

ISER

Single Ended Recuperative Burner for Immersion Firing

ISER-1
Edition 06-08



Hauck, a product brand
of the Elster Group



- Designed for galvanizing and liquid aluminum and zinc applications
- Excellent temperature uniformity of metal bath
- Compact design
- High heat transfer to liquid metal
- Self-recuperative with efficiencies up to 60% for maximum fuel efficiency
- Silicon carbide combustor/recuperator tube
- Reduced surface oxidation and dross losses
- Insulated exhaust gas body
- Low NOx emissions via internal exhaust gas recirculation
- Rugged ceramic immersion tube
- Direct spark ignition
- UV or flame rod flame supervision

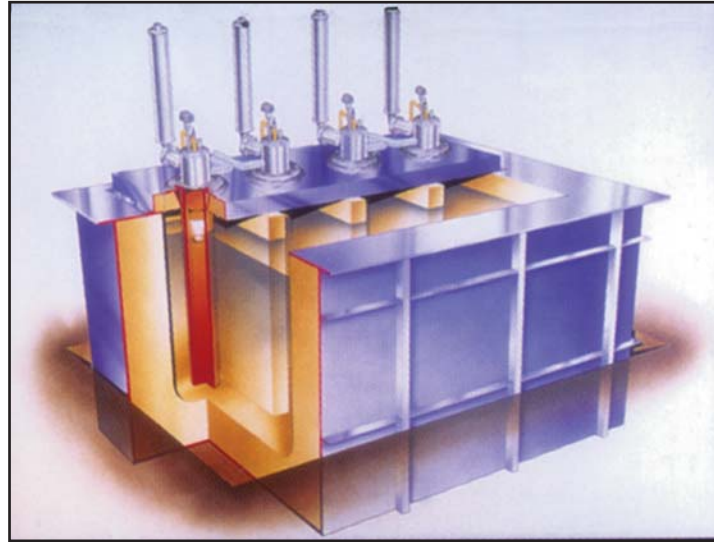
Hauck's ISER immersion burner represents the latest burner technology for liquid aluminum and zinc heating with high thermal efficiency, durability and reduced NOx emissions. The design incorporates Hauck's highly successful SVG burner technology for excellent turndown capabilities, proven performance and reliable direct spark ignition.

The ISER operates by conducting the heat of combustion through the wall of the ceramic immersion tube. Efficient transfer of available heat is assured through the thermal properties of the liquid metal in the bath where the tube is placed.

New galvanizing baths using an ISER burner can be more compact, efficient and allow more accurate process control than comparative systems. Conventional systems can be redesigned to take advantage of this compact heat source.

Thermal shock resistant silicon carbide combustor/recuperator tubes permit long life of ISER burners used in aluminum filter boxes, die casting holding furnaces, and other immersion applications.

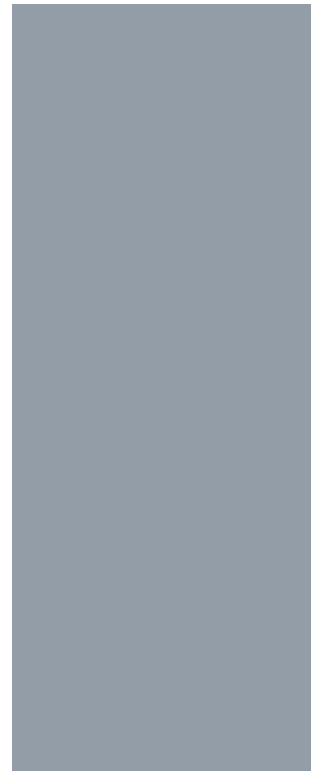
Careful design of bath equipment can yield surface area heat inputs up to 8 times greater than with conventional direct fired equipment. This leads to smaller baths and reduced structural heat loss.



ISER in Typical Vertical Down-firing Installation

The use of the immersion burner design assures that products of combustion are prevented from coming in contact with the metal. This results in significant reduction of surface oxidation, dross losses and hydrogen absorption in the bath.

It is possible to achieve very accurate bath temperature control during processing. This ensures repeatability and product quality control during the process. Because they are self-recuperative, ISER burners operate at thermal efficiencies up to 60%, contributing to significant energy savings over direct fired burners.



For additional information on this product, visit our website at:

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