



# Materials change proves winner for NASA

## **P**roblem

Deep space-based research by NASA called for a high energy solar concentrator that could focus from 3.5" to a faceted point over a 12" length. Designers had initially tried sapphire as the material best suited to this application. However, it failed under Beta tests so NASA turned to a fused silica material but needed precise machining to ensure accuracy.

## **S**olution

NASA turned to Insaco. With over 55 years experience in diamond grinding and polishing sapphire as well as chemo-mechanically finishing intricate parts from fused silica and quartz, Insaco's expertise in fabricating to extreme tight tolerances – without bias to a particular material – made the choice simple.

## **R**esult

NASA selected a special grade of fused silica and contracted with Insaco for the precision machining. Specifications for the complex polish and edge radii, as well as the production feasibility for this intricate and critical part, were successfully accomplished by Insaco and completed on time and on budget, saving NASA valuable time to get the solar concentrator up in space quickly.

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