

ACCURA-J >>>

Entry-level 3D Coordinate Measuring Machine with Integrated Active Scanning Probe VAST-T

ACCURA-J



ACCURA-J was developed based upon the well-received entry-level model PRISMO Vario and renamed to achieve even higher accuracy and economy. Like previous models, it incorporates the Active Scanning Probe VAST-XT as standard, and various probes can be used due to the multi-probe system MPS-V.



ACCURA-J 5

Active Scanning Probe VAST-XT

- Max. stylus length: 500mm
- Max. stylus weight: 500g
- Min. stylus tip diameter: ϕ 0.6mm

Multi-probe system: MPS-V (option)

Like Vario, ACCURA-J supported a wide range of sensor systems

Swivel rotary dynamic sensor: RDS-CAA

The following sensors can be automatically replaced by a dedicated probe magazine.

- RDS specifications Indexing angle : 2.5° pitch
- Rotation speed: 40°/s
- Angle repeatability: \pm 1"

Touch Trigger Single Point Measurement Probe

• RST-P probe

(ACCURA-J 5/7, PRISMO Navigator 5/7)

- Specifications Measuring force: 10mN
- Max. stylus length: 90mm
- Max. stylus weight: 10g
- Min. stylus tip diameter: ϕ 0.5mm

• TP200 probe

(ACCURA-J 10/14, PRISMO Navigator 10/14)



RDS+RST-P



TP200

Optical Single Point Measuring Diode Probe: DTS

(non-contact type)

- Specifications Measurement distance: 43 mm
- Measuring accuracy: R1=25 μ m



RDS+DTS

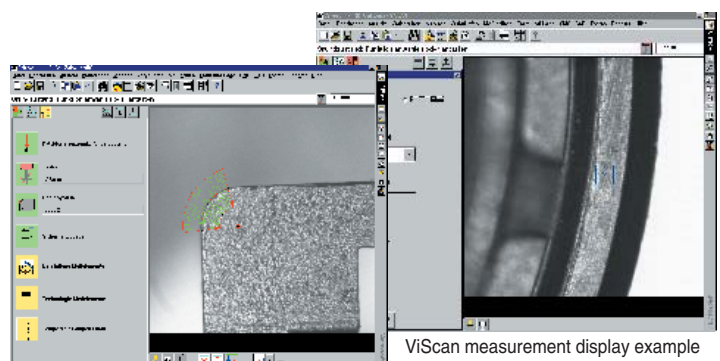
Optical 2D Auto-focus Camera Sensor: ViScan

(non-contact type)

- Specifications Measurement distance: 75 to 90mm
- Measuring accuracy: R1=50 μ m, R2=30 μ m



RDS+ViScan



ViScan measurement display example

* DTS and ViScan are supported on the Calypro software.

* DTS and ViScan are mounted on RDS for use. The touch probe (RST-P or TP200) is required for calibration of the RDS angle.

Specifications

Model		ACCURA-J 5	ACCURA-J 7					ACCURA-J 10(X:1200)				ACCURA-J 10(X:1600)			ACCURA-J 14(X:1600)					
		7/9/5	7/9/7	9/12/7	9/15/7	9/18/7	9/24/7	12/18/10	12/24/10	12/30/10	12/42/10	16/24/10	16/30/10	16/42/10	16/24/14	16/30/14	16/42/14			
Measuring Range (mm)	X	700	700	900					1200				1600			1600				
	Y	900	900	1200	1500	1800	2400	1800	2400	3000	4200	2400	3000	4200	2400	3000	4200			
	Z	500	700					1000				1000			1400					
VAST-xt	Maximum Permissible Indication Error	MPE_E (μm)	1.4+L/330 (1.9+L/300)					1.8+L/300 (2.3+L/250)				3.2+L/250 (3.7+L/200)			3.5+L/250 (4.2+L/200)					
	Maximum Permissible Probing Error	MPE_P (μm)	1.5 (1.5)					1.8 (1.8)				2.8 (2.8)			3.3 (3.3)					
	Maximum Permissible Scanning Error	MPE_THP (μm)	2.3 (2.3)					2.8 (2.8)				3.5 (-)			3.8 (-)					
	Temperature Conditions	Ambient Temperature (°C) Temperature Change	18 to 22 (18 to 26)°C 1.0°C/hour, 2.0°C/day, 1.0°C/m high																	
Options RDS	Maximum Permissible Indication Error	MPE_E (μm)	Note 1) 2.2+L/333 (2.2+L/300)					Note 2) 2.9+L/300 (2.9+L/250)				Note 2) 3.9+L/250 (3.9+L/200)			Note 2) 4.5+L/250 (4.5+L/200)					
	Maximum Permissible Probing Error	MPE_P (μm)	Note 1) 2.0 (2.3)					Note 2) 3.0 (3.3)				Note 2) 4.0 (4.0)			Note 2) 5.0 (5.0)					
	Temperature Conditions	Ambient Temperature (°C) Temperature Change	18 to 22 (18 to 24)°C 1.0°C/hour, 2.0°C/day, 1.0°C/m high																	
Measuring Scale		Glass Ceramic Scale					Glass Ceramic Scale Y: Steel tape				Glass Ceramic Scale Y: Steel tape			Glass Ceramic Scale Y: Steel tape						
Scale Resolution (μm)		0.2																		
Table (mm)	Material	Gabbro																		
	Usable Width	870	870	1070					1370				1670			1670				
	Usable Depth	1220	1220	1520	1820	2120	2720	2420	3020	3620	4820	3020	3620	4820	3020	3620	4820			
	Floor-to-Table Height	705	705					620				670			670					
Workpiece Measured	Max. Height (mm) RDS height included in parentheses	695 (602)	805 (712)					1179 (1086)				1479 (1386)			1479 (1386)					
	Max. Weight (kg)	1200	1400	1500	2000			2000		3500			3500			3500				
Guide System		Air bearing																		
Drive Speed (mm/s)		Joystick mode: 0 to 70, CNC mode: 300 max. in each axis direction, 520 max. in vector direction, scanning mode: 100 max.																		
Drive Acceleration (mm/s ²)		Axis Direction 1400 max. Vector Direction 2400 max.					Axis Direction 0800 max. Vector Direction 1400 max.				Axis Direction 0600 max. Vector Direction 1000 max.			Axis Direction 0600 max. Vector Direction 1000 max.						
Air Source		Supply pressure: 0.6 to 1.0 MPa; Usage Pressure: 0.5 MPa; Consumption: 60 NR/min.																		
Power Requirements		Supply voltage: Single-phase 100V AC ±10%, Frequency: 50/60 Hz ±3.5%, Max. power consumption: 1900 VA (including data processor)																		
Machine Dimensions (mm)	Width	1525	1525	1700					2050				2450			2450				
	Depth	1740	1740	2040	2340	2640	3240	2940	3540	4140	5340	3540	4140	5340	3540	4140	5340			
	Height	2750	2850					3540				3590			3890			4290		
Machine Weight (kg)		1400	1470	1950	2900	3020	4740	5820	7080	9500	12500	11000	13000	17000	11000	13000	17000			
Required Ceiling Height for Installation (mm)		2950	3050					3740				3790			4090			4490		
Delivery Clearance Height (+200) (mm)		1950	2050		2100		2150	2900				3200			3200					

* MPE_E (Maximum Permissible Indication Error) and MPE_P (Maximum Permissible Probing Error) are based on the ISO 10360-2-2001 (JIS B 7440-2-2003) evaluation method for 3D coordinate measuring machines.

* MPE_THP (Maximum Permissible Scanning Error) is based on the ISO 10360-4-2001 (JIS B 7440-4-2003) evaluation method for scanning measurement.

* The above accuracies apply when a standard stylus is used. L (mm) is any measurement distance.

Standard stylus VAST-xt probe head: tip φ 8, length 63.5mm
RDS+RST probe system: tip φ 3, length 40mm
RDS+TP200 probe system: tip φ 3, length 10mm

* Values in parentheses () for the above accuracies correspond to the temperature condition values in parentheses ().

* The RDS+RST and RDS+TP200 probe system is optional.

* Note 1) Accuracy annotation on RDS+RST probe system

* Note 2) Accuracy annotation on RDS+TP200 probe system