GLEEBLE®

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GLEEBLE 3180-GTC

Thermal-Mechanical Physical Simulation System

The Gleeble 3180-GTC provides a physical simulation system for researchers who require the quality and accuracy of a Gleeble system on an affordable scale.The Gleeble 3180-GTC is ideal for weld HAZ simulations, hot tensile tests, thermal cycles,heat treatment studies, uni-axial compression and low force tests.

The Gleeble 3180-GTC is a flexible thermal-mechanical physical simulation system which can be configured for the following applications:

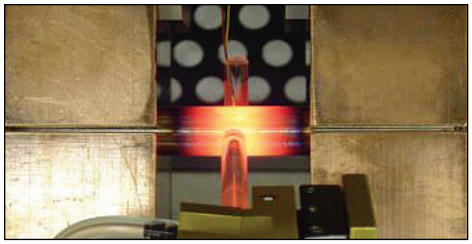
- Weld HAZ Simulation
- Melting and Solidification
- Heat Treatment
- Hot Tensile Tests
- CCT and CHT with Deformation
- Continuous Casting Simulation

At the heart of the 3180-GTC are the features for which Gleeble systems are internationally renowned: a closed-loop direct resistance heating system, a closed-loop servo mechanical system, and a Windows® based digital computer control and data acquisition system.

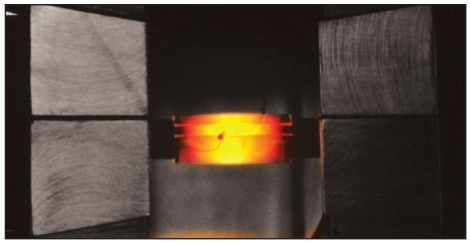
Key Performance Specifications:

Force	Maximum Compressive Force	8 Metric Tons
	Maximum Tensile Force	8 Metric Tons
Stroke	Maximum Stroke Distance	100mm
	Maximum Stroke Rate	1000mm/sec
	Minimum Stroke Rate	.01mm/sec

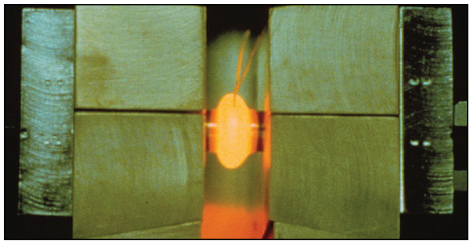
Temperature Control	Maximum Temperature	1,700°C
	Maximum Heating Rate	8,000°C/sec
	Maximum Quenching Rate	10,000°C/sec
	Maximum Specimen Size	12mm dia



Thermal Cycles and Heat Treatments: Many different grips are available to support uniform temperature zones and a variety of specimen configurations. Other grips can be used to provide thermal gradients in the specimen for weld HAZ and process simulation.



Melting and Solidification: Melting and controlled solidification can be performed in-situ. Thermal and mechanical testing of the as-cast structure can then be performed to identify cast structure properties and ductility dip regions.



Strain Induced Crack Opening (SICO) Procedure: The SICO procedure is a quick and cost-effective method for thermomechanical process optimization in forging and forming operations.

About Dynamic Systems Inc.

In 2017, Dynamic Systems Inc. celebrates 60 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 our 60th anniversary 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 60 years.

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

More Information

For ordering information, please contact us at **info@Gleeble.com** or **(518) 283-5350**

P.O. Box 1234, 323 Route 355
Poestenkill, NY 12140 USA

Visit us online at **www.Gleeble.com**

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