

# BUEHLER® OmniMet® MHT-M Software for Indentation Measuring

Fully automatic or interactive evaluation of Vickers and Knoop hardness indentations

Reproducible, user-independent measuring results

Fatigue-free operation directly on the computer monitor

Database for settings and measurements

Free "Sample Viewer" software for reviewing measurements within a network environment

Existing hardness testers can be upgraded and modernized. Retro-fitted to any tester with a camera-port

Control of Buehler 5100-series digital hardness testers

The screenshot displays the Buehler OmniMet MHT-M software interface. The main window shows a live image of a diamond-shaped indentation on a metal surface, outlined in red. The software includes a menu bar (File, Video, Image, Database, Single measurements, MicroMet 5104, Sample measure, View, Help) and a toolbar with icons for Freeze, Adjust, Indent, Distance, Measure, Cross, Set ref, Edit profile, Edit multi, Reg sample, Add Sample, Report, and Diagram. On the right side, there is a panel for Sample ID (456462) and Profile (chd). Below this is a table with columns N, Depth, and Offset, containing seven rows of data. At the bottom, a status bar displays HV 453, CHD 0.41, Depth 0.900, Offset 0.000, Angle 0.0°, D(F) 0.900, and X(F) 0.900. A 'Diagram window' shows a graph of HV vs. Depth (mm) with two curves. A 'Stage table Wizard' message box prompts the user to verify the indent measure and press 'Next Indent' or 'Remeasure'.

N	Depth	Offset
✓ 1	0.10	0.00
✓ 2	0.20	0.00
✓ 3	0.30	0.00
✓ 4	0.40	0.00
✓ 5	0.50	0.00
✓ 6	0.70	0.00
✓ 7	0.90	0.00

Diagram window: HV vs. Depth (mm) graph showing two curves. One curve is labeled CHD=0.41 mm and the other is labeled CHD=0.41 mm.

Stage table Wizard: Message: Verify the indent measure. When ready, press "Next Indent" (or right mouse button) to select the next indent. Buttons: Next indent, Remeasure.

Status bar: HV 453 CHD 0.41 Depth 0.900 Offset 0.000 Angle 0.0° D(F) 0.900 X(F) 0.900

Bottom status: HV1.00: 453 HV d1: 63.53 µm d2: 64.41 µm

## OmniMet MHT-M

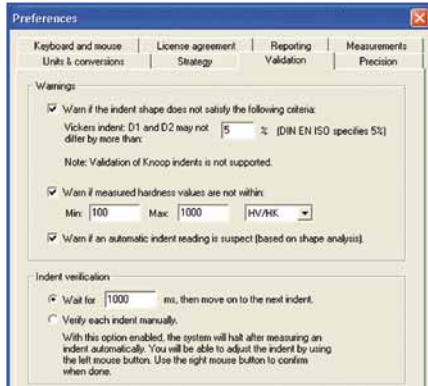
OmniMet MHT-M is a user-friendly program measuring hardness indentations from the monitor of your computer.

Measurement and documentation of Vickers and Knoop indentations can be done automatically by Image Analysis, or by the operator moving the measuring lines with the mouse.

Along with individual measurement of single indents, profiles can be generated, e.g. for determination of the case hardening depth (CHD) according to DIN EN ISO 2639. The fully-automatic measurement guarantees reproducible and operator-independent measurement results. Fatigue-free operation and reproducibility of measurement results. Set-up and administration of the operation and report writing can be done with a few mouse-clicks.

Graphic display of the hardness values.

A pre-condition for installing the system is the connection of a video camera to the hardness tester.



Validation of the measurement will warn you, if the measurement seem to be suspect.

## Features

Automatic or manual interactive measurement of indentations according to official standards for Vickers and Knoop.

Free definition of the measurement profile (line, zig-zag or irregular).

Results diagram displayed during the measurement.

Calculation of the Case Hardness Depth according to DIN EN ISO 2639 or DIN 50190-1-3 (Eht, Rht, Nht).

Statistical data calculation.

Profiles and measurements are stored in a database. This provides long term storage, ability to "sign off" cases, search for measurements and other helpful features.

Database can be viewed with free "Sample Viewer" software from any computer in a network.

Warning messages for suspect results.

Conversion of the measurement data into Rockwell scales.

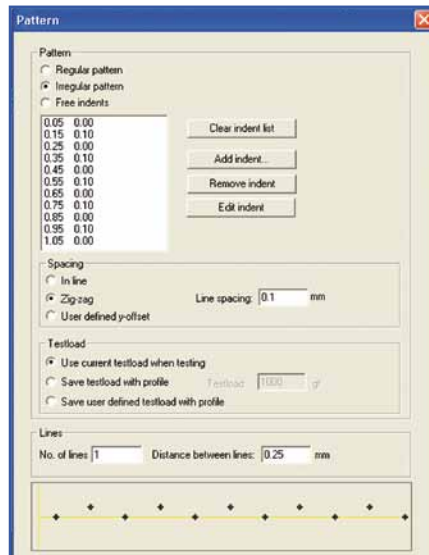
Display of more than one hardness profile in one diagram.

8 fixed and 19 free definable datafields for entry of specimen identification.

Free definition of the report format.

Data can be exported to MS-Access, MS-Excel or MS-Word.

Optional: Position of the stage can be included in the report (requires digital micrometers).



Profiles can be defined by creating and storing a list of coordinates

## Specification

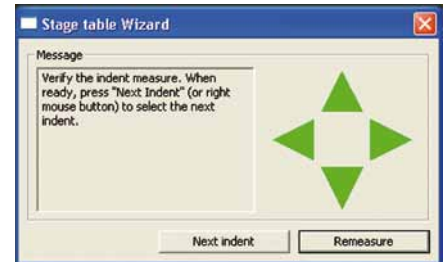
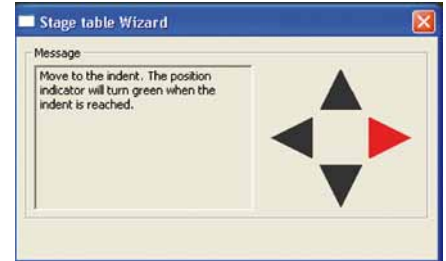
### 88-7600 Indentation Measuring Software

#### Pre-condition for installing the software:

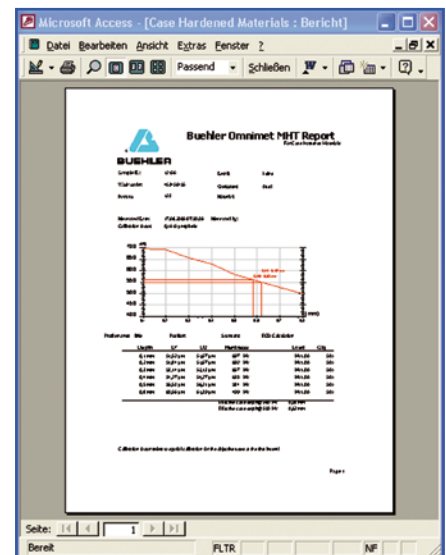
Software can be installed on actual Pentium P4 (or equivalent) computers. Please confirm your specifications with Buehler.

#### Options:

- Digital Camera • Digital Micrometers
- PC-Connection Kit for Digital Micrometers



Clear instructions for the user allow easy access to the software. The windows show instructions when using digital micrometers.



Reports can easily be generated in MS-Access, MS-Word or MS-Excel.



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