



## Hi Tech Ceramic Solutions for Excellent Performance

**H.T.C.** manufactures **advanced technical ceramics** made with Zirconium-Yttrium, Zirconium-Magnesium and Alumina 99% for mechanical applications wherever high anti-wear, high temperature and chemical aggression resistance is required. The materials used are provided to ensure high performance for high quality manufacturers. Its specific know-how has allowed the development of formulations and materials with superior physical properties, meeting product expectations and assuring specific component application performance.

Experience over the years guarantees the production of high quality ISO standards for pressed and injection moulded ceramic components.

Manufacturing flexibility allows us to assist our customers in developing prototypes and small pre-production volumes, guaranteeing shorter lead-times. During the "Green Machining" and pressing process, shrinkage is handled based on the moulding pressure and the CNC turning phase to guarantee a sintered semi-finished product with high density and dimensional stability. The CNC machines, used for the mechanical finishing, allows management of tolerances to the closest micron in the finished component in terms of dimensions, shape and surface. The final check carried out by highly trained laboratory staff, through UV analysis and precision instruments, guarantees the respect of the specifications and the final quality of the product for customers.

**PISTONS** - manufactures different shapes and dimensions of alumina pistons, for different types of pumps:

- Pistons for water cleaning systems
- Medium and high pressure pump pistons
- Pistons for dosing, chemical and agricultural pumps
- Circulation pump shafts
- Magnetic and electric pump components
- Components for special applications

**VOLUMETRIC PUMP COMPONENTS** - produces complete body pump components in high Alumina tenor with micrometric tolerances of the various components. The use of high resistance material guarantees a constant capacity of the fluid and increased resistance to chemical attack.

**COMPONENTS for WIRE DRAWING & METAL FORMING** - range of products for drawing mills made with zirconia includes Cones, Capstans, Pulleys & Forming rings



ZIRCOX ceramic components have distinct advantages over carbides & coated steels. Extreme hardness, excellent surface finish and chemical product inertness are all factors that reduce the level of impact on the die and improve wire quality. All our ceramic cones, capstans, pulleys and draw rings in our Zircox series have these advantages and suitable for ferrous & non-ferrous wire drawing applications.



**HTC**

Hi-Tech Ceramics

**OXYGEN SENSOR FOR ELECTRO-CHEMICAL APPLICATIONS** - Hi-Tech Ceramics produces probes made of Zirconia, specifically stabilized and used as sensors for detecting oxygen levels in the iron and steel industry. These probes are capable of detecting oxygen levels (in ppm) ranging from high to low levels.

**OTHER PARTS & COMPONENTS** - produce rings made of Zirconium Oxide used in the manufacture of hermetically sealed inkpots and a wide range of components in alumina, in particular seal rings, nozzles, insulators for electrical applications, high vacuum pumps and power supply converters.

**Lesmo Machinery America, Inc.** produces rings made of Zirconium Oxide used in the manufacture of hermetically sealed inkpots and a wide range of components in alumina, in particular seal rings, nozzles, insulators for electrical applications, high vacuum pumps and power supply converters.

**Lesmo Machinery America, Inc.**, Concord, Ontario, Canada - [www.lesmoamerica.com](http://www.lesmoamerica.com)