Knight Optical supplies Diamond turning often known as Single-Point Diamond Turning (SPDT). We offer diamond turned germanium. Each aspheric design is programmed into the manufacturing equipment which enables us to offer on-off Diamond Turned aspherics as well as high run production cost effectively and with speed of delivery.

Diamond turned aspheric lenses are typically used in optical assemblies such as missile guidance systems, night vision goggles and other military-based instruments. For example, using a single aspheric lens in night vision goggles in place of a multi-lens array is a desirable option to reduce spherical distortion, weight and cost.

Other alternative methods of diamond machining that we offer is diamond fly cutting which is used to generate diffraction gratings and also diamond milling, which can be used to generate aspheric lens arrays.

Typical materials that we can diamond turn for military based diamond turned aspheric lenses are:

- Aspherics from a range of Infrared materials including Germanium (Ge), Calcium Fluoride (CaF$_2$), Zinc Sulphide (ZnS), Zinc Selenide (ZnSe), Aluminium (Al) and chalcogenide glasses like AMTIR.

Contact our multilingual technical sales team and discover how Knight Optical’s high quality Germanium Diamond Turned Aspherics and superior service can improve your instrumentation and supply chain experience.
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