

ROLLER HEARTH FURNACE PLANTS



for heat treatment of forging parts, free of decarbonization and scales

ROLLER HEARTH FURNACE PLANTS WITH PROTECTIVE GAS OPERATION



With heat treatment of forging parts, especially precision forging parts, the main focus lies on avoiding of decarbonization of the skin, oxidation and scale. Further, reproducible quality and economic application of the necessary plants are the center of attention.

AICHELIN protective gas roller hearth furnace plants are a product of decades of experience and secure our customers long-term profitability of their investments.



Construction features

AICHELIN roller hearth furnaces are characterised particularly by the following criteria:

- Protective gas atmosphere with nitrogen safety device
- Vacuum sluice with nitrogen scavenging for reduction of the protective gas consumption
- Furnace rollers made of heat resistant material
- Roller drive and rapid motion with continuously adjustable velocity
- Easy-to-maintain execution

Application range

Plants of this type enable highly economical gross throughput capacities of 1.500 kg up to more than 3.000 kg per hour. There, the part weights can amount from 0,5 kg to 200 kg.



Heat treatment process

Possible heat treatment processes are:

- Isothermic transformation into perlite stage (isothermal annealing)
- Tempering in oil tempered martensite (dependent on C-content of the material, low contingents of ferrite)
- Normalizing ferrite and perlite



low temperature furnace

cooling stretch

scavenging gas sluice



The surplus

AICHELIN plants offer reproducible, high quality and economy.

By long-term partnerships with our customers, matured constructions have resulted, that protect your investments by optimal ease of servicing and long durability.

Continuous advancement and the background of a large manufacturer provide you with further security.



Advantages for the user

AICHELIN protective gas roller hearth furnace offer advantages to the user by:

- no scaling of the parts, thus no change of parts geometry and smaller reworking cost
- no decarbonization of the skin
- clearly lower wear of annealing trays comparedwith pusher type plants
- lower wear and lower maintenance cost of the plant due to lack of scale
- Iower influence on the environment by "tight"plant with protective gas bleeding-off
- package of measures for increase of energy efficiency:
- application of recuperative gas burners
- improvement of heat insulation by application of microporous plates
- possible use of burner exhaust gas heat for heating of buildings and use of warm wate
- optimized sluices
- application of energy saving drives



AICHELIN Heat Treatment Systems

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