

Sustain-
ability

Products
Branches

Company

Portfolio

Casting-
process

Support





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■ OUR NETWORK OF EXPERIENCE AND COMPETENCE

LIGO Livarna Gorica d.o.o. Nova Gorica

- Pattern shop
- Casting
- Machining of castings

With over 100 employees, we manage a high level production. We offer best customer service and flexible logistics services. Our modern and efficient manufacturing system reaches a capacity of over 12,000 tons/year. A large number of our production are thin-wall castings with complex cores.

ZÜRN GmbH & Co. KG Oberhaching near Munich

- Distribution
- Marketing
- Development
- Construction

Competent and reliable employees guarantee a successful co-operation. Our in-house construction department support you with extensive and best experience to develop your components. We make sure that every project, is carefully prepared, planned and supervised to ensure successful and reliable implementation.

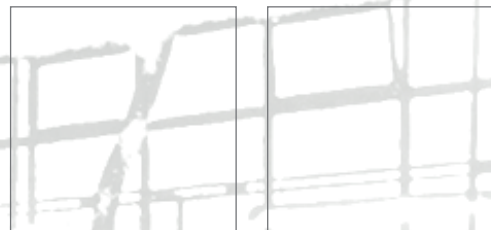
ZÜRN GmbH & Co. KG Rain and Niederschönenfeld

- Machining of castings
- Stainless steel components
- Stock
- Logistics

Turning, milling, coating and assembling: we machine with modern manufacturing centers efficiently and reliable cast components in small and large series. The planning of logistic and storage is processed reliable in-house. Our logistics management controls in time delivery of your orders.



Company



Livarna Gorica d.o.o.
Cesta IX. Korpusa 116
5250 Solkan – Nova Gorica (SLO)

Legal form of the company

- d.o.o. (equivalent to a limited liability company)

Managing Directors

- Antonio Böckmann (Dipl. Betriebswirt FH)
- Simona Stegne-Ceraj

Shareholder

- ZÜRN GmbH & Co. KG

Company datas

- 100% related company of ZÜRN GmbH & Co. KG, Oberhaching near Munich
- More than 70 years of experience in cast iron technology
- Over 50% of castings with cores
- DISAMATIC 230 A, with core setter
- Operating area approx 25,000 sqm
- 90% export, among other: Germany, Italy, France, Slovakia, Sweden, Denmark, Netherlands, Switzerland, Austria



Integrated management system

For the scope:

- Quality management
ISO 9001:2015
- Environmental management
ISO 14001:2015
- Energy management
ISO 50001:2018

With the integration of this three elements we are realizing continuous improvement of our complete production process.





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Portfolio

Materials

- Cast iron with lamellar graphite according EN 1561
EN-GJL 150 to 300
- Cast iron with spheroidal graphite according EN 1563
EN-GJS 400-18 to 600-3
- Cast iron with high alloy grades
e.g. EN-G-x 300

Products

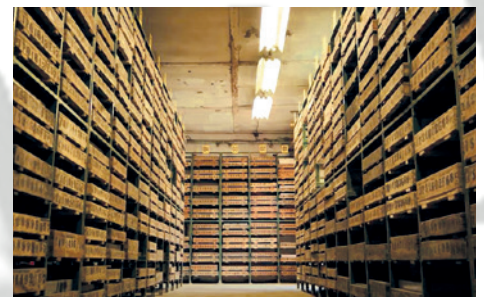
- Castings from 0,1 kg to 25 kg
- Complex cores and core assembly
- Experienced in thin wall thicknesses

Machining of castings

- Mechanical processes: turning, milling, drilling, etc.
- Thermal post-treatment: low-stress annealing, ferritization annealing, hardening

Pattern shop and machining tools

- Development, manufacture and maintenance of pattern equipment
- Preparation of machining tools



ONE-STOP-SOLUTION

- DEVELOPMENT
- PRODUCTION
- MACHINING
- LOGISTIC

Laboratory

- Tensile strenght tests
- Hardness measurements
- Spectral analyses
- Thermal solidification analyses
- Metallographic analyses
- Greensand analyses
- Preparation of documents and certificates
- Surface roughness tests

Coating and painting

- Dip coating and spray painting
- Electrostatic powder coating
- Fluidisation coating (whirl sinter)

Assembling

- Preparation and assembling of components

Logistics

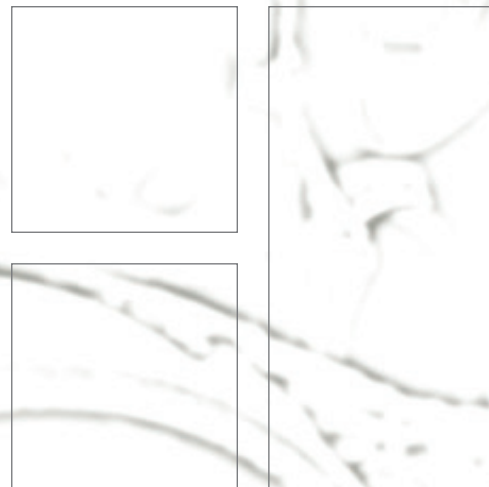
- Warehouse and consignment store
- Transport and packaging management





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- THE OPTIMAL RESULT CREATED BY EXPERIENCE AND FEELING FOR MATERIAL



Core manufacture process

- Shell
- Hot Box
- Cold Box

Core shooter

- Hottinger CS 22 SA
- Gostol (License by Hottinger)

Inductive melting operation

- Electric melting operation with automatic melting processor
- Mid-frequency induction furnace ABP 3,5 t / 2,400 kW
- Mid-frequency induction furnace ABP 2,0 t / 1,260 kW



■ AND THE USE OF
MODERN TECHNOLOGY AND
EXPERIENCED TECHNICANS

**Casting-
process**

Moulding line

- Disamatic 230 A
- Frameless moulding machine (vertical parted)
- Automatic core setter
- Mold size 600 x 480 mm
- Capacity up to 550 molds/hour

Pouring process

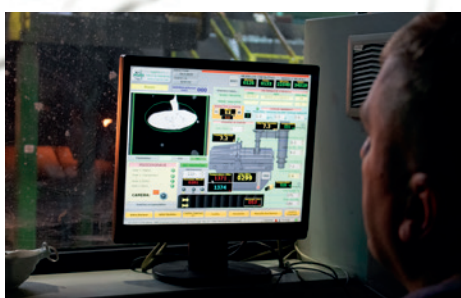
- Fully automatised computer and camera controlled pouring process
- Progelta 1,5 t / 2,0 t

Cooling line

- 63 m cooling section with followed
- 14 m shake-out grid and vibration transport line

Sand preparation system

- Sand mixer type Webac Speedmuller with automatic dosage of additives
- 70 t prepatred greensand per hour
- Preparation with sieving, air cooling and removing of metal residues
- Automatic controlled water dosage with Michenfelder system





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■ QUALITY AT EVERY STAGE FROM THE RAW MATERIAL TO THE FINISHED PRODUCT



Pattern shop

- Development, manufacture and maintenance of pattern equipment
- Preparation of machining tools
- Use of durable and precise aluminium patterns and core boxes made of different materials

Shot blasting systems

- Drum blasting machines
- Hanging blasting machines

Machining of castings

- Mechanical processes: turning, milling, drilling, etc.
- Thermal post-treatment: low-stress annealing, ferritization annealing, hardening

Grinding

- Grinding robots
- Manual grinding stations with pneumatic tools

Assembling

- Preparation and assembling of components

Coating and painting

- Dip coating and spray painting
- Electrostatic powder coating
- Fluidisation coating
- Enamelling



■ AND OF THE DOCUMENTATION TO DELIVERY

Support

Laboratory

- Quasar 200 Galdabini: tensile strength tests according to DIN EN 6892
- AFFRI Integral 1: universal hardness measurement equipment for Vickers, Brinell, Rockwell
- Emcotest Wolpert: hardness measurement
- Digital Leica microscope ILM (optical and) metallographic analyses
- Spectrometer Spectromaxx: spectral analyses
- TEC Typ Sidermes: thermal analyses
- Sand laboratory Georg Fischer: greensand analyses
- Digital sand tester MINILAB Georg Fischer: mechanical analyses of greensand
- DIAVITE AG: surface roughness tests

Quality documents

- Quality documents according ISO 9001:2015
- ISO 14001:2015
- Measurements reports
- Test certificates according customer requests
- Inspection certificates according EN 10204

Final inspection of castings

- Visual inspection
- 3-D test

Logistics

- Warehouse and consignment store
- Transport and packaging management





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■ SUSTAINABILITY IS THE FUTURE

Sustain-
ability

Products
Branches

Environment

- We are one of the foundries with the lowest emission levels in Europe using the best available wet and dry filtration.

Material

- Cast iron is made of recycled material
- Casting products are completely reusable and recycled without any loss of material

Resistance

- Highly resistant to most environmental influences
- Solid and durable, partly over centuries

Production

- Constant investment of energy savings (eg. melting process)
- Modern sand processing to reduce the dust discharge

Logistics

- Use of modern and environmental friendly means of transport
- Use of intelligent road guidance





A WIDE RANGE OF

- DIMENSIONS
- DESIGNS
- MATERIALS

Products

- Gearboxes
- Bearing housing
- Pump housing
- Gear hubs
- Engine parts
- Gear levers
- Bearings
- Brake drums
- Weights
- Flanges, etc.

Customer branches

- Gear industry
- Bearing industry
- Pump industry
- Building industry
- Hydraulic industry





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