

Steam Oxide

Steam Oxide is produced in a controlled dry steam furnace at an elevated temperature. The steam treatment of ferrous metals forms a thin, hard, well-adhered, blue-black oxide film, called magnetite (Fe_3O_4). The process is often referred to as 'blueing' or 'blackening'.

The oxide layer produced is porous thereby retaining oil which lowers friction in ferrous applications, thus avoiding the problems of pick-up, cold welding on taps and 'built-up edge' on cutting edges.

The Ox process is environmentally friendly using water + heat to produce dry steam.

Applications and Benefits

- Ferrous Metals eg HSS
- Prevents chip build-up on the cutting edges

Improved performance with

- Cutting sticky ferrous materials
- Increased corrosion resistance

*Not recommended in cutting applications for very soft or non-ferrous materials.

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Surface Technology Coatings is a division of Sutton Tools

**SURFACE
TECHNOLOGY
COATINGS**

Innovation Through Technology

Steam Oxide

innovation through technology



By heavily investing in R&D, Surface Technology Coatings is combining the latest technology and Australian ingenuity, to provide world class capabilities for your products. Together we will support Australian manufacturing at a global level.

Surface Technology Coatings and its parent company Sutton Tools Pty Ltd are a key financial partner in the Defence Materials Technology Centre (DMTC Ltd.), based in Victoria. DMTC Ltd. represents a major partnership between Commonwealth and State Governments, the research sector and private industry, struck to develop and deliver advanced materials and manufacturing technology through industry led research programs that provide enhanced capability to Australian Defence activities. DMTC has installed the Innova Coating System at Surface Technology Coatings in order to provide a unique and worlds-best-practice underpinning of activities to achieve the Centre's vision over the next seven years, based on Surface Technology Coatings' proven track record of market leading products and processes.

Supporting Australian Manufacturing Together

