

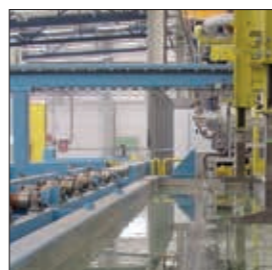
HIGH PERFORMANCE INDUSTRIETECHNIK





WELCOME

Customers worldwide place their trust in our products and competence over 25 years. HPI is active in engineering, manufacturing and delivery of turn-key equipment for the aluminum industry.



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FLEX REMELT PLANTS

From scrap to ultrasonic inspected billets

Plant equipment:

- Charging Machine
- Melting / Casting Furnaces
- Metal Treatment Equipment
- Horizontal Casting Machine
- Flying Saw
- Continuous Homogenising Line
- Ultrasonic Testing Equipment
- Marking and Packing Station

Features & benefits:

- Frequent change of alloy at accurate alloy composition
- Wide range of alloys
- Remelting of long scrap
- Less dross and in-house scrap (crop ends)
- Continuous casting and sawing process
- Low operation costs
- In-house recycling: savings on freight, price fluctuations
- Automated process control with complete data acquisition

Specifications:

- Products: Extrusion & forging billets, bus bars, slabs & ingots
- Capacity from 3.000 to 30.000 tons/year





HORIZONTAL CASTING LINES

From liquid metal to semifinished products

Variable products at one and the same machine:

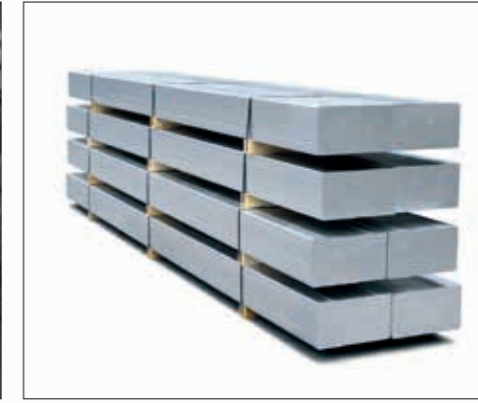
- Extrusion billets
- Forging billets
- Busbars
- T-bars
- Ingots

Features & benefits:

- Mould technology and producer know-how from SAG Salzburger Aluminium AG
- Wide range of alloys
- Continuous casting and sawing process
- Automatic sawing system
- Low operation costs
- Less in-house scrap (crop ends)
- Automated casting process control with complete data acquisition

Specifications:

- Billet diameter from 40 to 305 mm
- Slabs up to 1650 x 350 mm
- Production capacity between 3.000 and 50.000 tons/year
- Larger cross sections can be realized on our „Super Size“ Machines



„SUPER SIZE“ CASTING MACHINES

From liquid metal to big ingots

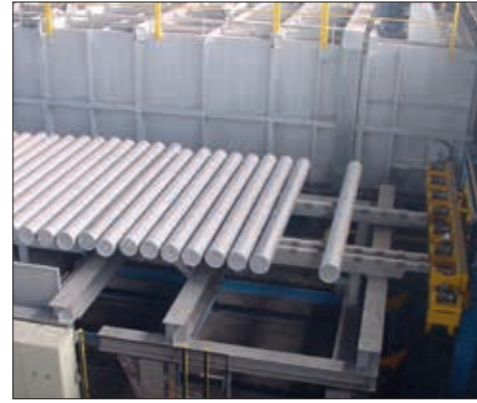
Especially designed for the production of rolling slabs, bus bars and ingots for the aluminium plate production in one strand casting modus.

Features & benefits:

- High flexibility
- Low mould costs as only one mould is required
- Superior straightness of the bars as they are nearly floating over the equipment
- Lower labour and handling costs due to the continuous process
- Low investment costs
- In-house scrap around 1-3%, depending on number and size of furnaces
- Low TCO (Total Costs of Ownership)
- Automated casting process control with complete data acquisition

Specifications:

- Width of ingot 300 to 2.050 mm
- Thickness of ingot 200 to 500 mm
- Length of ingot 2.000 to 20.000 mm
- Casting performance 1.000 to 10.000 kg/h
- The production of small and medium size material is realized on our Standard Horizontal Casting Machine in multi strand modus.



CONTINUOUS HOMOGENISING LINES

From the casted Log to the homogenised Billet

Plant equipment:

- Lay-down Station
- Entry Storage Conveyor
- Continuous Homogenising Furnace
- Cooling Station
- Exit Storage Conveyor
- Ultrasonic Testing Equipment
- Sawing and Packing Line
- Billet Marking Device

Features & benefits:

- Constant metallurgical product quality
- Uniform extrusion characteristics
- Straight billets
- Lowest energy consumption
- Low power ratings
- Lowest labour costs
- Automated homogenising process control with complete data acquisition

Specifications:

- Billet diameter 50 to 410 mm
- Billet length up to 8.200 mm
- Homogenizing temperature 480°C to 600°C
- Soaking time 2 to 6 hours



BILLET SAWING & PACKING LINES

From the billet to the bundle ready for transport

Equipment:

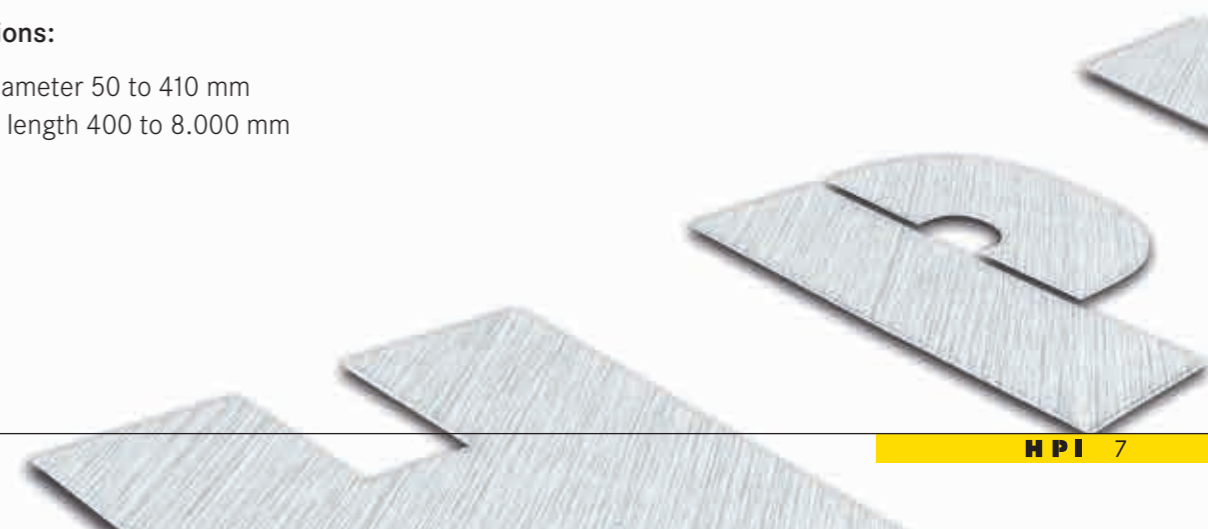
- Handling equipment
- Circular saw or Band saw
- Automatic scrap removal
- Chip exhaust system
- Briquetting press
- Billet stacking system
- Log stacking system
- Full- or semi-automatic strapping device
- Automatic weighing system
- Billet marking
- Automated process control with complete data acquisition

Features & benefits:

- Reliable equipment, especially designed for casthouse conditions
- High production rate
- Large product size range
- Precise cutting length
- Accurate square cutting
- Modular equipment design

Specifications:

- Billet diameter 50 to 410 mm
- Cutting length 400 to 8.000 mm





HANDLING AND STACKING

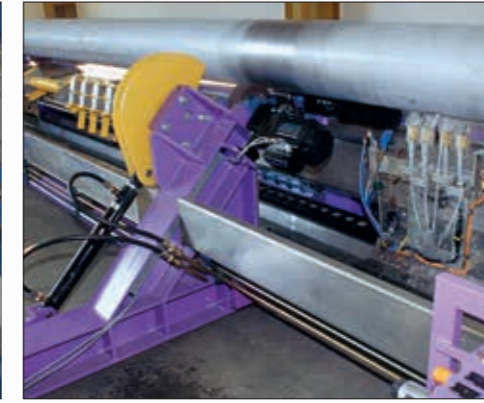
Your products packed ready for shipment

Equipment for:

- Long & short billets
- Foundry ingots
- Cold & hot sheets
- Cold & hot plates

Features & benefits:

- Large product size range
- Weights from 10 to 15.000 kg
- Integrated product marking & labelling
- Automatic strapping & wrapping operations
- Reliable equipment, especially designed for casthouse & rolling mill conditions



ULTRASONIC TESTING EQUIPMENT

Billet inspection to ensure quality and customer confidence

Equipment:

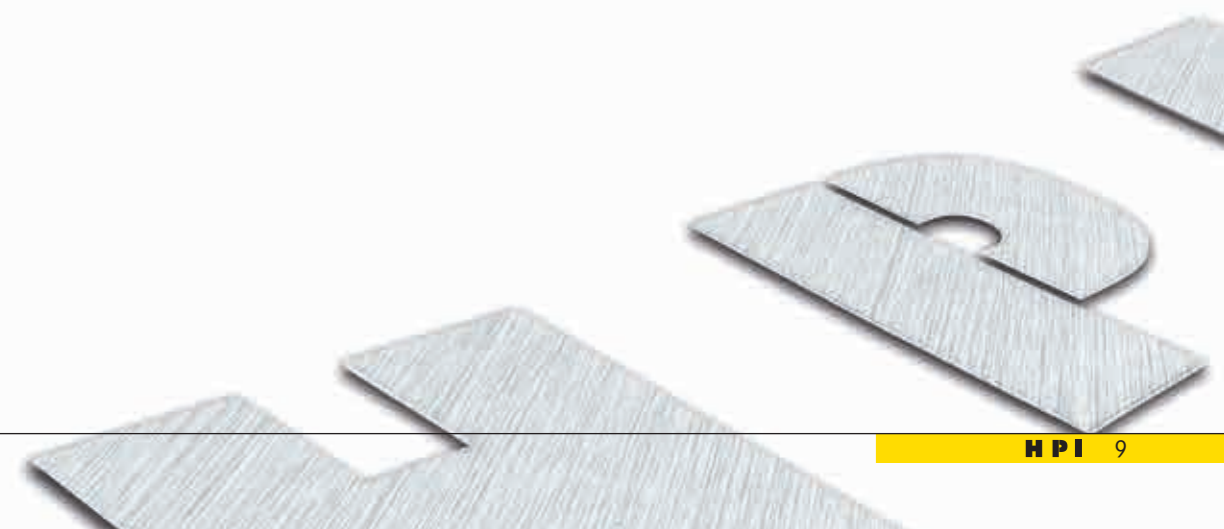
- Linear testing devices for inspection of center cracks
- Helical testing devices for inspection of nearly 100% of billet volume
- Angle beam examination for faults near the surface
- Handling equipment
- Billet marking devices
- Integrated in Homogenising & Sawing Lines

Features & benefits:

- Supply of billets to the automotive and aerospace industry
- Initial identification of faulty billets
- Less scrap due to fault prevention
- Automated ultrasonic testing process control with complete data acquisition

Specifications:

- Billet diameter 25 to 410 mm
- Billet length up to 8.200 mm
- Sensitivity (FBH) 1,2 to 2,0 mm





CHARGING MACHINES

From scrap heap into the melting furnace

Features & benefits:

- Reliable construction, especially designed for casthouse conditions
- Highest loading capacity
- Short charging time, approx. 2 minutes
- Reduction in overall melting time
- Less energy losses
- Integrated load cells
- Low repair & maintenance costs
- Higher safety standard
- Remote control

Specifications:

- Loading capacity up to 20 tons
- Container width up to 7 meters for long scrap



SAWING LINES FOR PROFILES

Customized Cut-off Saws for aluminium extrusions

Sawing applications:

- Single profiles
- Profile layers
- Profile bundles

Features & benefits:

- Precise cutting length and squareness
- Smooth cutting surface due to special saw blades
- Nearly burr free edges
- High production rates
- High performance swarf exhaust systems are available
- Automated sawing process control with complete data acquisition

Specifications:

- Cutting width up to 1.200 mm
- Cutting height up to 250 mm
- Profile length up to 8.000 mm
- Length tolerances up to $\pm 0,1$ mm





MEASURING & TESTING EQUIPMENT

For process and product improvement

Equipment:

- Ultrasonic testing equipment for billets and plates
- Eddy current testing equipment for billets and plates
- Laser thickness & flatness measuring device for plates
- Inline laser thickness measuring device for hot rolling mills
- Marking & Handling equipment

Features & benefits:

- Integration in existing plants
- Stand-alone solutions
- Customized design and implementation
- Development of new measurement systems
- Automated measuring process control with complete data acquisition



ATOMIZING PLANTS

From aluminium ingots to finished powder

Equipment:

- Melting/Casting furnace
- Launder system
- Tundish
- Nozzle system
- Powder collector
- Coarse particle separator with double flap system
- Cyclones for particle separation
- FIBC Filling station with integrated weighing system

Features & benefits:

- Continuous melting/casting process
- Automated transport system
- Cost efficient due air as atomizing media
- Low maintenance costs

Specifications:

- Particle size optimized for aluminothermic process
- Annual production rate from 2.000 to 6.000 to



LAUNDER SYSTEM

From the furnace to the tundish

Equipment:

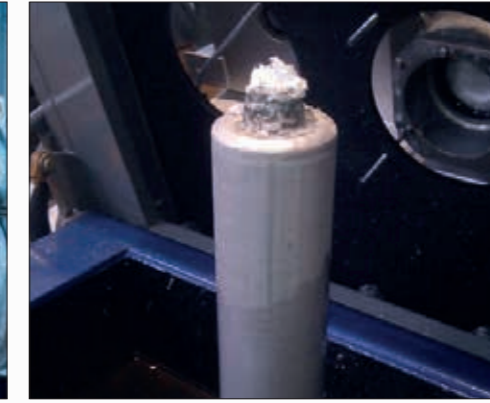
- Best insulated
- Electric heated
- Hinged cover
- Temperature control
- Easy maintenance due hinged cover

Features & benefits:

- Less energy losses
- High durability
- Exact temperature control for casting process

Specifications:

- Rates from 1.000 to 20.000 kg/h and more
- Customisation



MAGNUMCAST®

Hot top casting of magnesium

Equipment:

- Complete VDC Casting-lines
- Single- & multi-strand mould systems
- Hot top technology
- Sawing and handling equipment
- Safety equipment

Features & benefits:

- Smooth surface
- Homogenous chemical composition
- Homogenous grain size
- Machining not necessary
- Lower investment costs
- Alloy & casting parameter development in cooperation with AIT-LKR (www.lkr.at)
- Pilot machine for pretests and development available
- High output

Specifications:

- Wide range of billet and slab dimensions
- Casting length 2000 to 6500 mm
- Customized design and equipment

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