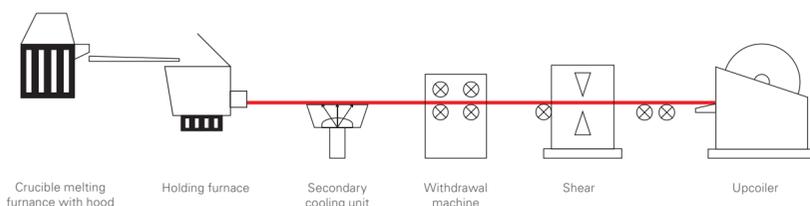
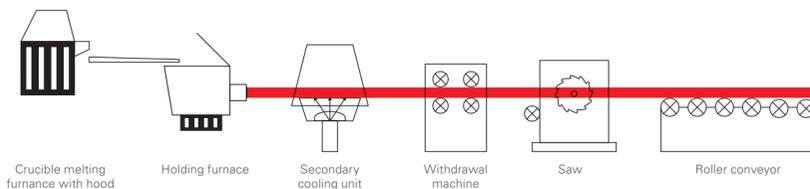
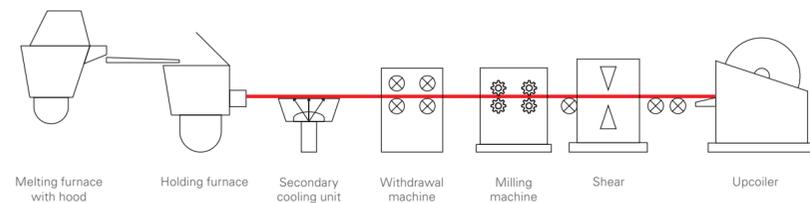
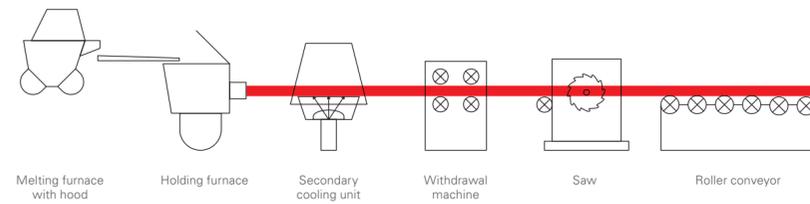
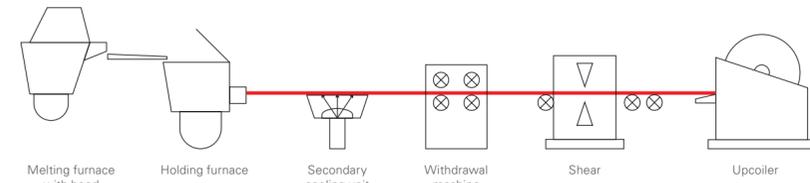


Thöni Casting Equipment Systems

Thöni supplies casting equipment systems customised to suit customer requirements. The schematics show the main components and different system configurations. Individual components can also be integrated into existing systems.



Thöni Casting Equipment Metal on design



thöni

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“We set new standards”
All from a single source

That’s Thöni Casting Equipment

The areas of application for non-ferrous metals and special alloys are becoming more numerous. Thöni Casting Equipment has for decades been planning, manufacturing and supplying horizontal continuous casting equipment for the production of strips, profiles and round formats in copper and copper alloys, aluminium/tin and precious metals.

More than 50 years of experience and development have gone into the planning and construction of this casting equipment. Current market developments in the raw-materials and energy sectors, plus environmental requirements, high technical quality and continuous evolution all contribute to our equipment concepts. A creative team and the most modern techniques guarantee optimal equipment planning. That’s how we guarantee the best casting results and can at the same time implement individual customer wishes. Together with our customers, universities and other partners, we are developing the future.



You can only win with Thöni equipment!

Thöni equipment is known for its ultra-modern technical standards and state-of-the-art engineering. High flexibility and outstanding equipment service life guarantee our customers the highest level of economy and productivity.

Our customers profit from:

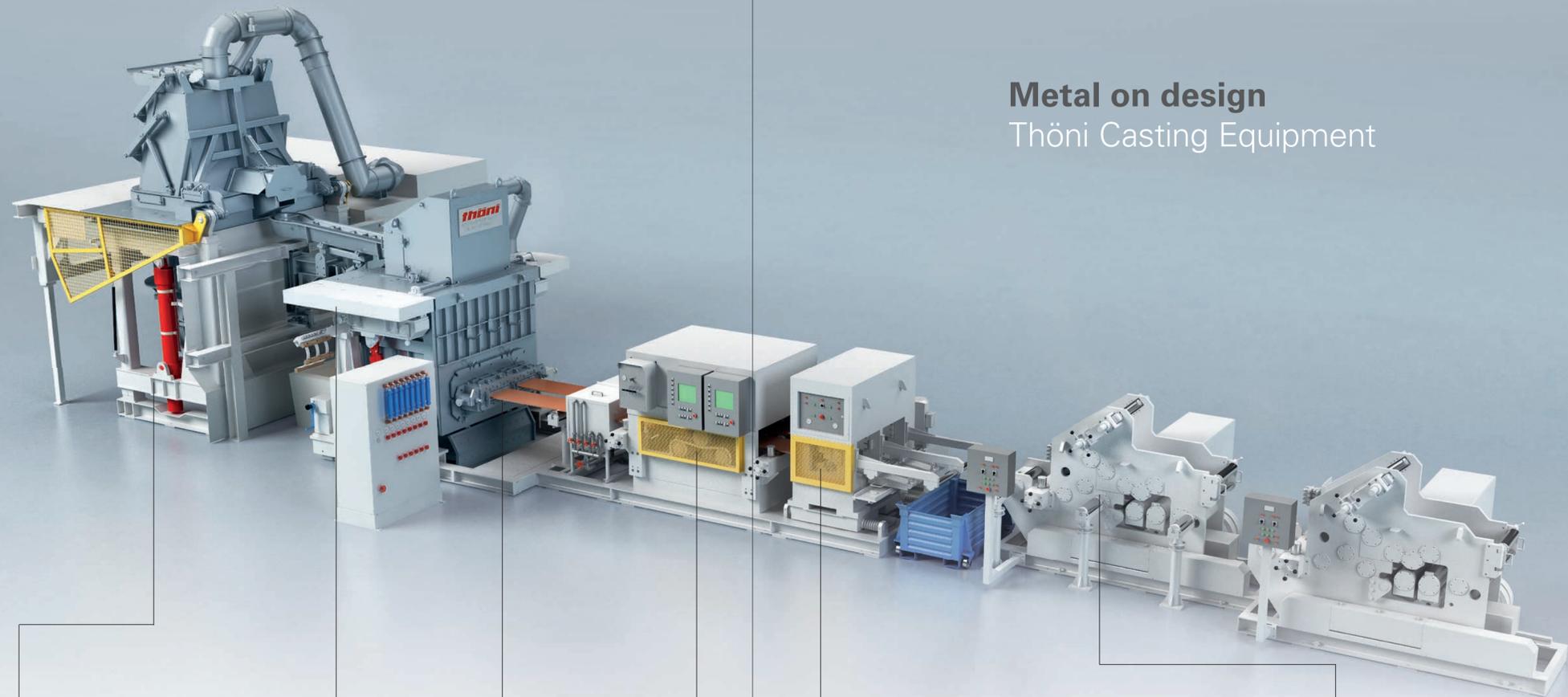
- High-efficiency furnaces with energy-saving potentials up to 12%
- High-tech hoods with controlled ventilation to reduce metal losses by up to 2%
- Innovative dies using the best heat-transfer technology for high throughput and long service life with unvarying quality
- Reduced maintenance costs of up to 80% thanks to innovative die designs.
- Modular and flexible equipment configurations matched to individual customer requirements.
- Modernisation of existing equipment with Thöni components
- On-going performance audits of our innovations and
- numerous patents

The Thöni Equipment Range

- Strip (double-strand)
up to 500 mm in width
- Strip (single-strand)
up to 1,000 mm in width
- Studs 40 - 350 mm in diameter
(single- or multi-strand)
- Wire from 16 mm in diameter
(up to 12 strands)
- Pipes up to 300 mm in diameter
(single- or multi-strand)
- Rods up to 70 x 70 mm (up to 6 strands)

Know-how from A to Z

- Expansion, alteration and modernisation of existing continuous casting equipment
- Latest process and die technologies
- Control software tailored for ultimate ease of use
- Service and maintenance of existing equipment
- Computer-based energy management for melting processes
- Technical advice for:
New developments, process technology and procedures, training
- Technical interventions to reduce metal losses
- Highest energy and production efficiency
- Compliance with all safety, environmental and energy constraints



Metal on design
Thöni Casting Equipment

1

1. Melting

A special mix of copper and alloys is melted in the melting furnace. Depending on the alloy, the metals are heated to approx. 1,250° C. When the melting temperature is reached, the molten material is analysed and adjusted, then transferred via a channel into the holding and pouring furnace.

2

2. Casting

The purpose of the holding furnace is to maintain the melt to be cast at a constant temperature (+/-3° C). This process step has a significant influence on the quality of the melt.

3

3. Solidification and cooling

The liquid metal then enters the die, where it solidifies as homogeneously as possible and so receives its shape. The strip then emerges from the die at approx. 300 to 650° C and is brought to ambient temperature by secondary or spray-water cooling.

4

4. Drawing

In the withdrawal machine, the strip is removed from the die using precisely reproducible movements to bring the molten material in the solidification zone from a molten to an aggregated state.

5

5. Separating

The hydraulic shear/saw separates the strip. The cutting forces work vertically on the horizontal strip and thus have little effect on the solidification zone.

6

6. Coiling

After cutting/sawing, the material reaches the upcoiler and there is either rolled up or bent. Rolling up calls for the optimal configuration of the triangular bending frame in order to achieve the best roundness, an accurate outside and inside diameter, a layered arrangement and a high coil density.