StrikoWestofen®
Group

StrikoMelter®
The melting and holding furnace for aluminium casting.

Efficiency. Powered by knowledge.
www.strikowestofen.com
StrikO\textsuperscript{M}ELTER\textsuperscript{®}

HIGHLY EFFICIENT.

More power, virtually complete processing of materials used, extremely economical energy consumption through integrated waste heat recovery and extreme longevity: The StrikO\textsuperscript{M}ELTER\textsuperscript{®} is unique in many ways and offers foundries of all sizes unparalleled opportunities for a particularly economical production worldwide.

WORLDWIDE.
BUILT ON KNOWLEDGE.

«We know that a melting furnace needs to be reliable in a tough foundry environment, and that the highest availability and longevity in the daily production processes are critical. This is why our engineers develop products for your melt shop. It is not without reason that every founder knows the StrikO\textsuperscript{M}ELTER\textsuperscript{®}.«

Uwe Tietze
Product Management StrikO\textsuperscript{M}ELTER\textsuperscript{®} and Area Sales Manager
Unbeatably high metal yield.
The biggest cost driver in the manufacture of liquid aluminium is metal loss during melting. Through advantageous burner layout and low furnace temperatures, the StrikoMelter® makes up to 99.7 percent of the material used available to the casting process as molten metal. Not only on paper, but measured in actual conditions in the foundry.*

99.7 %

Extremely durable.
7,300 days are not uncommon:
Due to the sophisticated design and the impressive longevity of all materials and components used, the StrikoMelter® achieves top availability rates. Less downtime, fewer repairs. More power, more profit.

7,300

Highest energy efficiency.
The STRIKOMELTER® with ETAmax® - waste gas recovery is the class leader in terms of energy efficiency. Only 60 m³ / t of natural gas is needed to produce one ton of ready for casting aluminium, for example from 50% ingot and 50% returns at 720° C.*

60 m³ / t

24/7

Always there for you.
Our technicians are available at our hotline at +49 2261 7091-129 day and night, 24 hours 7 days a week. With solutions and assistance for technical questions or problems. We are located near you in 25 countries, either with our own offices or through our sales, service or production partners. Even when the market focus changes: we will accompany you into new markets.
**How it works**

The special shaft geometry of the StrikoMelter® and its specially designed burner technology combine preheating and melting in the melting shaft. Following the rapid melting of feed material at the lower area, the outlet flow of the waste gas preheat cold material in the overlying shaft area. The countercurrent flow of molten material and gas permits a very effective use of waste heat recovery down to 300° C according to the principle of regeneration. And this without any additional unit. Due to this process, fuel consumption and metal loss are significantly lower than for any known competitive products.

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**Metal availability**

**Reliable and safe**

Regardless of the melting process, liquid metal with homogeneous alloy composition, constant tapping temperature at a high degree of quality and purity is available at any time for your production. In most cases a follow-up treatment is not required. The molten metal is transferred turbulence-free and without scratching into the metal bath and is available at the exact metal temperature chosen for the casting process.

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**Process control**

**Safe and clear**

In automatic operation, the founders' duties are limited to the provision of molten material, removal of liquid metal, cleaning and inspection. All security elements are clearly arranged and easy to use. The clear screen display provides the founder with an instant overview of all system parameters. With our modular expansion components such as continuous weight recording, shift logging, data access and remote diagnostics, further expansion right up to the process control system for multiple plants is possible.

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**Charging**

**Automated and as per requirements**

In addition to the usual charging of the StrikoMelter® - with charging unit - proven expansions right up to fully automatic handling of returns and ingots is available. Charging unit and furnace are therefore functionally coordinated, in order to keep physical stress to your employees at a minimum and to allow your operating staff to carry out other tasks.

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**Cleaning**

**No minor matter**

Short cleaning ways, large cleaning doors and straight refractory contours are the prerequisites for good furnace maintenance that will not overtax your staff. Cleaning can be performed without additional auxiliary constructions. Cleaning salt is used only in minimal amounts. Your staff has more time for production.
Product range

Versatile and adaptable
The StrikoMelter® is the right decision for all areas of aluminium casting, whether moulds, sand or casting. The wide product range, diverse furnace variations and a wealth of options means you will find the right system for your performance requirements and space situation. Include us in your system planning from an early stage, in order to develop a solution suitable for your requirements.

A selection of our options:

- Baffle to optimize the use of energy in the holding system
- Economy package: shaft enlargement and shaft level control ensure highest energy efficiency for melting
- Furnace pressure control to optimize energy usage and performance when connected to active exhaust systems and waste gas filtration.
- Charging units, tailor-made for your specific charging material logistics
- Conveyor as supply storage for maximum autonomy
- Weighing systems for the accurate monitoring of charge material
- Porous plugs, for treatment of the molten metal bath (for N₂ or Ar)
- Remote diagnostic kit for online diagnosis by our service technicians
- Visualization of all relevant operation parameters in display depending on plant equipment

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### Metal removal options:
- By means of manual or automatic tapping valve at fixed furnace
- By pouring spout on hydraulic tilting furnace
- From bale-out pocket

### Melting capacity:
350 – 7,000 kg/h

### Holding chamber sizes:
750 – 20,000 kg

### Application material:
- Ingots, returns from production, processed chips (KombiMelter option for chip recycling), T-bars and sows (option ramp feed)

### Metal yield:
- Up to 99.7% with 80% ingots and 20% returns
- Up to 99% with 50% ingots and 50% returns
- Up to 98%: treated and preheated processed chips

These values are guidelines and are based on measurements taken in actual conditions in the various foundries.*

### Energy consumption:
- 600 kWh/t with STRIKOMelter® with Etamax®
- 540 kWh/t with STRIKOMelter® Economy Package

Each including heat output in the holding area at a metal temperature of 720°C and materials of 50% ingots and 50% ingots used.*

### Fuels:
- Natural gas, LPG, light fuel oil - more fuels on request *

### Environmental compatibility:
The design of the STRIKOMelter® is in compliance with the TA-Luft (German air quality control)

### Temperature stability in the holding area:
+/- 5°C

### Metal temperatures:
up to 850°C

* For a binding commitment, the respective boundary conditions and feed materials are used as a basis. Depending on the properties and mixing ratios of the materials used, either the highest yield of metal or the lowest level of energy consumption are achieved.
Complete Solutions for the Foundry Industry

StrikoMelter®
melting and holding
Al-chip melting

Westomat®
holding and dosing

Holding and Bale-out Furnaces
with or without crucible

Low-pressure Die-casting Furnaces
with or without crucible

Magnesium Melting and Dosing Units
alloying, recycling, melting and dosing
production support, know-how transfer

Charging Systems

Foundry Accessories
degassing units
preheating units
transport ladles

Service
hotline
maintenance
refractory
optimisation

Spare Parts

Worldwide Representation

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