

Sustain-  
ability

Company

Products  
Branches

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
- Introducing of 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

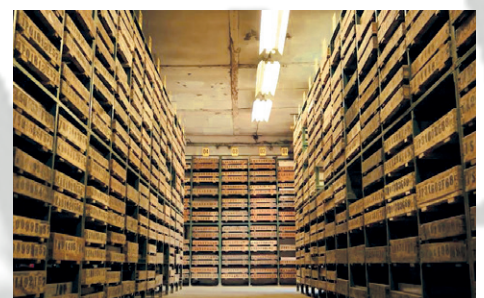
- Castings from 0,1 kg to 25 kg
- Complex cores and core assembly
- Experienced in thin wall thicknesses

### 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

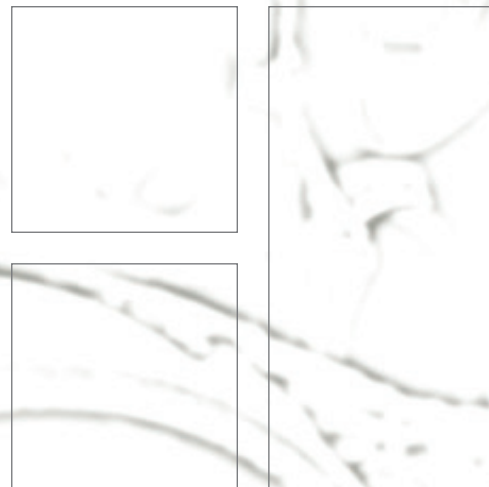






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- THE OPTIMAL RESULT CREATED BY EXPERIENCE AND FEELING FOR MATERIAL



#### 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





## Livarna Gorica d.o.o.

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