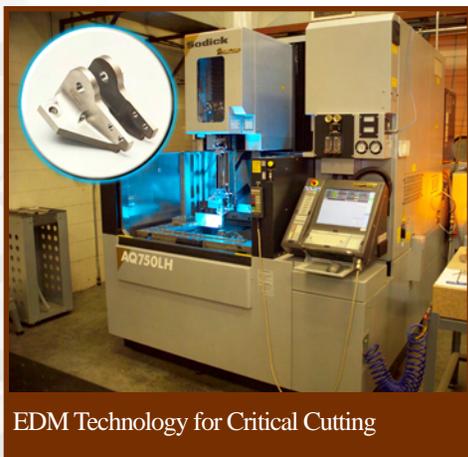
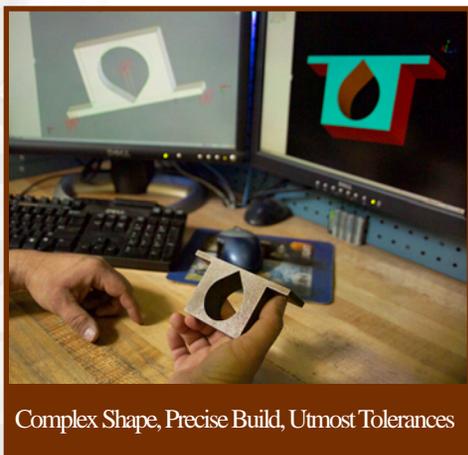




Latest Generation Milling Operations



EDM Technology for Critical Cutting



Complex Shape, Precise Build, Utmost Tolerances

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Precision Machining & Fabrication



NASA  
White Sands Test Facility

## Full Services



Controlled, Secure Environment

For intricately designed and fabricated parts, quick turnaround, tight tolerance base, and superior quality, White Sands Test Facility (WSTF) can do the job. WSTF maintains an 18,000 ft<sup>2</sup> (1700 m<sup>2</sup>) fabrication facility with expert machinists and welders, each with over 20 years experience. WSTF's fabrication team is skilled in working with exotic metals like Monel<sup>®</sup>, Inconel<sup>®</sup>, titanium, carbon, and alloy steels. With precision machining and welding capabilities, the facility produces flight hardware, ground support equipment, and facility and test hardware.

With extensive experience in computer-aided design and manufacturing (CAD/CAM) software including Pro/E<sup>®</sup>, and Pro/Manufacture<sup>®</sup>, WSTF Fabrication Shop personnel can manufacture parts from customer-provided 2-D or 3-D CAD, IGS, DXF, CATIA files or produce CAD files to meet customer requirements. CAM capabilities include interface with three turning centers (lathes), two machining centers (mills), and two wire EDM machines.

## Precision Machining



Industry Standard Manufacturing Expertise

WSTF has highly automated, computer numerically controlled (CNC) milling and turning capabilities. These operations are performed on very precise, CNC milling machines with commonly held tolerances to  $\pm 0.0002$  in. ( $\pm 5 \mu\text{m}$ ). CNC machining capabilities include a vertical machining center 40 x 20 x 25 in. (100 x 50 x 25 cm), 15-position tool changer, 4th axis capabilities, 15 HP, 8000 RPM. Additional CNC turning capabilities are available up to 10 in. (25 cm) diameter, 40 in. (100 cm) center-to-center travel.

Conventional shop equipment includes nine lathes and six mills, some of which are dedicated to the manufacture of flight hardware allowing the machines to hold the tight tolerances required for NASA flight hardware.

Welders at WSTF maintain certification for flight hardware in accordance with AWS B2.1 and AMS STD-1595 standards, and pressure system applications in accordance with ASME Section IX. Welding capabilities include gas tungsten,

## Fabrication



Solutions for All Drilling Applications



Micro Drills for Application Challenges

gas metal, and shielded metal arc welding, and plasma cutting.

WSTF is certified to ISO 9001 and is AS 9100 compliant. In-shop designated verifiers and independent quality assurance personnel perform frequent in-process inspections to ensure parts stay within specifications. Inspection equipment is calibrated at WSTF in accordance with standards traceable to the National Institute of Standards and Technology (NIST).