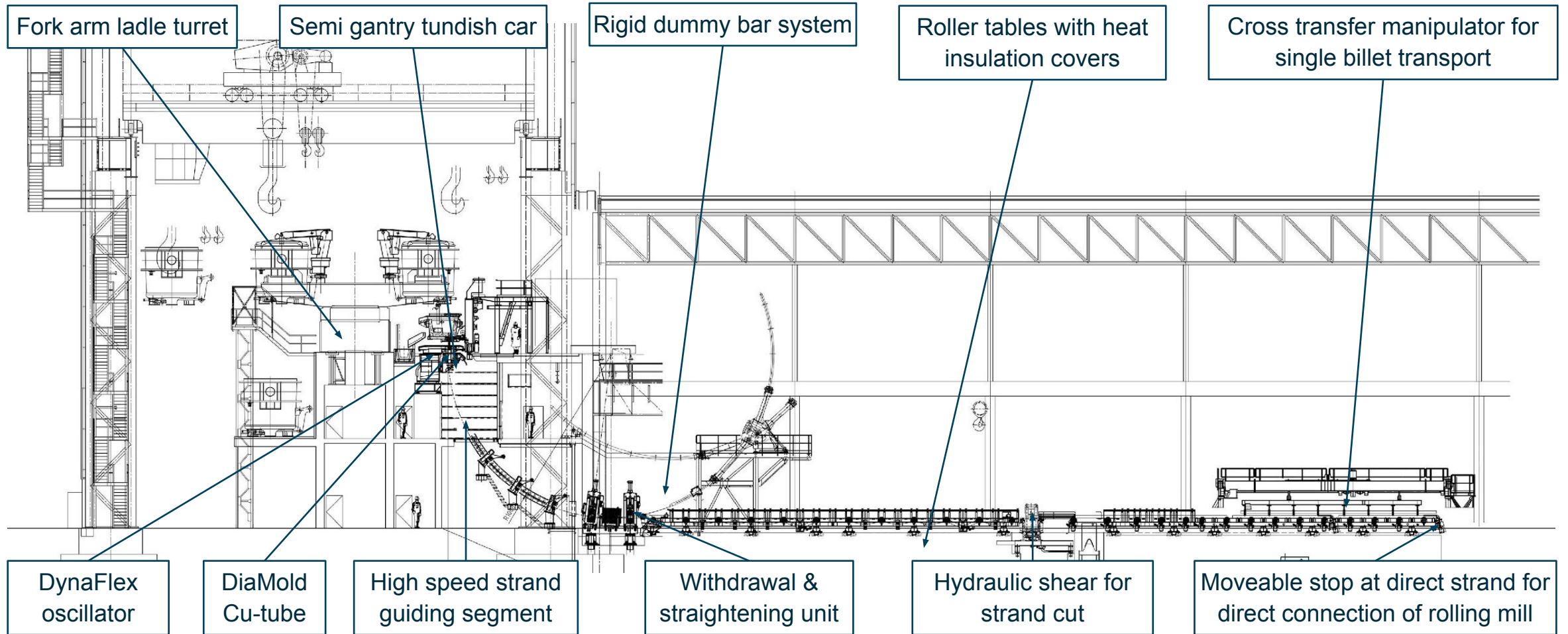


PLANT DATA

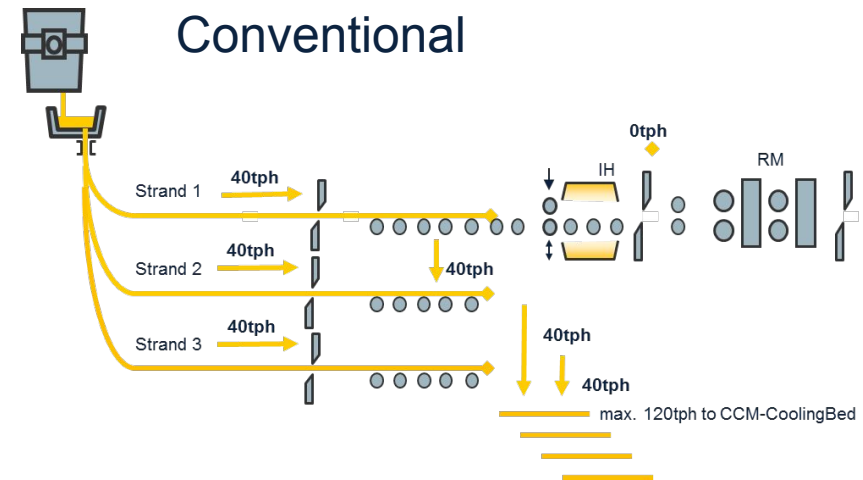
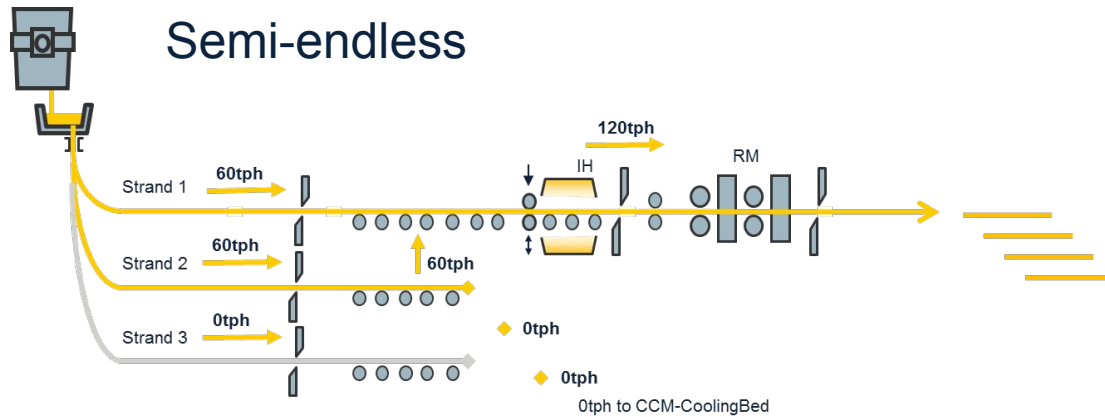
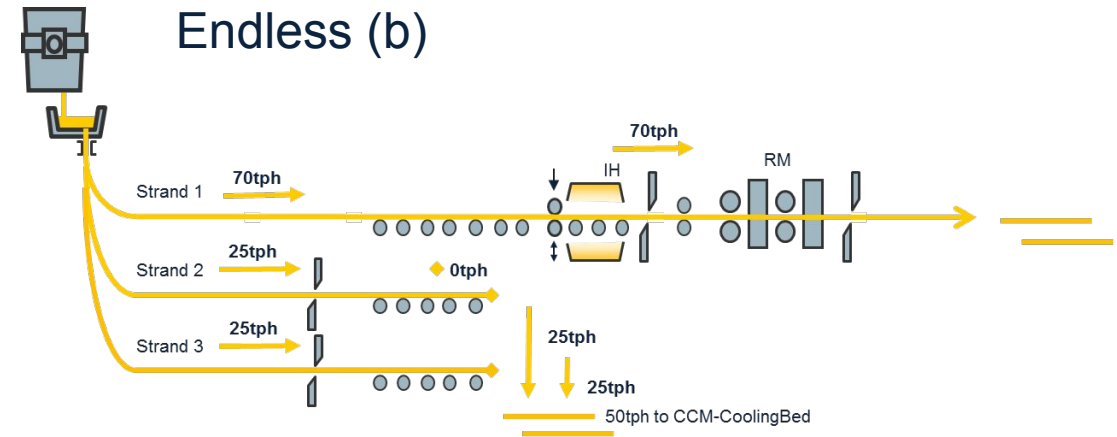
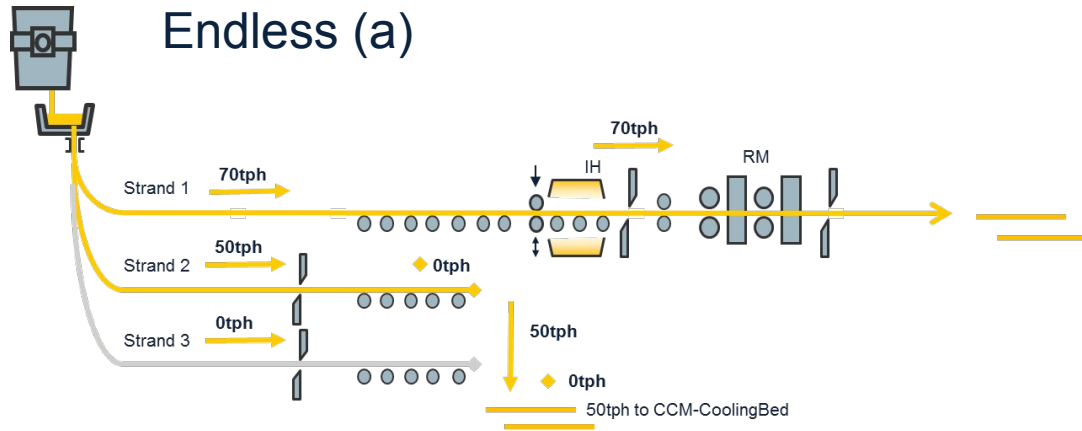
Caster capacity	815,000 tpy
Heat size	80 t
Machine radius	10 m
Metallurgical length	35 m
Billet square sections	130 160 (180) mm
Cut length	endless 6 m 12 m
Casting speed max	5.8 m/min
Startup	2006

EAF Quantum electric arc furnace and WinLink solution substantially reduce conversion costs. WinLink Flex to achieve virtually uninterrupted twin-roll casting at low running costs

Caster configuration



Modes of production





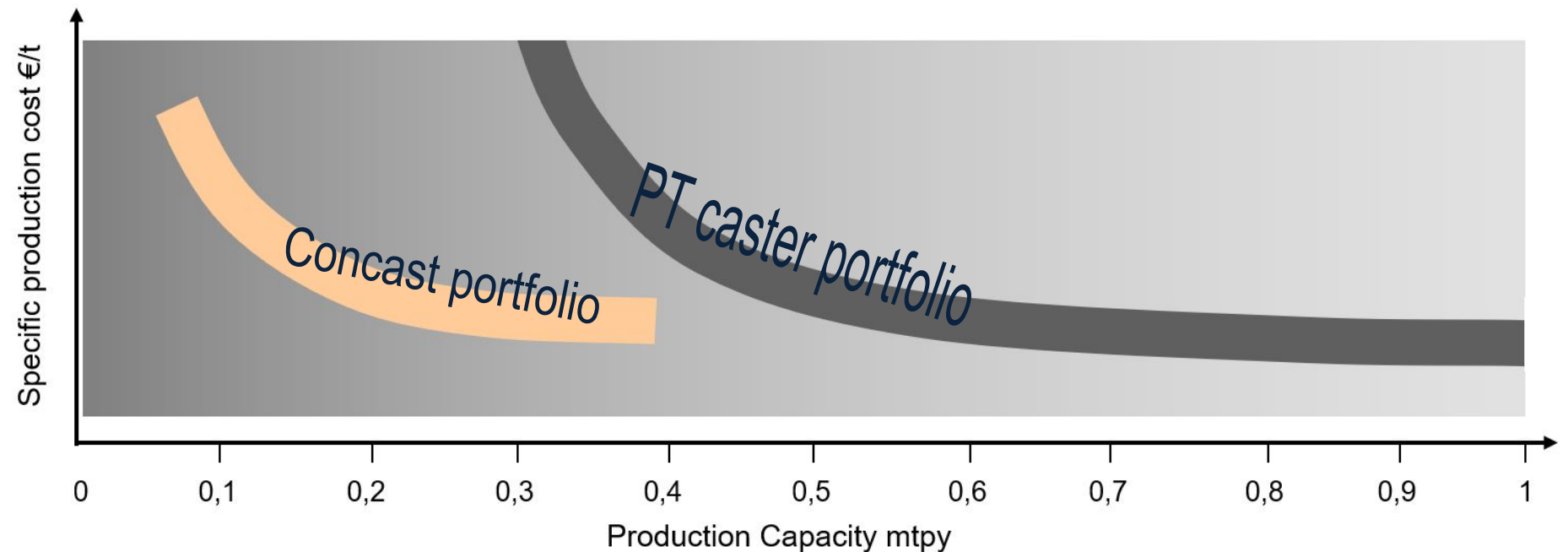
Concast (India) Limited

Primetals Technologies Group Company

Concast (India) Ltd. extends the Primetals Technologies caster portfolio

Concast (India) Ltd. successfully covers the market of low scale production plants for many years.

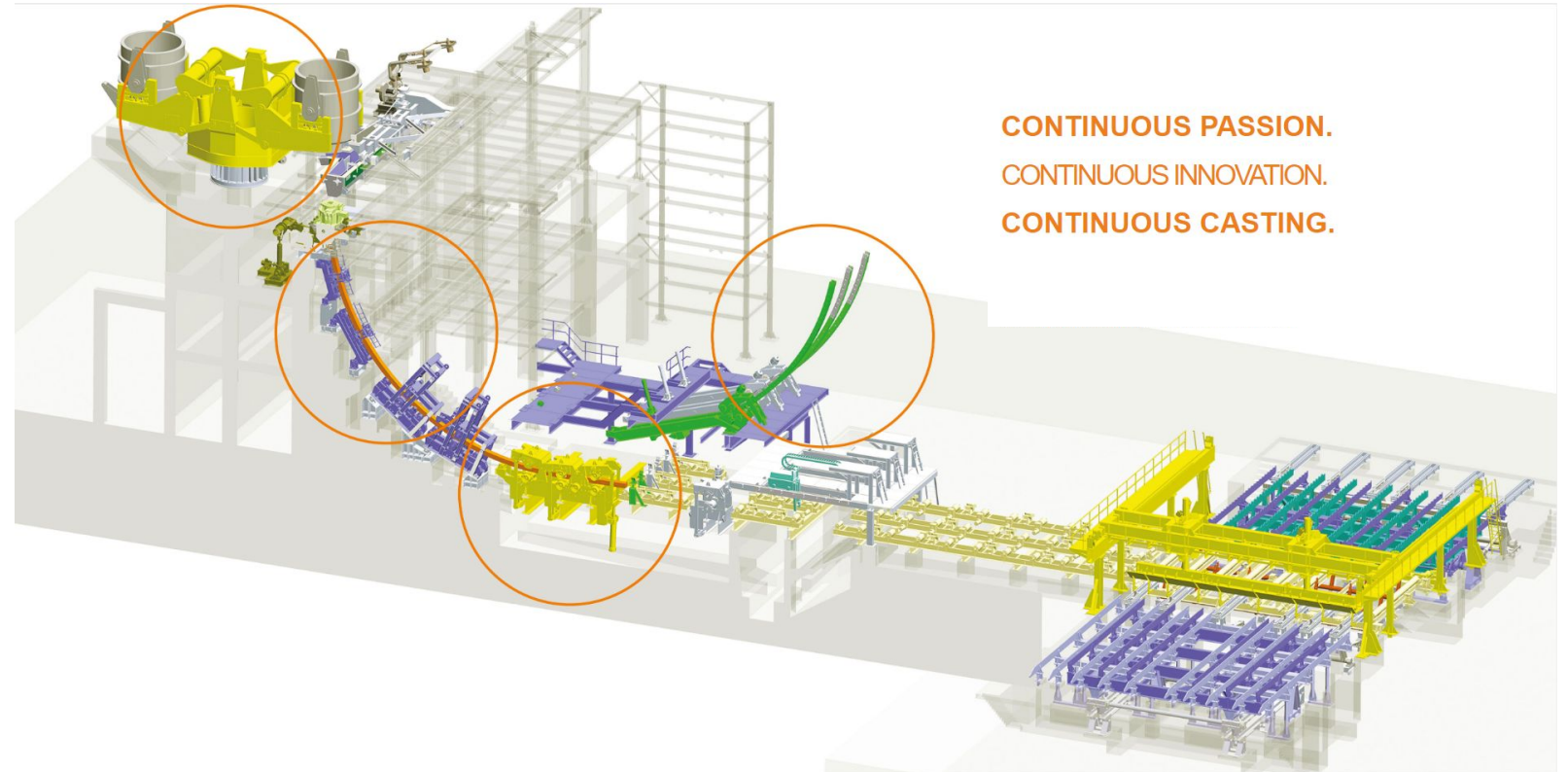
In a close cooperation between Concast (India) Ltd. and the Primetals Technologies headquarters of continuous casting the main goal is to deliver the best solution for the customer.



Billet caster mainly with 2-strands or 3-strands

Main characteristics:

- Simple plant structure with modular machine equipment
- For low scale production plants max. 400,000 tons per year
- For low and medium carbon steel grades
- 6m machine radius
- Billet size 100x100 to 200x200
- Billet length from 4m to 12m
- Flexibility for future extensions
- Fast installation and ramp-ups



Designed to be true workhorses in steel mills

THANK YOU