

METAL BULLETIN'S Moscow Metal Summit

Moscow - 1/2 June 2004

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Chairman & CEO - Danieli & C. Spa - Italy

Gaining a competitive advantage
in steel and metals through
technology





Performance

- Productivity > 2,8 ton m³/day WV (2.5 ton/m³/day IV)
- Coke rate < 300 kg/t
- PCI > 200 kg/t plus required oxygen (25-32% in blast)
- Availability > 95%
- Campaign length > 15 years



Consistent operation

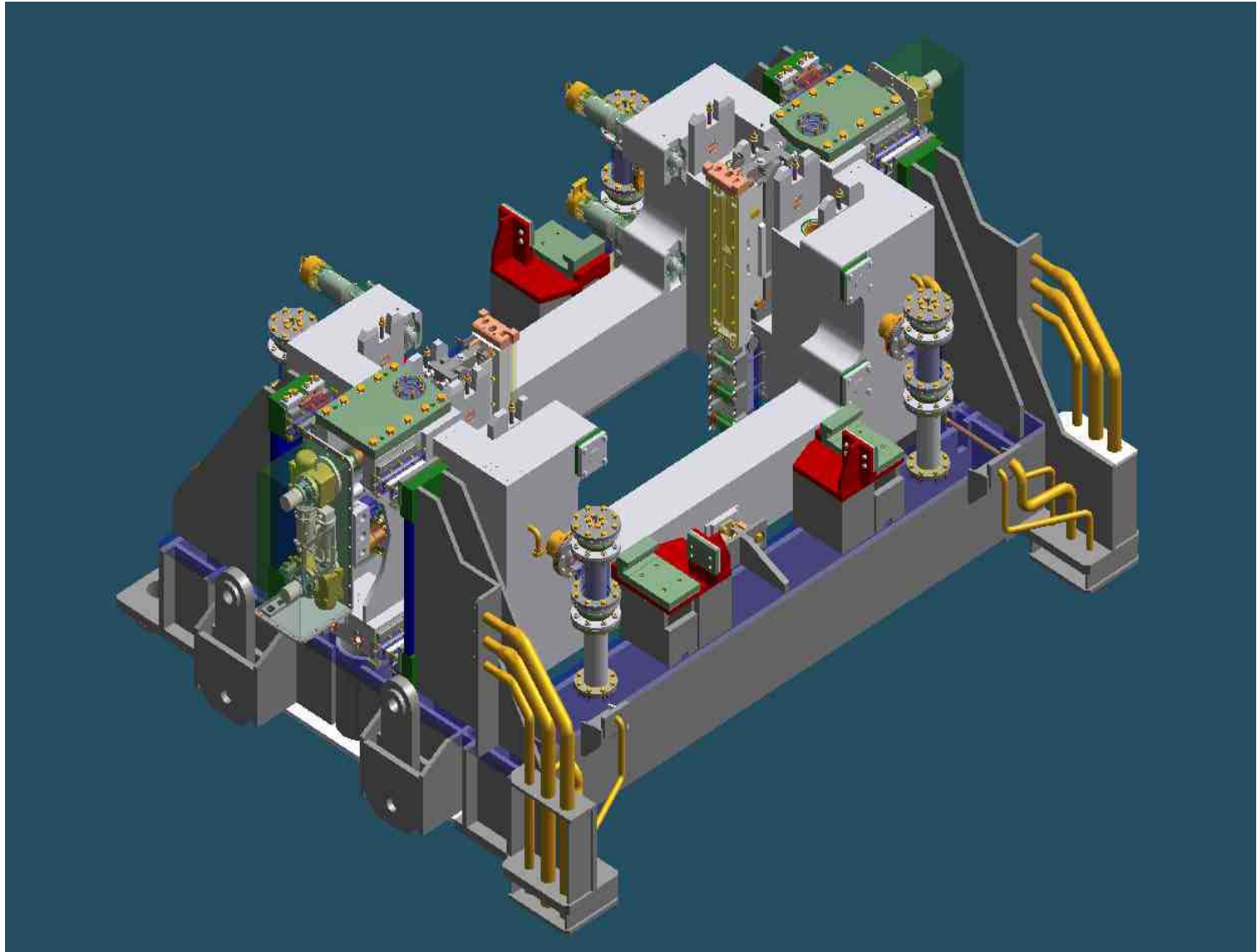
- Inputs according to specifications; screened
- Ore burden: mainly (> 85%) pellets and sinter
- Coke: lump coke + 30 mm, stability > 58
- Gas flow controlled with burden distribution
- Suitable instrumentation and data presentation
- Cast house operation > no limitation on process



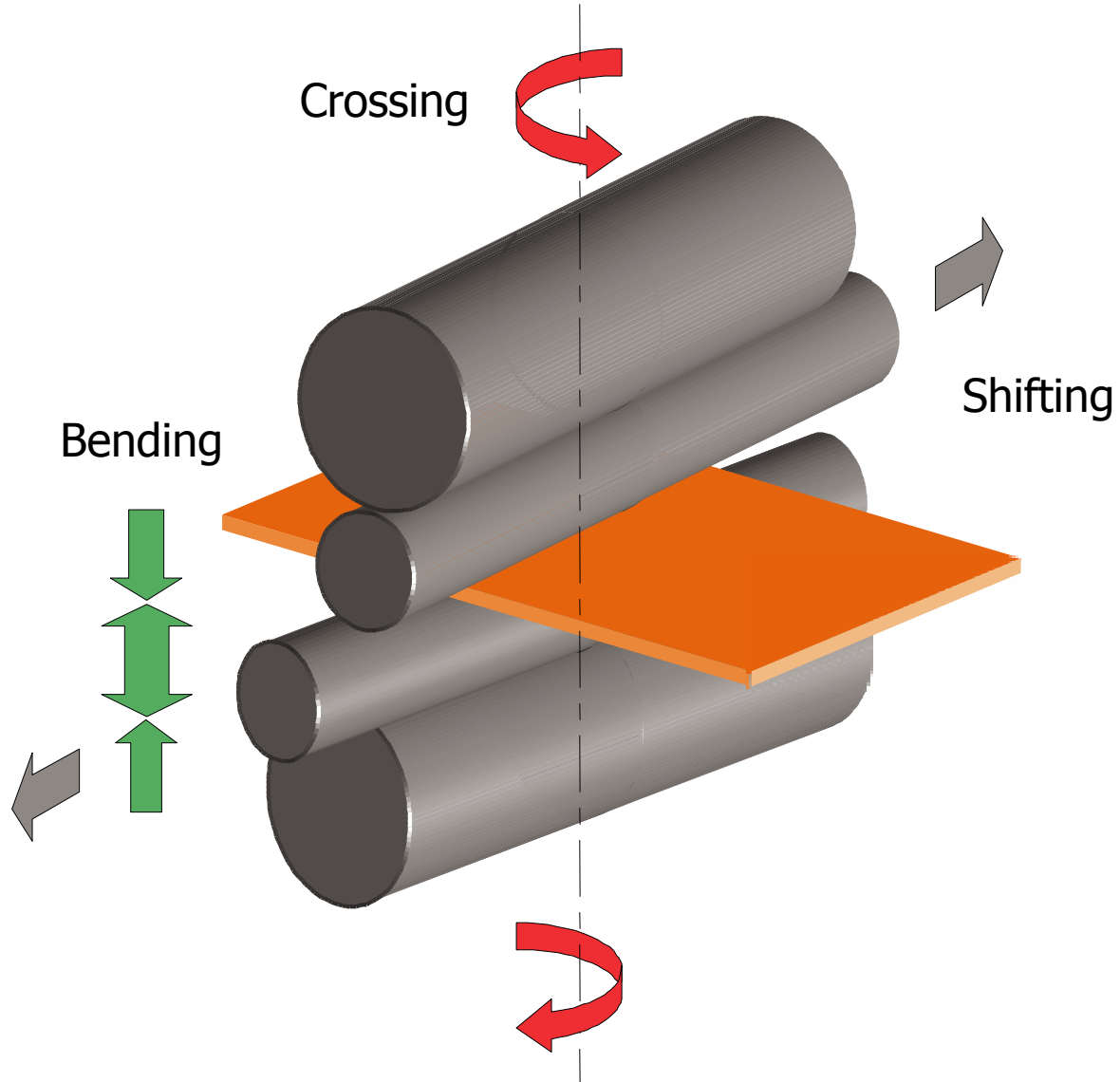








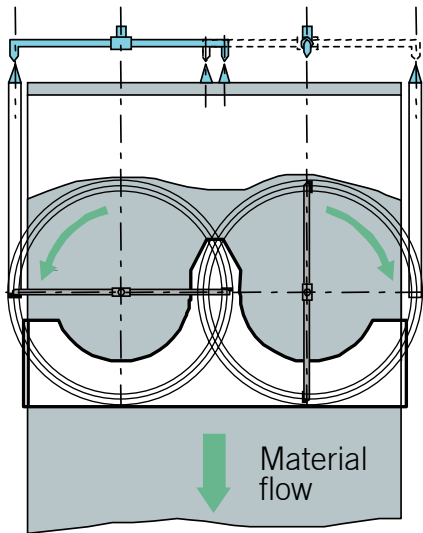
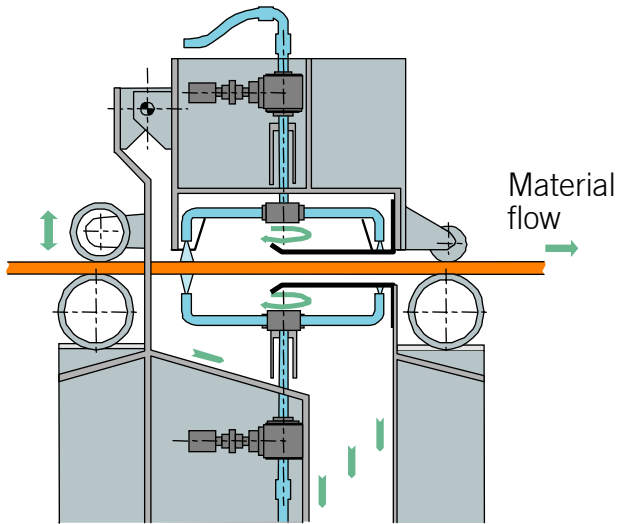




Rolling mills - Process temperature control



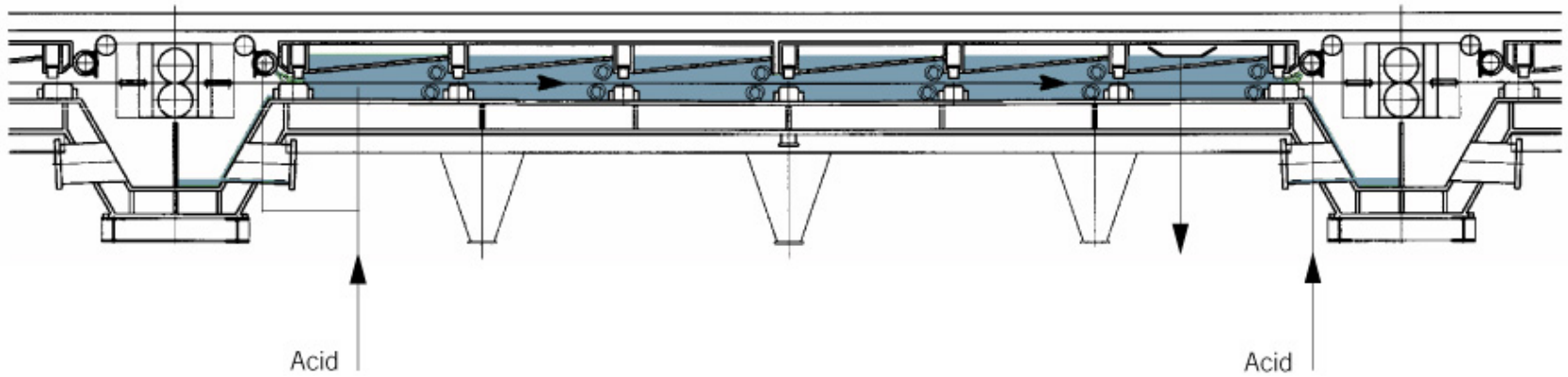
Rolling Mills - Rotating descender



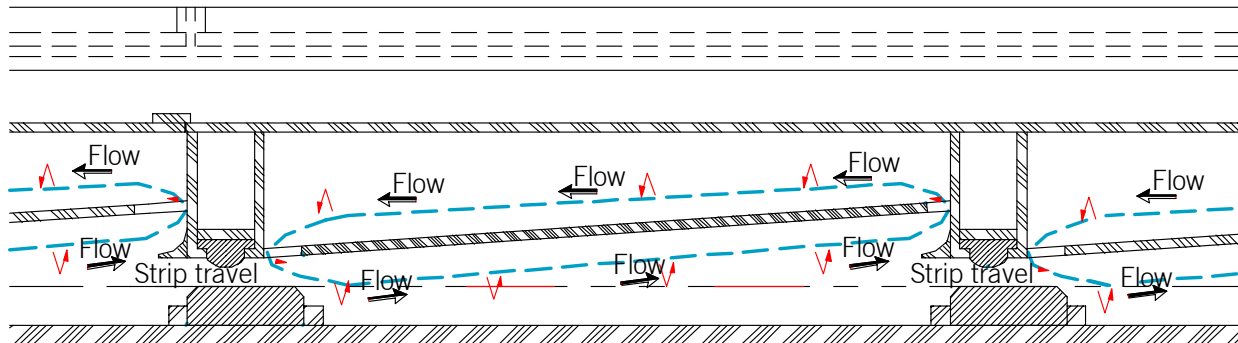




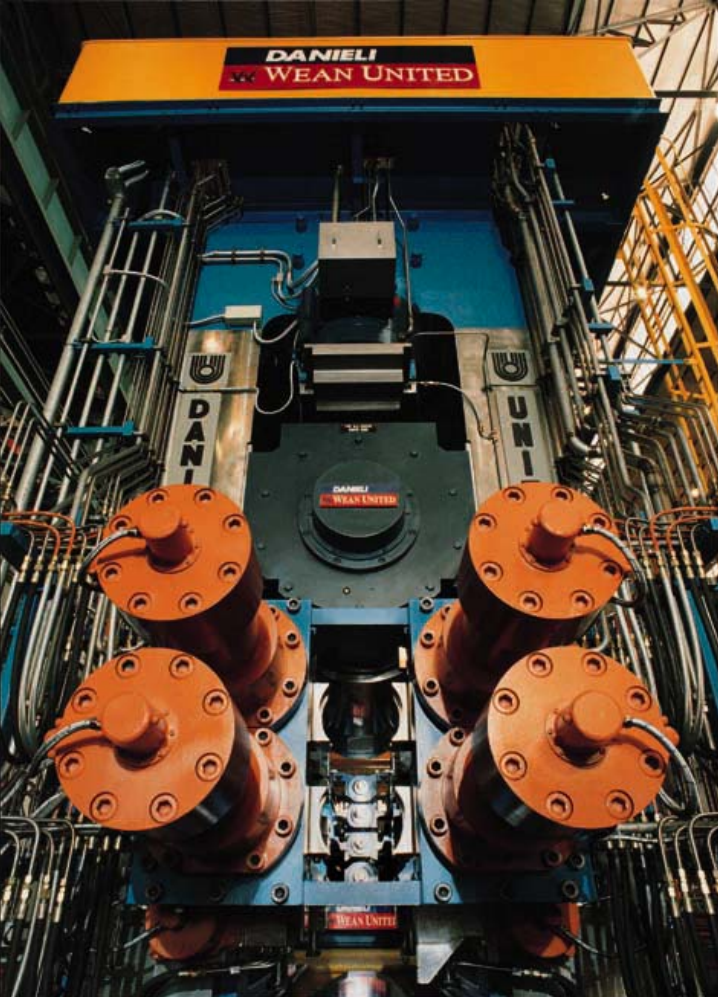
Pickling tank

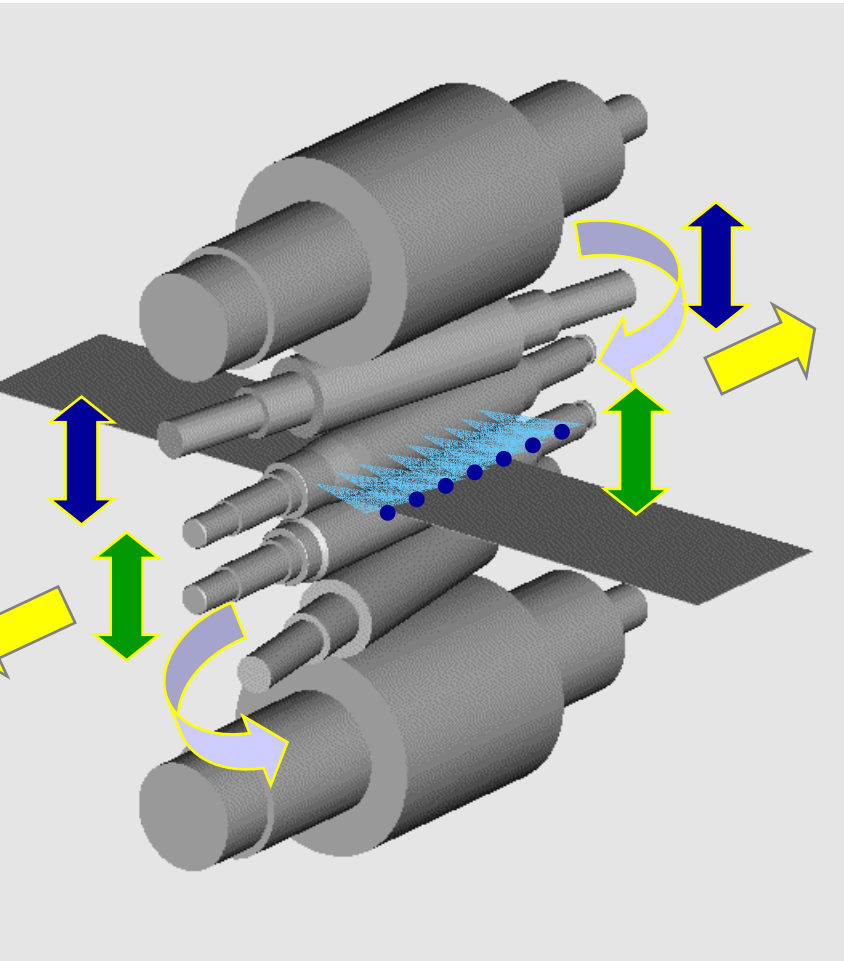


Flow profile between cells

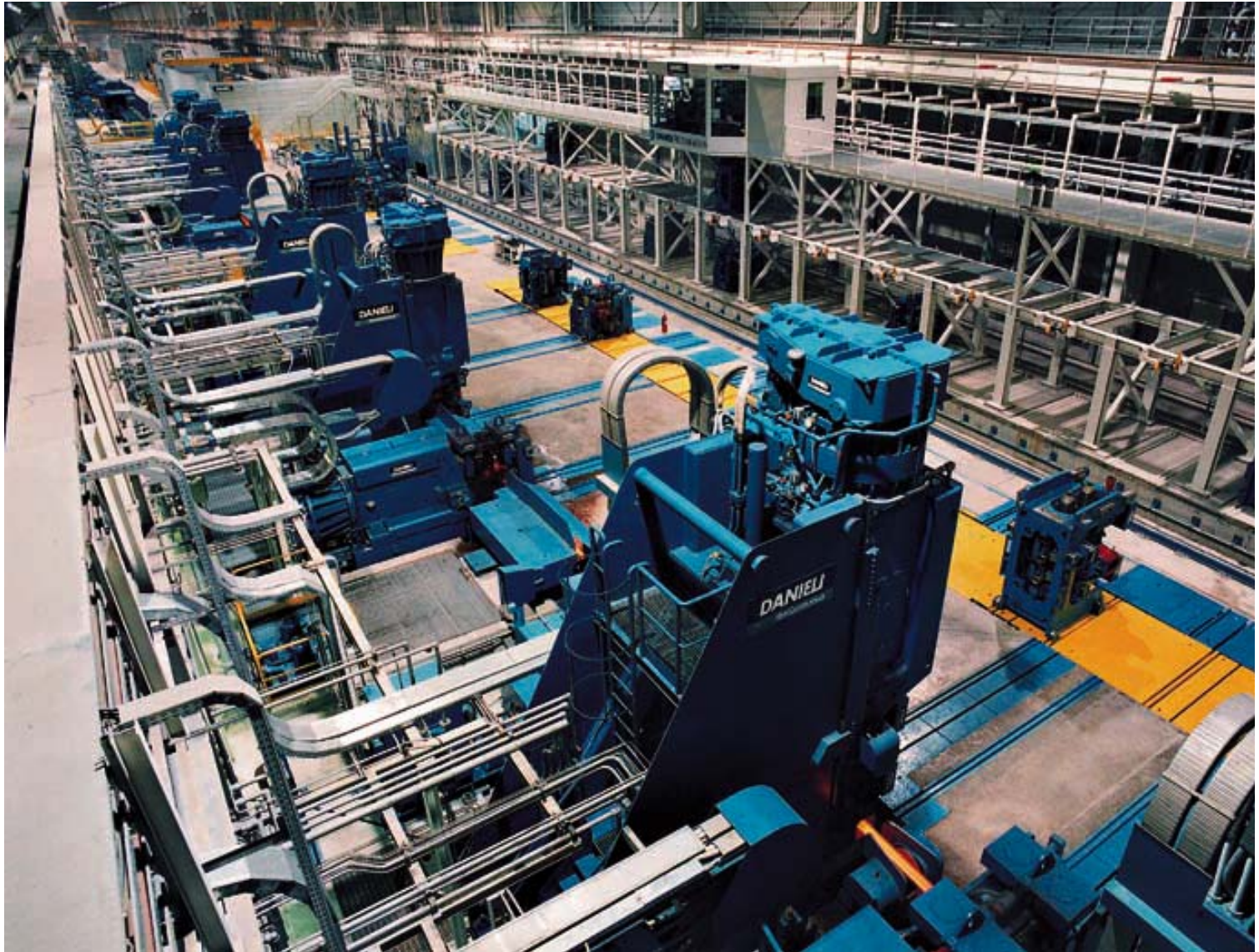


6-Hi stand with Pair Cross





- > Intermediate rolls dynamic crossing
- > Intermediate rolls positive and negative bending
- > Work rolls positive and negative bending
- > Work rolls shifting
- > Selective cooling system





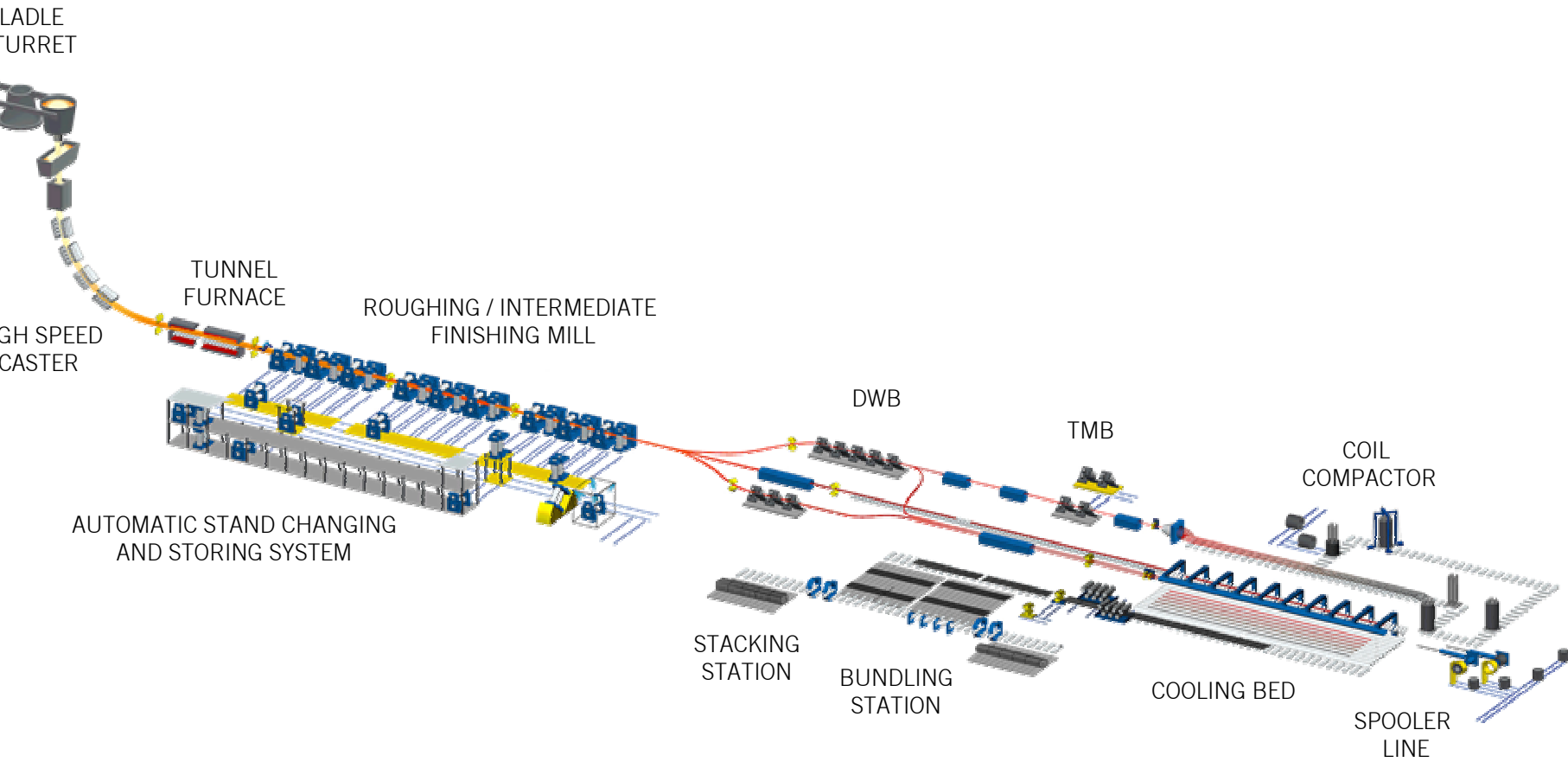


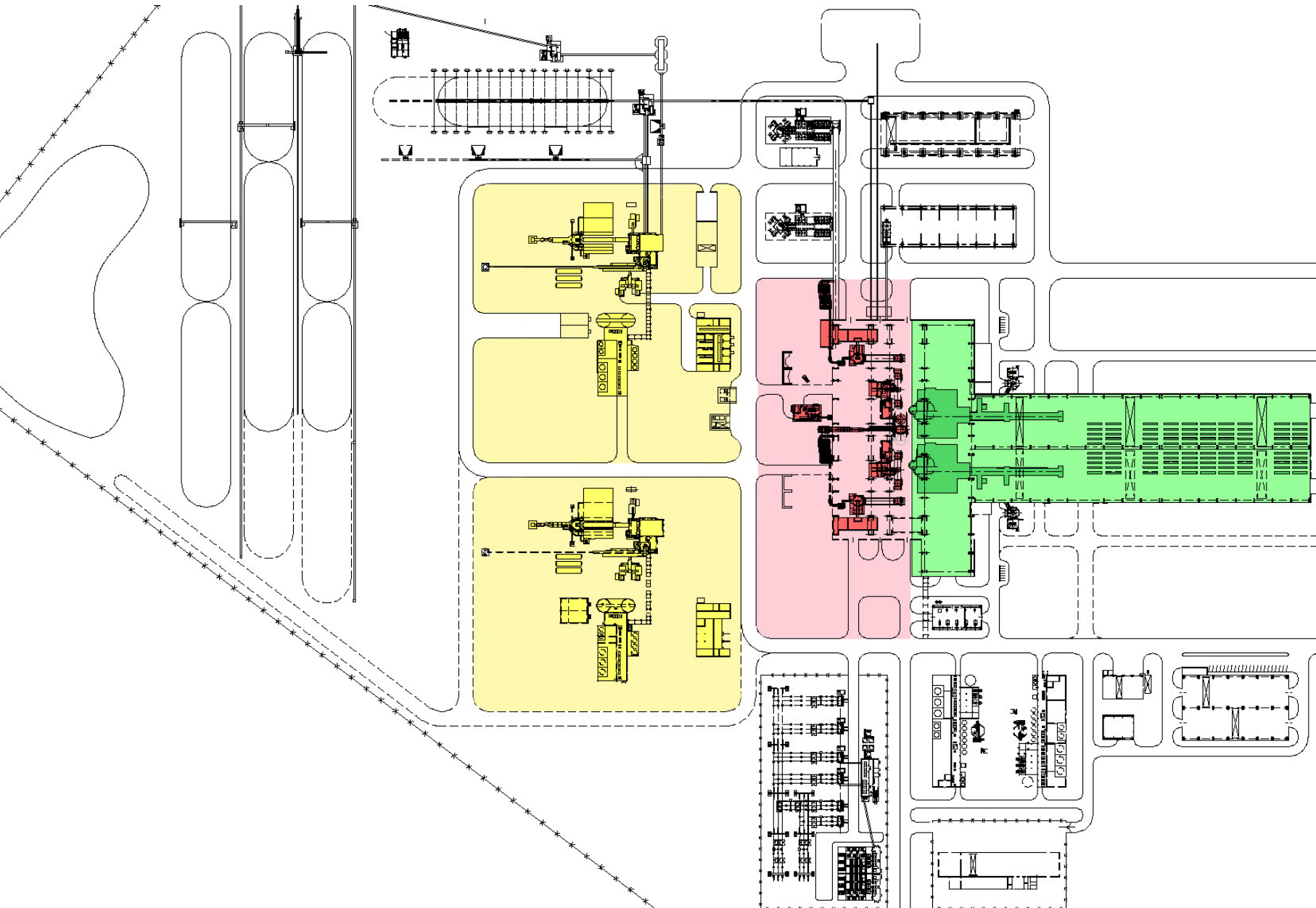






Endless Rolling for common steel





DANIELI

innovaction

IN FLAT AND LONG PRODUCTS