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Redefines Precision When Meeting Surface Roughness Specifications.

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Guyson is a world leader in industrial blasting equipment

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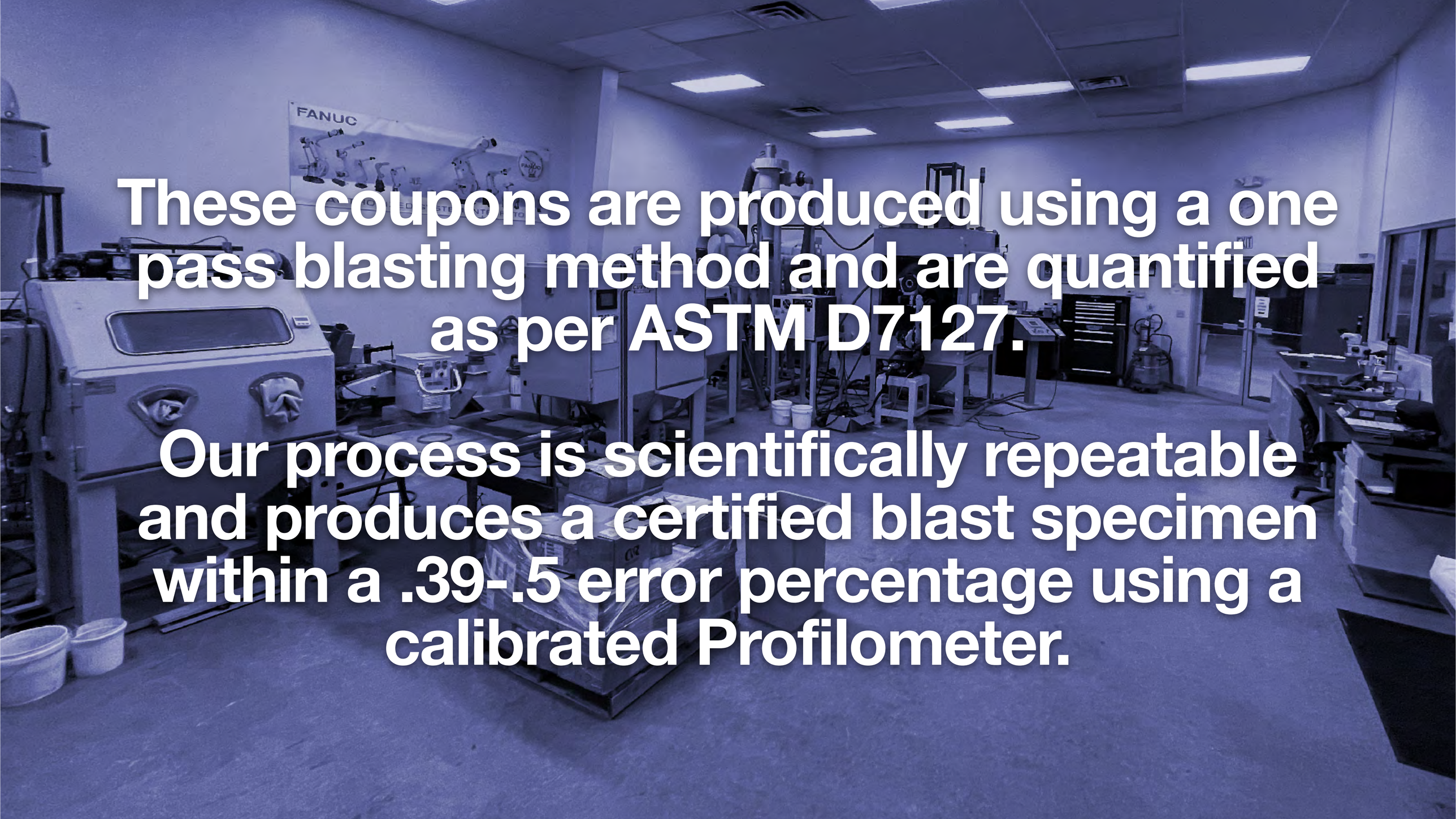
INTRODUCING...

A surface roughness specimen, based on a third party certified “Master Specimen” of non-periodic Ra standard.



These coupons are produced using a one pass blasting method and are quantified as per ASTM D7127.

Our process is scientifically repeatable and produces a certified blast specimen within a .39-.5 error percentage using a calibrated Profilometer.

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Determining The Correct Ra Value

Over the years Guyson has seen many customer drawings that call out a specific Ra (roughness) which is normally measured by using a profilometer.

We noticed that customers do not have the correct profilometer that is capable of measuring the roughness range or the setting used on the profilometer are incorrect.

We are also aware that a “non periodic” blast specimen for calibrating the profilometer HAS NOT EXISTED.

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Correcting An Error
In the Current Measurement System

The “Guyson Institute of Standards” was created by Guyson, with the sole purpose to define the Ra finishing standards for non-periodic finishes for the blast finishing industry.

For the first time there is an accurate process that follows ASTM standards, in the most accurate way the world has seen.

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PERIODIC VS NON-PERIODIC ROUGHNESS AVERAGE

Blast finishing is a non-periodic process
and its Ra Value should NEVER
be measured as a periodic surface.

PERIODIC:

The target’s surface texture is uniform and periodic in nature. The primary roughness artifacts repeat when scanned across the pattern. Figure 1a shows a surface that has been machined to produce periodic roughness artifacts. Surface roughness measurements reflect the periodicity of the artifacts (amplitude and frequency).

NON-PERIODIC:

The target’s surface texture is random and non-directional. The primary surface roughness metric is the peak to valley distances of each artifact.

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Most measurable roughness standard specimens were made to reference machined (turned, milled) surfaces, that is, periodic roughness artifacts.

Blasting produces a non-periodic surface finish and is not properly represented by the standard coupons.

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Calibrated Blast Specimen

Guyson is now offering our “calibrated blast specimen” for your professional profilometer.

It has been precisely manufactured in our Lab on Guyson equipment.

Our Blast Specimen has been confirmed to be accurate by a third party lab using an ISO controlled testing process.

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Calibrated Blast Specimen

A Non-Periodic Standard has never been produced until Guyson Created their own blast specimen

The bottom line is that **ALL BLASTING Ra VALUES HAVE BEEN MIS-REPRESENTED** until the non periodic blast specimen standard that will bring exacting standards to the blasting process.

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GUYSON DEFINES HOW BLASTING STANDARDS WILL BE MEASURED IN THE FUTURE

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A Guyson Approved Profilometer

This instrument moves a stylus across a surface and measures the difference in height between the peaks and valleys.

Profilometer Requirements

Measures surface roughness
Measuring Range of 25mm (1”) in X
Detector Z range max of 800µm
Resolution of 0.000125µm (at 8µm range)
Measuring Force 4mN

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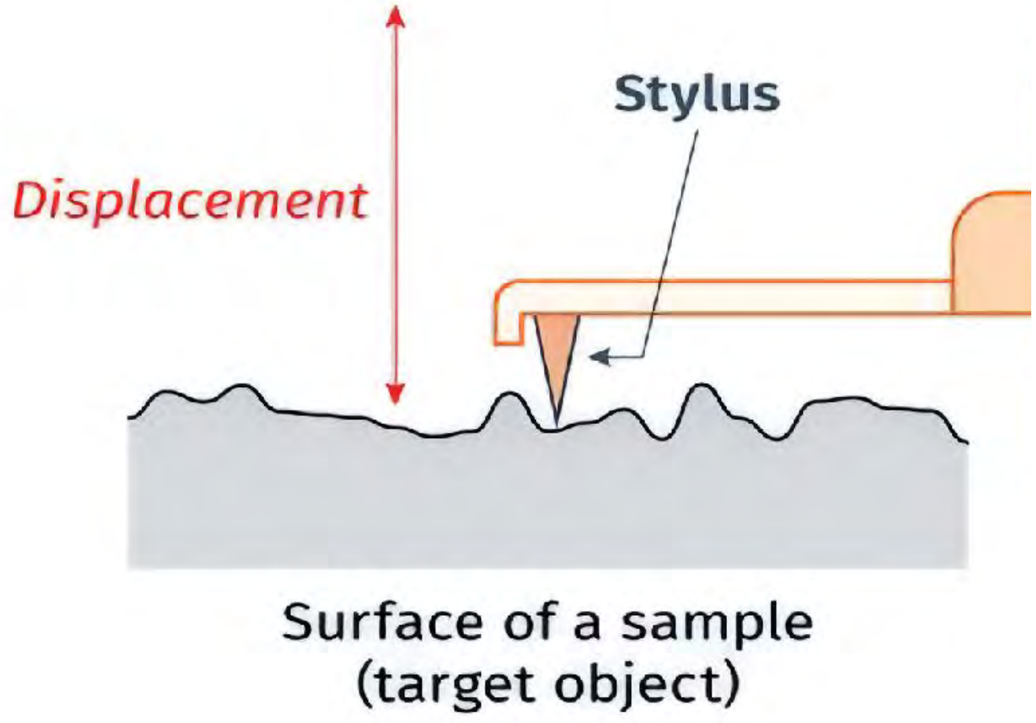
Calibrating Your Profolometer for accurate reading

Guyson Certified
Non-periodic blast specimen



Profolometer stylus functionality

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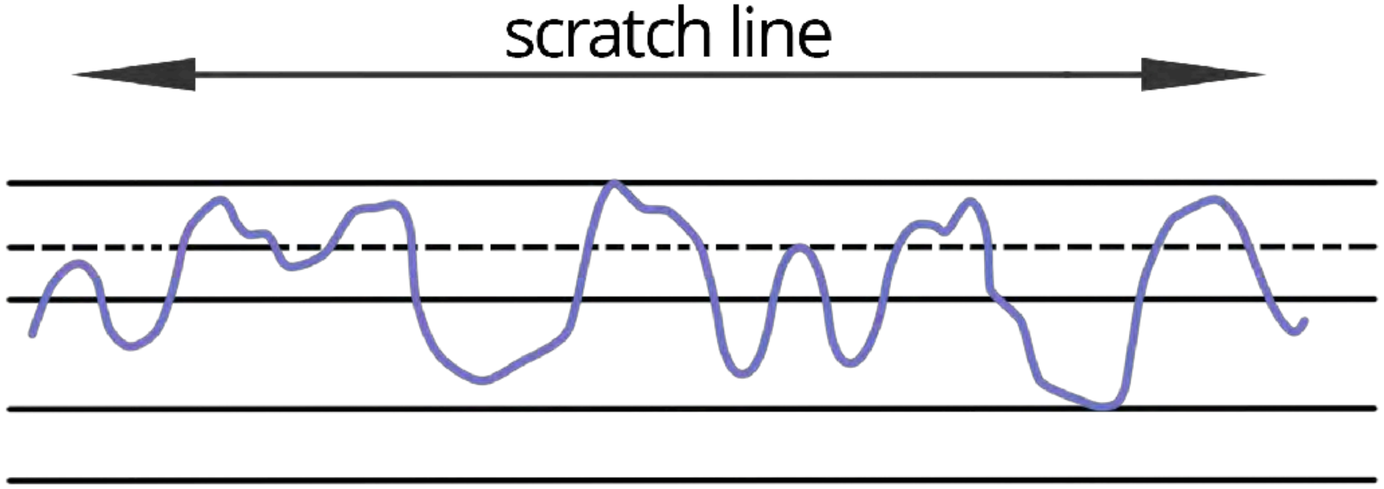

The term CLA or Center Line Average, is used in ISO documentation which is interpreted identically to Ra value

Ra, parameters are two-dimensional, and is only concerned with the up and down measurements of the surface texture. This creates a two dimensional roughness measurement that is taken across any grain that is present.

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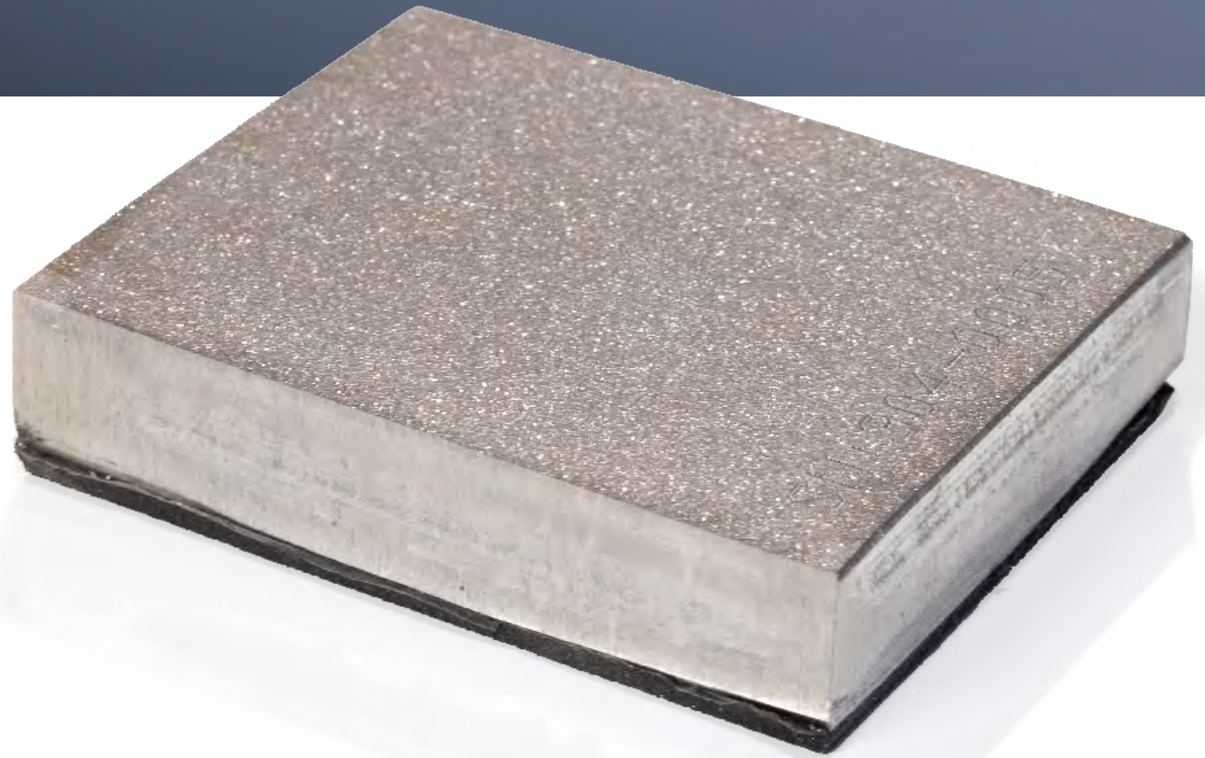
HOW COULD THIS SPECIMEN EFFECT YOUR BLASTING SYSTEM.

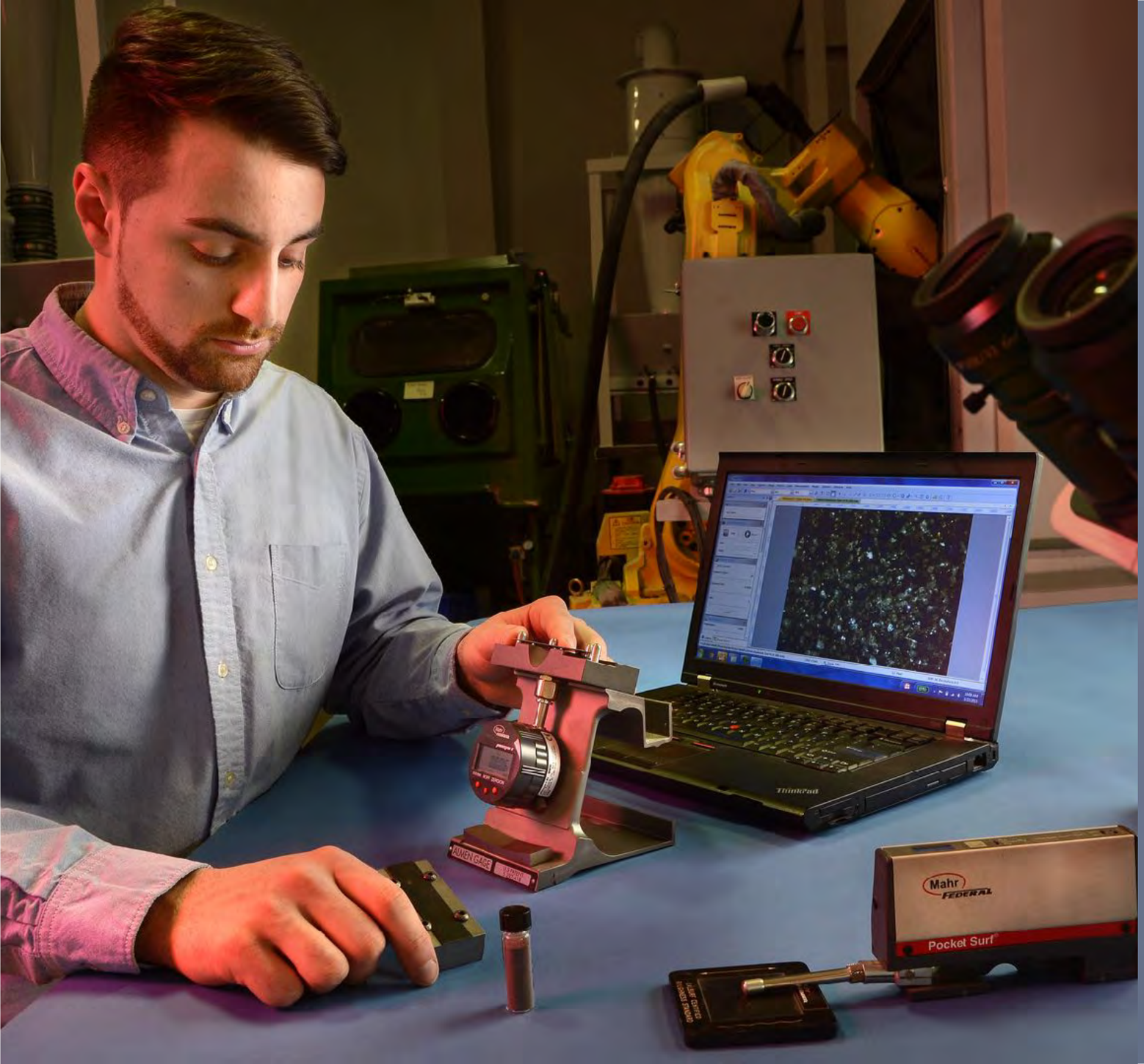
With the Guyson Institute of Standards blast specimen, you have a scientifically accurate starting point for the Ra finish you want on your product.



This is a ground breaking product for the blasting process and will enhance how you determine the finishes for your next blast cabinet RFP. These specimens will give you the ability to monitor the consistency of your finish throughout your manufacturing process.

The Guyson Non-Periodic Ra blast specimens meet or exceed all specifications for a scientific measuring device.

Our surface finish coupons are the primary standard vital to achieve the required accuracies for calibrating your profilometer, controlling and creating the proper finish to your manufactured parts.



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We manufacture these coupons under a strict and repeatable laboratory conditions using Guyson robotic blast cabinets. These machines are specifically created for the development of our standardized Ra coupons.

If your blasting process warrants a precise calibrated system for defining your blast standard, Guyson can help you reach that goal with our calibrated blast specimen.

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Who Needs Our Non Periodic Specimen

If your product puts peoples welfare on the line, make sure that you have all your specifications defined and certified.

The Guyson Institute of Standards has created a certified pre-blast system with our blast specimen.

When combined with a Guyson Blast System we produce the most accurate finish in the metal finishing industry and can replicate demanding blast specifications in a repeatable and high volume machine.

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Leading you to a better finish

At Guyson we are leaders, not followers.

In the last 80 years Guyson Corporation has written the rules on blast finishing.