



**Blankenhorn**  
Messtechnik

# 3D RPS precision measuring arm

Caliper  
Micrometer

Dial gauge · Dial indicator  
Marking- and truing device

Gauge  
Calibration

**Systems**

## Precision measuring arm for 3-dimensional measuring

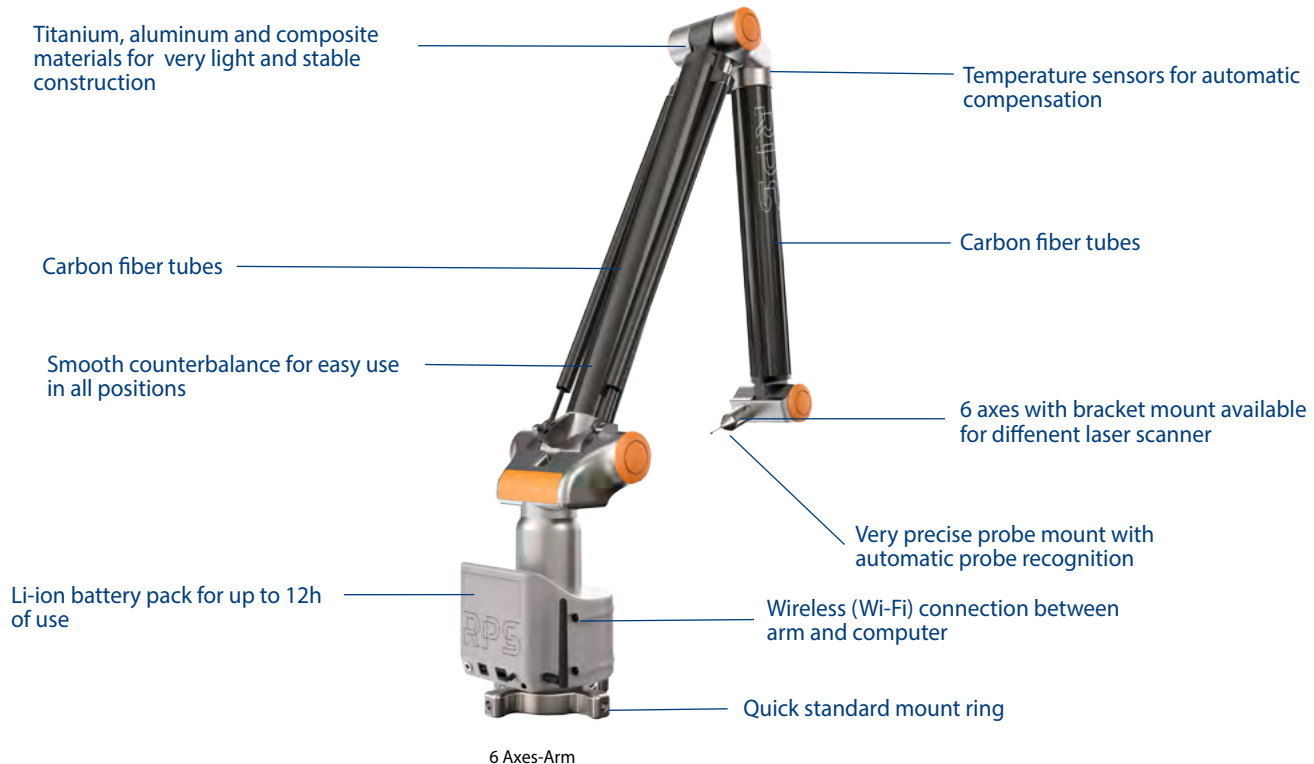
The 3D RPS measuring arm set the standard for the new generation of joint measuring arms and opens many new possibilities.

Learn more about the new laser scanner!





The 3D RPS measuring arm is available with 6 or 7 axes.  
It is configurable with laser scanner for point cloud,  
quality control or reverse engineering purposes.



## Features

- › High speed and precision 3D-inspection
- › No warm-up time
- › Easy handling
- › Clearly-structured software
- › No zero point calibration necessary
- › Carbon fiber construction: lightweight, robust, temperature-stable
- › Portable CMM-Joint
- › 3D point cloud processing
- › STL data export

## Basic equipment

- › RPS precision measuring arm
- › Wireless connectin (Wi-Fi)
- › Battery-operated device with Li-ion Battery  
12 working hours for tactile measurement  
8 working hours for laser scanning
- › Temperature compensation
- › Start & scan function

## Applications

Mechanical engineering, tool making, punching tool manufacture, printing tool construction, mould manufacture, damage analysis, casingtool construction, fixture construction, gauge manufacture, plastic injection mold construction, turbine blades testing, gap and flush testing, vehicle construction, aircraft, automobile, yachts, motorcycle, ...



7 Axis-Arm







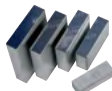
3DRPS Serie ( 6 Axes-Arm )				
Art.-no.	Measuring range (mm)	Volumetric accuracy (mm)*	Repeatability (mm)*	Weight (kg)
<b>3DRPSEVO12006</b>	1200	0,018	0,012	7,0
<b>3DRPSEVO18006</b>	1800	0,025	0,018	7,2
<b>3DRPSEVO24006</b>	2400	0,034	0,020	7,5
<b>3DRPSEVO30006</b>	3000	0,045	0,030	7,9
<b>3DRPSEVO40006</b>	4000	0,060	0,037	8,3
<b>3DRPSEVO50006</b>	5000	0,080	0,045	9,0
<b>3DRPSEVO60006</b>	6000	0,087	0,059	11,3
<b>3DRPSEVO70006</b>	7000	0,098	0,073	12,5

3DRPS Serie ( 7 Axes-Arm )				
Art.-no.	Measuring range (mm)	Volumetric accuracy (mm)*	Repeatability (mm)*	Weight (kg)
<b>3DRPSEVO18007</b>	1800	0,034	0,016	7,8
<b>3DRPSEVO24007</b>	2400	0,043	0,022	8,1
<b>3DRPSEVO30007</b>	3000	0,055	0,034	8,5
<b>3DRPSEVO40007</b>	4000	0,069	0,040	8,9
<b>3DRPSEVO50007</b>	5000	0,080	0,048	9,6
<b>3DRPSEVO60007</b>	6000	0,092	0,062	11,9
<b>3DRPSEVO70007</b>	7000	0,105	0,076	13,1

\*uncertainty values shown in 2 sigma



6 Axes-Arm

3DRPS Accessories		
	Art.-no.	Description
	<b>3DRPS_Adapter</b>	Brunson Adapter for 3D-Joint Measuring Arm EVO-Serie (Fits all models)
	<b>3DRPSPODY02</b>	Mechanical probe casing, Ball-Ø 2mm, probe with Renishaw Autojoint, automat. recognition
	<b>3DRPSPODY03</b>	Mechanical probe casing, Ball-Ø 3mm, probe with Renishaw Autojoint, automat. recognition
	<b>3DRPSPODY04</b>	Mechanical probe casing, Ball-Ø 4mm, probe with Renishaw Autojoint, automat. recognition
	<b>3DRPSPODY06</b>	Mechanical probe casing, Ball-Ø 6mm, probe with Renishaw Autojoint, automat. recognition
	<b>3DZRUBIN2</b>	Ruby ball diameter: 2mm
	<b>3DZRUBIN3</b>	Ruby ball diameter: 3mm
	<b>3DZRUBIN4</b>	Ruby ball diameter: 4mm
	<b>3DZRUBIN6</b>	Ruby ball diameter: 6mm
	<b>3DZALUMINUMBASE</b>	Aluminium base with bracket
	<b>3DRPSEVOMAGNETICBASE</b>	Magnetic mounting plate with high adhesion, with 3 holes suitable for all RPS-EVO
	<b>3DRPSTRIPOD</b>	Steel stand for measuring arms height adjustable (90 – 140 cm) incl. notebook stacker
	<b>EE250SIQ</b>	Steel gauge block 250 mm, accuracy I, including calibration, in wooden case
	<b>EE500SIQ</b>	Steel gauge block 500 mm, accuracy I, including calibration, in wooden case
	<b>EE1000SIQ</b>	Steel gauge block 1000 mm, accuracy I, including calibration, in wooden case

3DRPS Standard Garantie
<p>STANDARD WARRANTY (APPLIED ON ALL ARMS UNIT):</p> <p>Warranty on original defects and defective parts/components, includes free of charge substitution of defective parts, labour time, return shipment. The incoming shipment is at the charge of the costumer. The right to apply any warranty case on any product is the discretion of Blankenhorn, and depends on the effective positive report of Blankenhorn technical department after observing an original defect as the cause of the product/component fault. Warranty case will not be considered effective if the defect is resulting from an improper use of the Blankenhorn product or any of its accessories. The warranty does not cover: The calibration of the arm and/or scanner; any consequential damage resulting from product malfunction, such production stop or loss of sata.</p> <p>- The STANDARD Warranty begins with the delivery date and is valid for 24 months.</p>

## Evo X Laser Scanner

- › Scanning polished bright and dark surfaces
- › 8 working hours Battery life for laser scanning
- › 1280 pts/Line to 300Hz
- › High speed
- › High resolution
- › Availability: red or blue Laser
- › Available laser sizes: 25 mm, 50 mm, 100 mm



3DRPSEVOX

## Evo X Laser measuring arm with red laserscanner with laserline 50mm

3DRPS Serie Evo X ( 7 Axes-Arm ) Red-Scanner								
Art.-no.	Measuring range (mm)	Probe Volumetric accuracy (mm)*	Laser Scanner Volumetric accuracy (mm)*	Probe Repeatability (mm)*	Laser line spectrum (mm)	Points per line	Speed (pts./sec.)	Deep of field (mm)
3DEVOX18007RED050	1800	0,034	0,055	0,016	50	1280	128000	200
3DEVOX24007RED050	2400	0,043	0,064	0,022	50	1280	128000	200
3DEVOX30007RED050	3000	0,055	0,076	0,034	50	1280	128000	200
3DEVOX40007RED050	4000	0,069	0,090	0,040	50	1280	128000	200
3DEVOX50007RED050	5000	0,080	0,101	0,048	50	1280	128000	200
3DEVOX60007RED050	6000	0,092	0,113	0,062	50	1280	128000	200
3DEVOX70007RED050	7000	0,105	0,126	0,076	50	1280	128000	200

## Evo X Plus Laser measuring arm with red laserscanner with laserline 50mm

3DRPS Serie Evo X ( 7 Axes-Arm ) Red-Scanner								
Art.-no.	Measuring range (mm)	Probe Volumetric accuracy (mm)*	Laser Scanner Volumetric accuracy (mm)*	Probe Repeatability (mm)*	Laser line spectrum (mm)	Points per line	Speed (pts./sec.)	Deep of field (mm)
3DEVOX18007REDP050	1800	0,034	0,044	0,016	50	1280	320000	200
3DEVOX24007REDP050	2400	0,043	0,053	0,022	50	1280	320000	200
3DEVOX30007REDP050	3000	0,055	0,065	0,034	50	1280	320000	200
3DEVOX40007REDP050	4000	0,069	0,079	0,040	50	1280	320000	200
3DEVOX50007REDP050	5000	0,080	0,090	0,048	50	1280	320000	200
3DEVOX60007REDP050	6000	0,092	0,102	0,062	50	1280	320000	200
3DEVOX70007REDP050	7000	0,105	0,115	0,076	50	1280	320000	200

## Evo X Plus Laser measuring arm with blue laserscanner with laserline 50mm

3DRPS Serie Evo X ( 7 Axes-Arm ) Blue-Scanner								
Art.-no.	Measuring range (mm)	Probe Volumetric accuracy (mm)*	Laser Scanner Volumetric accuracy (mm)*	Probe Repeatability (mm)*	Laser line spectrum (mm)	Points per line	Speed (pts./sec.)	Deep of field (mm)
3DEVOX18007BLUEP050	1800	0,034	0,044	0,016	50	1280	320000	200
3DEVOX24007BLUEP050	2400	0,043	0,053	0,022	50	1280	320000	200
3DEVOX30007BLUEP050	3000	0,055	0,065	0,034	50	1280	320000	200
3DEVOX40007BLUEP050	4000	0,069	0,079	0,040	50	1280	320000	200
3DEVOX50007BLUEP050	5000	0,080	0,090	0,048	50	1280	320000	200
3DEVOX60007BLUEP050	6000	0,092	0,102	0,062	50	1280	320000	200
3DEVOX70007BLUEP050	7000	0,105	0,115	0,076	50	1280	320000	200