Single–Point Diamond Machining

Specialists in Micro-Precision
SPIN MIRRORS
When flatness, parallelism, perpendicularity and surface finish are all critical parameters for your precision mirror applications our fly cutting process will meet or exceed your expectations.

FLATNESS, PERPENDICULARITY & ANGULARITY
Our fly cutting process typically yields flatness on the order of $\lambda/4$ (5 microinches) and perpendicularity of less than 50 microinches. We can accommodate parts up to 11-3/4 X 11-3/4 inches in size.

SURFACE ROUGHNESS
The typical surface roughness yielded by our fly cutting process is 50-100 Å $R_a$. If a higher reflectivity, protected or smoother surface is required, we can often follow up the fly cutting process with an optical coating and or polishing process.

TYPICAL APPLICATIONS
Our fly cutting process is used in applications where flatness, perpendicularity and angularity are critical. Examples include scan mirrors, IR optics, reticle transfer cases heat sinks, and precision knives.

SUITABLE MATERIALS
Single-point diamond machining is effective on relatively soft metals, plastics and alloys. Examples of suitable materials include aluminum, copper, electroless nickel ABS, PVC, plexi acrylic, phenolic sheet and alloys such as brass and CuCrZn.