



# The **High-End Rockwell** Hardness Tester

For those who want a little extra





# The Power of Repeatability

If you read this, you have probably realized something that most people haven't – you know that imprecise repeatability is a frustrating waste of time and money. And you don't need that. That's why we have built the Duramin hardness testers, so that they deliver even higher precision than required by standards. Because such standards don't always cut it.

**Enjoy the power of repeatability  
by Duramin-160.**



# 5

## Noteworthy Details

Duramin-160 is full of interesting details – assuming of course that you are a bit of a hardness testing aficionado like us. Here, we have selected five of the most interesting details to spotlight.

**High precision load cell technology** ensures the ultimate degree of accuracy.

Duramin-160 delivers even higher precision than required by standards. Duramin-160 is based on a load cell system where test loads are applied via a closed loop control unit with a load cell, a DC motor, and electronic measurement. In this way, we have eliminated the over- and under-shoot that is common in deadweight systems, ensuring the maximum repeatability and reproducibility.

**A fully automated test cycle** takes reproducibility to the max.

The entire test cycle of applying the load and evaluating hardness is fully automated. This improves reproducibility to a maximum, as the operator's influence is minimized.

**There is an intuitive touchscreen** so that even the least tech-savvy can create immediate reports.

Duramin-160 displays data on the touchscreen from which you can easily generate complete reports with results, statistics, and customized comments. Export your data in various formats via your network or a USB stick. All generated data is always accessible for review. As an optional feature, Duramin-160 is also compatible with Q-DAS software for those of you who use it.

**A wide range of anvils and sample holders** enables you to test irregular and larger samples.

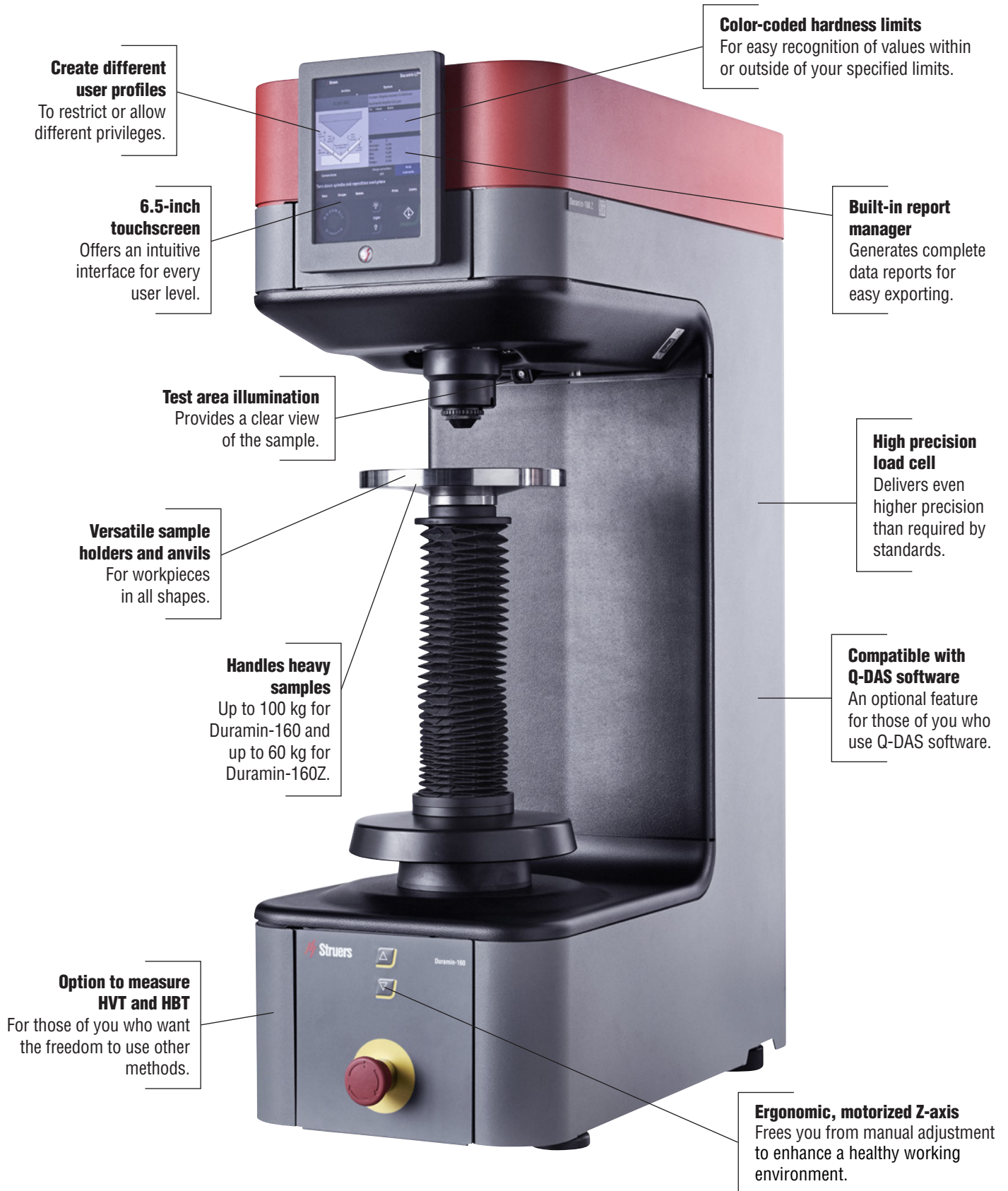
In addition to testing standard samples, the Duramin-160 is ideal for testing irregular or larger samples, as many different anvils and sample holders are available. The Duramin-160 handles samples of up to 100 kg, and the Duramin-160Z handles samples of up to 60 kg. You can even do your testing without sample holders.

**A dedicated Rockwell machine** offers the option of measuring for HVT and HBT.

A dedicated, high-precision Rockwell tester provides immediate results – and a little extra. Aside from Rockwell, Duramin-160 offers the depth-based measurement methods: HVT (Vickers depth) and HBT (Brinell depth), where the indenter penetration depth is measured instead of the indent's diagonals or diameters – for those of you who need a quick solution without an optical evaluation of the indents.

Want to know more? Go to [struers.com/duramin](https://www.struers.com/duramin)

# Duramin-160



**Create different user profiles**

To restrict or allow different privileges.

**6.5-inch touchscreen**

Offers an intuitive interface for every user level.

**Test area illumination**

Provides a clear view of the sample.

**Versatile sample holders and anvils**

For workpieces in all shapes.

**Handles heavy samples**

Up to 100 kg for Duramin-160 and up to 60 kg for Duramin-160Z.

**Option to measure HVT and HBT**

For those of you who want the freedom to use other methods.

**Color-coded hardness limits**

For easy recognition of values within or outside of your specified limits.

**Built-in report manager**

Generates complete data reports for easy exporting.

**High precision load cell**

Delivers even higher precision than required by standards.

**Compatible with Q-DAS software**

An optional feature for those of you who use Q-DAS software.

**Ergonomic, motorized Z-axis**

Frees you from manual adjustment to enhance a healthy working environment.

# You Get the Complete Solution

If You Want It

An effective production plan does not include a lot of fitting time to enable your accessories to cooperate with your machine.

At Struers, we have made sure that you can get exactly the accessories you need for your Duramin Hardness Tester, always guaranteeing a perfect fit for your machine.

You will find a broad selection of indenters, test blocks, sample holders, anvils, and much more. And if you need a customized accessory, we will build it for you.

Want to know more? Go to [struers.com/duramin](http://struers.com/duramin)

# More Than 140 Years Fine-Tuned Service

## Don't hesitate to use it.

When you choose a hardness tester from Struers, you also choose some of the best specialists in the world and a wide range of support at your fingertips. This includes:

- Access to our global support hotline
- Specialist counseling on how to optimize your individual processes
- All critical spare parts available for immediate shipping
- An annual service review
- Online manuals

### Specialist counseling

You can always, and at no expense, contact Struers' experienced application specialists with any questions you might have regarding your Struers equipment, best practice testing, or your specific testing situation. That is a natural part of your Struers equipment purchase. Just go to [struers.com/contact](https://www.struers.com/contact) or contact your local specialist.





# Extra Services



## ServiceGuard – which service is right for you?

Struers ServiceGuard covers a comprehensive range of technical services and training including service plans, service packages, single services, and spare parts. Our global network of technical service engineers will work with you to determine the service level best suited to your requirements. See more at: [struers.com/service](https://www.struers.com/service)



## Calibration services – Internationally accredited or Struers certified

Choose the service that meets your restrictions in accreditation. Both services are designed to ensure that your hardness tester meets the required standards. A Struers technician performs calibration, including indirect or direct verification of a chosen number of methods.



## Application assessment

A Struers Application Specialist visits your facility to perform an in-depth assessment of your use of Struers equipment, metallographic processes, and workflows. The specialist identifies quality and optimization opportunities and provides you with practical tips.

**Service | Guard** 

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# Technical Data

## Models

	Duramin-160	Duramin-160Z
<b>Loads and applications</b>		
Load range (main loads)	1 kgf - 250 kg	1 kgf - 250 kg
Rockwell capability (ISO 6508 and ASTM E18)	Yes	Yes
HVT/HVB	Yes	Yes
Vickers capability (ISO 6507 and ASTM E384)	No	No
Knoop capability (ISO 4545 and ASTM E384)	No	No
Brinell capability (ISO 6506 and ASTM E10)	No	No
<b>Anvils and turrets</b>		
XY-stage or anvil size (mm)	Ø 80	Ø 80
Vertical capacity (mm)	230	230
Throat depth (mm)	195	195
Motorized Z-axis	No	Yes
Turret positions	1	1
Machine weight	95 kg	95 kg
<b>Software and modules</b>		
Report editor	Yes	Yes
Data export	Yes	Yes
<b>Interfaces and connectivity</b>		
Operation	Embedded Windows PC with 6.5" touchscreen. Mouse and keyboard operation is optional.	Embedded Windows PC with 6.5" touchscreen. Mouse and keyboard operation is optional.
Communication Ports	RJ45, WLAN, USB	RJ45, WLAN, USB
WiFi	Yes	Yes
Blue tooth	Optional	Optional

# Accessories

**For your customized hardness test, please choose from a wide range of accessories.**

- Indenters, available for different methods
- Factory calibration report for additional methods
- Vises, available in different sizes
- Anvils, available in different sizes
- Manual XY-stages
- Base cabinets
- Test blocks



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## Ensuring certainty

Materialographic preparation and testing demands consistent, reproducible results. These come not only from your laboratory process, operators and equipment, but from your supply chain and your partner. We call this ensuring certainty. And as the global market leader in materialographic solutions, Struers is committed to ensuring certainty by helping you meet every one of these needs.

High quality design and engineering of equipment and consumables are only part of the story. As a Struers customer you can also ensure certainty through our unique knowledge base, robust global supply chain, and expert service and applications support – where and when you need it.

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