



WIREKÖRNER

Ofenanlagen für Draht und Band
Furnaces for wire and strip

Galvanising furnaces

FOR ENERGY EFFICIENT
WIRE PRODUCTION

HIGH EFFICIENCY

LONG SERVICE LIFE

GENTLE HEATING OF THE KETTLE

LOW OPERATING AND MAINTENANCE COSTS



WIRE
KÖRNER furnaces
always consume
exactly the amount
of energy which
they need in a
specific moment.”

GALVANISING FURNACES

Wire KÖRNER can deliver a custom-made furnace to you, whether it is with a ceramic bath or a steel kettle. It can be used alongside burner-systems developed by KÖRNER themselves, or other currently-available burner systems.

Wire KÖRNER's galvanising furnaces are characterised by their high level of efficiency, long service-life, sparing use of resources and low operating and maintenance costs.

Ceramic galvanising furnaces

Ceramic furnaces are used with zinc bath temperatures of up to 600 °C. Their ceramic bath guarantees an almost unlimited service life without interruption to the operation.

Using special-shaped blocks, KÖRNER prevents damage to the bath due to zinc permeating in over time. These blocks are installed in such a way as to form a system of cool-air channels.

Depending on your choice, the heat energy is transferred to the galvanising-bath either by means of a heat hood across the surface of the bath, or by direct contact with the hot zinc by immersion-burners.

A sectional steel construction clad in corrugated iron, which surrounds the brickwork, absorbs the hydrostatic pressure of the liquid zinc and thus protects the ceramic material from crack formation.

Steel kettle galvanising furnaces

Wire KÖRNER, the only manufacturers of galvanising furnaces, deliver equipment with flat-flame burners developed specifically for galvanising. These burners allow the furnaces to reach an efficiency-level of up to 75 percent – this is five to ten percent more than in conventional equipment.

Steel kettle galvanising furnaces operate particularly economically at temperatures of up to 460 °C.

Unlike the burners commonly used in the past, the FL 20/50 flat-flame burners fuelled by natural gas operate in modulating mode and can be continuously regulated in a range of 1:10. This allows them to ensure the sort of even and gentle heating which was previously available only with electrically-heated furnaces.

Diffuser plates on the burners guide the gas stream along the inner wall of the furnace. This gives rise to a combination of radiant and convection heat which means that the burners transfer high heat output to the kettle at relatively low average temperatures.

The control system continuously adjusts the power to the throughput of the furnace. It also prevents extreme jumps in temperature, which, in turn, prevents unnecessary stresses on the galvanising kettle.

An array of further features contributes to minimising energy requirements: The multi-layered insulation design, up to 300 mm in thickness, reduces heat loss; furthermore, the new ceramic coating of the fibre insulation reflects the thermal radiation into the inside of the furnace.



ABOUT WIRE KÖRNER

Wire KÖRNER GmbH designs and manufactures plant and equipment for the complete process chain of wire and narrow strip heat treatment, from the drawn wire through to the finished end product. The range of heat treatment plants comprises bell-type, chamber and channel furnaces for patenting, annealing, galvanizing, hardening, tempering and chemical treatments. The company provides design, engineering, manufacture, erection, commissioning and after sales service. Wire KÖRNER maintains a worldwide network of branches and licensees.

Wire KÖRNER's numerous quality and efficiency-enhancing innovations regularly attract the industry's attention. For example, the recently developed wire patenting furnace with an innovative atmosphere control system achieves substantial energy savings, or the recuperative immersion burner for ceramic galvanizing furnaces has been designed for very long service lives, just to mention a few examples.

Wire KÖRNER is a company of the KÖRNER Group, which was established in 1928. Thus the company builds on more than 80 years of experience in industrial furnace technology and auxiliary equipment. Within the group, Zink KÖRNER GmbH specializes in plants for batch galvanizing. TVT KORDT GMBH develops plants for thermal process technology, with a focus on industrial furnaces for the heat treatment of steels, special steels and non-ferrous metals.



WIRE KÖRNER

Ofenanlagen für Draht und Band
Furnaces for wire and strip

WIRE KÖRNER GMBH

PROFILSTRASSE 9 • 58093 HAGEN

FON: +49.2331.800 68-0 • FAX: +49.2331.800 68-8

WWW.WIREKOERNER.COM • INFO@WIREKOERNER.COM
