

# Zinni® 220

## Boric acid-free zinc nickel electrolyte



General Metal Finishing

Corrosion resistant coatings

atotech.com



## Excellent corrosion protection with boric acid, ammonia-free acid zinc nickel electrolyte

Stable nickel incorporation of

12 –  
15%

### Newest generation

Zinni® 220 is a highly innovative improvement of the well-known and established predecessor Zinni® 210.

Zinni® 220 combines the outstanding corrosion protective properties of Zinni® 210 with an improved throwing power resulting in higher thickness in low current density areas. A homogeneous nickel incorporation of 12 – 15% is achieved within a wide current density range. Depending on the requirements, Zinni® 220 allows to choose between bright, semi-bright or matt coatings.

Zinni® 220 was especially developed for the direct plating of cast iron in rack applications and is approved by the brake caliper industry. It is also applicable for barrel production.

# Following the footsteps of Zinni® 210



**Figure 1-3:**  
Zinni® 220 is particularly suitable for the brake caliper industry due to higher thickness in low current density areas – but also the right choice for many other parts.

## Sustainability in mind

The new environmentally sound process operates with liquid products only. This eliminates the risk of toxic dusts and makes Zinni® 220 easy to handle.

Zinni® 220 in combination with ZYpHEX® – MKS' Atotech regeneration system for acid zinc nickel electrolytes – enables customers to achieve higher production throughputs by ensuring consistent process conditions over extended operating times. By removing dragged-in oils and organic breakdown products from the solution, ZYpHEX® allows for optimum working conditions and constantly high cloud point throughout the entire lifetime of the electrolyte.

Zinni® 220 is also the optimized process for operating with Atotech Inert Anodes, a new automatic system maintaining zinc and nickel in acid zinc nickel electrolytes. Atotech Inert Anodes avoid bath dilutions and prolong the lifetime of the plating solution considerably. They show high tolerance to maintenance failures and counteract the chemical zinc dissolution. Due to Inert Anodes technology, the electrolyte always stays in the recommended metal concentration.

## Features and benefits

- Bright, semi-bright and matt finish
- Ammonia and boric acid-free
- Improved homogeneity for nickel incorporation and appearance
- Improved throwing power
- Higher thickness in low current density areas

