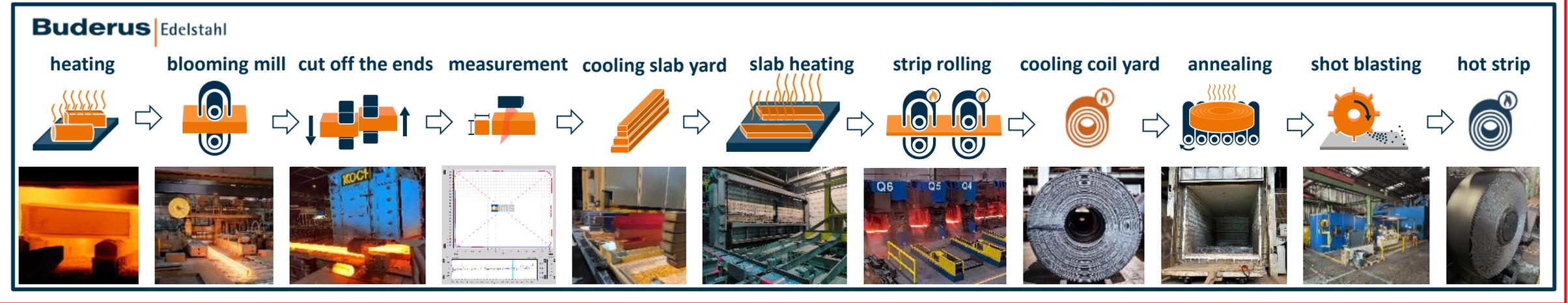
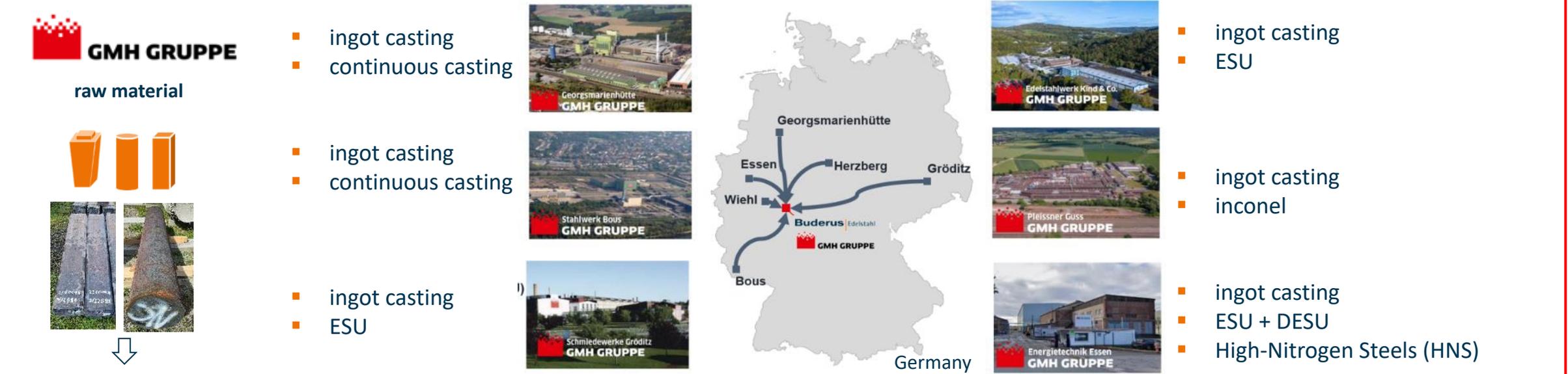
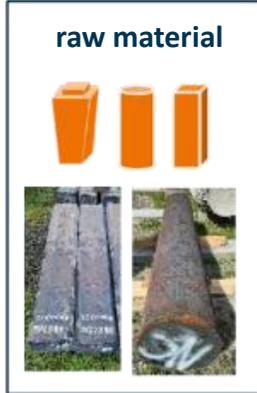


NEW PROCESS ROUTE FOR STRIP PRODUCTION

PROCESS ROUTE FOR STRIP PRODUCTION



DIMENSION RANGE ROLLING MILL



Ingot /continuous casting

- Shapes ranging from square to round are possible
- Dimensions
 - Maximum thickness: 595 mm
 - Maximum length: 3200 mm
- Preheating possible before use



Billets

- Dimensions
 - 55-300 mm vkt (rectangular formats possible)
- Straightening billet length 4,500 – 9,500 mm
- Surface blasting possible
- For 55–180 mm vkt Thermography & magnetic particle testing
- NDT testing Automated
 - Square material: 55–180 mm
 - Round material: 90–200 mm
 - Length: 4,500–9,500 mm



Slabs

- Rectangular dimensions
 - Thickness max. 180 mm
 - Width max. 420 mm
 - Length max. 8000 mm
- Finishes
 - Raw
 - Ground
 - Milled

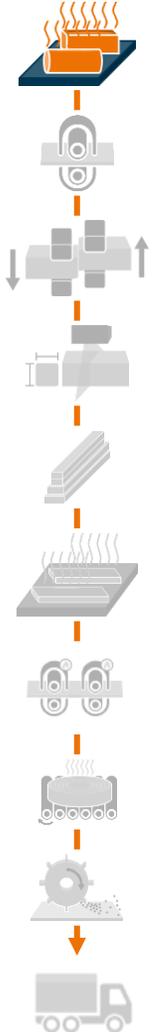


Hot strip

- Grade-dependent dimensions
 - Thickness from 2.0 to 13.0 mm
 - Width from 150 to 400 mm
- Coil weights up to 4.5 t, depending on dimensions
- Symmetrical strip profile with natural edge
- Finish
 - Natural hard (rolled structure)
 - Annealed
 - Black or blasted



HOT STRIP PRODUCTION



Ingot furnace (HDO)

- 3 furnaces with wagon reheating the ingots
- 4 gas-fired heating zones per furnace
- Dwell time approx. 11 hours
- Discharge temperatures between 1100°C and 1300°C
- Capacity per furnace: 240 tons
- Temperature control via MEA furnace control system

HOT STRIP PRODUCTION



Blooming mill

- Duo reversing stand for hot rolling of ingots
- Guide rulers with 200 t straightening force
- Rolling ingot formats up to 5 tons
- Modernization of main engine in 2024 Slabs as an intermediate product for strip production
- Billet square > 180 mm
- Pre-material for small billet square < 180 mm

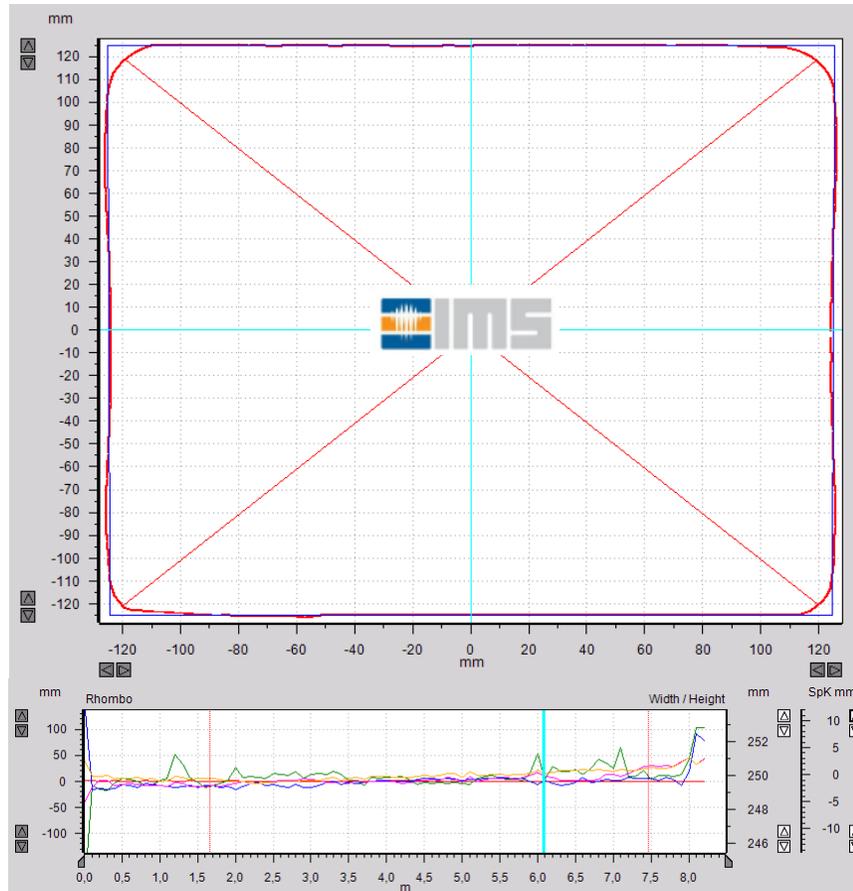
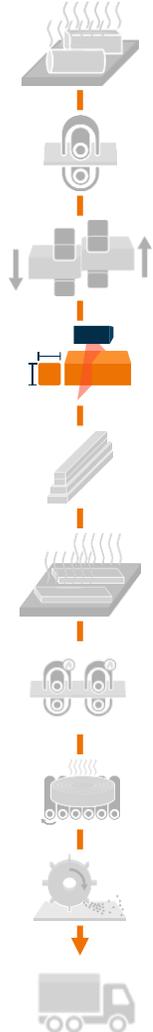
HOT STRIP PRODUCTION



Blomm shear

- Cutting of the former head and foot areas of the ingot
- Crested portion as a percentage of the weight of ingot
- Checking the weighing of the crested sections
- Collecting the scrap and separate in scrap groups
- Billet product: dividing the slab for further processing on the billet mill

HOT STRIP PRODUCTION



Slab dimension measurement (BDM)

- Optical measuring system for process control
 - Width
 - Thickness
 - Diagonal
 - Length
 - Angularity
 - Torsion

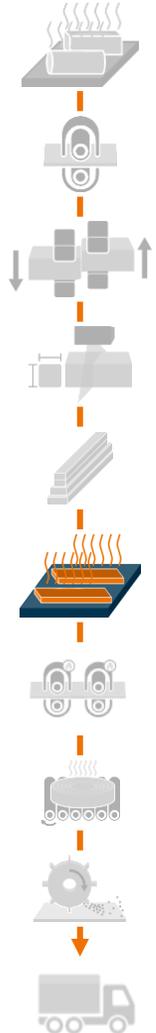
HOT STRIP PRODUCTION



Slab cooling

- Storage of slabs
 - in air
 - in insulated hood
 - in electric furnace (targeted annealing possible)
- Slab logistics controlled via a warehouse management system
- Slab inspection and possibility of reworking by grinding

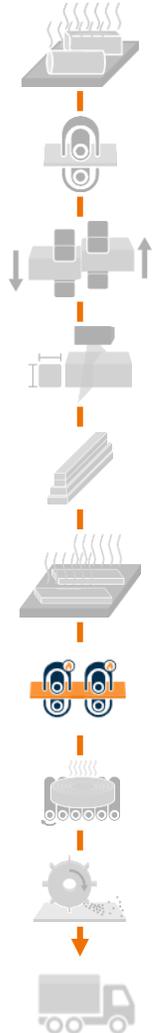
HOT STRIP PRODUCTION



Furnace slabs (BWO)

- Individual, material-optimized temperature control for heating the rolled slabs
- Min. slab length: 4.5 m
- Max. slab length: 8.0 m
- Loading of 8-12 slabs per furnace charge possible

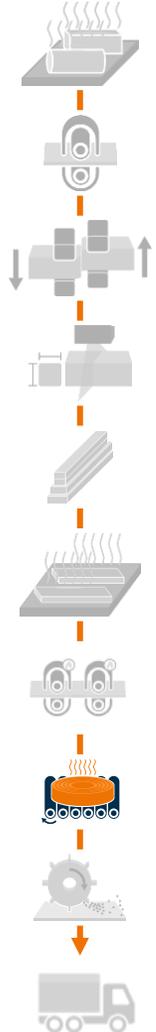
HOT STRIP PRODUCTION



Strip rolling mill

- Hot strip production
 - Duo reversing stand
 - Finishing line with 8 quarto stands
- High-pressure cooling line for rapid cooling of the strips
- Area for conversion-critical grades
- Hot strip thicknesses between 2.0 and 13.0 mm possible
- Hot strip widths with mill edge from 150 to 400 mm (depending on grade)

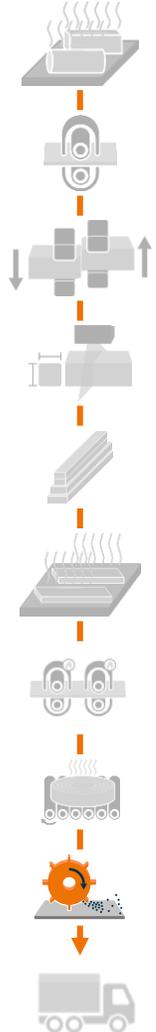
HOT STRIP PRODUCTION



Annealing

- Annealing of coils after hot rolling in open atmosphere
- Stress relief annealing and GKZ annealing possible
- Creation of individual annealing programs possible with full furnace load

HOT STRIP PRODUCTION



Shot blasting

- Mechanical removing of the scale layer
- Steel ball spinning using turbine blades
- Removal of solid scale layers
- Maximum width: 425 mm

HOT STRIP PRODUCTION



Hot strip

- Rings (up to 400 mm wide, 2.0–13 mm thick)
- Symmetrical strip profile and natural edge
- Small batch sizes possible
- Various microstructures possible
 - GKZ
 - Pearlite/ Sorbit
 - Pin Point

OUR CLAIM TO QUALITY

Certification & Testing

- The integrated management system at Buderus Edelstahl GmbH is certified according to ISO 9001, ISO-TS 16949, and ISO 14001
- 100% inspection through NDT testing during production

Approvals

- Det Norske Veritas (DNV)
- American Bureau of Shipping (ABS)
- Nippon Kaiji Kyokai (ClassNK)
- China Classification Society (CCS)
- AD 2000 Druckgeräterichtlinie
- Lloyd's Register (LR)

