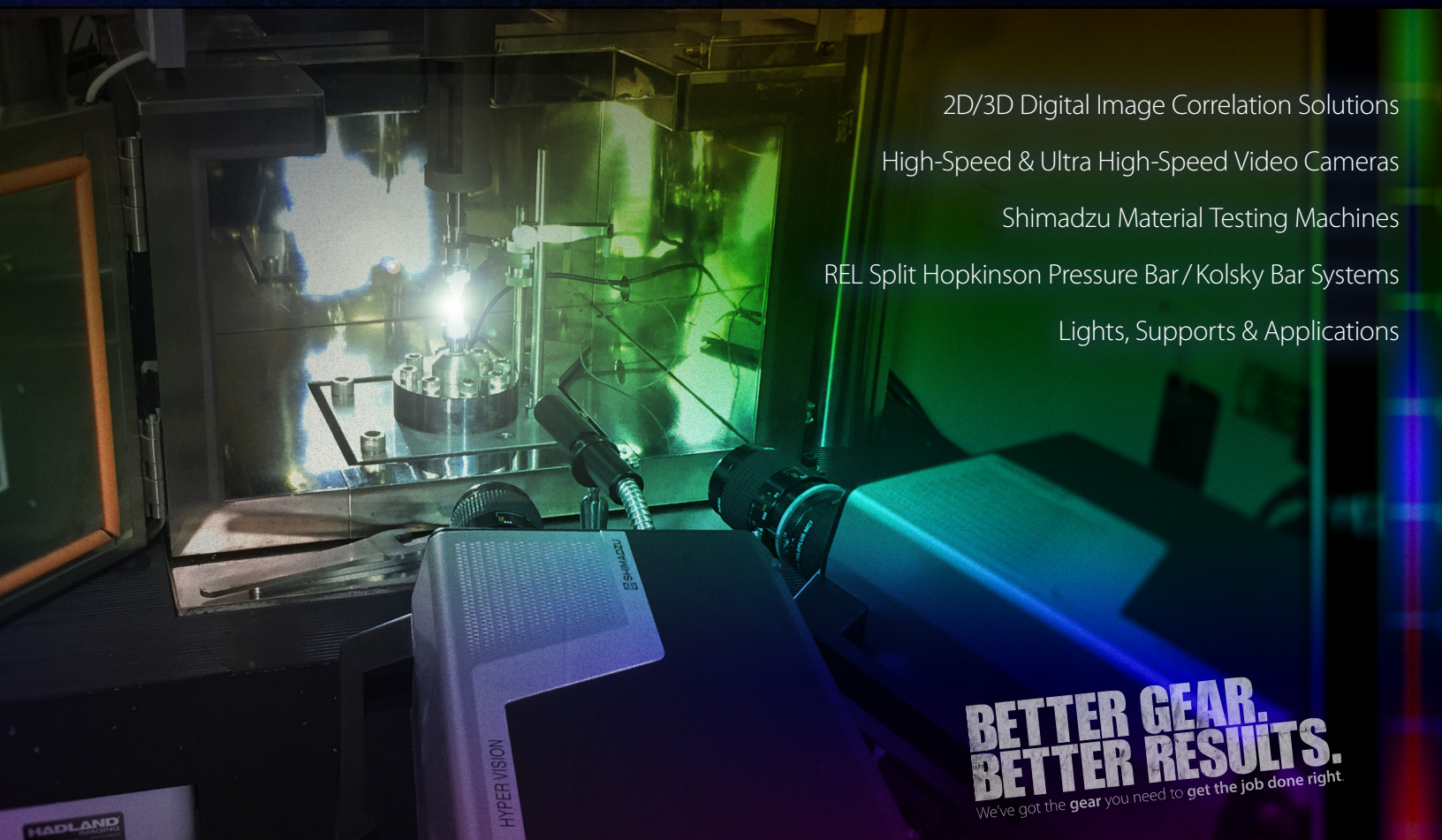


ULTRA HIGH-SPEED 2D/3D DIC CAN'T BE WRONG

HIGH-SPEED & ULTRA HIGH-SPEED DIGITAL IMAGE CORRELATION **SOLUTIONS**



2D/3D Digital Image Correlation Solutions

High-Speed & Ultra High-Speed Video Cameras

Shimadzu Material Testing Machines

REL Split Hopkinson Pressure Bar / Kolsky Bar Systems

Lights, Supports & Applications

**BETTER GEAR.
BETTER RESULTS.**
We've got the gear you need to get the job done right.

HADLAND[®]
IMAGING

PROVIDING **ULTRA HIGH-SPEED IMAGING SOLUTIONS** TO INDUSTRY LEADERS & PROFESSIONALS

**BETTER GEAR.
BETTER RESULTS.**
We've got the gear you need to get the job done right.

2D/3D DIC

digital image correlation solutions

High-Speed & Ultra High-Speed DIC

We've got your DIC needs covered with a single camera for **2D DIC** and a two camera setup for **3D DIC**. Pair your choice with an incredible **material testing machine**, light it up with the brightest LED system and start acquiring data. Process your data with the latest in testing & motion analysis software from **Shimadzu, REL, Correlated Solutions** and **Xcitex** to get the job done right.

REL

SURE-TEST SYSTEMS™
HIGH STRAIN RATE EQUIPMENT & TESTING

- **Split Hopkinson Pressure Bar (SHPB)**
test high strain rate properties of materials
- **SHPB/Kolsky Bar System with REL SURE-launch™**
automated gas launcher
- **REL SURE-pulse™** Image Correlation software for
2D strain mapping & discrete target tracking
- **REL SURE-bright™** LED lighting systems
focused lighting & modular systems

Accessorize with More Gear

VIC Ultra-Bright LED lighting systems, controllers,
mounts, supports, lenses & more.

Hadland Imaging's **WRF-300 Flash** (liquid light guide)
is the perfect solution for point source illumination.

Contact Us About DIC Solutions

1-888-43HADLAND (1-888-434-2352)
email sales@hadlandimaging.com
www.hadlandimaging.com



PROVIDING ULTRA HIGH-SPEED IMAGING SOLUTIONS TO INDUSTRY LEADERS & PROFESSIONALS

Pair the best high-speed & ultra high-speed video cameras with the incredible SHIMADZU MATERIAL TESTING MACHINES for the ultimate 2D/3D DIC imaging solution.

SHIMADZU

Extremely Exquisite.

up to 10 million frames per second



Shimadzu Hyper Vision HPV-X2

Experience the Invisible with ultra high-speed video recording up to **10 million fps** with **6x higher sensitivity** than conventional video cameras. Featuring the **FTCMOS2 Advanced Next-Generation Burst Image Sensor** with a two camera synchronized recording function for digital image correlation and 3D imaging in master/slave mode. *The best in its class.*

▲ **UHS** & ▼ **High-Speed/High Performance** video cameras to fit your needs.

Bullet-Stopping Speed.

up to 1 million frames per second



i-SPEED 2 Series
210 / 211 & 220 / 221

ix Cameras



NEW – i-SPEED 5 Series
510 & 513



i-SPEED 7 Series* (716 / 720 / 726)

ix Cameras i-SPEED® 2, 5, & 7* Series

When the job calls for **compact, mid-range** or the **best in high-speed & high resolution**, the **i-SPEED** cameras deliver exceptional performance for **2D/3D DIC** in a variety of environments. Available options include extended battery, memory capacity and expandable video storage for all of your imaging needs.

i-SPEED 2 Series: 600 fps @ 1600 x 1600 pixels – 204,100 fps max frame rate

i-SPEED 5 Series: 6,382 fps @ 1920 x 1080 pixels – 500,000 fps max frame rate

i-SPEED 7 Series: 8,512 fps @ 2048 x 1536 pixels – 1 million fps max frame rate

** R versions with heavy-duty rugged environmental enclosures available – cameras not to scale*



HITS-TX
High-Speed Impact Testing Machines

HITS-X Series

High-Speed Impact Testing Machines

◀ The **HITS-TX** is perfect for obtaining baseline high-speed deformation behavioral data for materials by tensile testing at selectable speeds. Incorporating a new, high response detector and vibration resistant volumetric displacement meter, the HITS-TX allows highly accurate data acquisition with minimal vibration noise.

▶ The **HITS-PX** is the best choice for puncture testing materials using selectable impact speeds. Easily acquire various data such as test force vs displacement curves, maximum test force values, energy, and displacement of testing materials.

◀ **20 m/sec max test speed & max force up to 10 kN** ▶

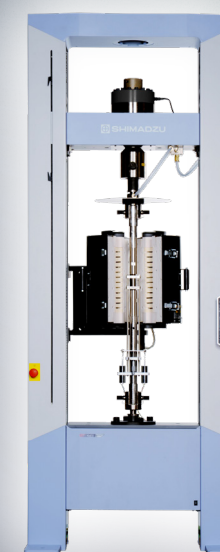


HITS-PX
Puncture Impact Testing Machines

▶ Visit www.hadlandimaging.com, call 1-888-43HADLAND or email sales@hadlandimaging.com to learn more about your 2D/3D DIC solution.



AG-X 50 kN



AGS-X 300 kN



EZ-XS

Autograph AG-X, AGS-X & EZ-X Series

Precision Universal Testing Machines

The Shimadzu **Autograph AG-X, AGS-X & EZ-X series universal testing machines** deliver high-level control, intuitive operation and convenient support functions. Several standard floor and tabletop models are available with frame capacities ranging from **500 N to 2000 kN**, plus options for extended frame height, wide frame & high-speed configurations. Pair one or two high-speed or ultra high-speed cameras with these incredible material testing machines for the **ultimate 2D/3D DIC imaging solution**.

Shimadzu's **TRAPEZIUM X** testing operation software is powerful and sets a new standard for productivity. Effortlessly enter ASTM, ISO, and JIS standard methods (tensile, compression, cycle, & texture profile examples included). One-click selection of a wide range of pre-programmed parameters & data re-analysis make data processing simple.

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Extremely Exquisite.

10 million frames per second can't be wrong.



Shimadzu Hyper Vision HPV-X2

Up to 10 million fps with 6x the sensitivity of conventional video cameras.

Get one for 2D DIC or two for 3D DIC (digital image correlation).

Experience the Invisible.™

Contact us for more information or to schedule a demo today.

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We've got the gear you need to get the job done right.

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Visit www.hadlandimaging.com, call 1-888-43HADLAND (1-888-434-2352) or email sales@hadlandimaging.com about ultra high-speed imaging solutions. Learn more about Shimadzu Scientific Instruments, Inc. on the web at www.ssi.shimadzu.com.

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