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## Industry

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**Hardening**

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## Area of use

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**Production**

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## Customer

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Härterei Michael Welser GmbH



## Härterei Michael Welser GmbH

### Employees:

29 Employees

### Location:

Ybbsitz, Austria

The hardening shop Michael Welser GmbH is a young company with many years of experience in hardening from Welser Profile Austria GmbH.

Here, customer needs and problems are addressed quickly and promptly. With its innovative team of motivated and highly qualified employees in all departments, Welser is often called upon to be a problem solver.

The hardening shop's main customers come from the automotive, tool building and also aircraft construction industries.

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

## Requirement



### Fast HRC testing

A variety of heat treatments are performed in the hardening shop. The spectrum ranges from diverse types of hardening such as vacuum hardening, protective-gas hardening and case hardening to nitriding, gas nitriding and plasma nitriding.

Customers send a varied range of components to the hardening shop with very different sizes and geometries. As a result, the hardness tester must provide a **large test height** and **easy accessibility**.

Following every heat treatment process, the **hardness** must be **randomly tested**. To maintain the speed of process, the test needs to be **quick and easy**.

The hardness testing is not only for controlling outgoing products but also to control the process. Furthermore, **data transfer** must be guaranteed so that all data from the hardness tester can be automatically integrated in the customer system to avoid loss of data in future.

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

- **Required test method: HRC**
- **Fast hardness testing**
- **Large test height**
- **Easy accessibility**
- **Data transfer option**
- **Simple operation**



## Solution



### DuraJet 10 – The sensation in Rockwell testing

The DuraJet 10 fulfils the customer's requirements. Thanks to its **electronic load application in the main load range of 49N to 1840N**, the complete Rockwell range is completely covered with just one device.

The **test unit** can be moved vertically in a range **from 0-260mm** so that both large and small samples can be tested.

The workpiece is clamped by the **high-precision nose cone** and the measurement started automatically or manually. The nose cone can be exchanged or completely removed if required, allowing unclamped testing of areas that are difficult to access.

The **simplicity of the hardness tester and the software developed by EMCO-TEST** saves the user valuable time in the test process. All test methods are stored in the software and can, if required, be accessed via the touchscreen display. Time consuming changing of the machine's test force is no longer necessary.

The output data can be further processed or archived centrally, which facilitates **central and complete data management**.



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## Why EMCO-TEST?

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The **compactness of the hardness tester** meant that it could be installed directly in the workshop allowing random hardness testing to be conducted immediately after the charge is removed from the hardening oven. The DuraJet 10's **speed** is a clear benefit for the customer because it saves a lot of time. The **user friendliness** of the machine meant that no complicated employee training was needed. As a result, all the employees on shifts can conduct hardness tests.

*"We're very satisfied with EMCO-TEST. We've always bought EMCO-TEST devices because they are very high quality and we've never had a problem with them."*

Alexander Desch, Purchasing HMW