**Press information**

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StrikoWestofen (Gummersbach)

**Full speed ahead**

Near-stoichiometric burner adjustment saves energy costs and reduces metal oxidation.

**An optimum air-to-fuel ratio means optimum results: this is true for all combustion processes. It’s also the reason why, as of today, StrikoWestofen is offering foundry customers the option of near-stoichiometric burner adjustment. The setting has to be made only once, when the “StrikoMelter” melting furnace is commissioned, and will then ensure the correct ratio of air and fuel at all times. This not only minimizes energy consumption, it also reduces metal oxidation. As a result, the investment quickly pays for itself.**

In everyday foundry operations, excess air is often the culprit behind increased energy use of melting furnaces. “If you don’t keep an eye on air-fuel ratios, you are literally burning money,” says Rudolf Hillen, burner expert at StrikoWestofen. That’s why they now offer an economical method of near-stoichiometric burner adjustment.

**One-off adjustment – long-term gains**

At a combustion air ratio (λ) of 1, the oxygen in the air reacts completely with the fuel gas. While gas flow is easily measured via a meter, measuring the amount of air requires more complex equipment and can cause a steady loss of pressure in the combustion air system.

“This is why we are now offering our customers a solution for which we only have to measure air flow once, during the commissioning of the furnace,” Rudolf Hillen explains. “To do this, we install a measuring section in front of the combustion air fan. The pressure drop at the standardised metering orifice is an exact measure of the air flow.” With the help of special software, the air vent of the burner can then be positioned precisely to produce an optimum combustion air ratio λ of near 1.

The thus minimised excess air in the combustion process also reduces oxidation during the melting process in the furnace. Suitably adjusted burners ensure a high flame temperature and optimum heat transfer to the metal to be melted, saving energy and costs.

“We are talking about approximately seven kilowatt hours less energy per tonne of metal, i.e. annual savings of around 2.500 euros. In other words, at a melting rate of two tons per hour, the additional one-off investment pays for itself within two years,” Hillen adds.

From 2018, near-stoichiometric burner adjustment will be included in the scope of delivery for the standard version of StrikoMelter models PurEfficiency and BigStruc. It is available as an option for all other StrikoMelters.

For more information on near-stoichiometric burner adjustment for StrikoMelter melting furnaces, please visit **www.strikowestofen.com.**

About StrikoWestofen:

StrikoWestofen is part of the Norican Group, a world-leading provider of technologies for the formation and enhancement of metal parts. The Group is home to four leading globally active brands: DISA, ItalpresseGauss, StrikoWestofen and Wheelabrator. Together, they offer a broad spectrum of technological solutions for customers from a wide range of industries including the automotive and aerospace sectors as well as the foundry and aluminium sectors. They do this using a global network of engineering expertise, manufacturing capacity and local service support.

**Captions**

**[17-07 Measuring section]**

*Serves to set the optimum air ratio in the melting furnace: upstream of the combustion air ventilator, a measuring section is screwed in front of the fan during burner adjustment.*

Image: StrikoWestofen.

**[17-07 Burner adjustment]**

*Easy comparison: the burners on the left and right have been adjusted near-stoichiometric. The flame on the right is short and cold – the energy requirements rise.*

Image: StrikoWestofen.

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