



Valve Repair Facility



Industry Standard Manufacturing Expertise



Publications/Photo/Video Services

### Contact

Joe M. Bullington, Director  
Mission Services Department  
Jacobs Technology - NTEC Group

NASA Johnson Space Center  
White Sands Test Facility  
P.O. Box 20  
Las Cruces, NM 88004  
575.525.7660  
joe.bullington@nasa.gov

Adam L. Irion, Branch Manager  
Component Services  
Jacobs Technology - NTEC Group

NASA Johnson Space Center  
White Sands Test Facility  
P.O. Box 20  
Las Cruces, NM 88004  
575.524.5360  
adam.l.irion@nasa.gov

Mary A. Burke, Office Chief  
NASA Technical Services

NASA Johnson Space Center  
White Sands Test Facility  
P.O. Box 20  
Las Cruces, NM 88004  
575.524.5449  
mary.a.burke@nasa.gov

<http://www.nasa.gov/centers/wstf/home/index.html>



# Technical Services



Measurement Standards and Calibration



Valve Repair Facility



Precision Machining and Fabrication



Component Services Section



Publications Photo/Video Services

# JACOBS

## Technical Services

A variety of technical services are available at NASA White Sands Test Facility (WSTF) including precision cleaning and valve repair, calibration, fabrication and welding, and technical publications, photography, and videotaping.



## Component Services

The **Component Services Section (CSS)** is responsible for the disassembly, cleaning, maintenance, reassembly, and testing of pressure relief and pressure safety valves in compliance with American National Standards Institute (ANSI) National Board Inspection Code (NBIC)/NB-23. With a full service clean room and valve shop, CSS has extensive cleaning and refurbishing experience with numerous valve configurations, metal types, and elastomers. From oxygen system components that are part of life support systems to components that have been exposed to hazardous propellants, a range of processes are used to clean hardware. Functional tests are performed on all rebuilt components and set point verification on pressure relief and pressure safety valves to pressures over 10,000 psig.

The CSS **Fluid Components Laboratory (FCL)** cleans and repairs code and non-code relief valves, manual valves, solenoid valves, check valves, and regulators. Other services performed by the FCL include hydrostatic pressure testing components to 40,000 psig, high pressure intensifier refurbishment, and chemical and vacuum pump refurbishment.

WSTF's CSS is an approved "VR" certified facility holding the NBIC Certificate of Authorization and "VR" Symbol Stamp for the repair of code-stamped pressure relief valves.

The **Valve Repair (VR) Facility** ensures relief valves are operating within manufacturer's specifications and to the customer's expectations. Using clean gaseous nitrogen, the VR facility is capable of verifying flow capacities of pressure relief valves up to 1000 scfm, and pressures not to exceed 2800 psig. Assembly and testing of the relief valves are performed in a Class 100 clean room, making WSTF the only known clean flow test facility in North America.

## Measurement Standards & Calibration

WSTF's **Measurement Standards and Calibration Laboratory** performs calibration of test instrumentation including temperature, pressure, load, acceleration, and many other measurements using processes traceable to National Institute of Standards and Technology (NIST) and other nationally recognized standards. Calibration management and logistics services include maintenance of instruments at peak performance, recall notification, interval analysis (batch or individual), in-place calibration, and database management systems. Customers include Goddard Space Flight Center, the U.S. Air Force, the U.S. Army, and Wallops Flight Facility. Calibration Laboratory procedures meet MIL-STD-45662A requirements and ISO 9001 standards.



Reference Pressure Calibration Using Dead Weight Standards

## Machining & Fabrication

For intricately designed and fabricated parts, quick turnaround, tight tolerance base, and superior quality, WSTF can do the job. A fully integrated American Society of Mechanical Engineers (ASME) code equivalent **Precision Machining and Fabrication Facility** is maintained to meet flight hardware and infrastructure requirements. With expert machinists and welders complemented by computer-assisted design services, the facility produces flight hardware, ground support equipment, and facility and test hardware. Equipment includes conventional shop equipment and CNC machines with PRO CAD/CAM interface. Certified in-shop welding processes cover most ferrous and nonferrous applications. WSTF's fabrication team is skilled in working with exotic metals like Monel®, Inconel®, titanium, carbon, and alloy steels. The facility maintains traceability and certificates of conformance on the pedigree of materials through controlled storage.



Complex Shape, Precise Build, Utmost Tolerances

## Publications/Photo/Video

WSTF's **Publications/Photo/Video Services** provide writing, editing, formatting, graphic design, and publications support for scientific, technical, and administrative documents. Still photo, motion picture, and video instrumentation capabilities include 33-mm ultra high-speed infrared shadowgraph photography, high-speed video, and rapid-shutter video. Marketing support, web site development, and export control services are available too. A 64-in. wide color inkjet printer is capable of printing large collages, storyboards, posters, maps, or other oversized documents.