# HEEF® HMC

## High micro-crack count



General Metal Finishing

Functional chrome

atotech.com



# Enhanced corrosion resistance and productivity even at elevated current densities

### Following the HEEF® footsteps

The HEEF® HMC process creates a hard chrome deposit with a finer and denser network of micro-cracks compared to the latest proprietary hard chrome processes, so enabling superior corrosion resistance. Unlike normal hard chrome processes the new HEEF® HMC process is able to maintain this denser, micro-cracked structure even when the current density is increased, allowing productivity improvements without compromising on quality.

The HEEF® HMC deposit exhibits all of the benefits of the famous HEEF® processes: high hardness, low friction, excellent wear resistance, ease of use and high quality while improving corrosion resistance with the denser micro-cracked structure.

#### **Features and benefits**

- New additive formulation
- Finer, denser micro-cracked structure
- High micro-crack count even at high current densities
- Enhanced corrosion protection
- High productivity
- Low friction coefficient



# New additive formulation providing highest quality



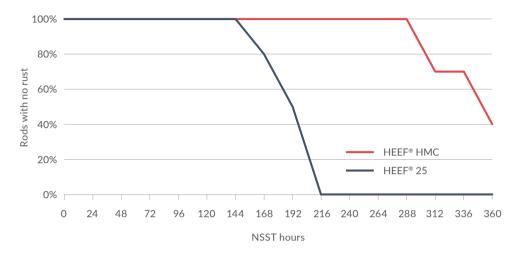




Fig 1-3: Samples plated with HEEF® HMC

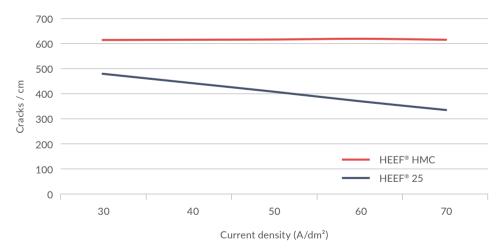
### **Enhanced corrosion protection**

HEEF® HMC process shows enhanced corrosion resistance improvement due to its higher micro-crack count.



## Micro-cracks with increased current density comparison

Typically for hard chrome processes there is a reduction in micro-cracks count with increasing current density. The graph shows that under the same conditions the crack-count for the HEEF® HMC process remains stable and significantly higher than HEEF® 25 at increasing current densities.





Atotech an MKS Brand

info@atotech.com atotech.com