

IMPROVING PART PERFORMANCE WITH THERMOX™ TREATMENTS.

THERMOX™ is a controlled oxidation process of metals to produce a stable thin layer of oxide on the surface of a component. This process can be used to provide a component with increased corrosion resistance, better wear resistance, increased surface hardness, an attractive surface finish and, in the case of porous materials such as powder metal, seal the part porosity.

BENEFITS INCLUDE:

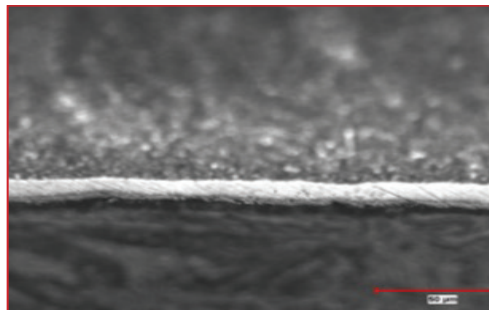
- ▶ Acts as a buffer between steel and liquid metals extending part life
- ▶ Improves corrosion resistance delaying the onset of corrosion in stored parts
- ▶ Provides a pleasing cosmetic appearance
- ▶ Increased surface hardness leading to improved productivity with **THERMOX™ II** treatment
- ▶ Enhances the metal's ability to retain lubricants reducing wear
- ▶ Reduces friction and adhesion between the work material and the tool
- ▶ Seals voids in porous materials such as powder metal parts

THERMOX™ can be used in the following applications:

- ▶ Die casting inserts, ejector pins, and other components of liquid metal handling systems
- ▶ Components exposed to general corrosion
- ▶ Decorative ferrous parts
- ▶ Extrusion components
- ▶ Forging dies
- ▶ Cutting tool holders
- ▶ Powder metal parts



Microscopic view of **THERMOX™** treatment.



Microscopic view of **THERMOX™ II** process.



State of the art equipment reduces variability in processing.

THERMOX™ can be applied to work pieces up to 36" wide by 48" long and up to 3000 lbs.

BOHLER-UDDEHOLM also offers **THERMOX™ II** — a duplex process for even greater surface integrity. Please contact us for more information.

This document is intended to provide a general guideline on material selection.
For optimal performance, consult with a Bohler-Uddeholm representative.

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