METAL BULLETIN'S Moscow Metal Summit Moscow - 1/2 June 2004 Gianpietro Benedetti Chairman & CEO - Danieli & C. Spa - Italy

Gaining a competitive advantage in steel and metals through technology





Modern Blast Furnace operations



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



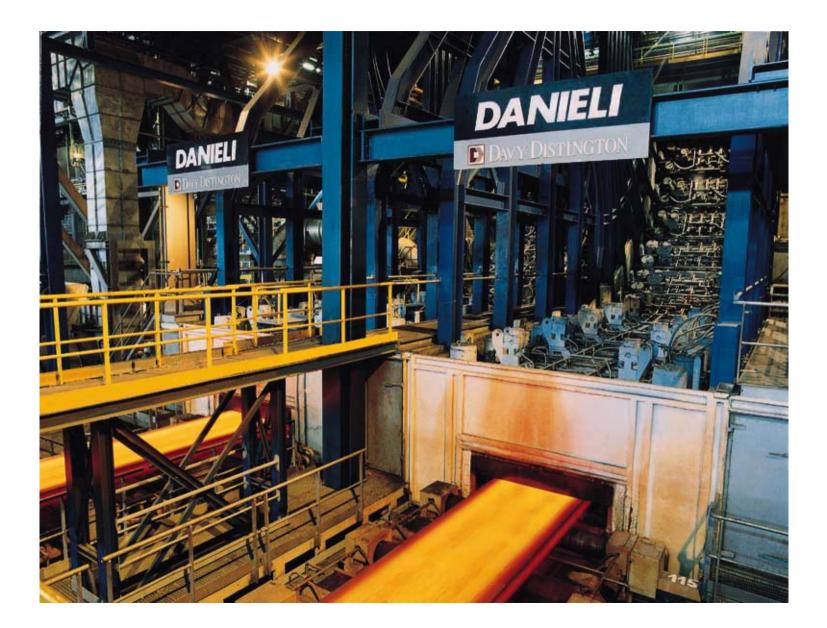


Vacuum Oxygen Degasser





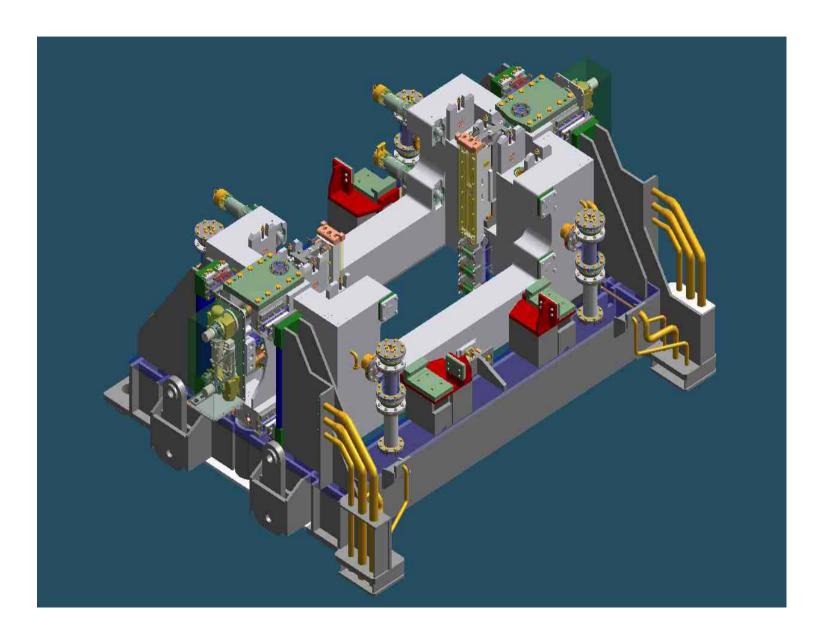












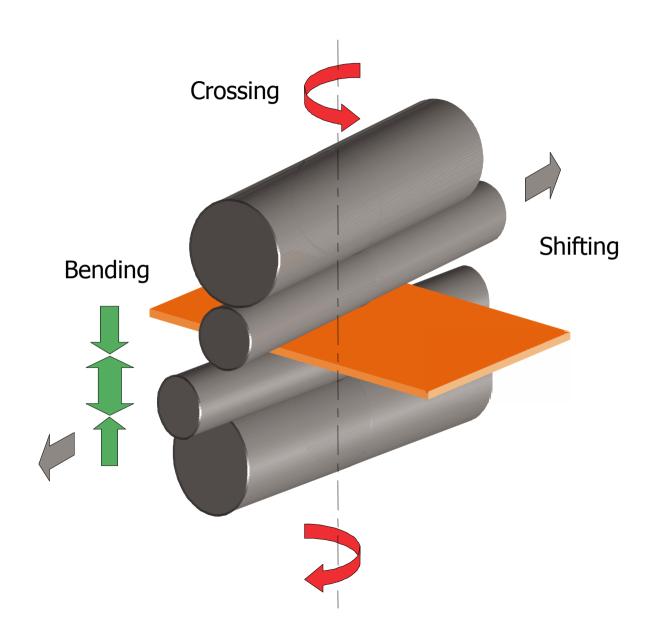
Rolling Mills - Shape control device





Rolling Mills - Pair cross system





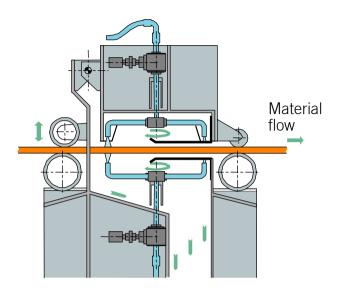
Rolling mills - Process temperature control

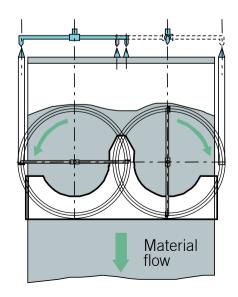




Rolling Mills - Rotating descaler



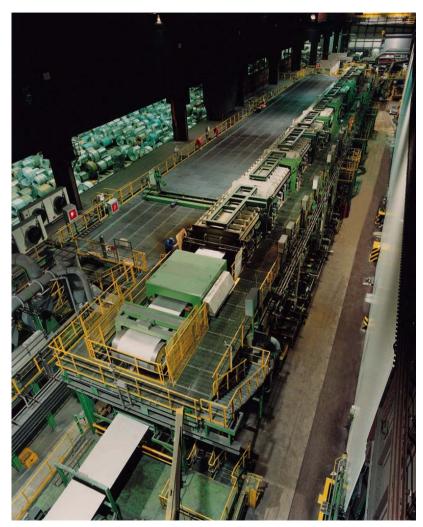






Processing lines - Turbo pickling galvanizing



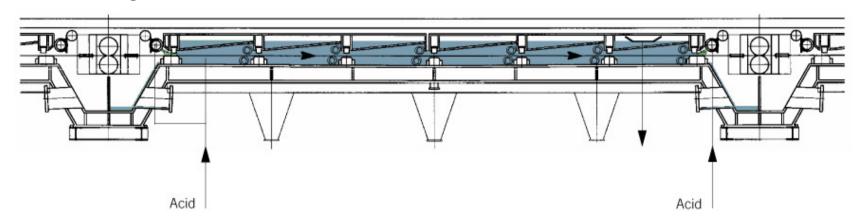




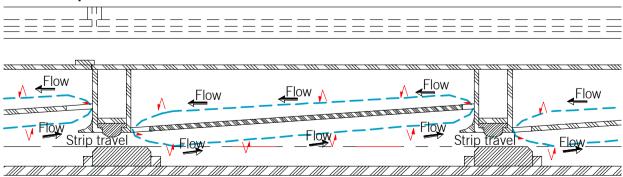
Processing lines - Turbo pickling galvanizing



Pickling tank

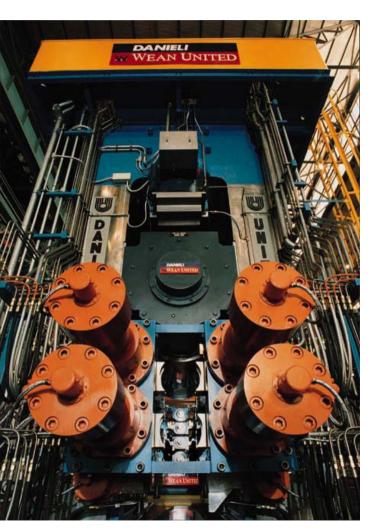


Flow profile between cells



6-Hi stand with Pair Cross

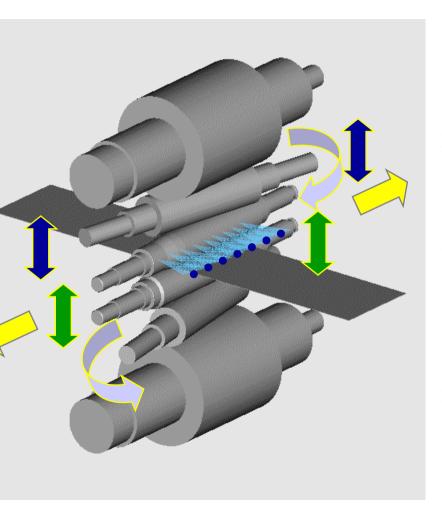






6-Hi stand with Pair Cross





> Intermediate rolls dynamic crossing

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

LUNA ECR® Rolling Mill





Sizing block for quality products





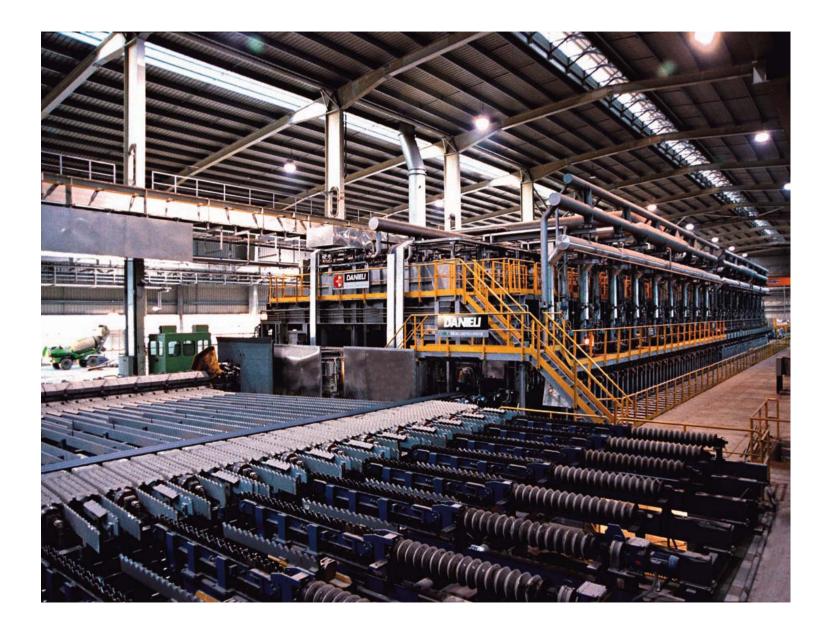
Fast/slow cooling for quality wire rod





In-line heat treatments for bars (ONA Chamber)





In-line measurement of tolerances and defects

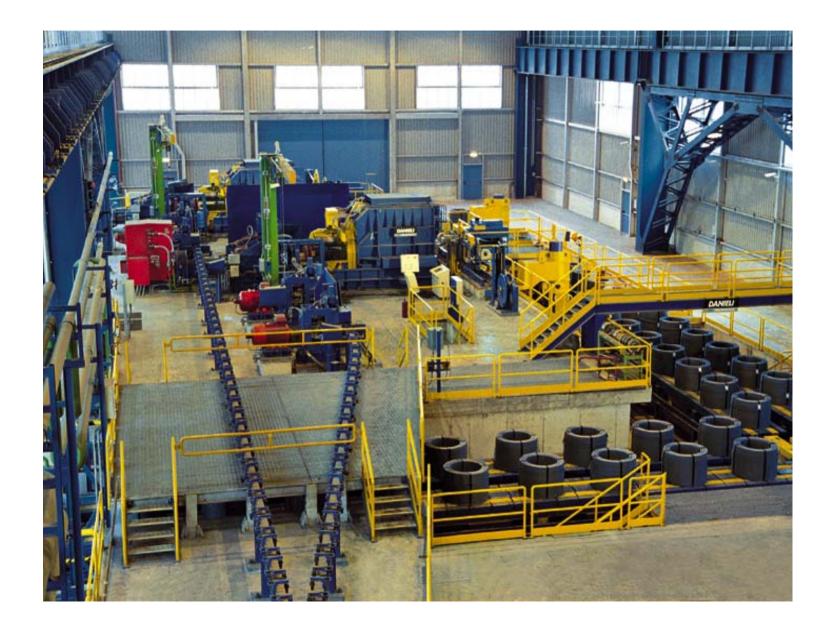




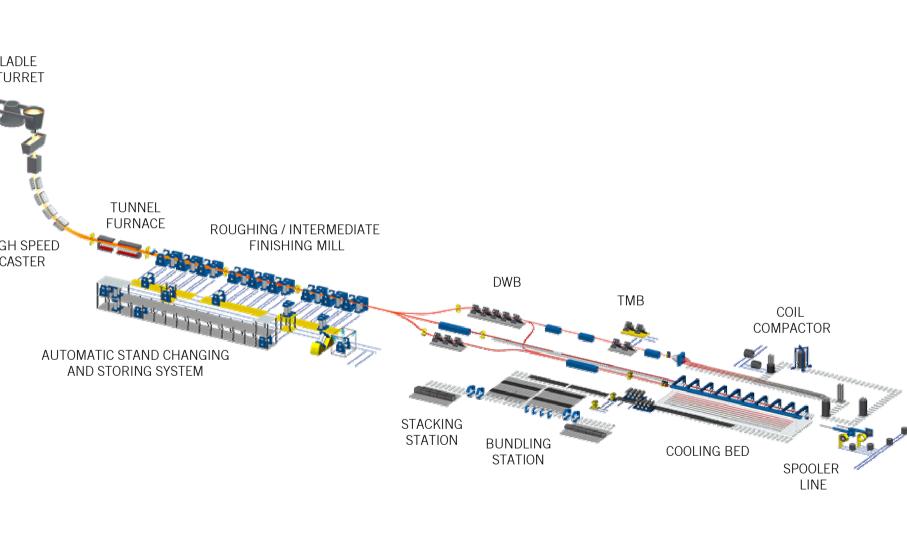


Spooler System





Endless Rolling for common steel



Minimill equipped with 2 Mtpy Danarex DRI module

