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## Industry

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**Metalworking Industry**

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## Area of use

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**Production/Laboratory**

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## Customer

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### Stubai KSHB GmbH

#### Employees:

150 Employees

#### Location:

Fulpmes, Austria

The traditional company is a major **supplier** primarily for **tool manufacturers** such as Belek. Stubai offers both manufacture and processing of forgings together with assemblies.

The team is specialised in the areas of development, drop forging, upsetting, pressing and stamping, heat treatment, machining and mounting, and works to find economical, future-oriented solutions.

This application example has been prepared in cooperation with our customer Stubai KSHB GmbH. We would like to express our gratitude again for the fantastic cooperation and the trust shown to our company.



## Requirement



### Simple CHD & Rht control

The finished components are heat treated in the company's own hardening shop. The most commonly used process is tempering. Other heat treatment methods include hardening, induction hardening and salt bath nitriding.

Because comprehensive quality control has become an important part of customers' requirements, Stubai required a hardness tester that would allow **CHD and Rht values to be determined** easily.



The CHD value (Case Hardness Depth) provides information about the case depth of the heat-treated sample. This value is determined by the vertical distance to the point where the hardness is 550HV. The depth of hardening following surface hardening is known as Rht. This is the distance from the surface to the point where the hardness is equal to 80% of the surface hardness.

An **automatic report** with the necessary parameters must be generated after every measurement.

In summary, the hardness tester had to fulfil the following **requirements**:

- **Required test method: Vickers**
- **Simple determination of CHD and Rht**
- **Automatic report generation**
- **Simple operation**

## Solution

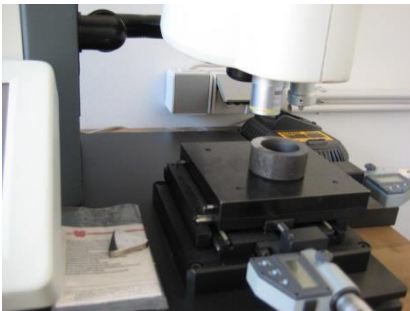


### DuraScan 20 – Innovative hardness tester

With the DuraScan 20, the entire **micro and low-load test range from 10g - 10kg** is covered. The patented load application system combines a dead weight system for the smallest loads with electronically controlled load application, thereby guaranteeing absolute reliability and accuracy.

**Reliable series measurements** are possible thanks to the **manual XY cross slide and the digital spindle**. The **automatic turret** is equipped with a Vickers indenter and two lenses and simplifies the test process thanks to fast, automatic swivelling.

Control is via the ecos Workflow software on an **8.4" touch display**. Individual **test reports** are generated and can be **printed directly**. **Export of data is also possible** thanks to the hardness tester being equipped with **all standard PC interfaces**.



## Why EMCO-TEST?



*"The DuraScan 20 is optimal for our testing requirements. We don't need any other functions. The machine is **very easy to operate** and I find the **automatic** conversion of hardness values great. I don't have to laboriously look up values in tables any more. With the automatic turret and the micrometer spindle, **series measurements are uncomplicated and quick**. After that, all I need to do is print out a test report. As a result, the quality and process control is done in a flash."*

Konrad Denifl, hardening shop manager, Stubai KSHB