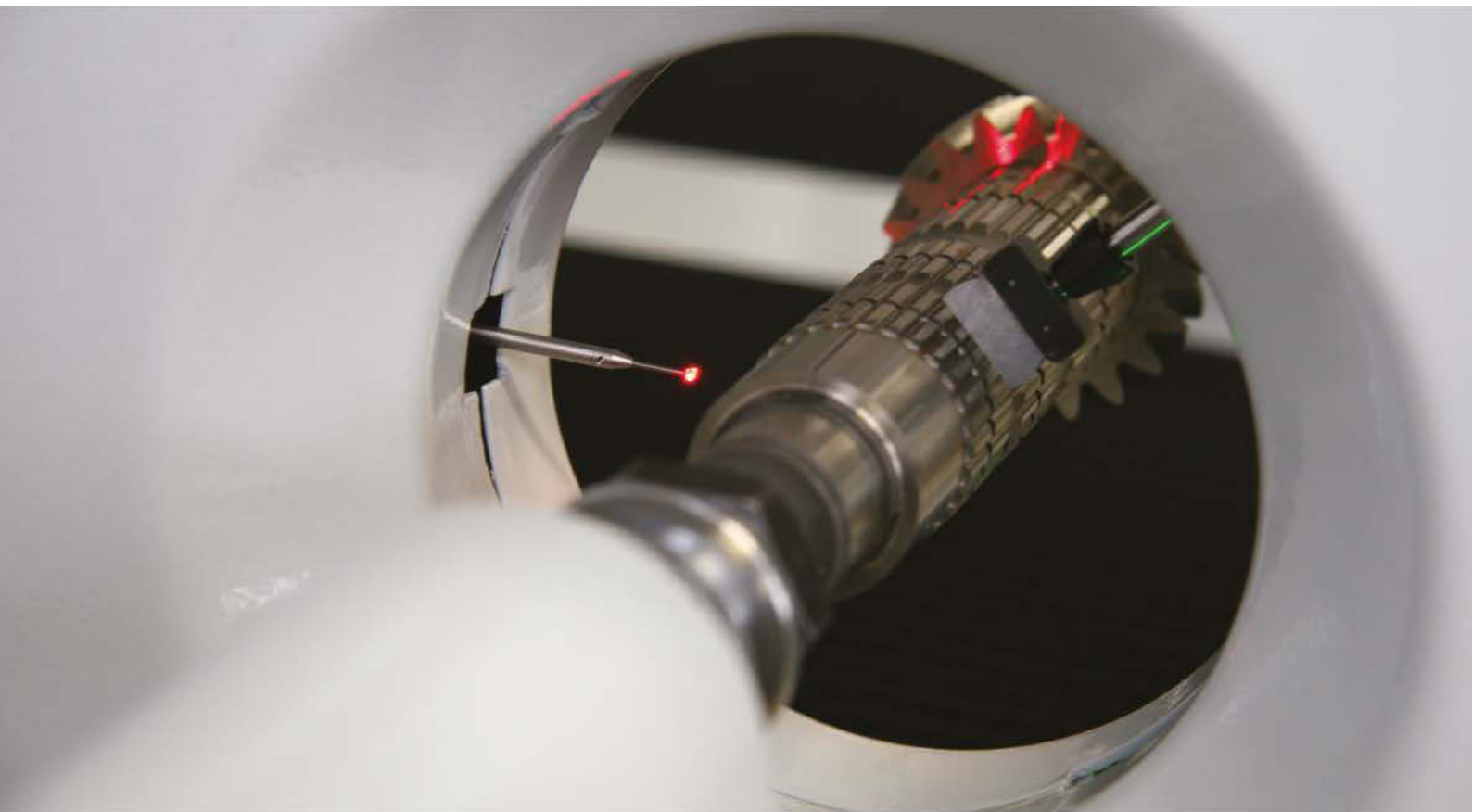


exameca
mesure
accurate in all cases



dimensional measuring machine for rotating parts

exameca mesure

the measure in the workplace, ... the future of the industry

The industry of the future has to face two opposing challenges, improve the precision of your production and achieve 0 default.

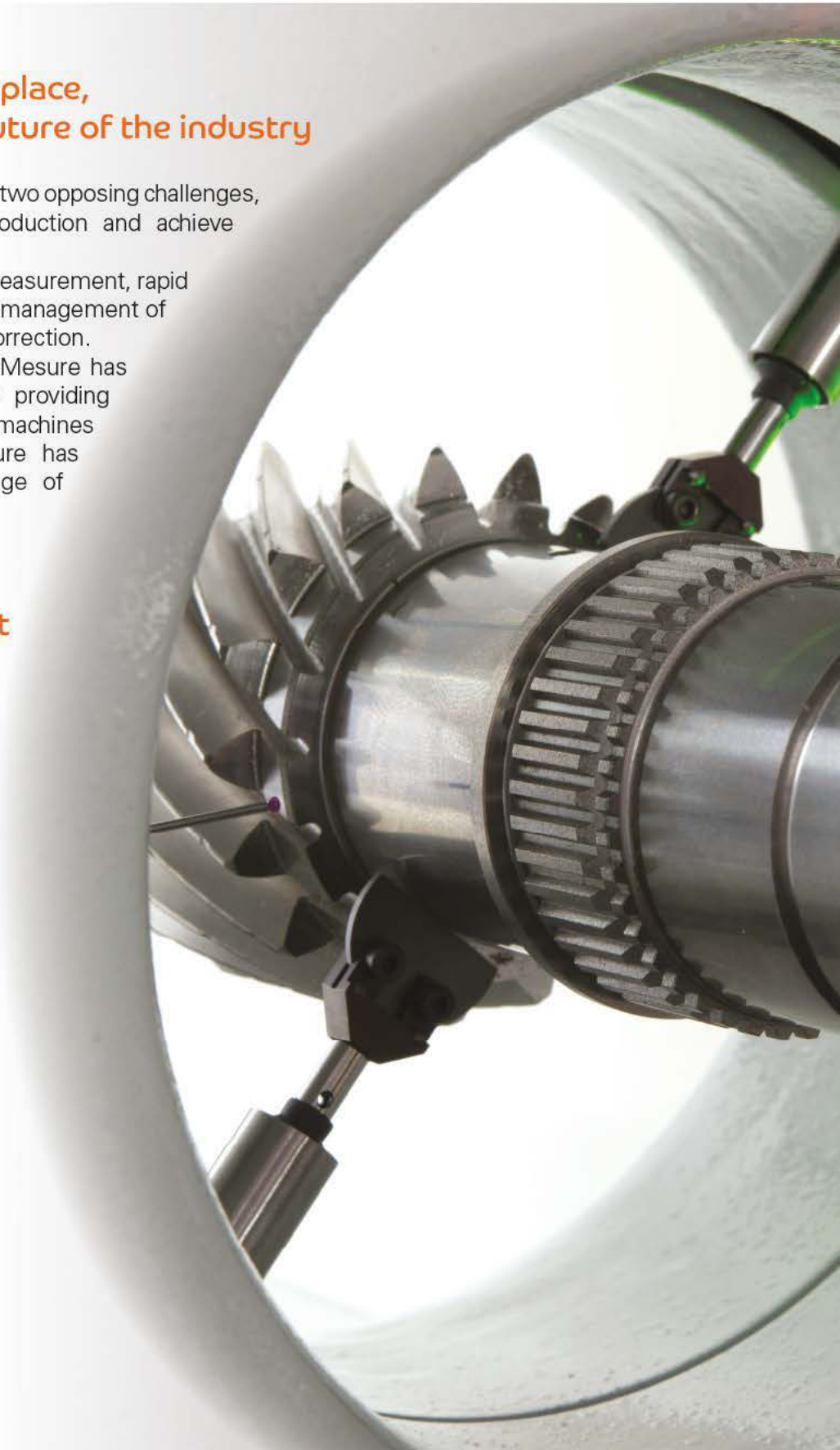
Our response is a chain of precise measurement, rapid and robust in situ, allowing the best management of your production with an immediat correction.

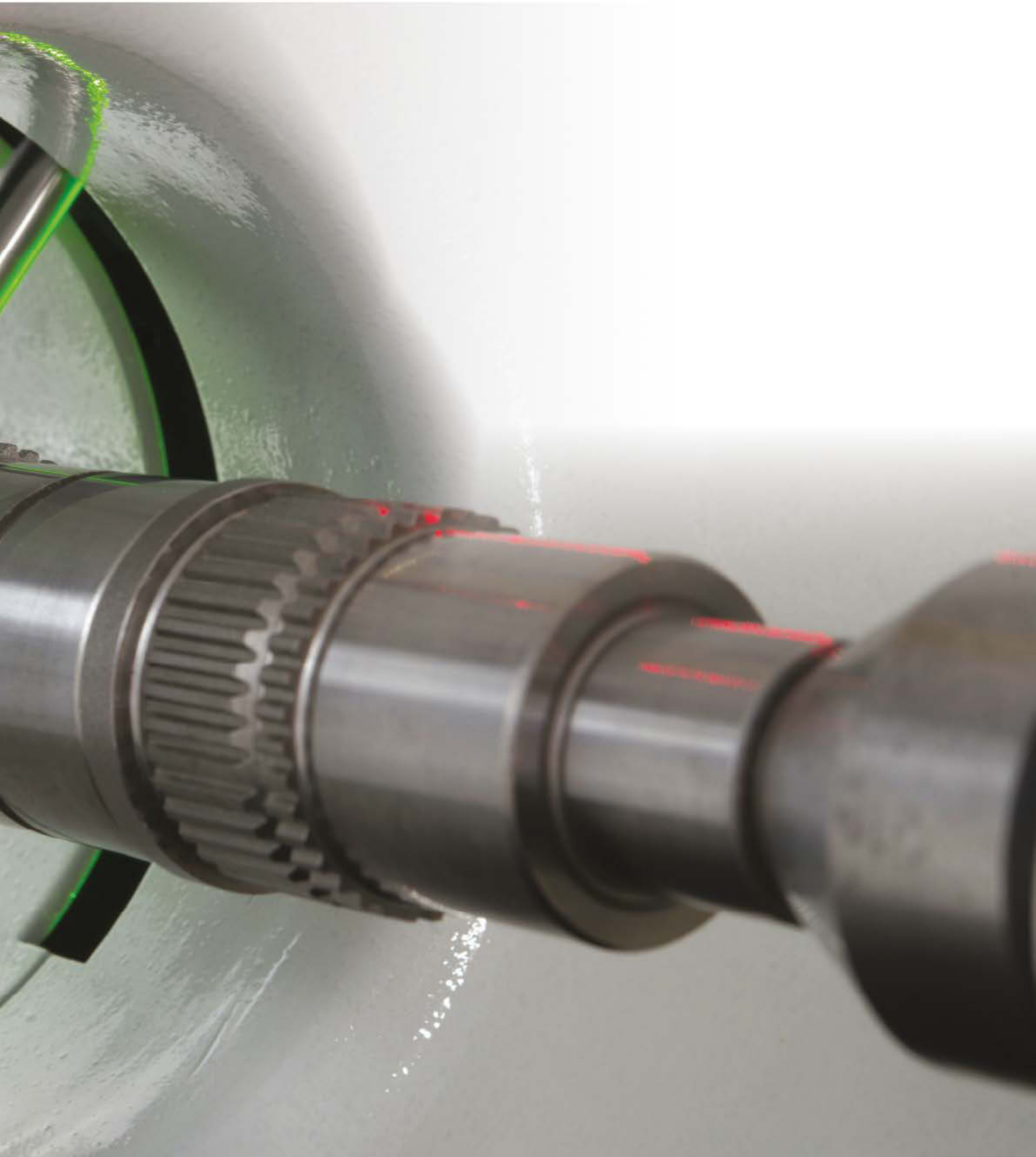
For more than 30 years, Exameca Mesure has brought its skills to the industry providing a complete range of measuring machines on the shopfloor. Exameca mesure has positioned itself at the cutting-edge of measuring machine technology.

continued developement in innovation

The research of the latest concepts with a deep understanding of the mechanical industry's requirements necessitated us to supply our first versatile Unidim & Interdim machines 20 years ago.

Today, we are proud to have developed new measuring machines such as Optodim and Combodim using the most advanced technology.





services

our clients are always at the heart of our company policy.

Our teams guarantee a full backup service to fulfill your requirements at any time:

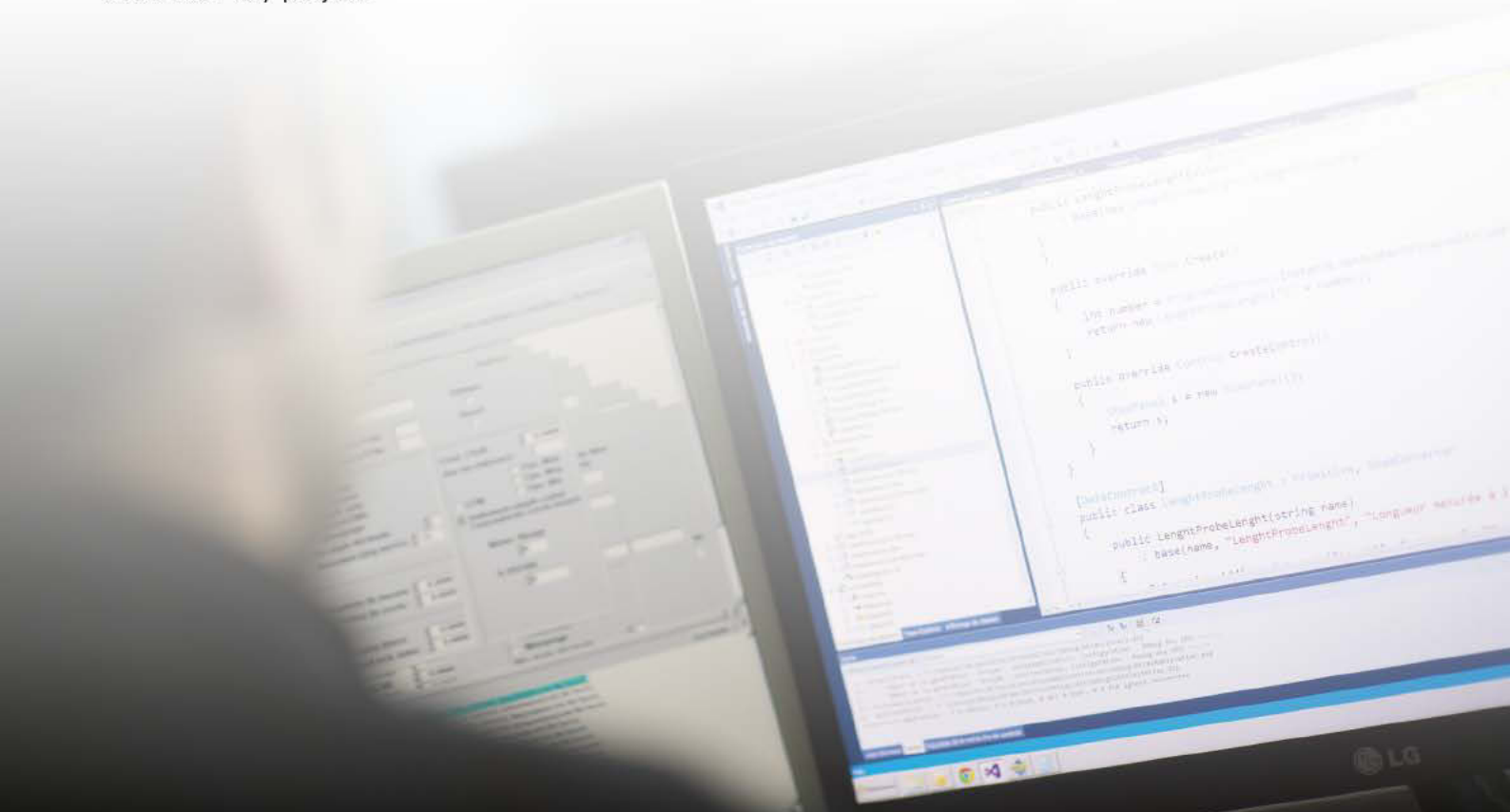
- Commissioning
- Trainings (operator, programmer & maintenance)
- Preventive maintenance
- Annual calibration & conformity
- Repairs
- Spare & wear parts supply

project engineering

Our engineer team accompany our clients all through your project based on customer's requirement such as:

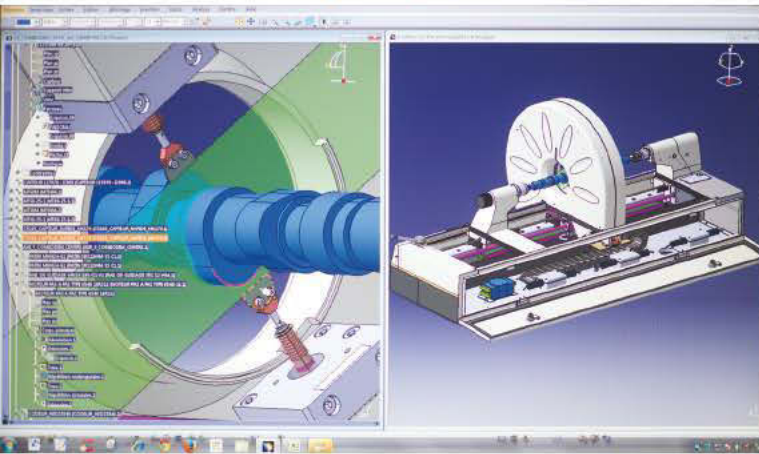
- Part holders design
- Programming
- Acceptance tests (Cg & Cgk), R&R...
- Specific calculation (script)
- Quality data transfer
- Q-das certified

100% turn key project





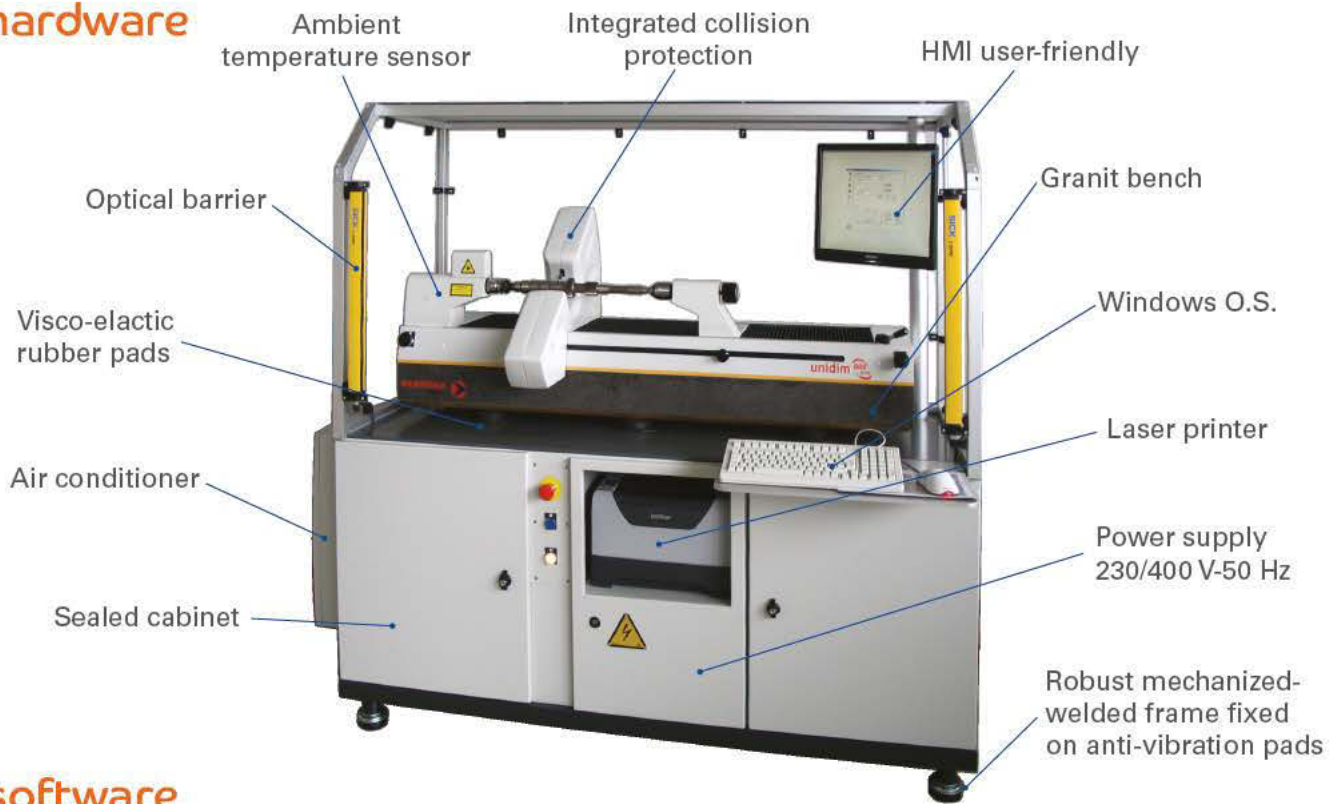
skill in designing



features



hardware

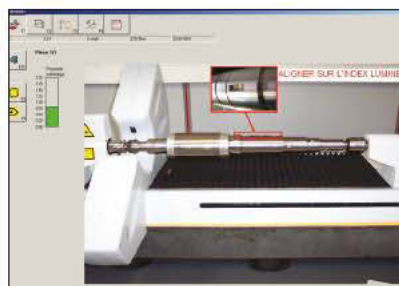


software

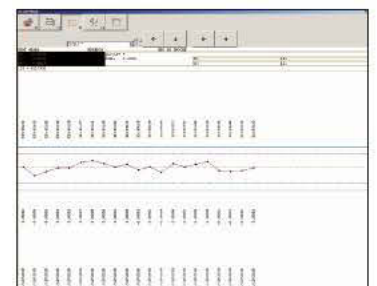
- Common dedicated software for whole machine range
- User-friendly Interface
- Work customization allowed by numerous options and parameters
- Customizable inspection report



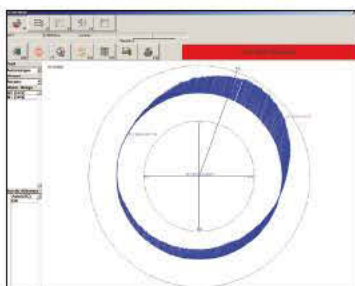
Fast and easy way of program selection



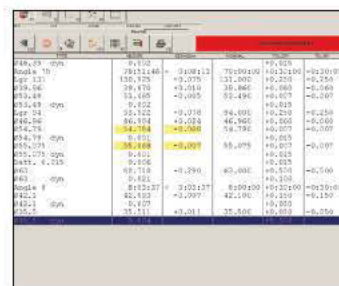
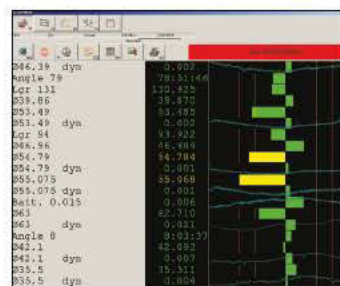
Customizable user instructions



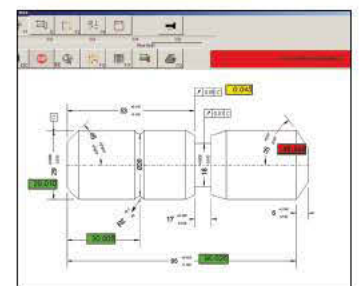
Data measurement analysis



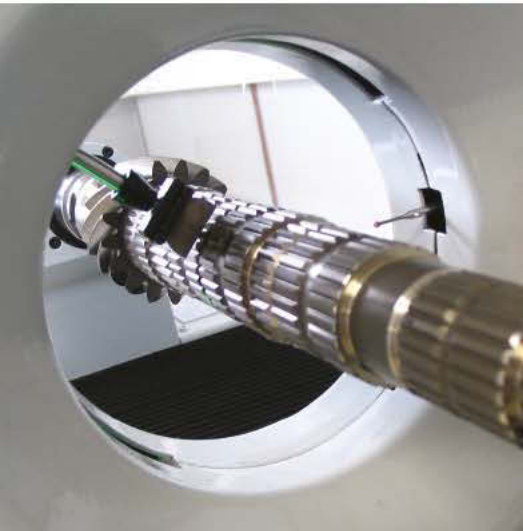
Profile measurement analysis



3 possible displayed results (bargraph, table, and plan)

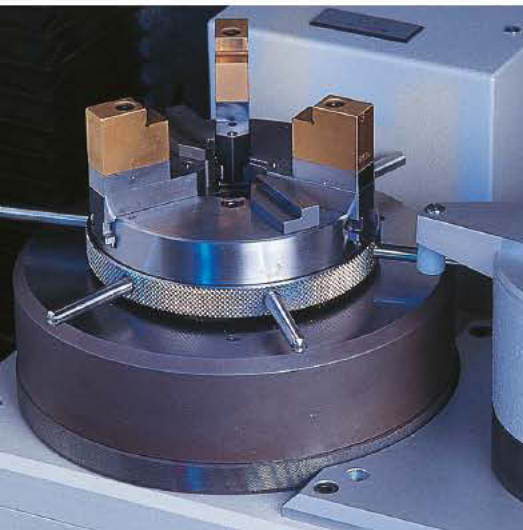
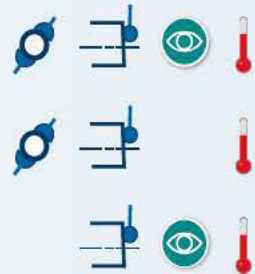


our products



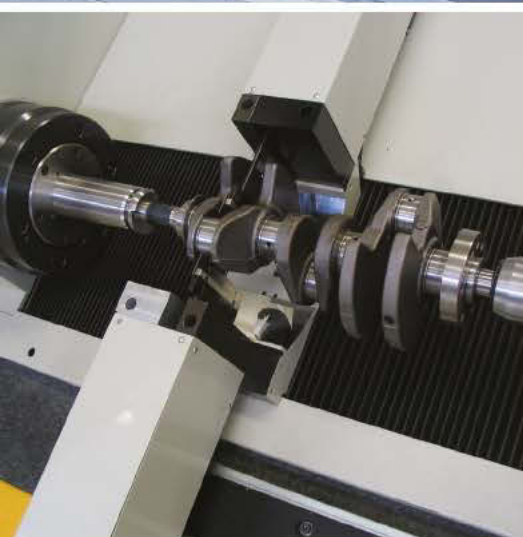
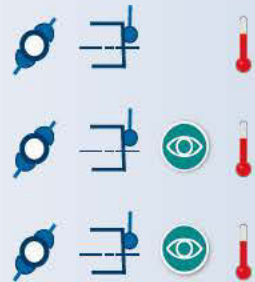
shaft measuring machines

- combodim
- unidim
- optodim



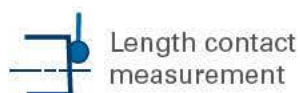
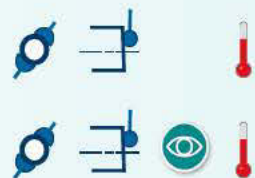
gears & disc measuring machines

- interdim 3D / 4D / 5D
- interdim 4D optical
- interdim 5D optical



cranshaft & wide shaft measuring machines

- unidim XL
- combodim XL





Exclusive & versatile machine, Combodim brings you a bi-technology with its contact and optical sensors

- Multi-sensor measuring machine (Ø, Lg, θ, profile)
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with a safety light barrier for easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- External calculation software for specific measurement purposes

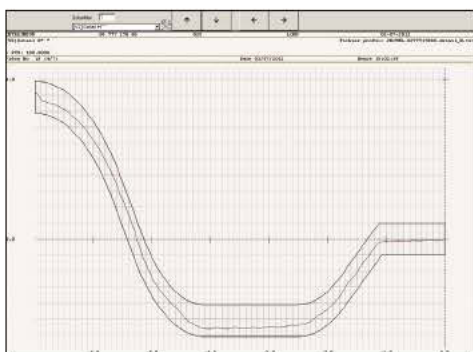


technical features

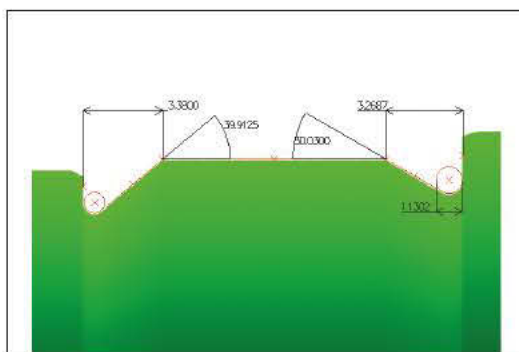
Models	Type (length diameter)	Option	Accuracy U95*			Repeatability U95*			Resolution*			Profile measurement type	Probe type Ø	Probe type Lg	Velocity max			Typical cycle time 3Lg + 10 Ø
			Came	Ø μ & mm	Lg μ & mm	θ°	Ø	Lg	θ°	Ø	Lg				θ°	X mm/s	Y mm/s	
Combodim III	300-130	-	± 1+D/100	± 4+L/150	**	0,2μ	2 μ	**	0,1μ	0,5μ	1,8"	1 x optical	2 x fast probes	1 x contact	200	175	360	30 s
	600-130	-	± 1+D/100	± 4+L/150	**	0,2μ	2 μ	**	0,1μ	0,5μ	1,8"	1 x optical	2 x fast probes	1 x contact	200	175	360	30 s
Combodim II	300-120	-	± 1+D/100	± 4+L/150	**	0,4μ	2 μ	**	0,25μ	0,5μ	1,8"	1 x optical	2 x contact	1 x contact	160	62,5	216	50 s
	600-120	✓	± 1+D/100	± 4+L/150	**	0,4μ	2 μ	**	0,25μ	0,5μ	1,8"	1 x optical	2 x contact	1 x contact	160	62,5	216	50 s

Temperature sensor on headstock and/or on part (optional) / *Guaranteed at 20 °C +/-1 ° / **depends on measurement type
Technical features are based on the contact type measurements

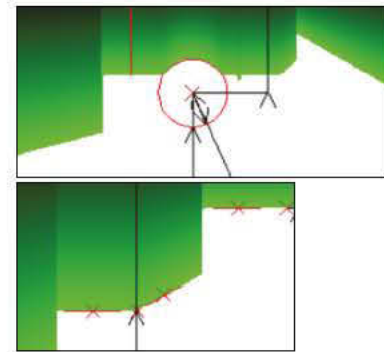
integrated functions



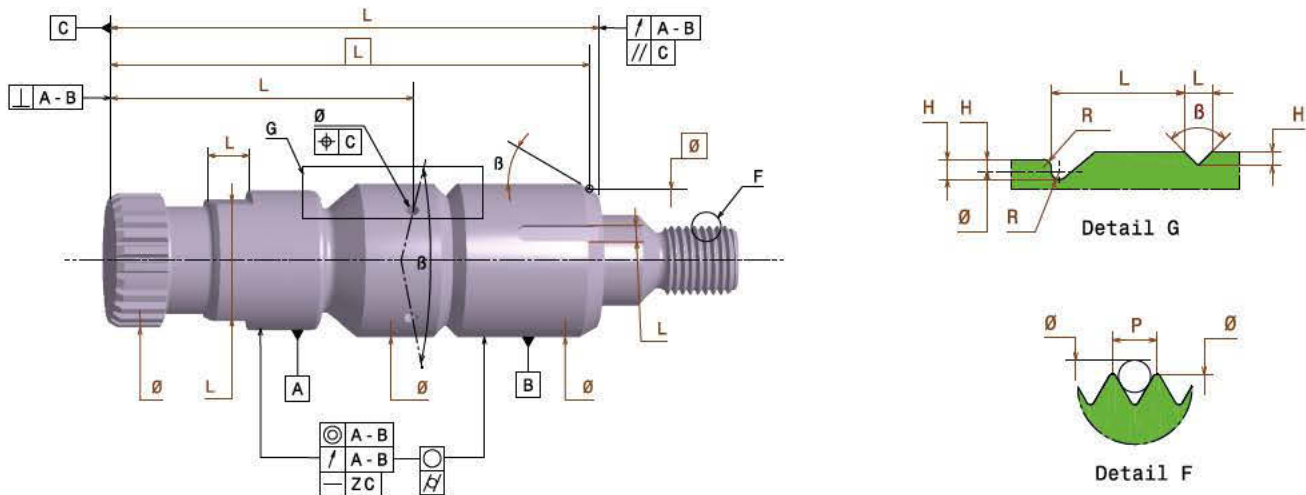
-The "template" function allows to define a tolerance zone: the profile is scanned with an optical sensor and compared to the tolerance zone.



-The "projector" function is a manual inspection mode allowing direct characteristic measurements without programming.



-The "autoseg" function allows automatic shape recognition of form required; the radius, chamfer, ...



example of applications



conditions

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

POWER SUPPLY

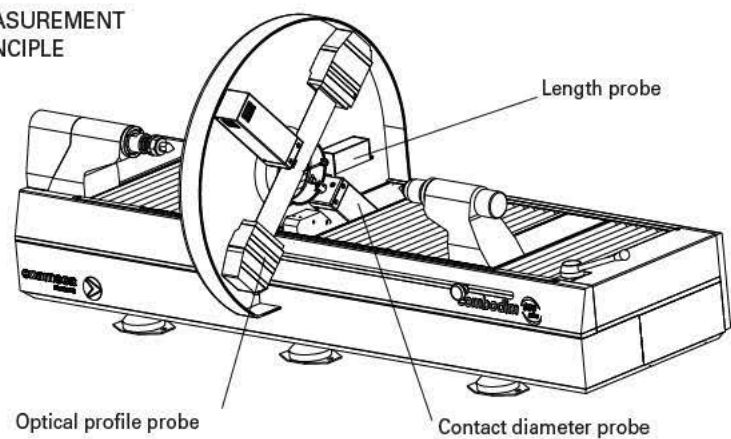
230 or 400 VAC, 50hz

OPERATING CONDITIONS

Humidity $\leq 70\%$
Temperature $15^{\circ}\text{C} - 40^{\circ}\text{C}$

NOISE LEVEL $\leq 70\text{dB (A)}$

MEASUREMENT PRINCIPLE



special devices



Measurement over Pins



Clamping collet

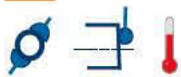


Double ball center point



Versatile machine, Unidim is designed to achieve measurement in the most severe operating conditions regarding pollution and cycle time.

- Multi-sensor measuring machine (\emptyset , Lg, θ)
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with a safety light barrier for easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- Open source external calculation software for specific measurement purposes



technical features

Models	Type (length diameter)	Option		Accuracy U95*			Repeatability U95*			Resolution*			Probe type \emptyset	Probe type Lg	Velocity max			Typical cycle time 3Lg + 10 \emptyset
		Came	Piston	\emptyset μ & mm	Lg μ & mm	θ°	\emptyset	Lg	θ°	\emptyset	Lg	θ°	Incremental	Analogic	X mm/s	Y mm/s	θ° /s	
Unidim III	600-130	-	-	$\pm 1+D/100$	$\pm 4+L/150$	**	0,2 μ	2 μ	**	0,2 μ	0,5 μ	1,8"	2x fast probes	1	250	175	360	30s
Unidim II	600-50	-	-	$\pm 1+D/100$	$\pm 4+L/150$	**	0,4 μ	2 μ	**	0,1 μ	0,5 μ	1,8"	2	1	160	62.5	216	50s
	600-120	✓	✓	$\pm 1+D/100$	$\pm 4+L/150$	**	0,4 μ	2 μ	**	0,25 μ	0,5 μ	1,8"	2	1	160	62.5	216	50s

Temperature sensor on headstock and/or on part (optional) / *Guaranteed at 20 °C +/-1 ° / **depends on measurement type

integrated functions



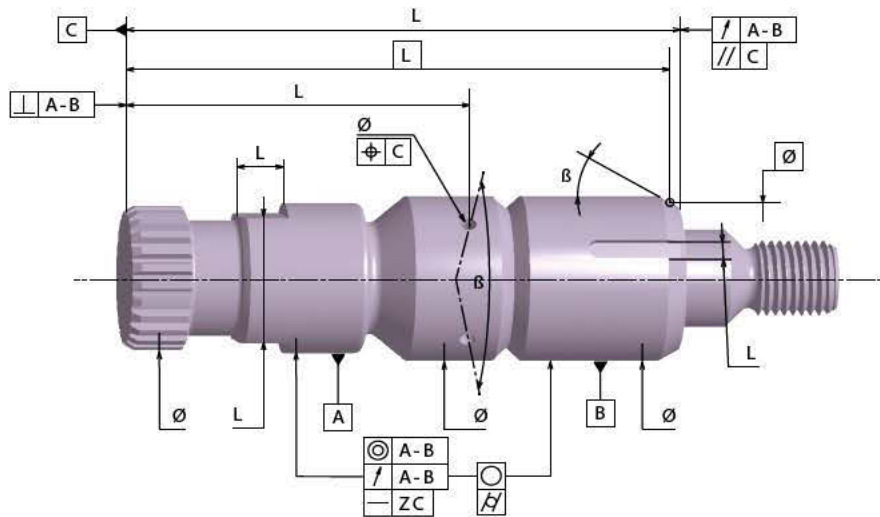
Specially-designed probe and software for cam-shaft checking applications, measuring:

- Cam base diameter
- Programmable lift error measurement on up to 6 different angular zones
- Timing and inter-cam angles
- Maximum lift and rotation step error
- Calculation of measured characteristics in relation to reference sections



Standard UNIDIM multi-characteristic software integrating specific piston measurement functions:

- Axial and radial profiles, with automatic centering on section centers
- Calculation of measured characteristics in relation to reference sections



example of applications



conditions

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

POWER SUPPLY

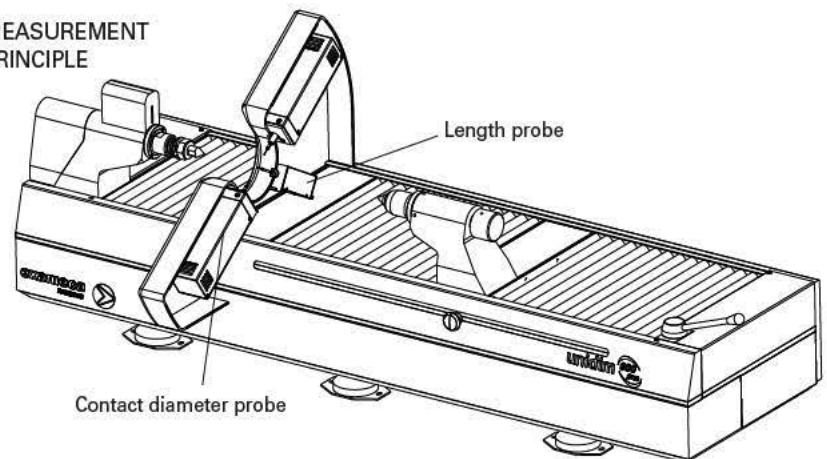
230 or 400 VAC, 50hz
Air compressed Ø 50

OPERATING CONDITIONS

Humidity ≤70%
Temperature 15°C - 40°C

NOISE LEVEL ≤70dB (A)

MEASUREMENT PRINCIPLE



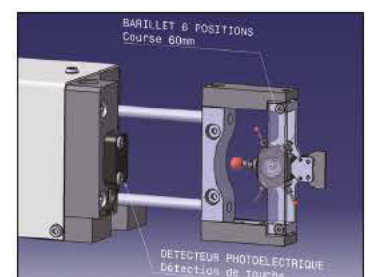
special devices



Measurement over Pins



Clamping collet



Overall measurement



Versatile machine, Optodim is designed to inspect smallest characteristic and profile in a short time. Length contact probe remains available.

- Optical measuring machine fitted with an additional 2D length probe
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with a safety light barrier for easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- External calculation software for specific measurement purposes

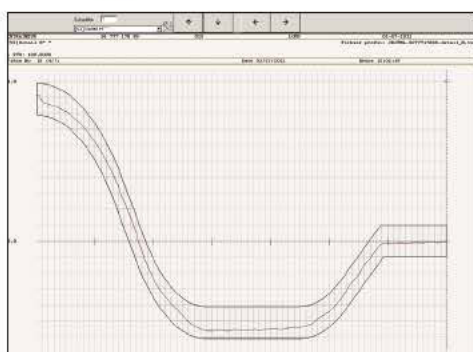


technical features

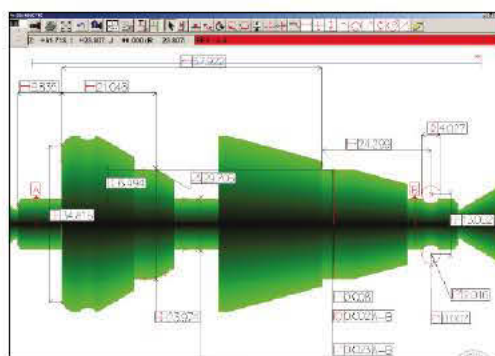
Models	Type (length-diameter)	Accuracy U95*			Repeatability U95*			Resolution*			Probe type Ø	Probe type Lg	Velocity max		
		Ø µ & mm	Lg µ & mm	θ°	Ø	Lg	θ°	Ø	Lg	θ°			X mm/s	Y mm/s	θ° °/s
Optodim	300-6	± 0,5+D/100	± 4+L/150	**	0,12µ	2 µ	**	0,05µ	0,5µ	1,8"	1	1 x contact	200	175	360
	300-30 600-30	± 2+D/100	± 4+L/150	**	0,3µ	2 µ	**	0,1µ	0,5µ	1,8"	1	1 x contact	200	175	360
	300-65 600-65	± 2+D/100	± 4+L/150	**	0,4µ	2 µ	**	0,1µ	0,5µ	1,8"	1	1 x contact	200	175	360

Temperature sensor on headstock and/or on part (optional) / *Guaranteed at 20 °C +/-1 ° / **depends on measurement type

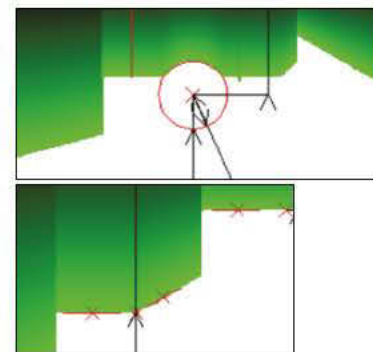
integrated functions



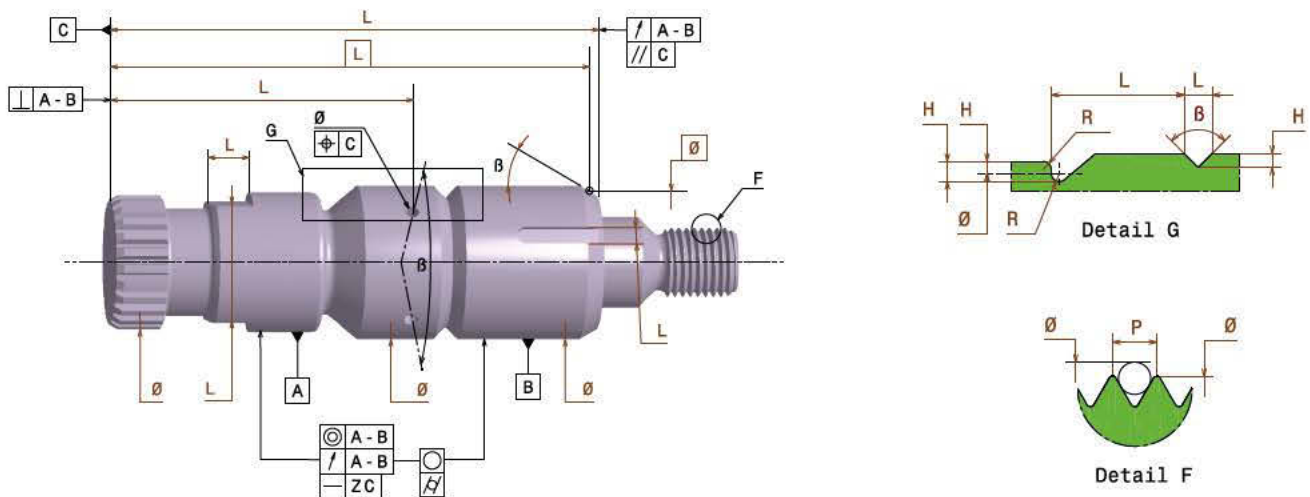
- The "template" function allows to define a tolerance zone: the profile is scanned with an optical sensor and compared to the tolerance zone.



- The "projector" function is a manual inspection mode allowing direct characteristic measurements without programming.



- The "autoseg" function allows automatic shape recognition of form required; the radius, chamfer, ...



example of applications



conditions

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

POWER SUPPLY

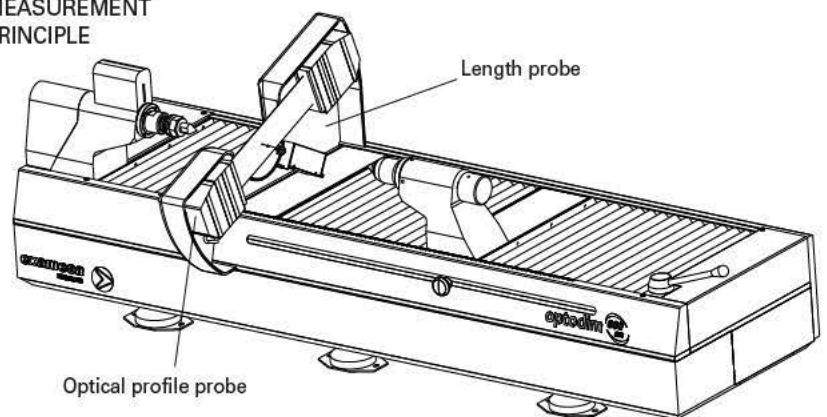
230 or 400 VAC, 50hz

OPERATING CONDITIONS

Humidity $\leq 70\%$
Temperature $15^{\circ}\text{C} - 40^{\circ}\text{C}$

NOISE LEVEL $\leq 70\text{dB (A)}$

MEASUREMENT PRINCIPLE



special devices



Measurement over Pin



Clamping collet



Double ball center point



Versatile machine, Interdim is an exclusive 3D measuring machine for shopfloor and its revolution parts.

- Checks static and dynamic dimensions on 3 or 4 linear and 1 rotating axes
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with a safety light barrier for easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- External calculation software for specific measurement purposes

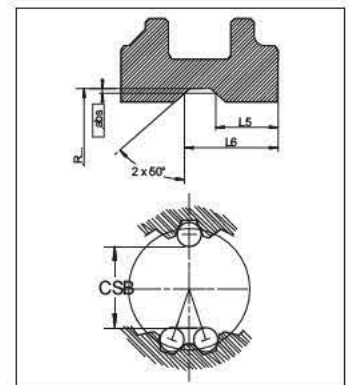
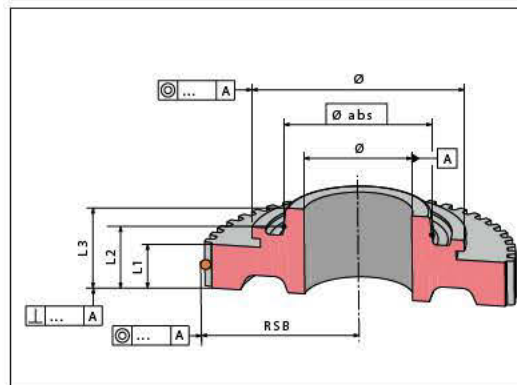
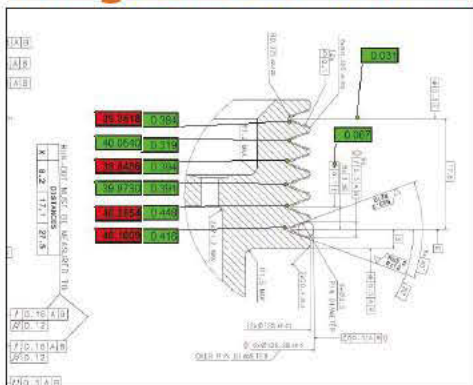


technical features

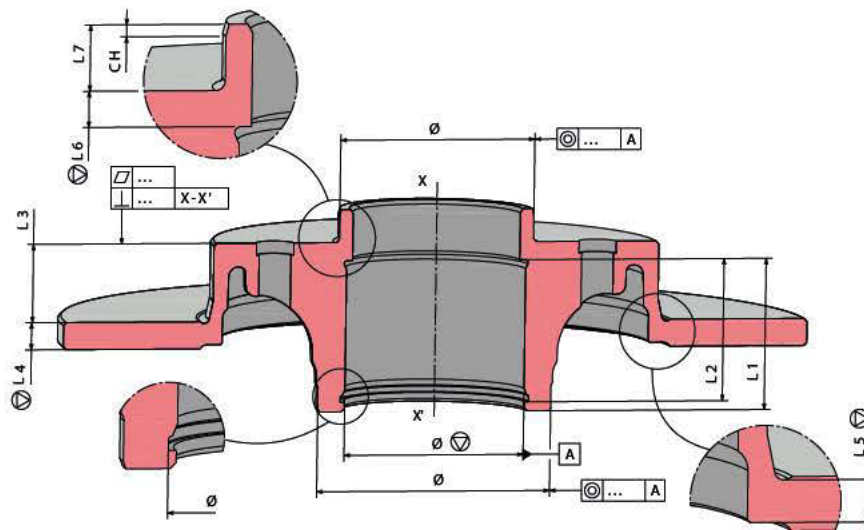
Models	Type	Capacity**			Accuracy U95			Resolution			Measurement type	Probe type	Weight
		∅	Lg	θ°	∅ μ & mm	Lg μ & mm	θ°	∅	Lg	θ°			
Interdim	3D 4D 5D*	250	250	360°	± 2+D/100	± 3+L/50	20"	0,25μ	0,5μ	1,8"	Contact	2X 2D	800 kg
	4D optic 5D optic*				± 2+D/100	± 3+L/50	20"	0,4μ	0,5μ	1,8"			Contact + optic

**maximum capacity according to stylus configuration / *extra length with X axis of 220 mm / *θ max

integrated functions



Diameter / Length / Gauge-plane / Cone / Coaxiality / Angle / Radial and axial run-out / Parallelism / Point / Line Plane / Circle / Sphere / Cylinder / Perpendicularity / Position



example of applications



conditions

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

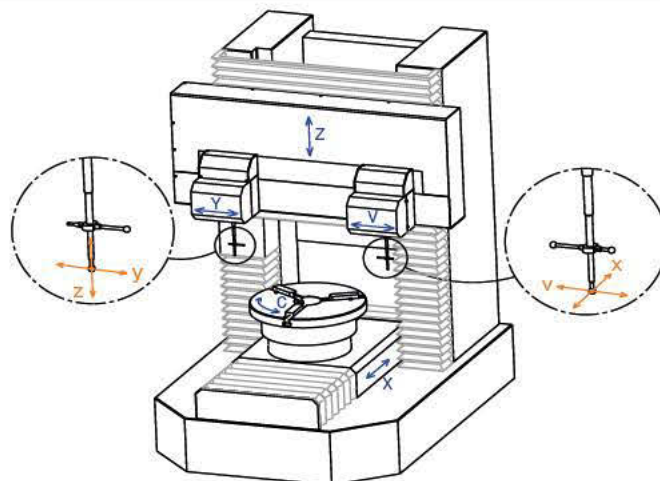
POWER SUPPLY

230 or 400 VAC, 50hz

OPERATING CONDITIONS

Humidity $\leq 70\%$
Temperature $15^{\circ}\text{C} - 40^{\circ}\text{C}$

NOISE LEVEL $\leq 70\text{dB (A)}$



Model	Axis	Application
Interdim 3D	CYZ	Light turned part, gears, sleeves
Interdim 4D	CYZV	Light turned, cut or milled part, gears, sleeves
Interdim 5D	CXYZV	Heavy part, ring gear, disc, drum, flywheel

special devices

Automatic clamping system:

- Pre-positioning of the jaws according to the part diameter with a pre-determined grip pressure and an automatic grip opening for calibration.





Versatile machine, unidim XL is designed to provide best accuracy in the most severe operating conditions for larger shaft up to 800mm

- Multi-sensors measuring machine (Ø, Lg, €)
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with safety light barrier for an easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- External calculation software for specific measurement purposes



technical features

Models	Type (length-diameter)	option	Accuracy U95*			Repeatability U95*			Resolution*			Probe type Ø	Probe type Lg	Velocity max		
			Ø µ & mm	Lg µ & mm	θ°	Ø	Lg	θ°	Ø	Lg	θ°			X mm/s	Y mm/s	θ° °/s
Unidim XL	800-200	-	± 1+D/100	± 4+L/200	**	0,4µ	2 µ	**	0,25µ	0,5µ	1,8"	2 x contact	1 x contact	250	175	360
	800-0/240 20/260	-				0,2µ			0,1µ							
	800-180 Vi	✓														

*Temperature sensor on headstock and/or on part (optional) / *Guaranteed at 20 °C +/- 1 ° / **depends on measurement type
Technical features are based on the contact type measurements*

integrated functions

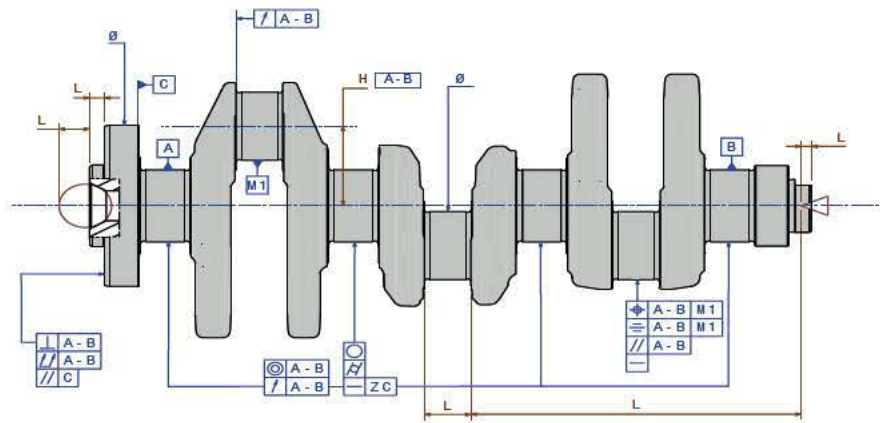


Specially-designed probe and software for cam-shaft checking applications, measuring:

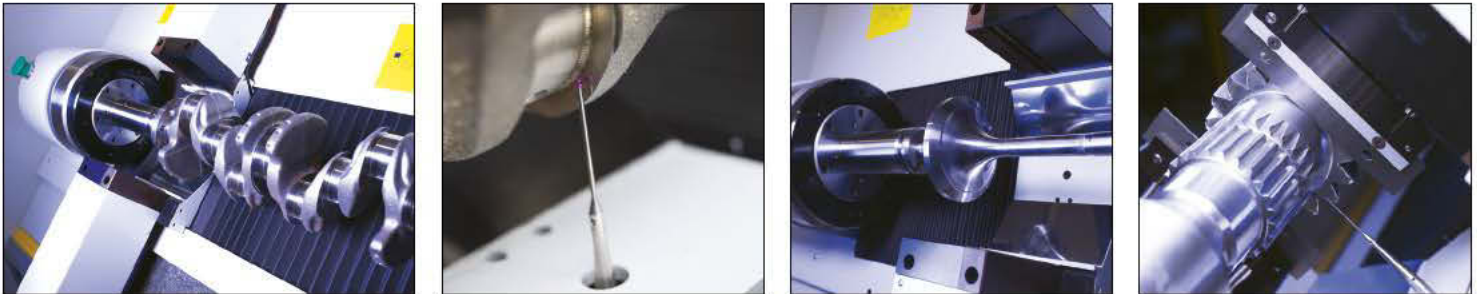
- Cam base diameter
- Programmable lift error measurement on up to 6 different angular zones
- Timing and inter-cam angles
- Maximum lift and rotation step error
- Calculation of measured characteristics in relation to part referential

Specially designed probe and software for crankshaft checking applications:

- Crank-pin diameters measurement (dynamic)
- Stroke and half-stroke measurement
- Crank-pin face runout measurement
- Angular positions of crank-pins



example of applications



conditions

Measurement principle

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

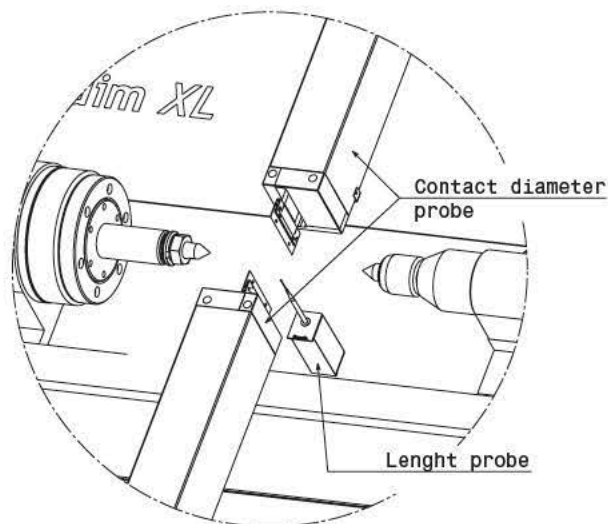
POWER SUPPLY

230 or 400 VAC, 50hz

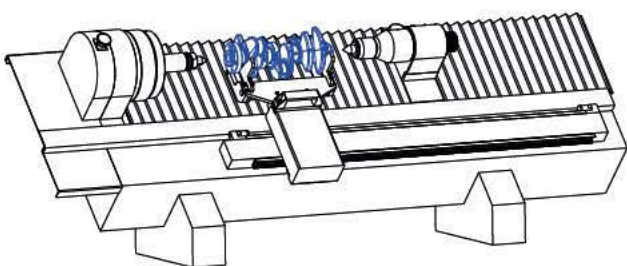
OPERATING CONDITIONS

Humidity $\leq 70\%$
Temperature $15^{\circ}\text{C} - 40^{\circ}\text{C}$

NOISE LEVEL $\leq 70\text{dB (A)}$



special devices



Loading system (retractable) enables
a high level of comfort and safety for heavy part handling



Double ball center point



Exclusive & versatile machine, combodim XL brings you a bi-technology with its contact and optical sensors for largest shaft up to 700mm

- Multi-sensor measuring machine (Ø, Lg, θ, profile)
- Designed for workshop use
- Versatile, robust, reliable and fast
- Integrated collision protection
- Equipped with a safety light barrier for easy access
- Integrated sealed and air-conditioned cabinet
- Easy, on-line or workstation programming
- Real time SPC results displayed, integrated or network statistical processing (option)
- External calculation software for specific measurement purposes

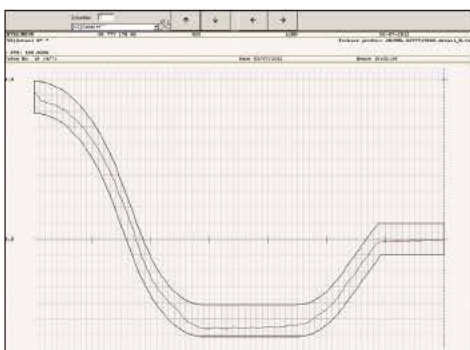


technical features

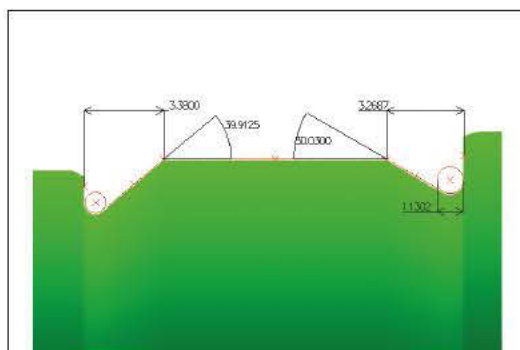
Models	Type (length-diameter)	Profil	option	Accuracy U95*			Repeatability U95*			Resolution*			Profile measurement type	Probe type Ø	Probe type Lg	Velocity max		
				Ø μ & mm	Lg μ & mm	θ°	Ø	Lg	θ°	Ø	Lg	θ°				X mm/s	Y mm/s	θ°/s
Combodim XL	700-200	✓	-	± 1+D/100	± 4+L/200	**	0,4μ	2 μ	**	0,25μ	0,5μ	1,8"	1 x Optical	2 x contact	1 x contact	250	175	360
	700-0/240 20/260		-				0,2μ			0,1μ								
	700-180 Vi		✓															

*Temperature sensor on headstock and/or on part (optional) / *Guaranteed at 20 °C +/-1 ° / **depends on measurement type
Technical features are based on the contact type measurements*

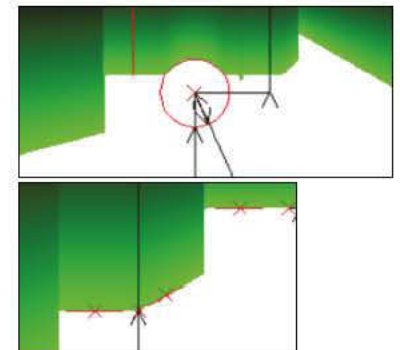
integrated functions



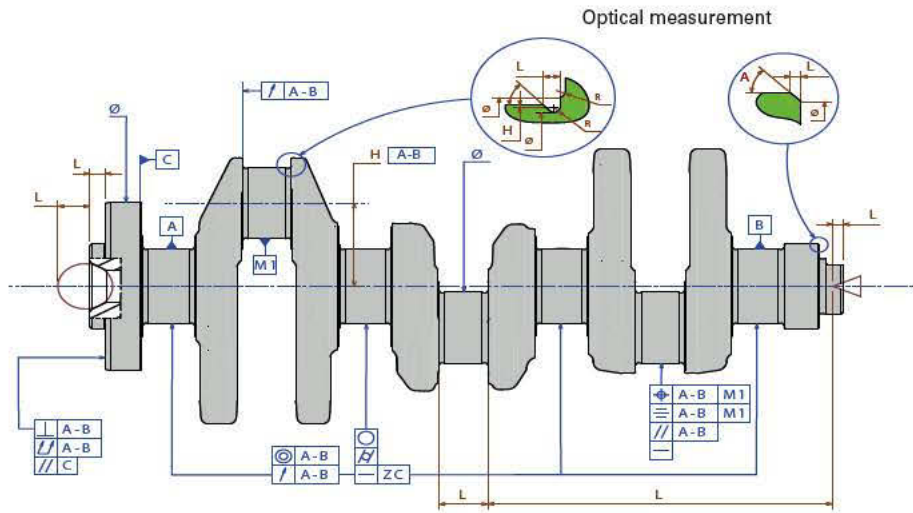
-The "template" function allows to define a tolerance zone: the profile is scanned with an optical sensor and compared to the tolerance zone.



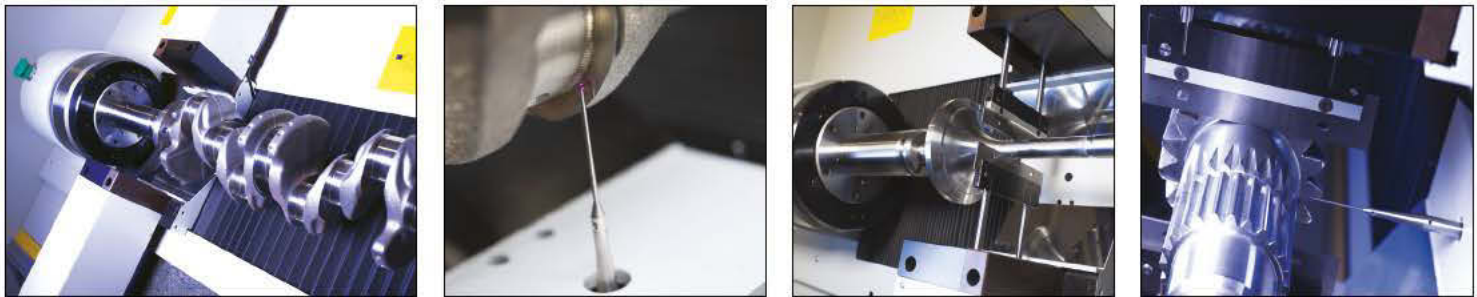
-The "projector" function is a manual inspection mode allowing direct characteristic measurements without programming.



-The "autoseg" function allows automatic shape recognition of form required; the radius, chamfer, ...



example of applications



conditions

CALIBRATION

Automatic on integrated calibration zone
Depending on time and/or temperature

POWER SUPPLY

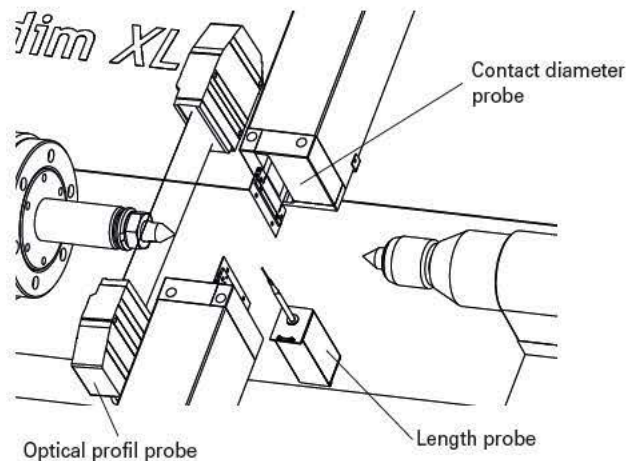
230 or 400 VAC, 50hz

OPERATING CONDITIONS

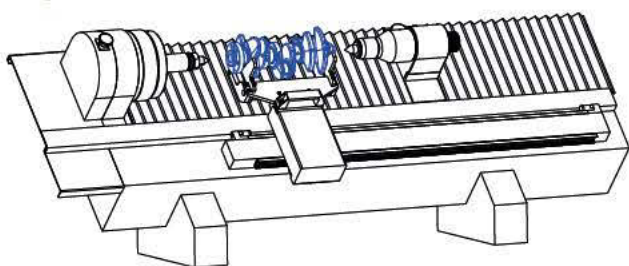
Humidity $\leq 70\%$
Temperature $15^{\circ}\text{C} - 40^{\circ}\text{C}$

NOISE LEVEL $\leq 70\text{dB (A)}$

Measurement principle



special devices



Loading system (retractable) enables
a high level of comfort and safety for heavy part handling



Double ball center point

our customers in the world



they trust us





exameca
mesure
accurate in all cases



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