



# HIGH-PRESSURE

#### Competence in:

- « die casting of aluminium alloys
- \* CNC machining and surface treatment
- \* production of tools











## **About Norlys**

Since 1993 **Norlys Sp. z o. o.** has focused on producing high quality outdoor luminaries for the Scandinavian and European markets.

Our products are designed and built keeping in mind the demanding atmospheric conditions of the Scandinavian regions.

Early in 2012 our purpose built plant, housing a high pressure die cast foundry and machining facility was put into operation.

We perform complicated alluminium CASTS, including those for the automotive industry according to the requirements and expectation of customers. Delivery can include rought, casting parts through pre-machined to high-end CNC machining parts. Parts can be powder painted, ready for assembly.





### High Pressure Aluminium Die Casting Foundry

At our disposal we have die casting machines with closing forces of 300, 400, 550, 650, 660 and 840. Eventually, we will have 8 casting machines.

The high pressure die casting process takes place in our specially built facility, which houses 2 automatic working cells. Each cell consists of a cold chamber die cast machine, dosing furnace, automatic die sprayer and an automatic extractor arm.

The automatic working cells are monitored by a "real time injection adjustment system" and equipped with a device for casting of under reduced pressure in the mould cavity (ie. vacum), what ensures unparalleled product and production consistency.



### Aluminium treatment prior use

Before the aluminium can be used by the dosing furnace, it is first melted in a shaft furnace and then passed through a rotary flux injection degasser. This process guarantees that the metal is free from oxides and hydrogen, providing castings with optimum mechanical properties.





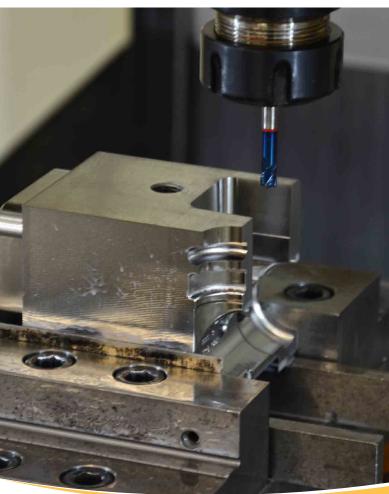


#### Cast finishing and surface treatment

A variety of cast finishing and surface treatments are available, all of which can be tailored to meet individual needs.

Services include:

- Vibratory deburring
- Shot/Sand blasting
- Machining using the latest 4 axis CNC lathes and milling machines
- Multi-stage chemical surface treatment for aluminium and steel
- Hot dip galvanizing
- Powder painting







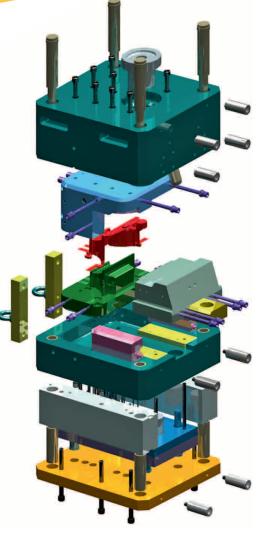
# Machining and tooling facility

At our on-site machining and tooling facility we manufacture high pressure die casting moulds, blanking and piercing dies and made to order machining clamps. To ensure optimum mould life and cast quality we preform regular maintenance and repair work on all high pressure die casting moulds.

With our state-of-the-art line up of machines we are prepared for every job.

Ready at our disposal we have:

- Three 4 axis CNC mills, one of which can reach up to 24000 rpm
- 🏽 Wire EDM machine
- 🌞 Sinker EDM machine
- Horizontal surface grinding machine
- 👑 Universal grinder
- Die spotting press
- Tempering furnace and quench tank
- Milling Machine









## **Quality Guarantee**

We aim to deliver the highest quality service and products in line with the exact requirements of our clients. Due to the whole manufacturing process being on-site, we are able to closely monitor and optimize every stage of production. Our advanced in-house measuring laboratory is equipped with:

- Coordinate measuring machine
- Spectrometer
- \* Vacuum density tester
- \* Surface roughness and contour tester
- Measuring microscope
- 👑 Hardness tester
- X-ray Inspection System

We have been ISO certified since 2003 and currently possess an ISO 9001:2008 certificate. We are committed to delivering the highest quality product. Currently, we are in the process of implmenting ITAF 16949 and ISO 14001.

Our team of experienced engineers and designers work in a variety of CAD/CAM programs such as NX Unigraphics, NX CAM and Solidworks. Along with our highly skilled operators and the latest manufacturing technology we invite you to get your job done.



#### **X-Ray Inspection**



NORLYS Sp. z o. o. ul. Zawiszy Czarnego 7 33-300 Nowy Sącz, POLAND tel. +48 18 449 57 01, fax +48 18 449 57 00 e-mail: odlewnia@norlys.com.pl www.odlewnia.norlys.pl

Nasi Partnerzy w biznesie: **WABCO** 



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