



**DuraScan 70**

**Application example**

**EMCO·TEST**  
WISSEN IST SICHERHEIT.

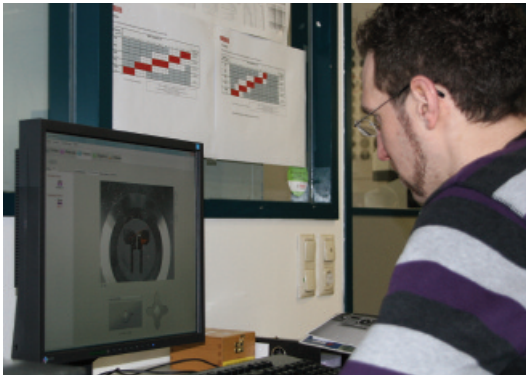
## Requirements for the hardness tester:

The hardness tester was purchased in order to realise complex and a wide range of test specifications from a research laboratory with a high automation level.

Furthermore, modern and efficient data administration as well as an associated report possibility was a must!

- The DuraScan 70 hardness tester is equipped with an automated X/Y-slide, motorised z-axis and 6-fold turret.
- In addition to the mounted 4 lenses, indenters for Vickers and Knoop measurement were installed in the turret.
- Automatic focus and evaluation are integrated in the ecos WorkFlow software as well as the standardised evaluation of CHD, Nht and Rht runs.
- The DuraScan has been provided with an overview camera to ensure quicker edge detection and test part

## Example of a test specification and the realisation:



### Test specifications::

- NHT- series measurement on a valve piece
- Limit hardness plus HV50 of the average core hardness
- Permitted edge distance min. 0.3 to max. 0.5 mm

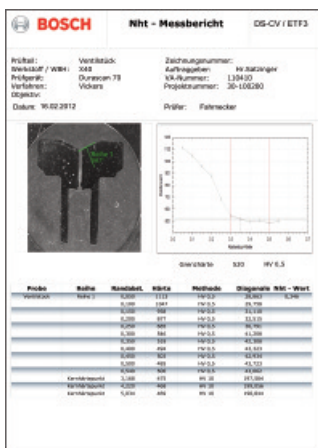
### Test sequence:

It is up to the operator to either generate a new specimen according to the test specification or to upload an already existing test pattern.

According to the proven ecos WF principle all needed settings are placed by the user. The software ecos WF determines the NHT-limit value automatically through defining core hardness points. The hardness penetration depth is determined by the automatic leaving of the test point pattern. Measurement can be started directly from the surface view or from the overview camera.

## Evaluation of hardness penetration depth:

The user creates a customised test report which gets stored in the company network. Information such as e.g. NHT-value, edge distance, line diagrams, tester, etc. is displayed in the report.



## Safety in detail:

Thanks to the unique combination of autofocus and automatic brightness control accurate measuring results can be guaranteed (excluding user errors).

