

# ***Chavez Calibrations International, Inc.***

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## **2019 Cost Comparison with NIST<sup>1</sup> Specimens**

<u><b>NIST Verification Specimens</b></u>		<u><b>CCI Verification Specimens</b></u>		<u><b>% Difference in Price</b></u>
Low Energy <sup>2</sup>	\$651.00	Low Energy	\$575.00	12.4 %
High Energy <sup>2</sup>	\$651.00	High Energy	\$575.00	12.4 %
Super-High Energy	UNKNOWN	Super-High Energy	N/A	UNKNOWN

### **CCI COST SAVING PROCEDURE IN THE VERIFICATION PROCESS**

After testing the verification specimens, you may report the results to CCI by email, fax, or phone. You may fax or email pictures of the fractured specimens to CCI. We do not need to see the fracture surfaces. Please use the 2018 Fractured Specimen Digital Picture Guide for instructions. If the digital pictures are not clear enough, you will be notified to send replacement pictures. If the replacement pictures are not clear enough, you may be required to return the broken specimens to complete the evaluation of your machine.

This CCI procedure can save your company the time and expense of returning the fractured specimens. Please contact us if you have any questions about this procedure.

Super-high energy specimens are commercially unavailable from CCI and NIST at this time. Therefore, your machine will be verified from the lower useable limit to the maximum range or capacity using only low and high energy verification specimens. ASTM E23, Paragraph A2.4.4. provides authorization for this change.

Super-high energy specimens are not commercially available from CCI or NIST. ASTM E23 paragraph A2.4.4 states: **“Only verification specimens that are within the usable range of the impact machine shall be tested. To verify the machine over its full usable range, test the lowest and highest energy levels of verification specimens commercially available that are within the machine’s usable range. If the ratio of the highest to lowest certified values is greater than four, testing of a third set of intermediate specimens is required (if the specimens are commercially available).”** Because super-high energy specimens are not commercially available, CCI is authorized by ASTM E23 to verify a Charpy machine from the lower useable limit to 80% of machine capacity.

<sup>1</sup>National Institute of Standards and Technology

<sup>2</sup>Prices found on official NIST website.