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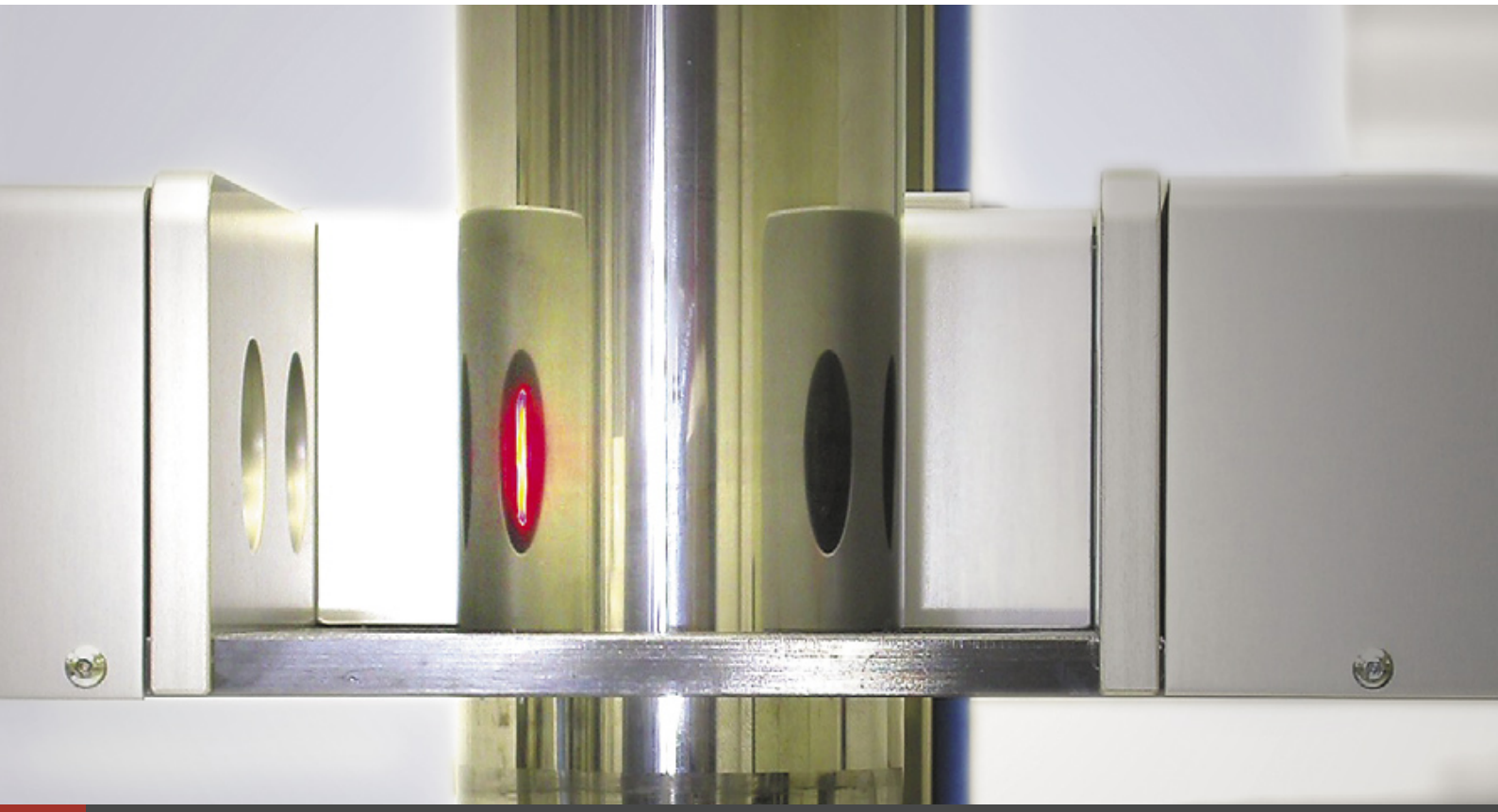


PUNCHMASTER

The standard for accuracy

PUNCHMASTER SETS THE STANDARD

The **PUNCHMASTER** is an extremely precise, non-contact, automatic gauge for measuring the outside punch diameter, punch contour and roundness of punches, which are used in the production of beverage cans.

Like all **OEG** tooling gauges the **PUNCHMASTER** is extremely easy to operate: choose measuring type, measure, get the result displayed but also the related tolerance limits. This allows the simplest evaluation of punch quality.

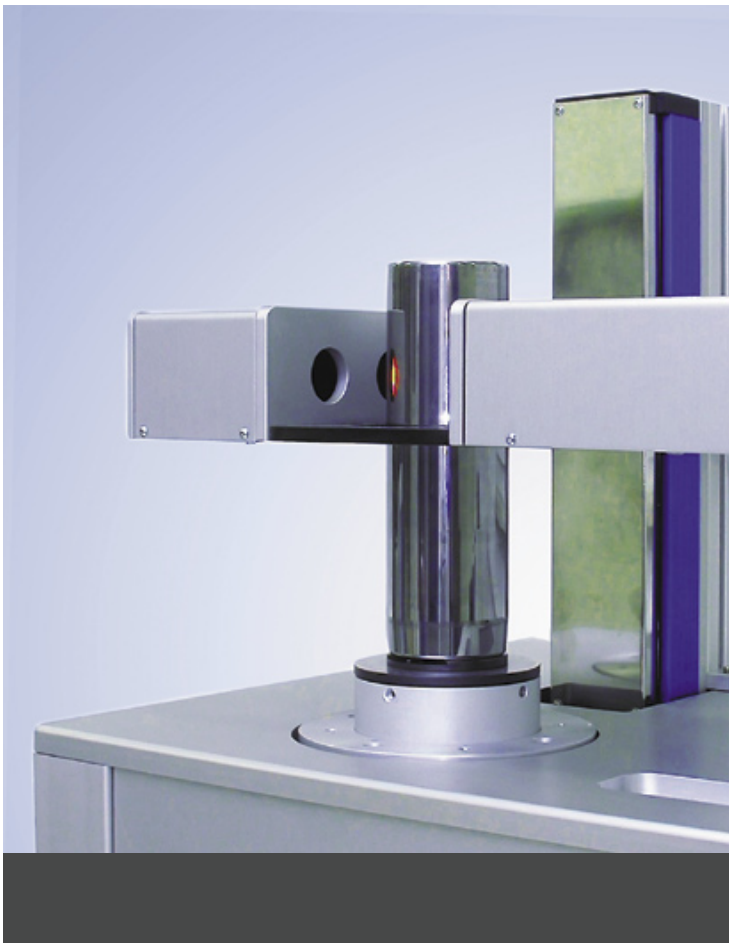
The measurement takes place automatically and is software controlled. The software interface was designed for the specific requirements of a beverage can manufacturing environment.

With a repeatability of 0.5 μm (i.e. 0.00002"/ 0.02 mil) the **PUNCHMASTER** sets the standard for measurement accuracy for punch measurement.

AN UNBEATABLE COMBINATION: PUNCHMASTER AND RINGMASTER

The value of the **PUNCHMASTER** can be further increased by use in conjunction with another product from **OEG** – **RINGMASTER**. **RINGMASTER** is a highly accurate, automatic, non-contact gauge for the measurement and analysis of ironing rings. Both instruments measure with the highest accuracy and are based upon similar measurement principles.

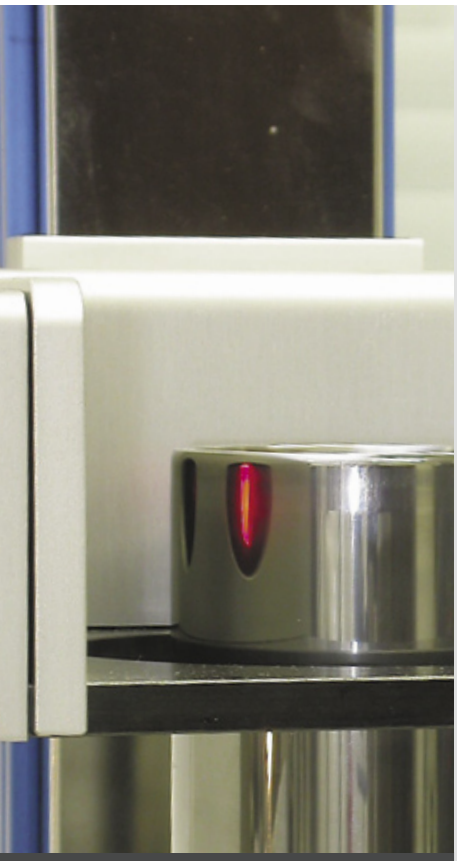
The goal of accurately co-ordinating the measurement and comparison of ironing rings



and punches can be achieved by a combination of these instruments.

The identical user-friendly software interface of these devices provides a familiarity and ease of use for the operator.

The employment of the **PUNCHMASTER**, particularly in combination with the



TECHNICAL PARAMETERS

Resolution of measuring system 0.05 µm (0.000002"/ 0.002 mil)
Repeatability of punch diameter measurement ±0.5 µm (0.00002"/0.02 mil)
Repeatability of punch contour measurement ±0.5 µm (0.00002"/0.02 mil)
Repeatability of punch roundness measurement ±0.5 µm (0.00002"/0.02 mil)
Repeatability of z-position (height) 5 µm (0.0002"/ 0.2 mil)
Resolution of z-position (height) 0.1 µm (0.000004"/ 0.004 mil)
Punch diameter range 52–80 mm*, other on inquiry
Number of azimuths any freely selectable number
Data output measured value files, diagrams, monitor
Operation PC-keyboard, mouse
Interfaces data export to any external software package
Measuring time without specimen handling 40 seconds (diameter measurement with rotation)
Operating system Windows 2000/XP/Vista

*standard **PUNCHMASTER**: only via vendor adjustment, **PUNCHMASTER** vario: manual adjustment by operator

We can supply more detailed information regarding operation and technical parameters upon request.

RINGMASTER allows the customer:

- maximum material saving by accurate adherence to the demanded wall thicknesses of the cans
- minimum downtime by the accurate and reliable tuning of punch and ironing rings
- a smooth, trouble free production process due to tighter controls and minimized downtime

Thus the investment is repaid in a short time.

FUNCTION

The **PUNCHMASTER** is software controlled, and all measurement movements are motorized. The measurement system is driven automatically in the z-direction (height adjustment), so that the entire punch can be

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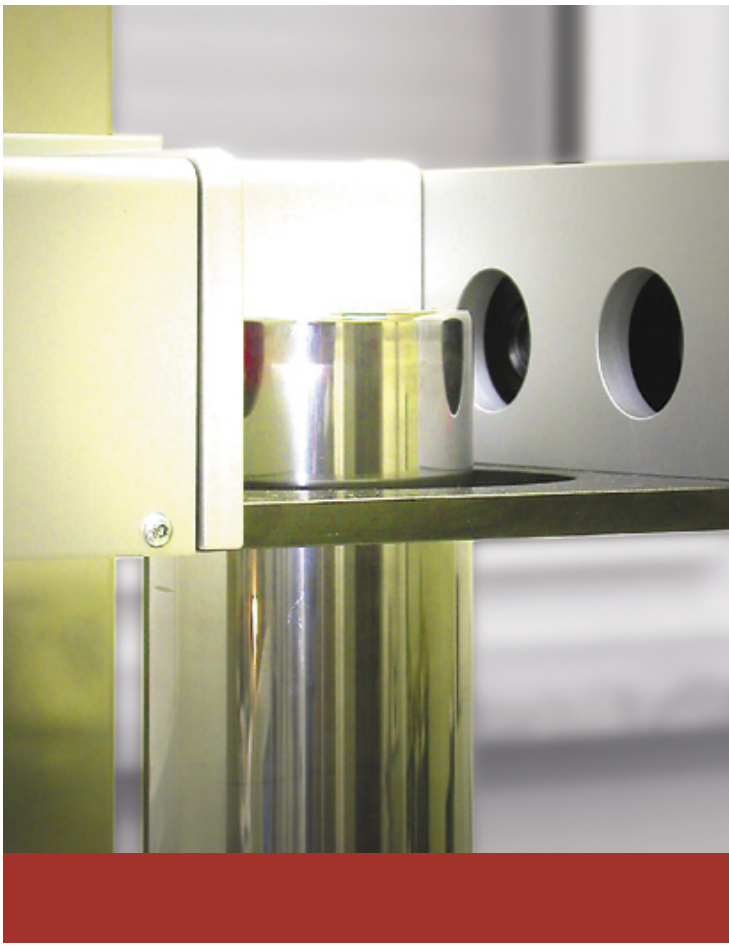
scanned. The punch is turned by a precision controlled motorized table.

In addition to allowing measurement of the outside punch diameter at numerous positions, **PUNCHMASTER** can also calculate the roundness of the punch, the punch contour and the step contour.



BASIC MEASURING FUNCTIONS

- outside punch diameter at an arbitrary position without turning the test specimen
- outside punch diameter at an arbitrary position with turning the test specimen
- outside punch contour without turning the test specimen
- outside punch contour with turning the test specimen
- step contour
- step position
- nose contour (depending on punch type)

The user-friendly **PUNCHMASTER** software allows the operator to create test templates – freely defined sequences combining various measurement functions. Test templates are saved so that the operator can easily select a desired measurement sequence at any time.

CONTACT

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