

A circular collage of eight images related to metalworking and craftsmanship, arranged around a central white circle. The images include: 1. Molten metal being poured from a ladle. 2. A large bell hanging on a metal frame. 3. A close-up of a hand holding a piece of metal. 4. A close-up of a metal surface being worked on. 5. A close-up of a metal surface with a blue and white pattern. 6. A close-up of a metal surface with a brown and white pattern. 7. A close-up of a metal surface with a black and white pattern. 8. A close-up of a metal surface with a black and white pattern.

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A circular collage of five industrial images: a close-up of a metal surface, a pouring ladle, a bell foundry, a handshake, and a close-up of a metal part.

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Company Presentation



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Our history

- 1936** Company establishment, bell casting and beverage armature production
- 1953** Bell casting termination
- 1961** Al casting for engineering, textile industry and agriculture
- 1990** Al casting into sand and ingots in series
- 1996** Renovation of foundry production halls
- 2008** Equipment of machine shop by CNC machines, extension of cast machining
- 2010** Achievement of ISO 9001:2016
- 2013** Achievement of ISO 14001:2016
- 2019** Construction of new hall for ingot workplace, as well the warehouse for consumables stocking
- 2020** Ownership change, production extension





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General information

- Established in 1936 (Czech Republic)
- Member of Tarancia SE group (Switzerland)
- Specialist in aluminium alloy castings
- 90 year experience over industries
 - Marine
 - Engineering
 - Gas & Oil
 - Agriculture
 - Energy
 - Others





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About Tarancia SE

- **Tarancia** has specialized in investment and asset management since 2012
- Focus areas: **energy, industry, real estate, and venture capital**
- Provides **comprehensive services** – from opportunity search to operations and accounting
- Goal: **maximize return on investment** and **minimize risks**
- Clients: companies in **industry, energy, construction, logistics, IT, healthcare, and tourism**

Tarancia ➤



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Overall products and services

- Casting weight from 0,10 to 400 kg
- Heat treatment
 - T5, T6, T7
- Machining
 - Milling
 - Grinding
 - Coating
 - Blasting
- MAGMASOFT casting simulation





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Main aluminium alloys used

- EN AC 46200 --- AlSi8Cu3
- EN AC 44200 --- AlSi12(a)
- EN AC 43000 --- AlSi10Mg
- EN AC 42000 --- AlSi7Mg
- EN AC 42100 --- AlSiMg0,3
- EN AC 42200 --- AlSiMg0,6

Other alloys upon request



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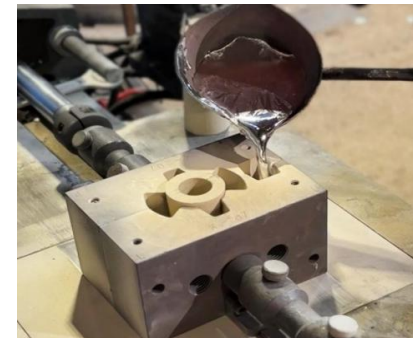
Casting capabilities

➤ Manual Moulding

- Minimum production run – from 1 pc
- Maximum casting dimension – 1 950 x 1 950 x 450 mm
- Maximum casting weight – 400 kg

➤ Machine Moulding

- Minimum production run – from 20 pcs
- Maximum casting dimension – 900 x 900 x 250 mm
- Maximum casting weight – 30 kg





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Technology

- Casting production to gravity dies and green sand
- Mold/die production, toolshop, 3D print
- Exact measuring, 3D measuring arm Faro
- Modern CNC fleet
- MAGMASOFT casting simulation
- Quality control



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Machine fleet

- CNC lathes operated by HAAS machines
- CNC milling center operated by HAAS and YCM machines
- Horizontal broaching machine
- Vertical broaching machine
 - JS 99 tolerance

Axis information for each machine to be provided



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3D measuring arm FARO

FARO



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MĚROVÝ PROTOKOL 3D FARO

Report Author: Mejsťík
Date: 17.12.2024

Obecný:
roztina, osa, středový bod 1

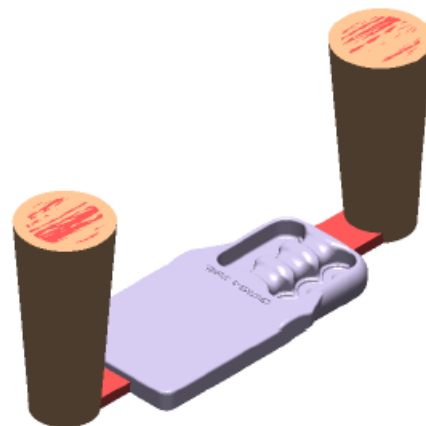
Organization: KOVOLIT Česká spol. s r.o.
Operator: Mejsťík
E-mail: mejsťik@kovolitceska.cz
Workspace: Mejsť
Project: ED6175 - díl 1

Part name: testovací díl
Part number: 987654
Drawing #: 753159
Serial #: 987654
Device: 3D FARO Gage MAX

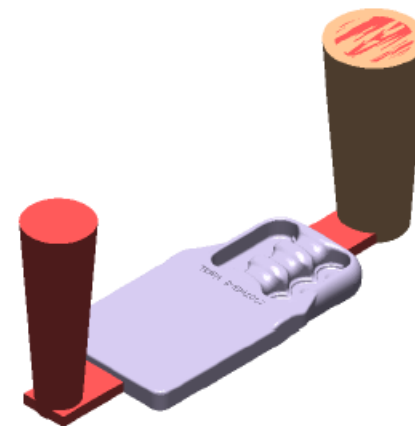
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MAGMASOFT casting simulation

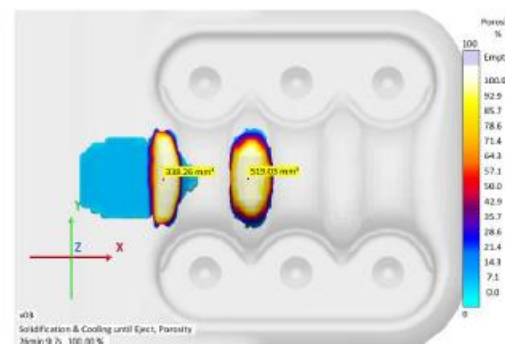
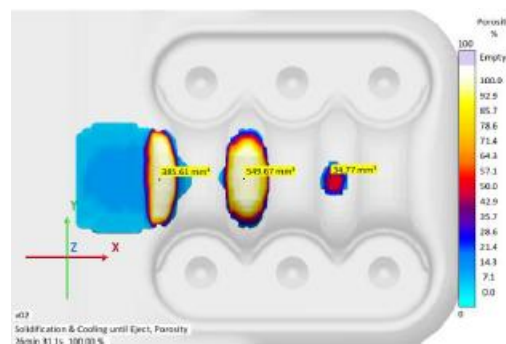
- Porosity reduction
- Setting time reduction



TE 2307959-3 – current status
AlSi7Mg0,3
Setting time: 279 s



TE 2307959-3 - optimization
AlSi7Mg0,3
Setting time: 266s





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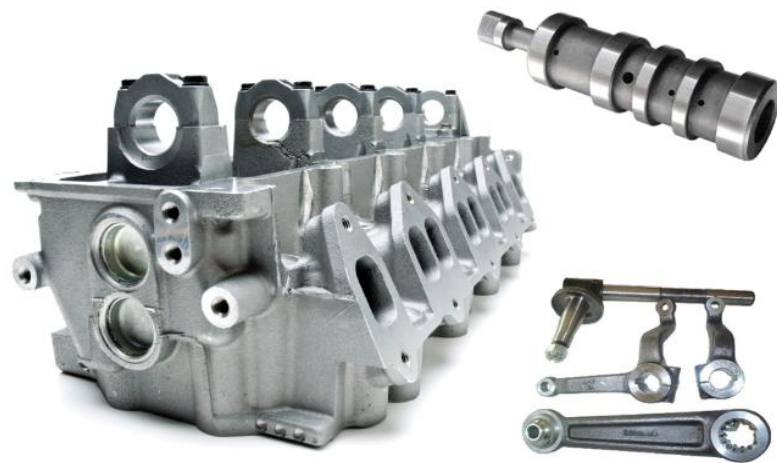
Quality

- ISO 9001:2016
- ISO 140001:2016
- RTG testing, visual testing, pressure testing
- Design and development support
- Process optimalization



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Casting Examples





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References

- Škoda Electric
- John Deere
- TE
- Honeywell
- Siemens
- Baker Hughes
- Atlas Copco
- Scania
- Volvo
- Vestas
- Marine Jet Power
- Ingersoll
- Sapelem
- Adast Systems
- Lorunser
- Many others...

A circular collage of five images related to metalworking: a close-up of a metal surface, a pouring ladle, a bell foundry, a handshake, and a metal anvil.

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Conclusion

Thank you for your attention

A circular collage of eight images depicting various metalworking processes. Starting from the top and moving clockwise: 1. Molten metal being poured from a ladle. 2. A large bell hanging on a metal frame. 3. A close-up of a hand holding a piece of metal. 4. A close-up of a metal surface being worked on. 5. A close-up of a metal surface with a blue and brown patina. 6. A close-up of a metal surface with a blue and brown patina. 7. A close-up of a metal surface with a blue and brown patina. 8. A close-up of a metal surface with a blue and brown patina.

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