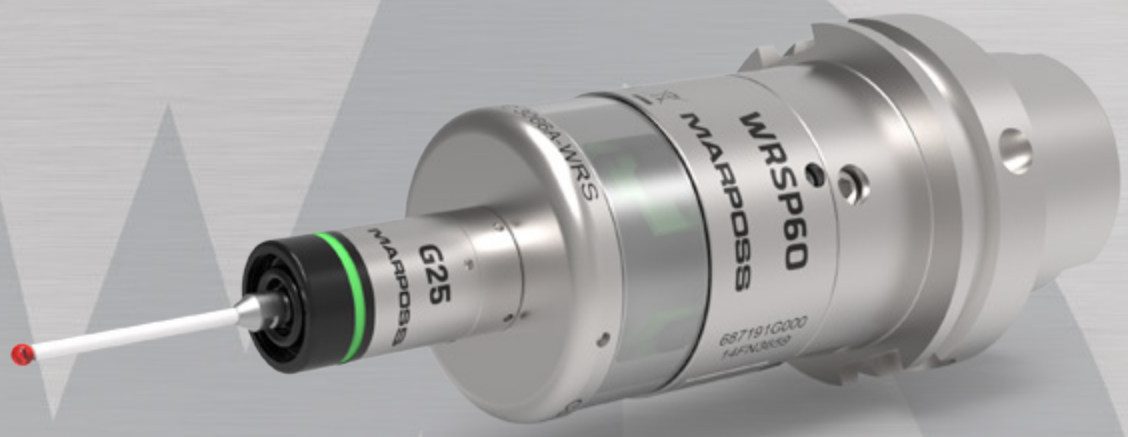
mida

WRSP60

SCANNING PROBE
WITH RADIO DATA TRANSMISSION



MARPOSS

Description of the system

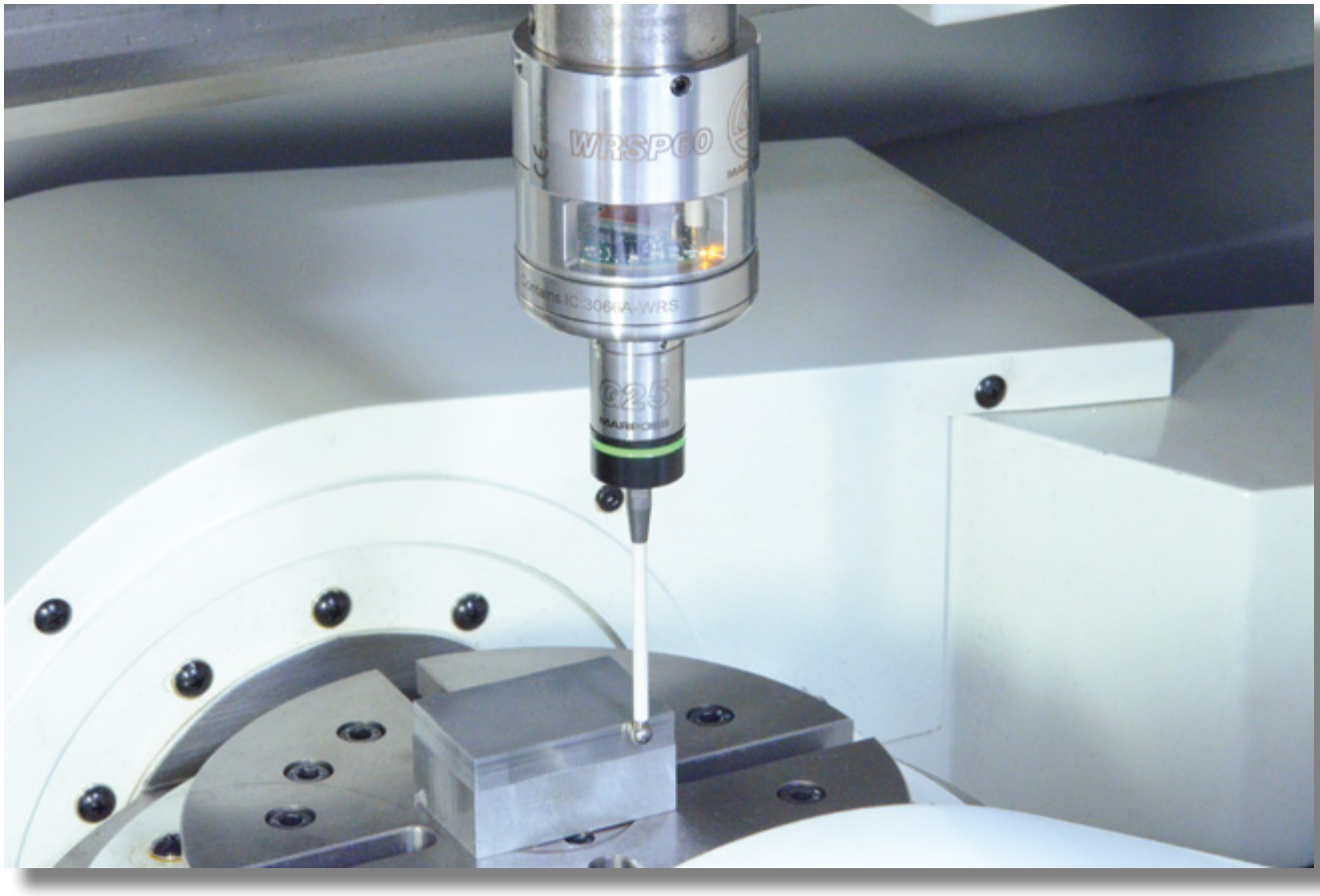
The WRSP60 Marposs scanning probe with radio data transmission has been designed for use on lathes, turning centres and multitask machining centres. It can be used to check that the profile that has just been machined is correct directly on the machine, improving process quality and optimizing cycle times. With WRSP60 it is possible to perform operations that are not possible with standard touch probes, or which would increase cycle times. It is principally used to:

- check the quality of the part profile
- perform comparisons with the Master
- make TIR, roundness and concentricity measurements
- enable the “touch” necessary for positioning the part

The system transmits the data via radio to a WRI receiver, using a communication protocol that guarantees excellent immunity to interference and reduced power consumption. It also features a multi-channel system that enables the same receiver to manage up to 12 systems sequentially, including Marposs WRS part contact probes.
The WRI receiver communicates with a software package, installed on an industrial or standard PC, used to manage and display the measurement values and archive the data.

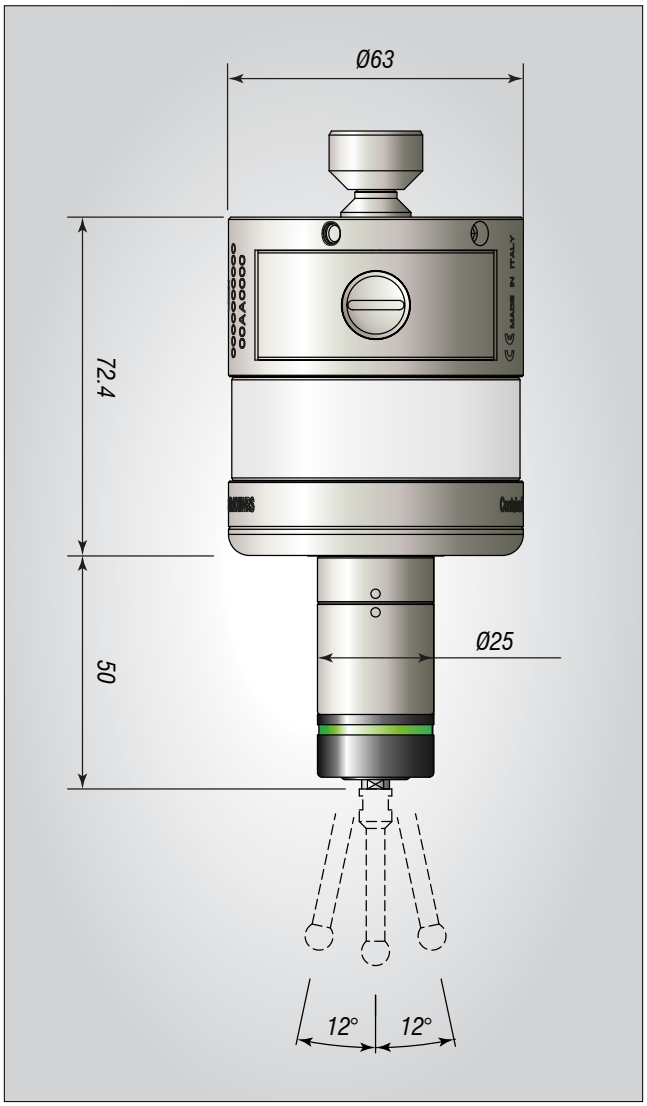
Benefits

- Extremely fast measurements directly inside the machine environment
- Increased production quality
- Increased machine productivity
- It is possible to monitor the production quality in real time
- Incredible battery operating life
- Easy to install and use
- User-friendly interface software



WRSP60 scanning probe

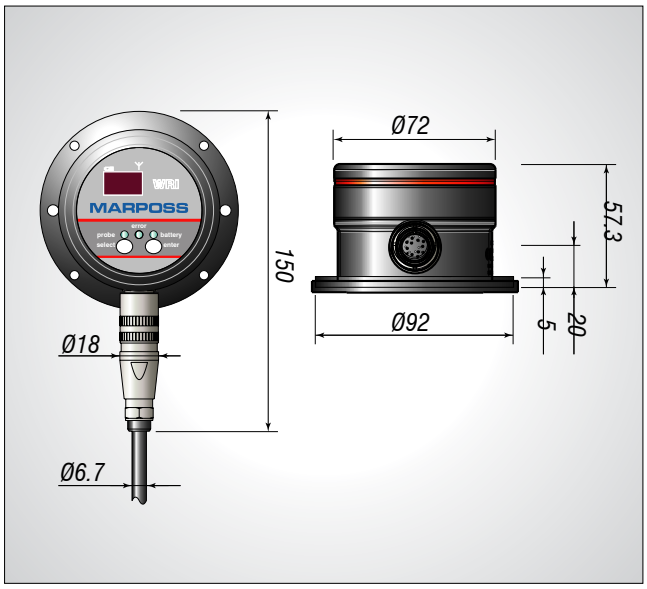
With the WRSP60 system it is possible to carry out precise, complete quality controls on the machining process directly in the machine environment, by performing profile and surface contact scans on the newly worked parts.
The system transmits the data to a WRI receiver using a radio transmission system. The data is collected, analysed and displayed by a proprietary Marposs software package.



UNIDIRECTIONAL REPEATABILITY (2σ) *With standard 35 mm stylus and 600 mm/min speed*	0.4 µm
OVERTRAVEL	12°
Resolution	0.2 µm
MEASUREMENT RANGE	≤800 µm
SAMPLING FREQUENCY	10 ms
TRANSMISSION RANGE	15 m
BATTERY LIFE*	80 h *(continuous operation)*

Receiver with integrated interface (WRI)

The receiver with integrated interface WRI is supplied with an practical, 4-digit display that, together with the remote control unit, make it easy to program.
The receiver is secured using 4 x M4 screws; however it is also equipped with a magnetic mounting base, which makes it easier to install and position.



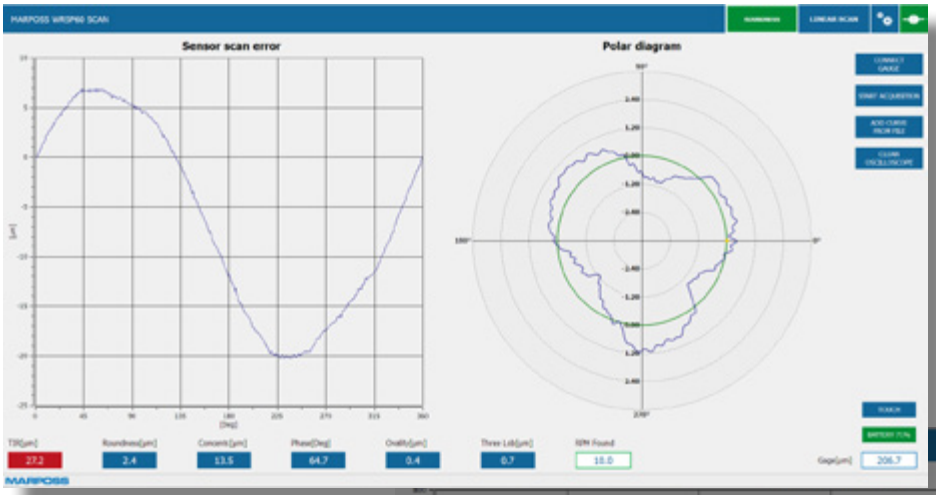
POWER SUPPLY	13.5 - 30 V DC max current 100 mA Power consumption 1 W	
RS232 SERIAL INTERFACE	Isolated	MEASURE MEASUREMENT CYCLE MANAGEMENT
OUTPUT SIGNALS *(may be set to N.C. or N.O. with the exception of the error, which is always set to N.C.)*	Solid state relay (SSR) 4 - 30 V 40 mA	OUTPUT 1 (TOUCH/RECOIL) OUTPUT 2 (TOUCH/RECOIL/BATTERY DISCHARGED) ERROR
Protection rating *(Standard IEC 60529)*	IP68	

Data analysis and display

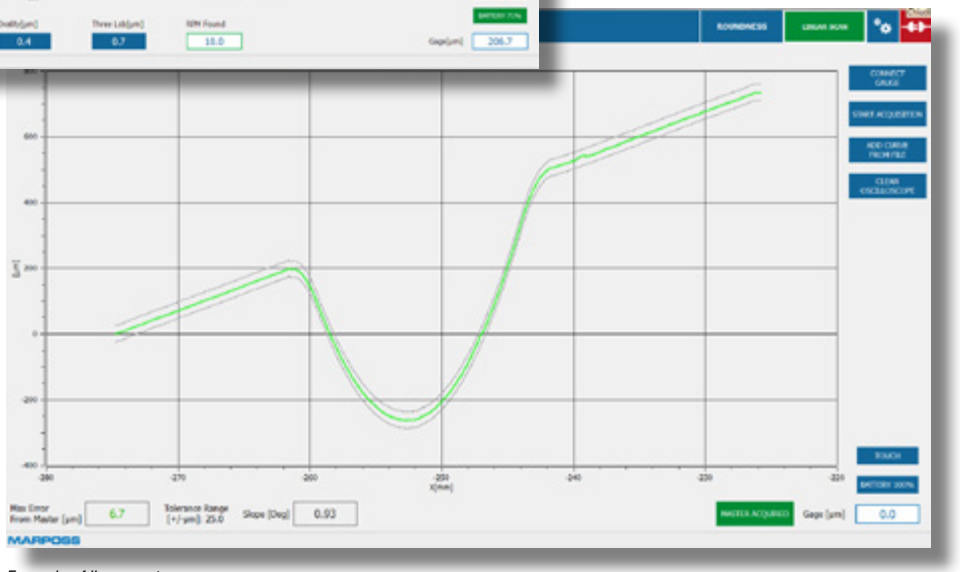
The Marposs software can automatically provide scan results, such as form measures in the case of a circular surface or the maximum error with respect to a set tolerance when dealing with linear surfaces; more generally, it can provide a comparison with respect to the profile of a master part.
Moreover, utilisation of machine libraries makes it possible to write the measures of interest on CNC variables.
In addition to the measures, the system can also provide a graphical representation of the performed scan so the user is provided with an immediate and precise indication on part conditions.
The software must be installed on an external PC, standard or industrial.

Benefits

- Fully automatic measurement
- Clear, immediate display
- Interaction with machine CNC
- Easy and user-friendly



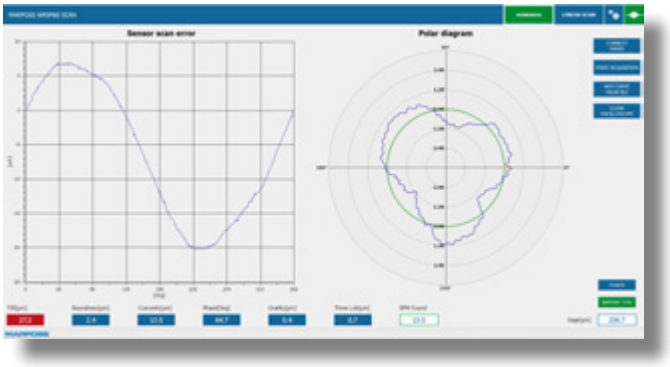
Example of circular part scan

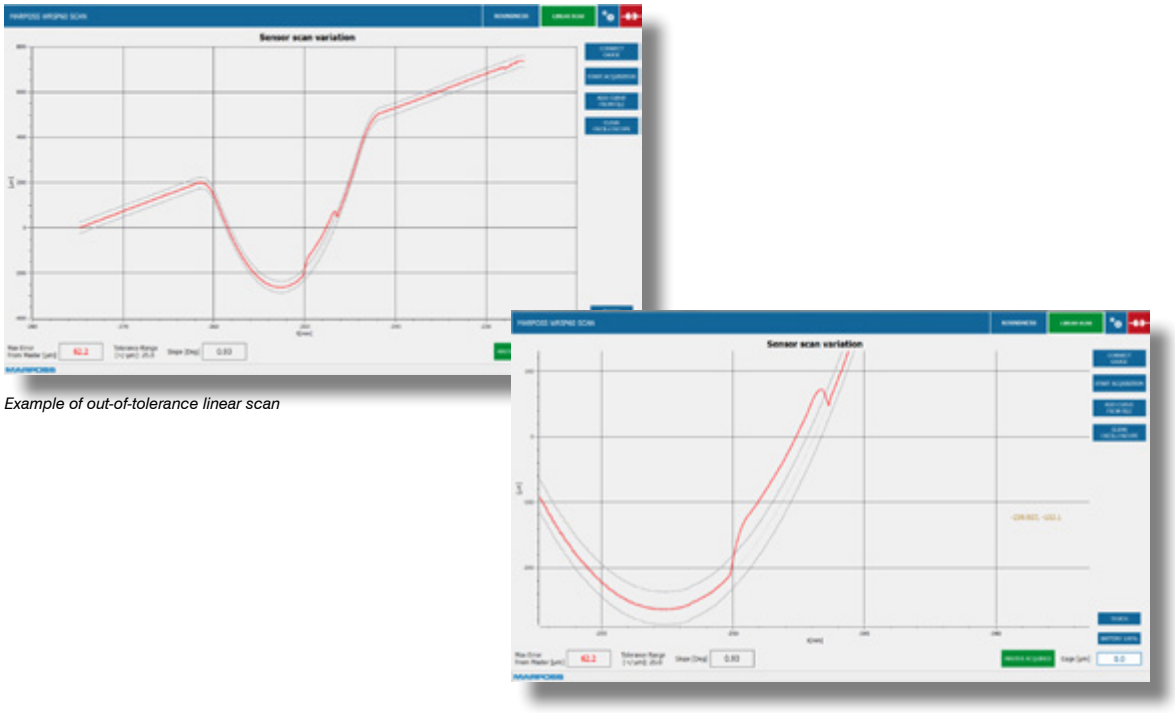


Example of linear part scan

Key points

The graphic interface changes depending on whether a roundness or linear component is being scanned.
The diagram at right shows a general example of the measure of a roundness. The spatial distribution is represented on the left while the polar graph on the right shows the roundness (blue line), comparing it with what would be its 'ideal' shape (green line). Moreover, a series of boxes at the bottom of the page provide all values of key interest to the user, such as TIR, roundness and concentricity.
Below, instead, is the representation of a typical linear scan with a set tolerance range. The colour of the curve changes depending on whether the part is within the set tolerance range or not. The software calculates and shows some measure data such as the maximum acquired error and the slope of the measured part.





Example of out-of-tolerance linear scan

Software is available for hard wired applications with G25 scanning probe too.

System part numbers

Probe kit

P1SRW00006	WRSP60 probe

The WRSP60 kit is supplied complete with batteries and the necessary tools
For fingers, shear pins and other accessories, consult the catalogue D6C00601I0

Receiver with integrated interface (WRI) kit

P1SRW60006	WRI kit with lateral connector

The kits are supplied complete with batteries and operator and instruction manual
Only VOI kits with lateral connector include the 1.5 m cable protective shield

6180890108	5 m CN connector cable
6180890110	10 m CN connector cable
6180890106	15 m CN connector cable
6180890109	20 m CN connector cable
6180890105	30 m CN connector cable

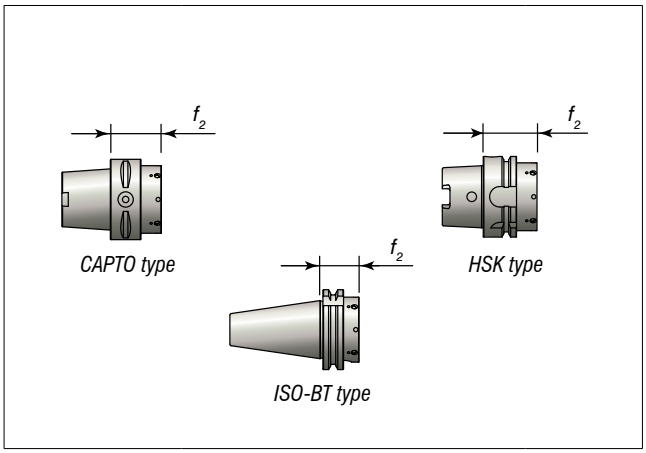
687191G000	WRSP60 Transmitter
3415335450	G25 probe
8304890130	WRI Receiver
8304890110	J-Box
673AA10015	J-Box / PC connector cable
47013F2003	MOXA adapter
10T0439059	PG9 3 m stainless steel metallic sheath

WRSP60 shanks

		f_2 [mm]
2027885212	P60 HSK63 A+C DIN69893 AIR	53
2027885201	P60 HSK63 E DIN69893	53
2027885202	P60 HSK63 F DIN69893	53
2027885203	P60 HSK80 A+C DIN69893 AIR	53
2027885204	P60 HSK100 A+C DIN69893 AIR	56
2027885205	P60 BT40 MAS403	38
2027885206	P60 BT50 MAS403	49
2027885207	P60 ISO40 DIN69871/A	42.9
2027885208	P60 ISO50 DIN69871/A	35
2027885209	P60 CAPTO C5	38
2027885210	P60 CAPTO C6 AIR	42
2027885211	P60 CAPTO C8 AIR	50

2027885080	P60 adaptor flange for E83/E86 shanks

ISO - BT shafts, not supplied by Marposs
Other types of shank are available upon request



www.marposs.com

For a full list of address locations, please consult the Marposs official website

D6C10000G0 - *Edition 08/2019 - Specifications are subject to modifications*

Marposs has an integrated system for Company quality, environmental and safety management, with ISO 9001, ISO 14001 and OHSAS 18001 certification.

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