

In This Issue

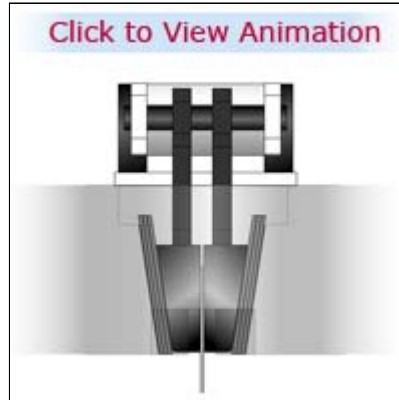
- **Tech Tip:** Protect Your Investment with Proper Use of Grip Accessories
- **Tech Tip:** ASTM E18-07: New Changes will Affect Your Rockwell Hardness Indenters
- **You Asked - We Answered:** Q: Is there a better solution to calculate N-values?

ISSUE 20

Tech Tip

Protect Your Investment with Proper Use of Grip Accessories

Do you notice your internal crosshead grip jaws extending outside of the system's crosshead while running tests? If you do, this may cause extensive damage to the machine. This style of grip is most commonly used in our SATEC™ Series, a product line designed to deliver high-capacity tensile forces up to 3,000 kN. Since this force is so high, it can deform the machine's crosshead if the proper accessories are not used. This damage may be irreparable and require replacement of several costly components, not to mention cause downtime. To prevent this, we suggest using grip spacers (also called [filler plates](#)) to accommodate different sizes of specimens while keeping the jaws inside the crosshead. For more information on filler plates, or to discuss if this is the right option for your testing, [contact](#) an Applications Specialist.



Tech Tip

ASTM E18-07: New Changes will Affect Your Rockwell Hardness Indenters

The latest changes to the ASTM E18 standard require suppliers to verify the geometry of indenters to meet E18-07 compliance. This new requirement ensures that every Rockwell diamond [indenter tip](#) is verified for correct cone angle and radius.

Why is this important?

- The new standard ensures improved performance of the indenters throughout the testing range of applicable Rockwell scales.
- Old indenters verified to previous revisions are not compliant to the new standard and can not be used when testing to ASTM E18-07 unless they are verified and re-certified to the new standard.



It's easy to verify if your indenters are compliant to the revised standard – just view a copy of your indenter calibration certificate. According to E18-07, it is required for the manufacturer to be ISO/IEC 17025 accredited by an accreditation agency recognized by the ILAC agreement. Examples of such approved accrediting bodies are NVLAP, UKAS and A2LA. The compliance of your indenters can be verified by the accrediting body logo that is required to be on the calibration certificate.

Subscribe Today!

Subscribe and tell us about your interests and you will receive a free testing tips pamphlet.



[Subscribe >>](#)

Ask the Expert

Have a question about materials testing?

Submit your question and you may see it featured in a future issue of TechNotes.

[Ask Us >>](#)

FREE iPod Nano

Tell us about your testing and you could win an iPod Nano!

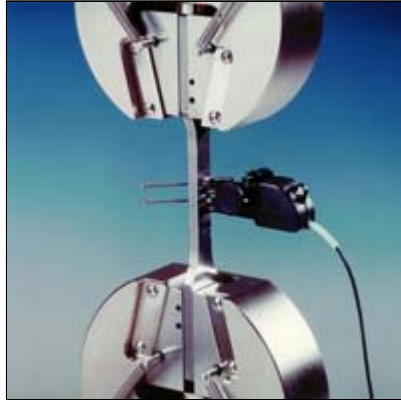
[Learn how >>](#)

If you have indenters certified prior to E18-07 revisions, you can send these indenters to our Wilson Lab for re-certification. As one of the only labs certified (in the US) to provide calibration services to this new standard, we offer several options to obtain E18-07 compliant indenters. [Contact us](#) with any questions regarding recertification or how to obtain new diamond indenters that meet the new standard.

We are offering a free webinar on **Thursday, May 8th, at 11 am (EST)**, which covers additional information on this standard change and how it can affect your testing. If you are interested in attending, send [an email](#) to our TechNotes Editor.

You Asked - We Answered

Q: The way we currently test for N-value is cumbersome. We are looking for a way to improve productivity. Is there a way that we can get the program to automatically assign the uniform elongation at the end of the calculation, instead of having to do it manually?



A: You can automatically calculate N-value in [Partner™ Software](#) by using a logical expression for the domain of the N-value calculation.

If you go to the calculation set up page for N-value, select "Domain" and you will see several options. At the bottom of the page, there is the option called "Logical Expression". Click the "Edit" button to open the "Expression Builder" tool. The expression you need to create should look as follows:

Strain = .06_[%] Until Strain = Uniform Elongation

If your measurement and calculation names are the same as above, you can simply copy and paste the above expression into the expression field. This should allow the software to calculate N-value automatically at the end of the test between .06% strain and Uniform Elongation.

[What do you think? Tell us!](#)



Worldwide Headquarters
825 University Avenue
Norwood, MA 02062-2643 USA
<http://www.instron.com/>

If you would like to subscribe to this newsletter or others, you may do so on the [Subscriptions](#) page of our website.