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FOR IMMEDIATE RELEASE

CTS Introduces PiezoPower® Piezoelectric Curved Shape Components Design, Engineering, and Manufacturing Services

Lisle, IL – CTS Corporation (NYSE: CTS) has expanded the piezoelectric product line to include the ability to design, engineer, and manufacture complex shapes such as hemispheres, spheres, and curved plates. These shapes are widely used for ultrasonic underwater devices and ultrasonic medical transducers.



Adding Curved Shapes to the Piezoelectric Product Range

CTS piezoelectric ceramic are traditionally offered in the most common shapes: rings, tubes, discs and plates. The company has increased their capabilities to enable the offering of complex geometries manufactured with superior surface finishes from world class PZT piezoelectric materials.

Dr. Hakki Yegingil, Piezoelectric Product Manager, states “Transducer designs can require complex curved shapes such as spheres, hemispheres, and curved plates. CTS now has the capability to produce these geometries and is happy to inform our customers that we now are able to comply with such requests. This is a significant expansion of our current product offerings and aligns well with our strategic direction.”

Specifications

Hemisphere or Sphere

- Outer diameter (OD) of 6 mm to 90 mm (OD=2R)

Wall Thickness	Maximum Diameter
1 mm	≤20 mm
2 mm	≤40 mm
3 mm	>40 mm

Spheres and hemispheres can be produced in larger dimensions on request.

Curved Plates

- Outer diameter (OD) of 3 to 200 mm
- Radius of curve 6mm to Infinite

Plate Thickness	Maximum Diameter
1 mm	≤20 mm
2 mm	≤40 mm
3 mm	>40 mm

Curved plates can be produced in larger dimensions on request.

Perfect for Underwater Sonar and Ultrasonic Medical Transducer Applications

CTS aims to be a leading provider of piezoelectric components. Adding complex shape capabilities to the product line, CTS now offers a more complete product range for customers in the underwater sonar and medical transducer markets.

Piezoelectric hemispheres are used for underwater sonar devices such as sonar transducers and hydrophones. The sphere is also a perfect match for underwater sonar applications requiring 360 degrees of sensing. HIFU requires a focused ultrasonic beam, which is achieved with curved plates or hemispheres.

Options

The hemispheres, spheres, and curved plates can be manufactured from soft or hard piezoelectric materials depending on the type of application. [LINK: Materials PDF] These complex shapes can also be delivered with grooves and holes for easy mechanical integration. It is also possible to reverse the polarization direction. As for all our piezoelectric components, we can also solder a wire to the hemispheres and spheres on request.

CTS Bulk Capabilities

CTS is a leading developer and manufacturer of high-performance piezoelectric materials for a wide range of applications, including medical, defense, inkjet, industrial, oil and gas and automotive markets. Available in a variety of material compositions including in High-Density and Standard-Density formulations, these piezoelectric materials can be produced in various shape components and wafer in a comprehensive range of dimensions and in high volumes to support end-product specifications. CTS offers a market leading level of possibilities for product design, engineering, and manufacturing customization services of bulk products according to specific customer requirements. With foundries in Europe and North America and additional finishing facilities in Asia, CTS' global footprint is uniquely positioned to produce large volume programs and secure quality and consistent products to customers worldwide.

More Information

For further information about curved bulk components or any of our other products, please visit the CTS corporation form page at: <https://www.ctscorp.com/contact>.

About CTS

CTS (NYSE: CTS) is a leading designer and manufacturer of products that Sense, Connect, and Move. The company manufactures sensors, actuators, and electronic components in North America, Europe, and Asia. CTS provides solutions to OEMs in the aerospace, communications, defense, industrial, information technology, medical, and transportation markets.

For more information on CTS Corporation, please visit www.ctscorp.com.

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