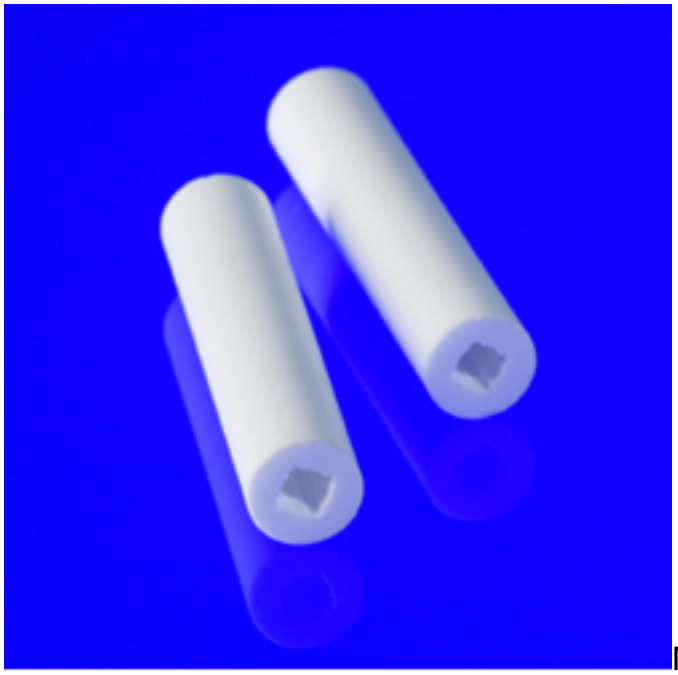
Extruded tubes and rods ideal for high volume medical and aerospace applications



Morgan Technical Ceramics (MTC) announced that its Latrobe, PA-based manufacturing site has expanded its capabilities and can now produce extruded micro-sized rods and tubes in high purity Alumina and Steatite. The rods and tubes are widely used in medical, aerospace and electronic applications. The extrusion process can deliver a high volume of intricate parts in a short lead time that are extremely cost-effective compared to components produced by traditional machining.

MTC’s state-of-the-art vertical hydraulic piston extruder allows rods and tubes to be made in a variety of sizes and tolerances to meet customer requirements. The outer dimensions of the extruded rod range from .025-inch to .400-inch and can be a solid rod, single-hole or multi-hole geometry. Lengths can be significantly longer than those obtained through a pressing process.

Rods and tubes extruded from 96% to 99.8% pure Alumina provide excellent insulating properties for use in extreme temperatures and corrosive environments. Those made from 99.8% pure Alumina are especially well suited for aerospace applications where there are stringent trace element certification requirements. The material can withstand temperatures up to 3200 F°.

Steatite ceramic has reasonable heat shock qualities and good electrical insulation. With good mechanical and insulation qualities, extruded Steatite tubes and rods are ideal for resistor tubes, surge arrestors, standoffs, spacers, terminal blocks and bushings.

“We expanded our capabilities to produce extruded parts in response to our

customers' need for a cost effective way of producing extremely small parts at high volume," said Sharon Johnson, MTC GBC Material's general manager. "With our expanded extrusion capabilities, we can now produce small notched rods used in the production of ceramic cores in the aerospace market, custom tubing for medical instruments and measuring apparatus, and a range of resistor tubes, capacitor sleeves, insulating tubes, bushings and thermocouple tubes for the electrical market."

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