Abrisa Technologies Now Provides On-Demand Laser Cutting of Gaskets & Masks for Flat Glass Optical Components

May 15, 2023 – Abrisa Industrial Glass (AIG) a business unit of Abrisa Technologies now provides in-house, on-demand laser cutting of gasket and masking materials for flat glass optical components. This value-added, fast turn cutting of high-performance gaskets provides increased supply chain simplicity for our Abrisa Technologies’ customers by minimizing the number of vendors required to provide a turnkey Total optics solution.

According to Susan Hirst, General Manager for AIG, “Our team can apply the custom cut gaskets to coated, screen printed, and fabricated glass for an integrated solution when the glass/optic is required to be mounted or installed into a bracket or needed as an environmental seal. These gaskets can replace mechanical fasteners that may lose adhesion and holding power over time.”

According to Erasmo Guzman, Mechanical Engineer for Special Projects at AIG, “The speed and precision of the laser results in crisp and clean edges with a high-quality surface finish and consistency. Generic or highly complex geometries and intricate shapes with small features can be created to fit our customers’ application-specific requirements.” Erasmo further states, “Various customer supplied file formats such as PDF, DFX, AI and more can be used to create the pattern design for the gasket or mask to insure conformance and functionality in alignment with specifications.”

Typical gasket materials include both single and double-sided adhesive bonding and adhesion transfer tapes such as 3M™ based products and optical surface protection tapes, elastomers, and PVC. Additionally, customer supplied gasket or masking materials can be tested for compatibility with our laser cutting system to assure specification adherence.

Gaskets are typically used to bond glass to mounts, housings and bezels for environmental moisture seals, anti-shatter protection, heat shielding and thermal insulation, acoustic insulation and vibration isolation and electrical connectivity.

Laser cut gaskets can range in size from 0.100” x 0.100” up to 23” x 17” while thickness can range from 0.10” up to 0.125”. The minimum cut width is 0.04”. 

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Abrisa Technologies, a member of HEF Photonics, is a globally recognized technology glass fabrication and optical thin film coating company with expertise in high volume manufacturing and engineering capabilities, delivering Total Solutions that provide excellent performance, fitness-for-use, and economies of scale.

Our US based, state-of-the-art ISO 9001:2015 and ITAR registered facilities include Abrisa Industrial Glass in Santa Paula, CA, and ZC&R Coatings for Optics in Torrance CA. These two divisions produce solutions from cut-to-order coated glass components to custom complex and ready-to-install fabricated, strengthened, optically coated, electronically enabled, and branded sub-assemblies.

Our Total Solutions serve a variety of markets including Micro-Electronics, Defense and Avionics, Display, Industrial Automation, Optical Sensors, Imaging, Photonics, Medical & Dental, Life Science and more.

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