



LDL - KEY DATA



The latest European rolling mill, is a greenfield project in Tarnos, France.

Commenced operations in the first quarter of 2018 with the production of heavy plates (Quarto)

Capacity:

approx. 500.000 tons / year

Floorspace:

approx. 20.000 sqm factory on a 10 hectare industrial site

Location:

Tarnos, directly across from the harbour of Bayonne on the Bay of Biscay in Aquitaine, in the historic region Gascony, in southwest France.

PLAN PRODUCT-MIX



EFFICIENCY IN STEEL

Laminoirs des Landes (LDL) manufactures heavy plates of reliably tested quality that conform to all common standards.

Target is to offer highest quality steel:

thermomechanically-controlled, rolled fine-grained steels, high tensile heat-treated fine-grained steels and wear-resistant steels.

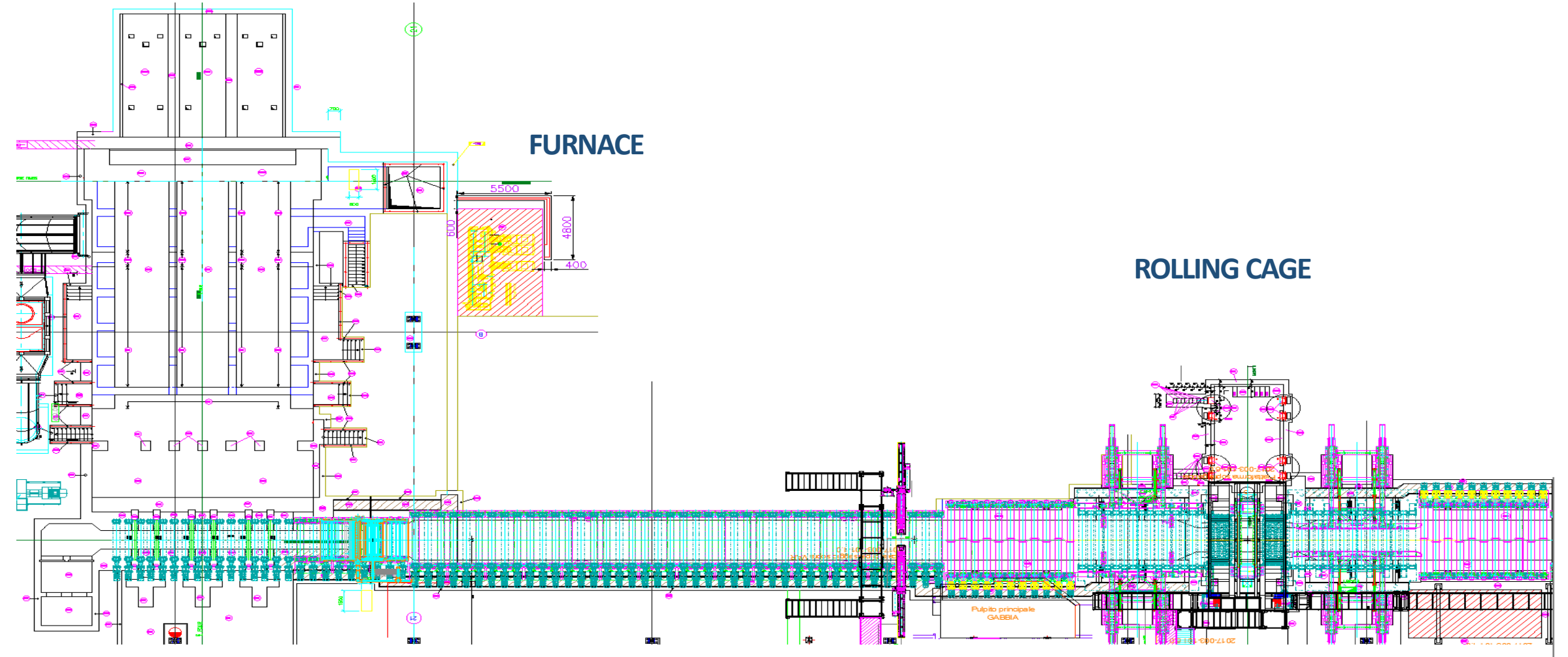
MARKET SCOPE

- Normalised fine-grain steels, certified to European standards & ASTM / ASME
- Steel for on and offshore structures (wind farms)
- Steels for shipbuilding
- Creep-resistant steels for pressure vessel construction acc. EU standards
- Tempered steel (C45)

LAYOUT

FURNACE

ROLLING CAGE



REHEATING FURNACE



N°1 Pusher type reheating furnace 80 ton/h capacity working on three row of slabs with max length 3150mm each.

Furnace is complete of slab charging device pusher type and discharging system with independent trolleys.

Slabs dimensions:

Thickness	200-250-300mm
Width	1850-2000-2500 mm
Weight	30 ton

Rolling temperature: 1200 °C



ROLLING CAGE

Rolling stand 4HI

Back up rolls: 1600 mm dia x 3600 mm barrel

Work rolls: 950 mm dia x 3600 mm barrel

Separating force: 4000 tons

Thickness adjusting system by hydraulic screw downs with automative control

2 Eletric DC motors serie „mill“, 6000 HP each in combination twin drive

ROLLING PROCESS: COMBINATION OF FORCES, TEMPERATURE AND TIME



- **+N- Normalised Rolled**
- Rolling process on which the final deformation is carried out within a specific temperature range, the result are equivalent to normalisation through heat treatment in furnace.
- Rolling temperature are always above the transformation temperature Ar3.

+M Thermomechanical Rolling

Final deformation is carried out within a special temperature range in order to achieve a steel with special characteristics that are not possible to obtain with a simple heat treatment.

Results in a very tough fine-grained microstructure which simultaneously offer good strength and cold forming properties.

Can also be combined with a process with increased cooling speed as Accelerate Cooling .(Cycle M+AC).

« MULTIPLE » PROJECT AT LDL IMPROVEMENT OVERALL EFFICIENCY 10 %



Furnace:

Implementing AirOptic gas analysers

Objective:

- Gas analysis and control per areas

Benefit:

- Reduction in delays due low temperature
- Secure regulation, secure proper combustion, reduce CO₂/NO_x
- Temperature control → Reliable steel properties, Quality assurance
- Reduce gas consumption → Cost saving
- Reduction production of slag → Cost saving



« MULTIPLE » PROJECT AT LDL



Rolling Cage:

3D Cameras (Aimen) at the entry and exit of the rolling cage:

Objective:

- Thickness tolerance control
- Steel Grade control, avoid mix

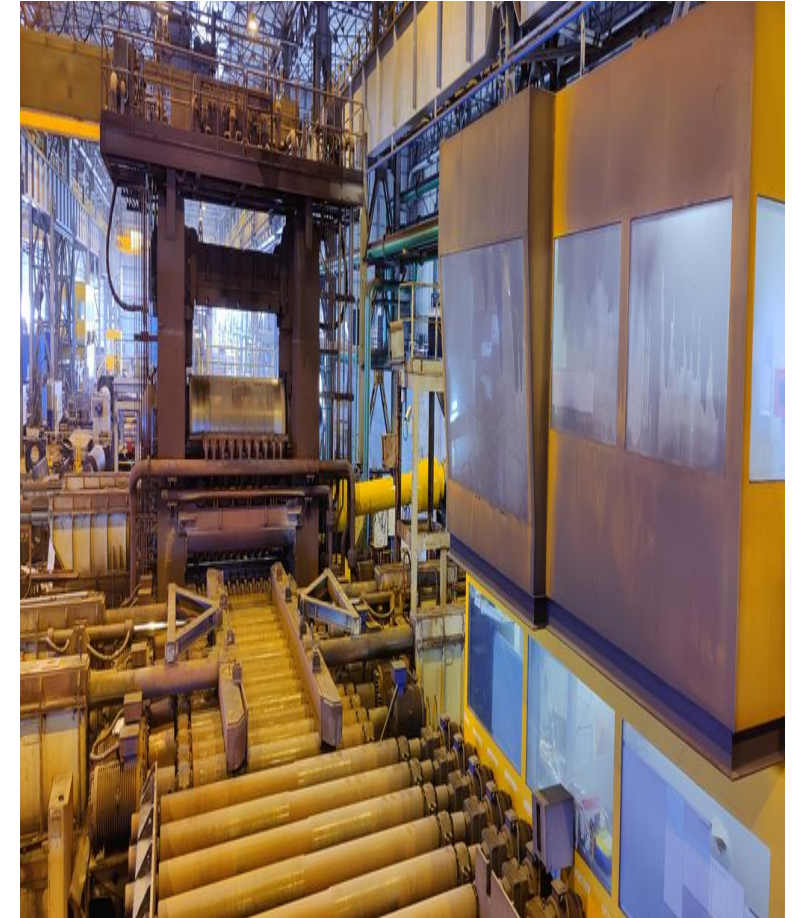
Benefit:

- Temperature control reliability
- Improving visibility

Perfilometer after leveler

Objective: Thickness measure

Benefit: automatization (manual), grade control





THANK YOU FOR YOUR ATTENTION!

DO YOU HAVE ANY QUESTIONS?

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