

Ultra High Temperature Ceramics

Improve Materials | Optimize Processes | Increase Profits

Breakthrough Testing for Breakthrough Materials

When your research demands the highest possible temperatures, the fastest results, and uncompromising accuracy, DSI's UHTC Testing System delivers. Built for aerospace, hypersonics, defense, and next-generation energy research, this platform lets you simulate extreme environments and measure real-world performance like no other.

From validating mission-critical components to accelerating academic breakthroughs, this system empowers your team to lead at the cutting edge of high-temperature materials science.

DSI UHTC Ultra High Temperature Ceramics

- Extreme Temperature Testing**

Accurately replicate thermal conditions above 2000°C to study performance, deformation, and failure modes.

- High Throughput**

Run a test in 1 hour or less; this enables faster screening, data collection, and decisions.

- Accelerate Funding & Publication**

Generate unique datasets that strengthen proposals and position your work for high-impact publications.

- Attract Collaboration**

Offer rare, in-demand testing capabilities to government, industry, and academic partners.

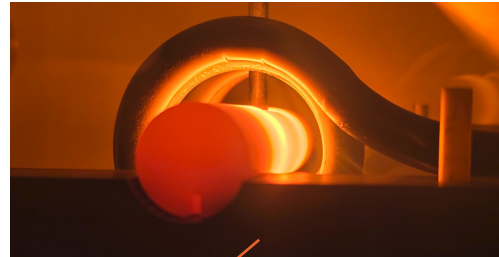
Smart Control Platform

- 21.5" touchscreen interface with real-time data visualization.
- Up to 16 data acquisition channels (50kHz sampling)
- Intuitive programming with QuikSim2
- Real-time graphing, diagnostics, and machine health monitoring

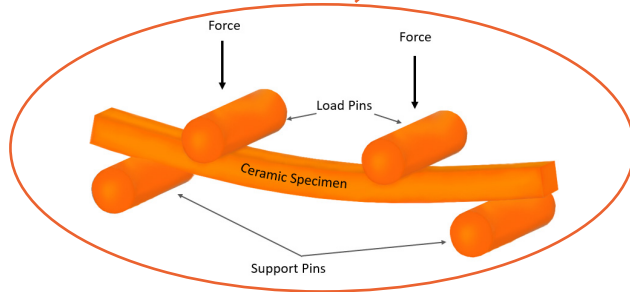
Testing Capabilities

Max Continuous Temp	2000°C
Max Short-Duration Temp	2500°C
Heating/Cooling Rate	10°C/sec
Test Throughput	1+ per hour
Load Capacity	0-25 kgf
Displacement Accuracy	±0.05 mm
Deflection Accuracy	±0.01 mm
Vacuum Level	0.05 mbar
Sample Size	2.0mm x 1.5mm x 25mm

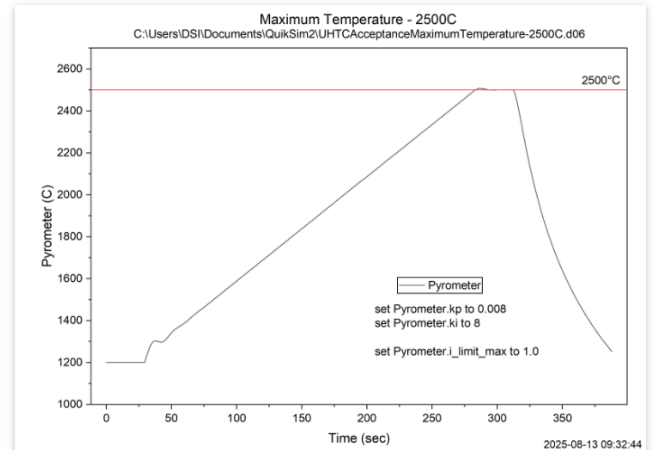
DSI UHTC Performing 4 point Bend Test



ASTM C1211-18
"A" Specimen:
2.0 mm x 1.5 mm x 25 mm



View Our Solutions Guide



DSI UHTC Testing to 2500C

If your materials are going to face the most unforgiving environments on Earth (or beyond), test them with a line of systems trusted by renowned international labs, aerospace innovators, and government agencies.

About Dynamic Systems Inc.



TECH
VALLEY

In 2022, Dynamic Systems Inc. celebrated 65 years of excellence in delivering valuable tools to the materials research and production community. Located in New York's Tech Valley, DSI has grown from humble beginnings to become an international organization with employees and partners around the globe. Gleeble systems have become the world-standard for thermal-mechanical physical simulation systems.

DSI's first system, christened the "Gleeble" by one of its creators, was originally developed to simulate the heat-affected zone of arc welding. A pneumatic system was soon added to the Gleeble, giving it limited mechanical capabilities. In 1979, the Gleeble became the first machine ever to combine full resistance heating thermal capabilities and hydraulic servo-mechanical testing performance in a single system. In the early 1980's, the machine was re-engineered to incorporate computers for controlling tests and collecting data. Since then, DSI has introduced an advanced series of systems, which combine dynamic thermal and mechanical testing utilizing sophisticated computers for control and data acquisition.

As a result of this innovative technology, it is possible for materials to be tested in the same dynamic way that they are fabricated and used. This capability is producing new insights into materials science and new breakthroughs in productivity.

Our team is excited to celebrate over 65 years of excellence and is proud to carry on the tradition of innovation and excellence that has been key to our customers and our own success. We look forward to supporting our customers and the rest of the materials research community for the next 65 years.

Gleeble Systems are Supported by DSI's Global Network of Sales, Support and Metallurgical Professionals

