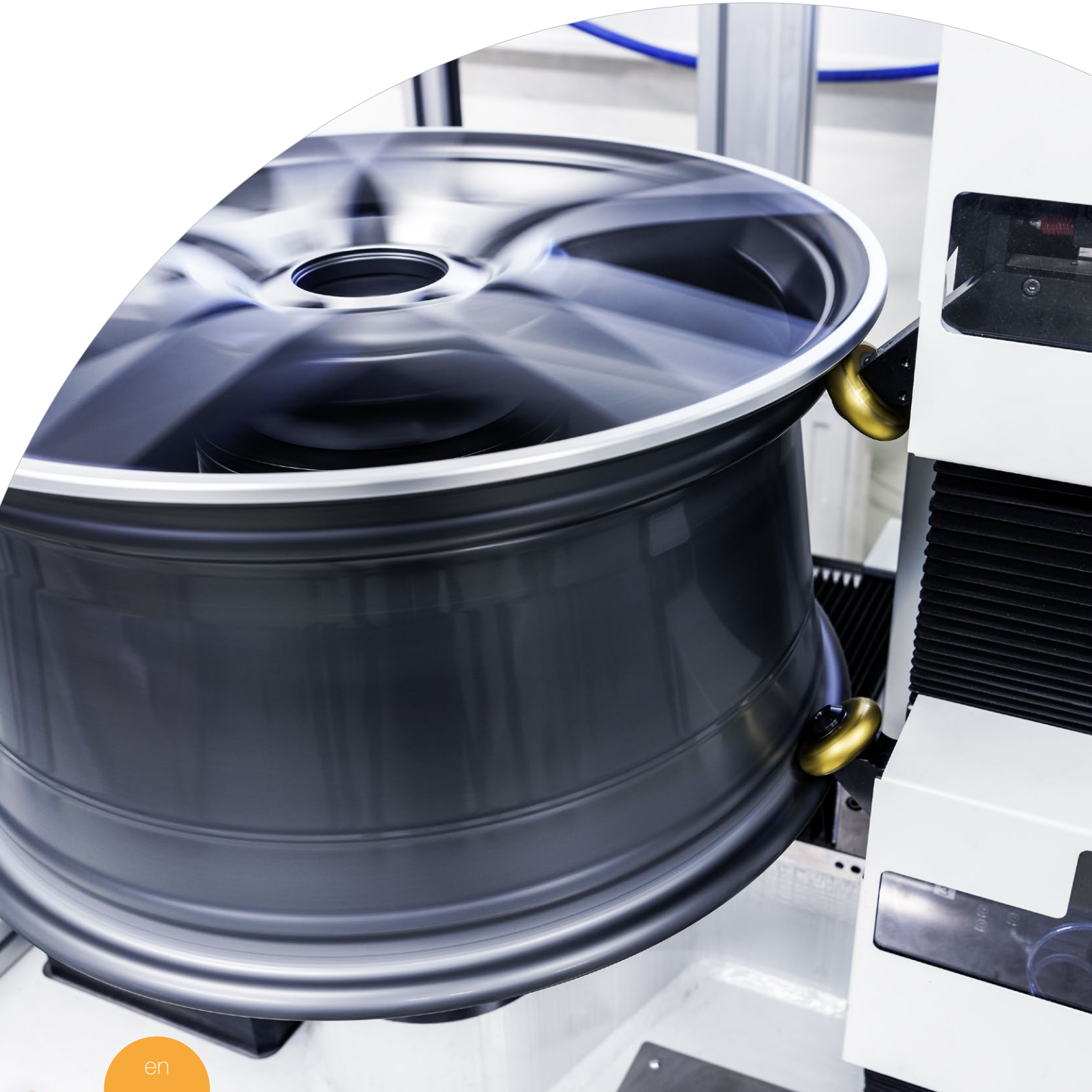
MAKRA
ALPINE METAL TECH

EXA

Concentricity and runout test



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EXA

Concentricity and runout test

MAKRA measuring machines were developed to enable the simultaneous measurement of radial and axial runout on the outer and inner tire seat.

YOUR ADVANTAGES

- Accurate clamping and high-precision measurement
- Wide clamping range possible
- User-friendly handling

FEATURES

Radial/axial runout

Simultaneous measurement of concentricity and runout.

Match point

Automatic attachment of the match point (optional).

Wall thickness

Minimum and maximum wall thickness measurement at three different heights and 360°.

A-value

Precisely measurement of the A-value.

Hump measurement

Precise measurement of the inner and outer hump.

TECHNICAL DATA

Machine features	measured values on the wheel	radial and axial runout inside/outside rim width diameter of the tire seat calculation 1 – 6 harmonious and match point measurement/calculation concentricity & axial offset measurement of the center bore A-value measurement match point marking
Wheel parameters	wheel size	14 – 24"
	wheel height	5 – 14"
Performance characteristics	measuring accuracy center bore	repeatability < 10 µm
	concentricity clamping	< 0.02 mm
	measuring system linear scales	resolution: 0.001 mm
	measuring system inductive	resolution: 0.001 mm
Technical components	measuring probes	
	HMI	via control panel
	control system	industrial PC
	input wheel parameters	via control panel
Interfaces		Profibus
Media	electric connection	3 x 400 VAC, 50 Hz, 7.5 kW optional 3 x 480 VAC, 60 Hz, 9.5 kW
	pneumatic connection	at least 6 bar, class 4
Machine dimensions	L x W x H	1000 x 1600 x 1600 mm

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