

# FREE VIDEO COURSE PROGRAM

## Portable Hardness Testers for Metals: When to Choose Leeb, Rockwell, or Ultrasonic (UCI) Testing

### *The Ultimate Guide*



#### Subject

Materials Engineering - **Non-destructive testing (NDT) of large metal objects.**



#### Required Knowledge Level

Lessons are designed for **both beginners and industry experts.**



#### Lesson Objectives

Provide an objective and **comparative overview of the 3 portable hardness testing methods**, with a particular focus on Leeb and Rockwell hardness, for those who struggle to:

- **Interpret Leeb hardness values:** they seem inconsistent but the reason is unclear
- **Optimize their NDT quality control with portable instrumentation**
- **Choose the right portable hardness tester for metals:** they all seem the same



#### Duration and Accessibility

**30 minutes of online lessons**, viewable as many times as you want, wherever you want (desktop and mobile)



#### Registration

**Free registration.** Go to the last page of this document to access the course directly.



#### Instructor

**Davide Affri, founder of Axiotek, inventor and manufacturer of hardness testers since 1979.** He has collaborated with various research institutions such as the Polytechnic of Turin on the development of scientific research solutions and has filed 7 patents over the years.

1

### Why a portable hardness tester?

Analysis of the factors you should consider to confirm that a portable hardness tester is right for you.

2

### What do you need to know?

This is the first question we will focus on, because it is precisely based on the results and objectives that the company's quality control sets that the choice of the right testing method is then oriented. A reflection that is both underestimated and powerful:

*If you don't know what you want, how can you get it?*

3

### Leeb, Rockwell, and UCI hardness tests: which is best?

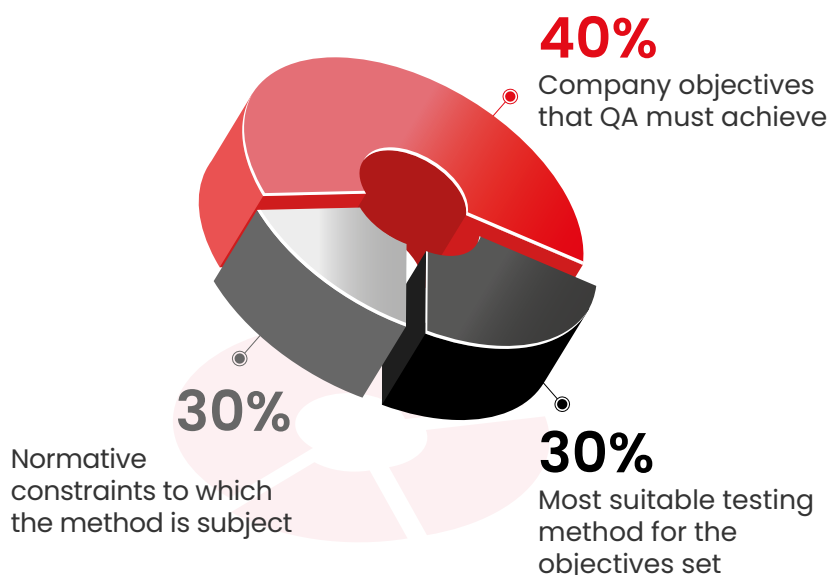
Objective comparison of the 3 testing methods and theoretical analysis of the intrinsic differences in the operating principles. Introduction to the errors to which these methods are subject, to understand if and how they can be minimized.

4

### The variables you absolutely must keep in mind when choosing the method

Normative analysis of the limitations and advantages of Leeb and Rockwell hardness, compared here side by side for similarities and affinities that differ greatly from the UCI method (ultrasonic). The application boundaries in which to include Leeb and Rockwell will then be outlined.

## THE COMMON THREAD OF THE LESSONS: THE METROLOGICAL PIE



These are the slices of the metrological quality pie, and this is the common thread that will be **used to logically analyze the comparison between the different hardness methods**. In our opinion, it is the only tool capable of providing concrete solutions for your quality control.

Without this, we would **simply provide you with decontextualized information**.

# DISCLAIMER

We have structured and designed the lessons to be a reasoned and argued dialogue with regulations, drawing directly on the decades of experience of Davide Affri.

This is to answer the **frequent requests and perplexities that we often receive** when we provide direct consulting to our customers.

**The main problem is often that we rely on "it has always been done this way" and "hearsay".**

That's why the video course has an argumentative and informative style.

**The topic is complex, and certainly our lessons do not have the ambition to condense it in its entirety in 30 minutes of lessons.**

*But for this reason too, we have a solution:*

## BONUS consulting call

At the end of the lessons you will have access to a bonus consulting call one-on-one with Davide Affri, teacher of the video course.

ENROLL IN THE VIDEO COURSE

