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Heat Treatment Line SOLO Profitherm 300

Felco, Switzerland



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The international magazine for industrial furnaces, heat treatment plants and equipment

The technical journal for the entire field of industrial furnace and heat treatment engineering, thermal plants, systems and processes. The publication delivers comprehensive information, in full technical detail, on developments and solutions in thermal process engineering for industrial applications.



Silver in particular has a strong propensity to attract oxygen in the molten state. The totally enclosed nature of the Rautomead process, however, where the molten metal is in contact only with the pure carbon surfaces of the holding crucible and casting die, is particularly suitable for casting silver and eliminating any residual oxygen. Though many features of the Rautomead process have been developed and refined over the years, the furnace design remains as it was origi-

nally designed, over twenty years ago. The machines have proved robust, reliable and safe to operate with many of the early machines still in daily use today.

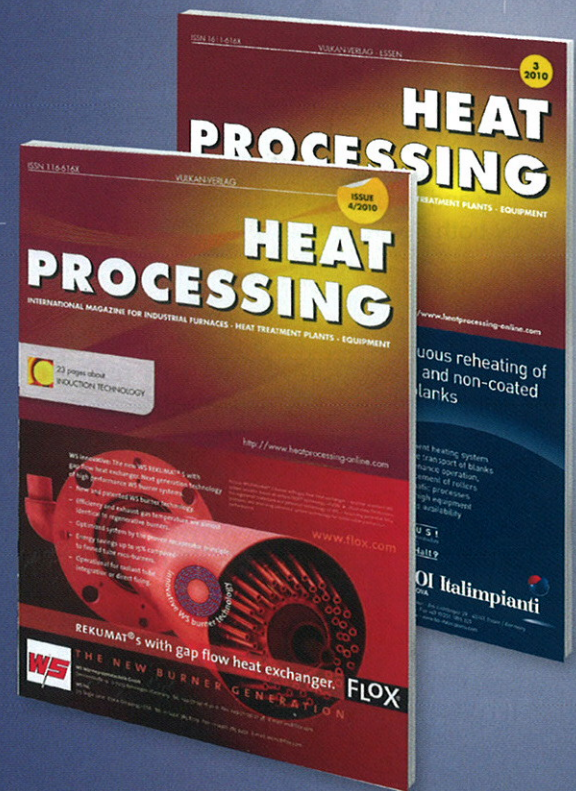
In all, Rautomead has supplied over 150 continuous casting machines for the processing of gold and silver alloys for coinage strip, jewellery, electronics and dental alloy applications.

Rautomead Limited
www.rautomead.com

TPCC reduces high temperature of sensors

PSI Technics offers users of sensors manufactured by SICK AG a custom solution to dramatically reduce the risk of failures caused by high temperatures. PSI Technics and SICK AG cooperatively grant users who purchase and install a SICK sensor in

combination with PSI Technics' Thermo Protection Cooling Case (TPCC) an extended warranty of 36 months. At environmental temperatures of 45 °C the TPCC increases the sensor life span by up to 440 %. In combination with the TPCC, laser distance



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meters can last on average approximately 3 times longer, which eliminates the need to replace failed distance meters due to high-temperature environments. The extended warranty applies to all SICK laser distance meters of the DME, DS, DT, DMT and DML series.

Customers who use sensors from other manufacturers can benefit from the excellent cooling features of the TPCC as well. The TPCC is a versatile system that adapts to a wide range of environments and is equally beneficial for optical data transmission and optical scanner systems. The standard warranty period for SICK sensors that are used without the TPCC is 12 months. The extended warranty of 36 months is offered based on results from laboratory and field tests conducted by both manufacturers.

In a controlled study, the temperature of a DME5000 laser sensor diode was measured under laboratory conditions using the SOPAS software by SICK AG. The results proved that when protected by the TPCC, the temperature of the laser sensor diode at elevated temperatures of 72 °C is kept at a constant temperature of 47 °C – reducing temperatures at the diode by more than a third. The TPCC operates on a thermoelectric basis and is maintenance-free. The housing of the industrial protection cooling case is easy to install and provides excellent insulation properties. The TPCC ensures the safe operation of sensors up to 75 °C for extended periods of time. The TPCC ships with the required adapter that enables an easy integration of SICK sensors.

PSI Technics Ltd.
www.psi-technics.com/e

Next generation xSORT sets new benchmarks for handheld spectrometric performance

SPECTRO Analytical Instruments, a leading supplier of analytical instruments for optical emission and XRF spectrometry, has introduced the next-generation SPECTRO xSORT handheld energy dispersive X-ray fluorescence (EDXRF) spectrometer. The new instrument comes in a smaller, lightweight package that offers better analytical performance, and incorporates many exclusive new features.

The new xSORT is designed for high-throughput elemental testing and spectrochemical analysis of a wide range of metals and other materials in the field. Its speed, accuracy and ease of use sets new benchmarks for handheld spectrometric performance. SPECTRO xSORT is ideal for applications, including positive material identification

(PMI) and environmental screening, recycling of alloys, precious metals, and aluminum, plus mining and compliance screening. The new xSORT also is available with time and cost-saving features, such as an integrated video camera for precise spot testing and visual memory storage. Also available is an integrated global positioning system (GPS) that allows users to quickly return to previously checked locations without time-wasting resurveys.

For metals and most alloys, SPECTRO xSORT delivers grade identification and material verification within two seconds of clicking its trigger. Pre-installed grade libraries cover common alloys used in industry and its exclusive high-resolution SDD detector provides signal throughput up to 10 times faster than

other handheld spectrometers. Even light-metal alloys require only 12 s to process.

The SPECTRO xSORT offers exceptionally low detection limits – down to the parts-per-million (ppm) range – for analyses of heavy metals. This allows the instrument to deliver accuracy that rivals laboratory analysis results. In addition, the system includes an optional docking unit for stationary operation, adding stability for very small samples along with extended analysis with ultra-low detection limits. Operators don't need to switch methods between metals or use complicated flushes or vacuum systems. The instrument's light weight (1.64 kg or 3.62 lb) and compact, one-piece design make it optimal for easy use in the field, even in areas that are



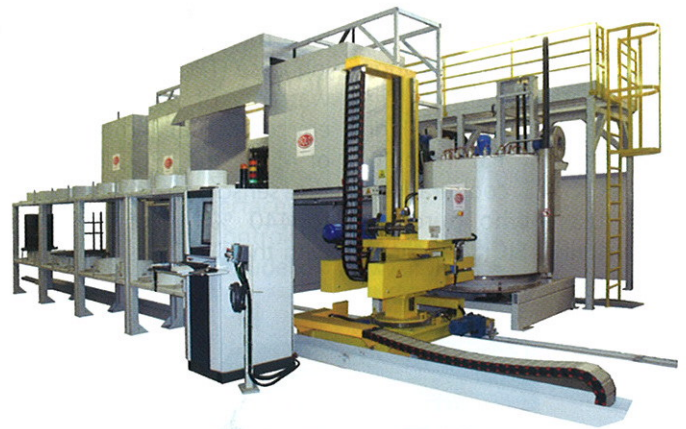
less accessible. The instrument incorporates an exclusive SPECTRO ICAL system for convenient one-sample, one-time calibration. Its simplified software features an intuitive touchscreen interface with two menu levels.

SPECTRO Analytical Instruments GmbH
www.spectro.com

New heat treatment line for guns and pistols parts

The SOLO Swiss line is designed for the heat treatment of guns and pistols parts. It is equipped with a nitriding and nitrocarburiz-

with 16 loading/unloading ramps, a 5-axis robot, an AXRON Swiss Technology process control and supervision. The useful loading dimensions



ing furnace, two austenitizing, carburizing and carbonitriding bell furnaces, with a working temperature up to 1,050 °C, a quenching oil tank max. 100 °C, a tempering furnace under N₂ atmosphere, a washing machine with two tanks, a storage

are about 500 mm diameter, 700 mm height for a surface of 0.19 m², a volume of 0.155 m³ and a maximum weight of a load about 300 kg.

SOLO Swiss Group
www.soloswiss.com