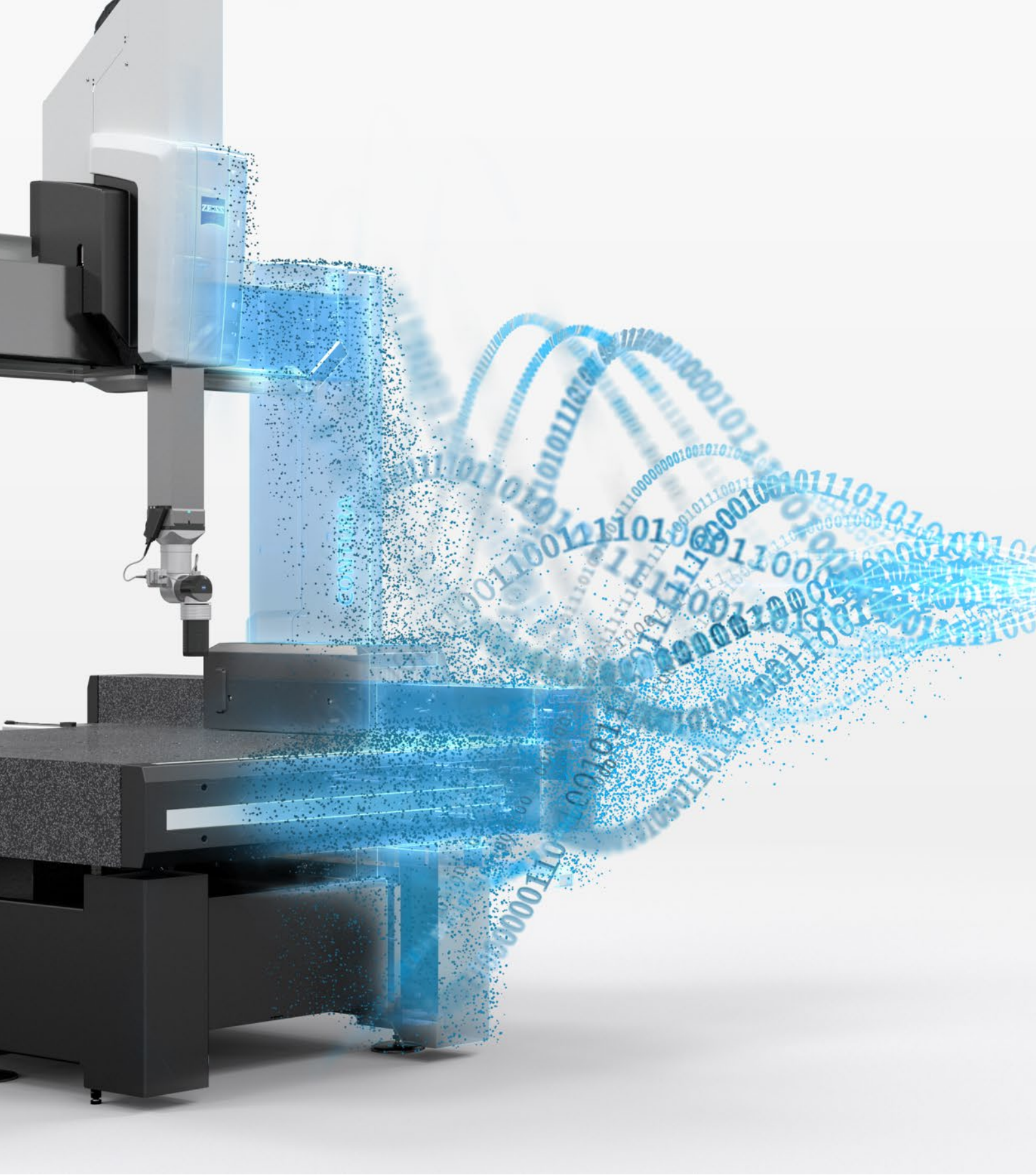


ZEISS Smart Services Remote Health Check

Drive check, Probe check and Data check

Important Information

The ZEISS Smart Services Remote Health Check is a check that provides you with information regarding the status of your CMM. It is a preventive measure and we at ZEISS make a recommendation on electronic and mechanical components. Unexpected damage to your CMM cannot be prevented by this.

Common Data

Customer

ZEISS Smart Services Remote Health Check

CMM type	Serialnumber	FW
ACCURA_MASS	123456	33.21

Travel Distance

X-Axis	Y-Axis	Z-Axis
X= 265266 m	Y= 312193 m	Z= 223728 m

Interview

- Drive monitoring switches off the drives in the Z-axis.

Checklist

ZEISS Smart Services Remote Health Check

Basic Checks

1	Explanation of ZEISS Remote Health Check	☒ OK	☐ n. OK
2	Interview	☒ OK	☐ n. OK
3	Data check		
	Collisions	☐ OK	☒ n. OK
	Temperatures	☐ OK	☒ n. OK
	CPU-Fan	☒ OK	☐ n. OK
4	EDIAG	☒ OK	☐ n. OK
5	Reference point	☒ OK	☐ n. OK

Measuring System

6	Measuring System		
	X-Axis	☒ OK	☐ n. OK
	Y-Axis	☒ OK	☐ n. OK
	Z-Axis	☐ OK	☒ n. OK
	(R-Axis)	☐ OK	☐ n. OK

Drives

7	AxWatch (Acceleration, Speed, Position, Lag-Distance, Drive-Current, Drive-Tacho, DAC-Voltage)		
	X-Axis	☒ OK	☐ n. OK
	Y-Axis	☒ OK	☐ n. OK
	Z-Axis	☒ OK	☐ n. OK

	(R-Axis)	☐ OK	☐ n. OK
8	JumpTest (Check Parameter afterwards)		
	X-Axis	☐ OK	☒ n. OK
	Y-Axis	☐ OK	☒ n. OK
	Z-Axis	☐ OK	☒ n. OK
	(R-Axis)	☐ OK	☐ n. OK
9	CirclePath (5 mm/s, r=25 mm)		
	XY-Plane	☒ OK	☐ n. OK
	XZ-Plane	☒ OK	☐ n. OK
	YZ-Plane	☒ OK	☐ n. OK

Probe (VAST / VAST XT)

10	Deviation (50 mm Delta-1 mm)		
	X-Axis (negative direction)	☒ OK	☐ n. OK
	Y-Axis (negative direction)	☒ OK	☐ n. OK
	Z-Axis (negative direction)	☒ OK	☐ n. OK
11	Damping		
	Damping X-Axis	☒ OK	☐ n. OK
	Damping Y-Axis	☐ OK	☒ n. OK
	Damping Z-Axis	☒ OK	☐ n. OK
12	Scantest-Check		
	Linearization X-Axis	☒ OK	☐ n. OK
	Linearization Y-Axis	☒ OK	☐ n. OK
	Linearization Z-Axis	☒ OK	☐ n. OK
	Hysteresis X-Axis	☐ OK	☒ n. OK
	Hysteresis Y-Axis	☐ OK	☒ n. OK
	Hysteresis Z-Axis	☒ OK	☐ n. OK
13	Probe-Rectangulartiy-Check	☒ OK	☐ n. OK
14	Signal Check		
	Signal Check X-Axis	☐ OK	☒ n. OK
	Signal Check Y-Axis	☒ OK	☐ n. OK
	Signal Check Z-Axis	☒ OK	☐ n. OK

15	Probing behaviour		
	Probing behaviour X-Axis	☒ OK	☐ n. OK
	Probing behaviour Y-Axis	☒ OK	☐ n. OK
	Probing behaviour Z-Axis	☒ OK	☐ n. OK
16	Taration	☒ OK	☐ n. OK

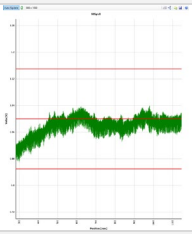
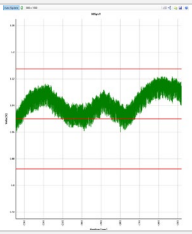
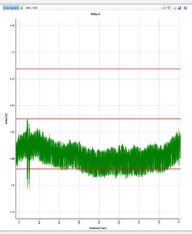
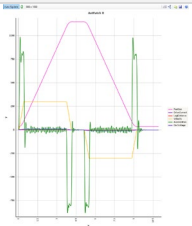
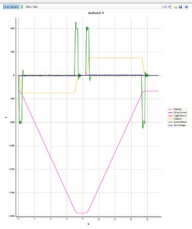
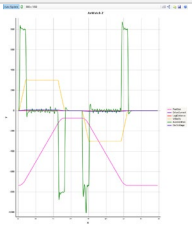
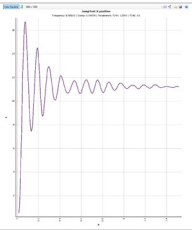
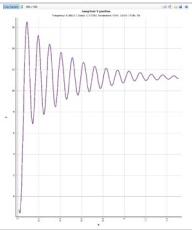
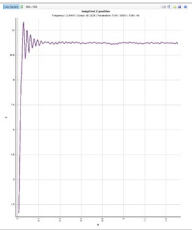
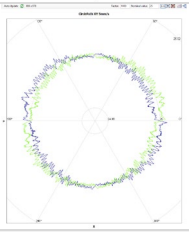
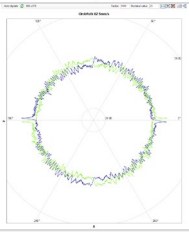
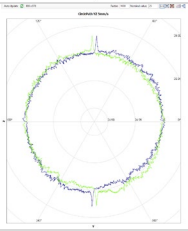
Recommendation

- Clean and readjust CMM measuring systems during the next maintenance and optimise the sum signal of measuring head and measuring system.
- Drive switch-off in Z: The reason for this could be a defective balancer or incorrectly adjusted GWAZ. The slip (increased drag during acceleration) on the drive and the power stage offset must also be checked. It is recommended to place a repair order for this.
- Optimise drive natural frequencies (JumpTest) in all axes (parameter adjustment).
- Measuring head damping decreases in Y and is therefore borderline. An exchange of the measuring head is recommended here.
- **Increased temperature of the CPU (63°C)** - The filter mats should be cleaned or replaced immediately.

Oberkochen, 22.09.2020	Joachim Holz	
Location, Date	ZEISS	Signature

Appendix / Diagrams

Basic Checks

	X-Axis	Y-Axis	Z-Axis	R-Axis
Measuring System				
Cos-Sin-Signal				
Drives				
AxWatch				
JumpTest				
CirclePath				
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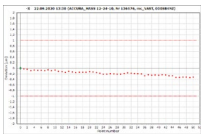
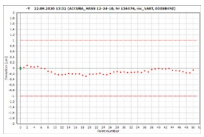
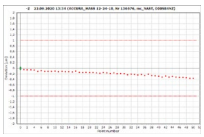
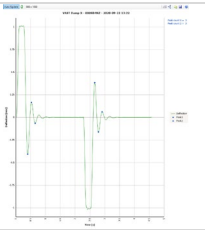
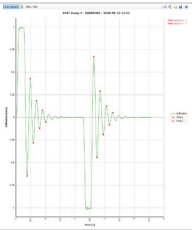
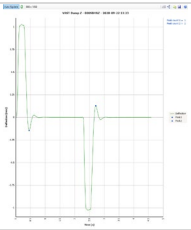
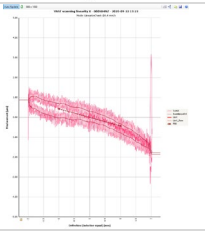
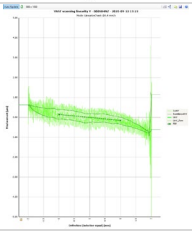
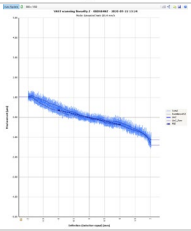
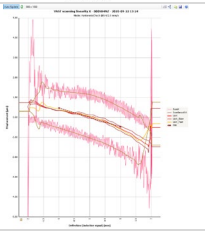
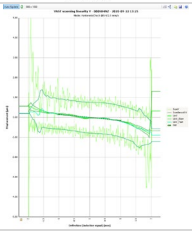
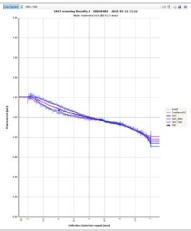
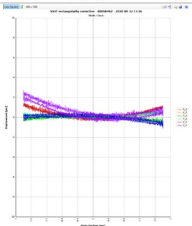
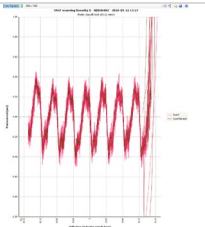
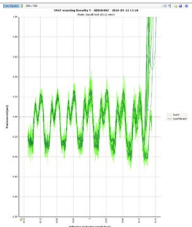
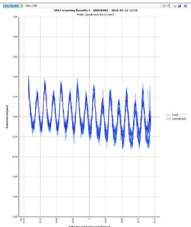
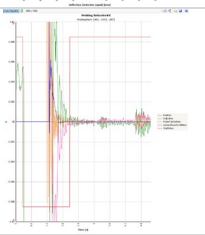
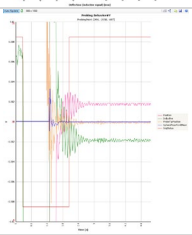
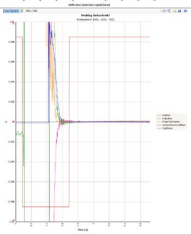
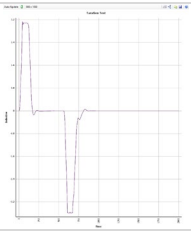
Deviation				

Damping			
Scantest-Linearization			
Scantest-Hysteresis			
Probe-Rectangularity-Check			
Signal Check			
Probing behaviour			

Taration	

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