



ZEPHYR III 50

ZEPHYR III 150

ZEPHYR III 300

## ZEPHYR III 3D SCANNERS

- ▶ Up to 5  $\mu\text{m}$  accuracy
- ▶ Up to 300 mm laser line width
- ▶ High acquisition speed: 600 000 pts/sec

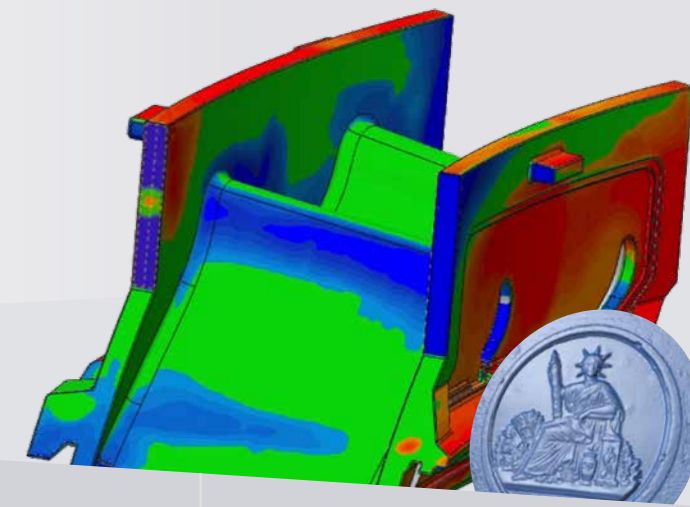
# ZEPHYR III

THE LONG-AWAITED  
PRODUCTIVITY ON CMM

*Kreon*<sup>®</sup>

# ZEPHYR III

Accuracy\*  
**5**  $\mu\text{m}$



## 3D SCANNERS RANGE

TURN YOUR CMM INTO A SCANNING MACHINE

The Zephyr III range benefits from Kreon®'s 30 years of experience in manufacturing and integrating 3D scanners on CMMs.

3D scanners are a valuable addition to digitally controlled CMMs, maximizing their potential. Thanks to the time saved, they meet both production and return on investment requirements.

High-tech products, Zephyr III scanners combine precision, speed and resolution, to deliver high quality acquisition data. This requirement for excellence makes it possible to cope with all applications requiring the use of 3D scanning, even the most complex.

**ZEPHYR III 50**  
THE MOST ACCURATE



Dedicated to high accuracy and resolution scanning on small geometries. No detail can escape it: engraving, drilling, part edge, grooves, etc.

**ZEPHYR III 150**  
THE MOST AGILE

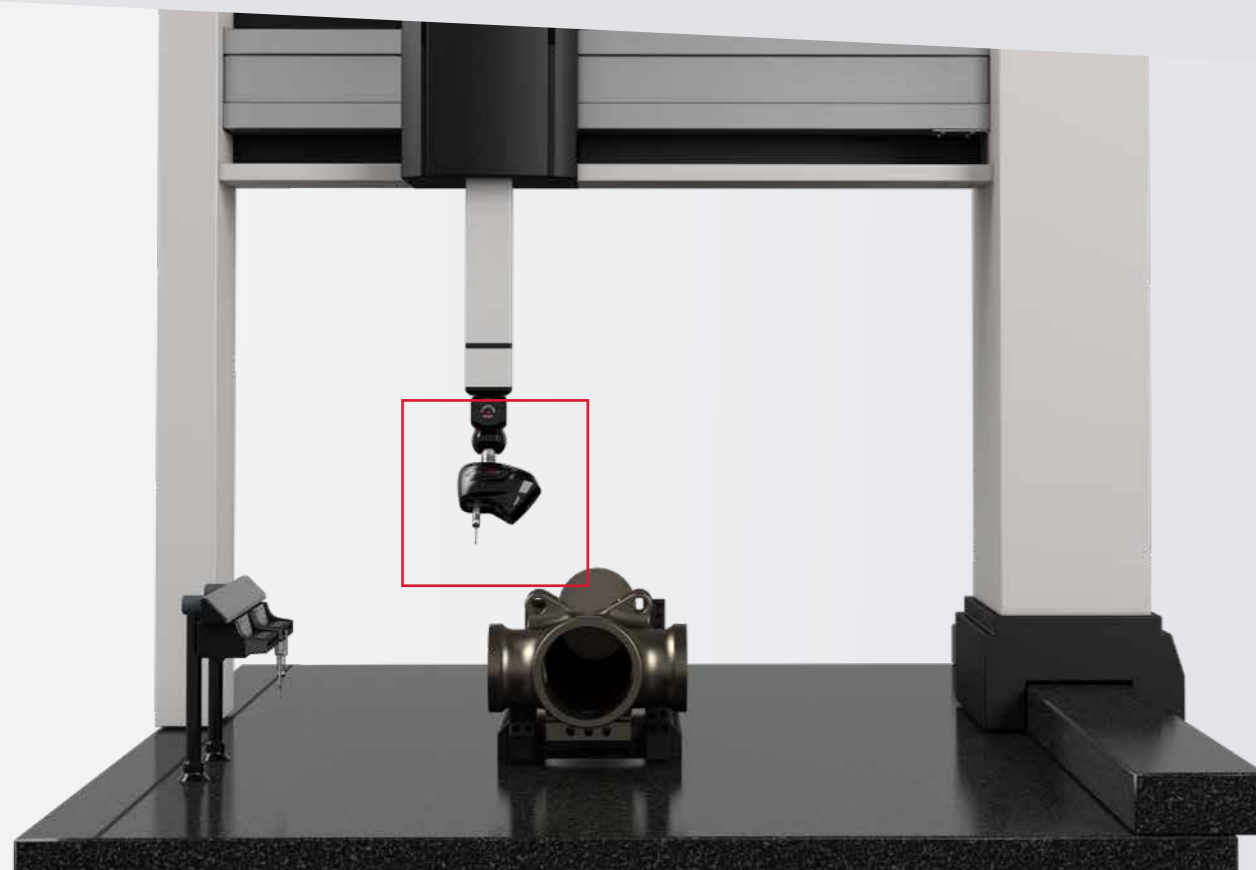


The perfect combination between accuracy and productivity. An optimal balance for all applications, whether dimensional control or reverse engineering.

**ZEPHYR III 300**  
THE FASTEST



With a 300mm laser line, it scans large size parts in record time. Ideal for full surfaces inspection: deformation, assembly, wear, etc.



### ADVANCED SCANNING SPEED: LASER LINE **300 mm**\*

- ▶ Decreased number of scan passes on the part due to max 300 mm laser line\*
- ▶ Faster movement of the 3D scanner assured by the increased frequency
- ▶ Acquisition speed of 600,000 points/sec, allowing to quickly get a dense point cloud\*

### HIGH RESOLUTION **15 $\mu\text{m}$** \* AND HIGH ACCURACY **5 $\mu\text{m}$** \*

- ▶ 2,000 points per laser line for a high resolution level\*
- ▶ Optimal accuracy, even on shiny reflective surfaces, due to blue laser fineness
- ▶ Temperature compensation of the 3D scanner to avoid pre-heating and to maintain a constant accuracy

### EASY TO USE

- ▶ Reach and scan the hard-to-access zones of each part, thanks to compactness
- ▶ Touch robe under the scanner to perform scanning and probing in the same measuring range
- ▶ PH10 head mechanism relieved by the lightness of the scanner (400 g)

\*Maximum values depending on the Zephyr III scanner model. For more information, see the specifications page.

# INTEGRATION ON CMMs

## CMM compatibility

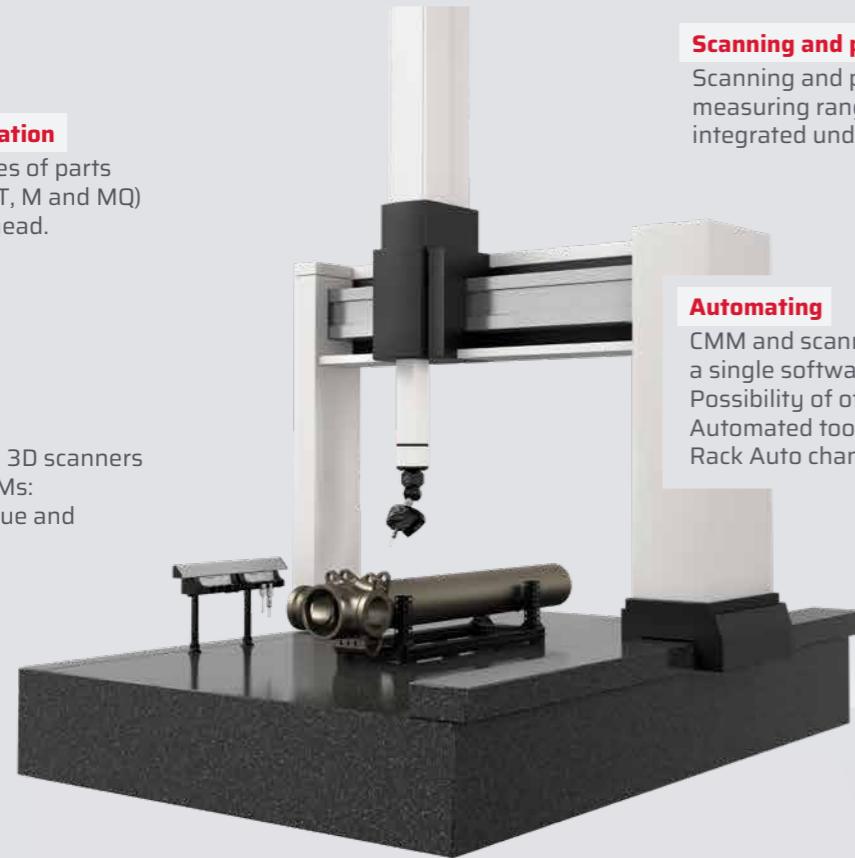
Zephyr III scanners are compatible with a very large number of CMMs on the market.

## Multiorientation

Scan all faces of parts with PH10 (T, M and MQ) motorized head.

## Kreon 3D scanners

A wide range of Kreon 3D scanners are compatible on CMMs: Zephyr III, Zephyr II Blue and Solano CMM.



## Scanning and probing

Scanning and probing in the same measuring range with the touch probe integrated under Kreon scanner.

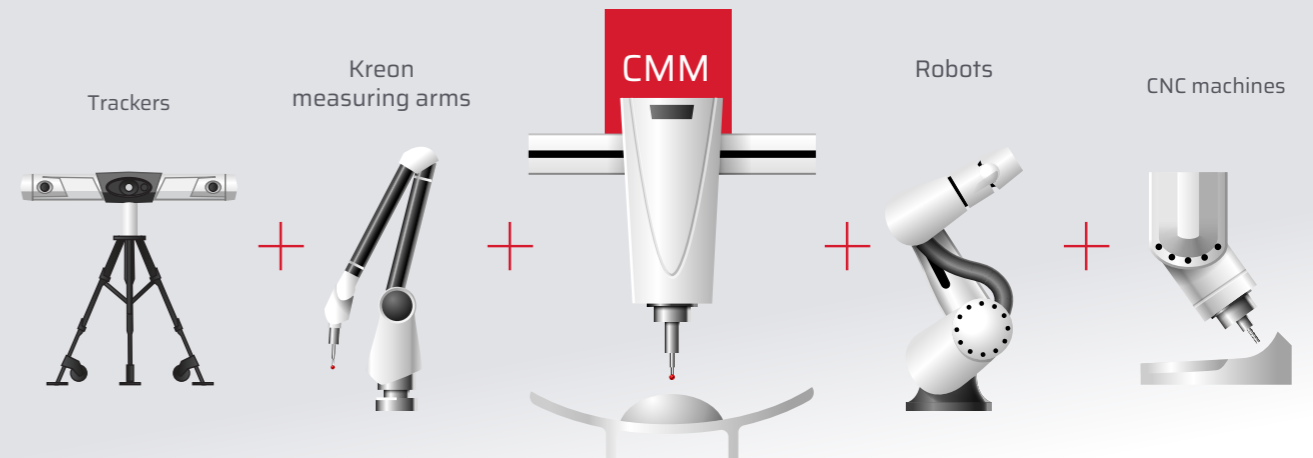
## Automating

CMM and scanner controlled by a single software. Possibility of offline programming. Automated tool change: Rack Auto change ACR3.

# VERSATILITY

Incredibly versatile, Zephyr III scanners can be used on a wide range of machines: CMMs, measuring arms, robots, CNC machines.

Investing in a Zephyr III scanner will allow cross-uses on different machines, for example on CMMs then on Kreon measuring arms.



## ▶ TWO TURNKEY CONFIGURATIONS

Kreon scanners

+

**Metrolog**  
Software

+

Metrologic and Pantec\* controllers

Kreon scanners

+

**PolyWorks**  
Software

+

Pantec\*, Mitutoyo and Renishaw controllers

## Other compatibilities

Software: ArcoCAD, Capps DMIS, Rational DMIS, Inca3D, easy CMM.  
Controllers: Renishaw, Deva.

Kreon 3D Scanners can also be integrated on manual machines.

\* Pantec controllers produced since 2014



## KREON PORTABLE MEASURING ARM

- ▶ Portable, lightweight and very versatile system for scanning everywhere: office, workshop, metrology room.
- ▶ Suitable for any type of part, regardless of material, shape or size.
- ▶ Ergonomic and handy for faster acquisitions.
- ▶ Possibility of using the arm with a scanner or with a touch probe only
- ▶ High measuring accuracy.

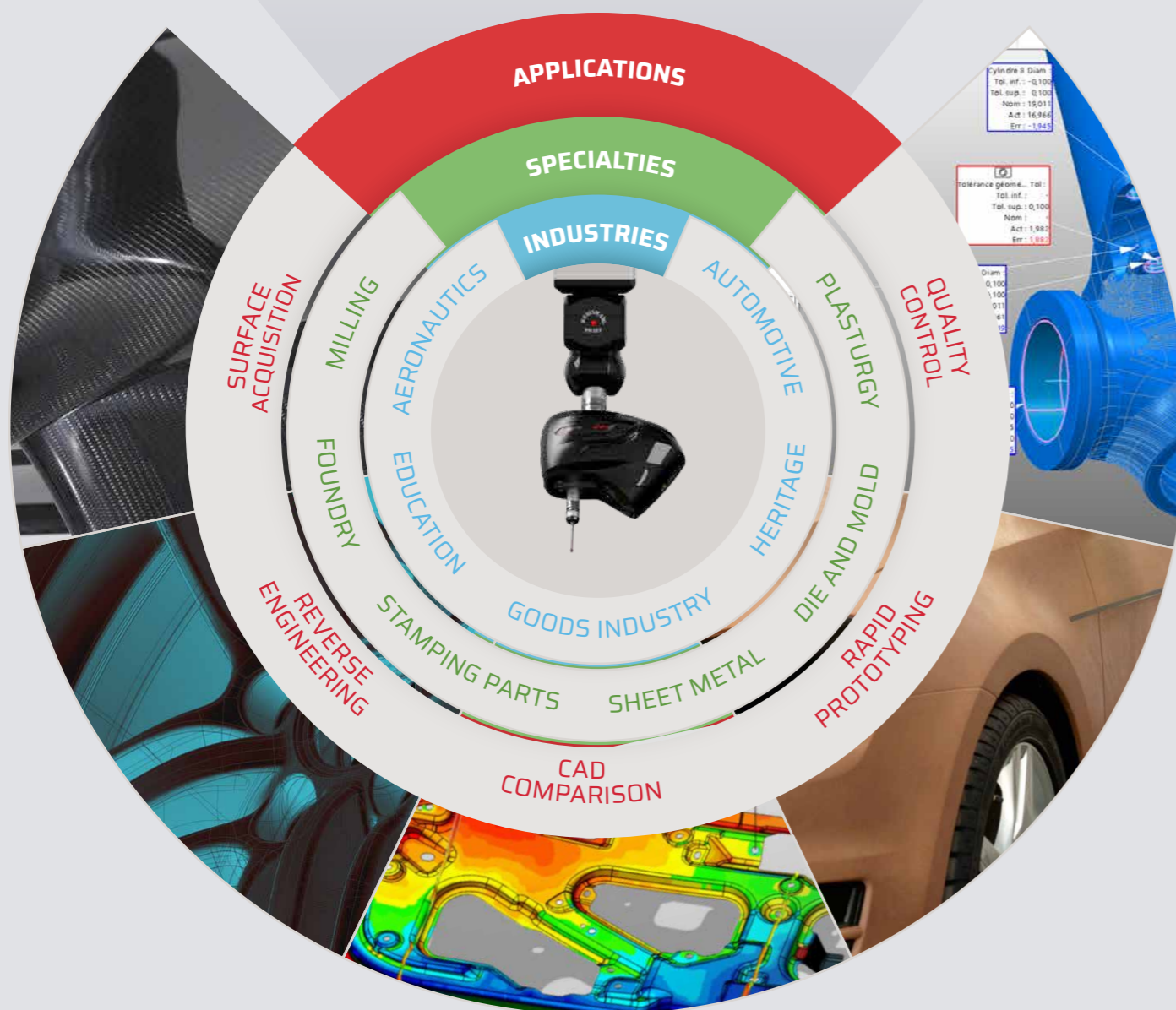
## ROBOTIC INSPECTION WITHOUT TRACKER

- ▶ High productivity on the production line.
- ▶ Robust and reliable scanner, suitable for workshop conditions.
- ▶ Possibility of offline programming to anticipate possible collisions without interrupting production.
- ▶ Driven by Metrolog X4 I-Robot.
- ▶ Compatible with Stäubli robots of the TX range.

# APPLICATIONS

Kreon fulfills the needs and expectations of demanding customers regarding quality control, 3D measurement, deviation viewing, providing highly effective measurement solutions since many years.

ZEPHYR III SCANNERS  
OPTIMIZE ALL YOUR  
MEASUREMENT PROCESSES



# SPECIFICATIONS

## ZEPHYR III RANGE

	ZEPHYR III 50	ZEPHYR III 150	ZEPHYR III 300
Max scanning speed	600.000 pts/sec	600.000 pts/sec	600.000 pts/sec
MPE (P[Size.Sph.All:Tr:ODS]) (2σ) * <sup>1</sup>	5 μm	14 μm	26 μm
MPL (P[Form.Sph.D95%:Tr:ODS]) (2σ) * <sup>2</sup>	8 μm	15 μm	29 μm
MPL (P[Form.Pla.D95%:Tr:ODS]) (2σ) * <sup>3</sup>	10 μm	20 μm	34 μm
Max laser line width	50 mm	150 mm	300 mm
Max frequency	300 Hz	300 Hz	300 Hz
Laser line color	Blue 2M	Blue 2M	Blue 2M
Line resolution	15 μm	50 μm	60 μm
Stand-off distance	95 mm	85 mm	100 mm
Field of view	40 mm	110 mm	135 mm
Temperature compensation	Yes	Yes	Yes

## OTHER SPECIFICATIONS

Machine interface	Manual and driven CMMs, Kreon measuring arms, tracking solutions, robots, CNC, machine tools
Probe compatibility under the scanner	Hard probe, Renishaw TP 2/20/200
Renishaw compatibility	MIH, PH10 M/MQ Multiwire, IS1-2 and ACR3
PC communication	Ethernet

All specifications are subject to change without notification

According to ISO 10360-8:2013:

\*<sup>1</sup> MPE (P[Size.Sph.All:Tr:ODS]): Maximum size error on all measured points (translation mode)

\*<sup>2</sup> Maximum dispersion value on 95% of the measured points on a sphere (translation mode)

\*<sup>3</sup> Maximum dispersion value on 95% of the measured points on a plane (translation mode)

# ZEPHYR III



# 60

expert distributors  
around the world

Contact us for a demo  
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