

THE ALL-NEW GLEEBLE® WELDING SIMULATOR PROVIDES A ROBUST PLATFORM FOR A WIDE RANGE OF WELDING SIMULATIONS AND TESTING CAPABILITIES

Poestenkill, New York, June 16, 2015 – Dynamic Systems Inc. (DSI), the world leader in the development of thermal-mechanical physical simulation systems for metallurgical research, announced today the introduction of an all-new platform for welding research.

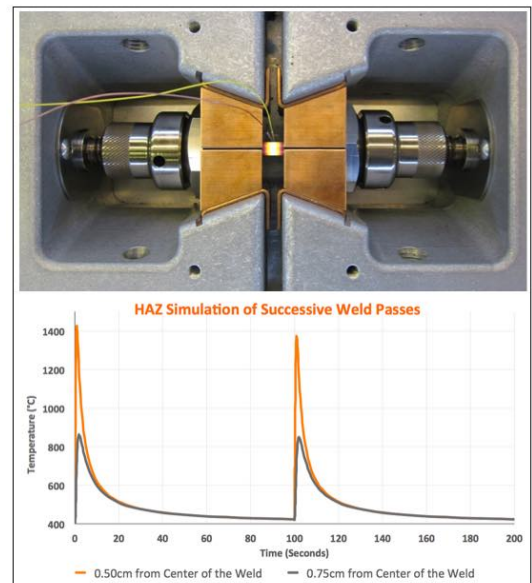
The performance and reliability of high temperature joining technologies are critical in many industries, including automotive, aerospace, pipe and tube, energy and heavy-duty machinery manufacturers. These industries, and many more, must ensure weld integrity and tight process control to continually improve product quality while reducing costs associated with product development, processing and energy consumption.

The Gleeble Welding Simulator is tailored to provide a compact, economical solution for welding researchers while retaining the world-class capabilities that have made Gleeble systems the industry standard. A material sample is placed in the patented QuickJack gripping system and then heated by direct resistance while tension or compression force is applied. This heating method provides extremely rapid and precise temperature control, enabling operators to create the desired thermal profile needed to conduct accurate welding simulations. Capable of up to 3 tons of force in compression and tension, the Gleeble Welding Simulator's highly precise measurement systems record key performance parameters such as strain, strain rate and temperature for further analysis.



Features of the system include:

- High-speed direct resistance heating up to 10,000°C/second
- Controlled cooling or accelerated cooling with optional quench (air/gas/water/mist), cooling up to 3,000°C/second
- Simulation of multiple welding techniques and materials
- User friendly and easy to use controls and software
- Water-cooled jaws contribute to very fast cooling rates and enable researchers to simulate steep thermal gradients found in welding applications
- Ability to test in vacuum, air or inert gas
- Quiet operation, easy installation and small laboratory footprint



In 1957, Dynamic Systems introduced its first welding research tool, a Heat Affected Zone (HAZ) simulator that was soon dubbed the 'Gleeble' by one of its creators. In the years since those humble beginnings, the capabilities of Gleeble equipment have grown considerably allowing researchers to study additional welding applications as well as hot deformation, casting/melting, semi-solid working, CCT/TTT, heat treatment, strip annealing, torsion and multi-axis forging. While this extensive list of applications is ideal for organizations with diverse research interests, many researchers that are primarily interested in welding are seeking a more cost effective and specialized tool.

Jim Papa, DSI's Senior Vice President, summed up the challenges of creating this new system, "Previous Gleeble systems such as the 3500 and 3800 are incredibly capable – they can conduct all sorts of simulations and tests, but many researchers that focus on welding only need a subset of those capabilities. The Gleeble Welding Simulator was purpose-built and designed specifically for the welding researcher. This lowers the cost of the system because researchers don't need to pay for capabilities that they don't need. The challenge was finding a way to reduce the cost of the machine, while retaining the performance and functionality that our customers have come to expect from a Gleeble system."

The Gleeble Welding Simulator has been designed to meet the specific needs of welding researchers and offers the following capabilities:

Material Testing Simulations

Weld HAZ Simulation
Nil-Strength Testing
Charpy Specimen Heat Treatment
Hot Ductility and Tensile Testing
Melting and Solidification
Study of Local Brittle Zones
Embrittlement and Crack Susceptibility
Strain Induced Crack Opening (SICO)
Post-Weld Heat Treating

Process Simulations

GMAW - Gas Metal Arc Welding
TGAW –Tungsten Gas Arc Welding
SAW – Submerged Arc Welding
ESW - Electroslag Welding
Welding of Ferrous and Non-Ferrous Materials
Diffusion Bonding
Laser Welding
Upset Welding

More information on all Gleeble Systems can be found on the company website: www.Gleeble.com

For more information, please contact:

Daniel Quigley, Dynamic Systems Inc.
T (518) 283-5350 ext. 253
Dan.Quigley@Gleeble.com

About Dynamic Systems

Dynamic Systems Inc. (DSI) designs and manufactures the Gleeble® line of material testing and simulation systems. New materials and process improvements can be studied in a laboratory and successfully transferred to plant production lines, reducing the cost, risk and time associated with developing new processes or materials.

"Gleeble" is a registered trademark of Dynamic Systems Inc.
© 2015 Dynamic Systems Inc. All rights reserved.