

Measurement of Depth of Nitriding, by Ultrasounds

- Fast

- Economic

- Easy to use

*- Could be
added on a
line*

*- Non
destructive*

ULTRA-RS

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Controls and measurements for your quality!

A new device developed by Ultra-RS allows to gain in quality and safety : it measures depth of nitriding of mechanical parts that have undergone this surface treatment to check their resistance.

Moreover, save time because this system could be added on a production or assembly line, is easy to use and measurements are done very quickly!

Finally, save a lot of money by increasing the lifespan of your mechanical parts and by anticipating their deformation or their breakage. But also by not wasting more time to make some tests of fragility, which are destructive and take a lot of time : tests by ultrasounds are non destructive and fast!

This device has been created in association with the **Snecma company (SAFRAN Group) :**

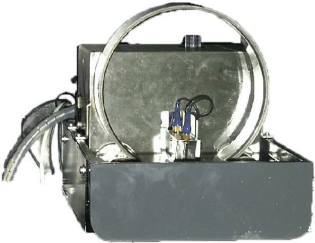
« Previously, we spent approximately 10 hours to test the depth of nitriding of our bearing rings in only one point. Today, due to this new device, we put less than 1 minute to test them in 10 points »

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- *Economic*
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Product Description

The device of measurement is composed by an electronic module and by a module of measurement, which contains the ultrasonic sensors.

The electronic module contains a generator of electric impulses and a central processing unit in which the capture card is installed. During the starting of the module, all the material starts, and the « Ultra-nit software », allowing measurements, is launched automatically.



Example of device of measurement of depth of nitriding of bearing rings

At the beginning of a measurement, you just have to place the ultrasonic sensor on the element to be controlled and to handle the mechanism via the data-processing module. Then, some electric impulses are emitted by the generator. After that, these ones are converted in ultrasounds, sent in the element and received by a transducer. Then, the ultrasonic signals are treated and posted on the control screen of the electronic module. The time of flight of ultrasounds thus obtained makes it possible to determine the depth of nitriding.



Ultra-nit software

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All these steps are done in real times, there is no waiting to see the results! After, it is possible to save and print an assessment of each measurement to keep a traceability of it.

- ### Examples of companies which already trust Ultra-RS:
- AREVA
 - Cezus Framatome
 - Snecma
 - SNCF
 - EADS
 - GDF
 - EDF
 - DNV