



# XYZAX mju NEX

Dedicated catalog is available.

**Compact CNC coordinate measuring machine which realizes energy saving with stable measuring accuracy**



Laptop PC Model  
(Optional only with Calypso)

XYZAX mju



**Desktop PC Integrated Model (Standard)**  
**Realizes further space-saving.**  
**Hybrid Guideway Technology Equipped.**

**Compact Design** (Eliminated 40% of footprint)

\*Comparison with our existing machines

The most compact footprint in its class. It enables to select an installation space easily.

**Hybrid Guideway Technology Energy Saving Performance:75% less air consumption**

\*Comparison with our existing machines

High rigidity linear guideways on X-, Y (right)- and Z-axes and a reliable air bearing on Y (left)-axis employ hybrid guideway technology. Moreover, it achieves one-fourth of air consumption compared with our existing machines. It enables to start with only electricity using a compact air compressor (option).

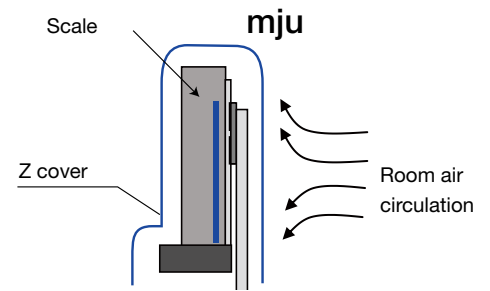
**Eliminate 73% of power consumption**  
**Eliminate 73% of CO2 emission from power consumption**

\*Comparison with our existing machines

Reduction of power consumption contributes to cut running costs. This environmentally-friendly machine also reduces the CO2 emission resulting from power consumption.

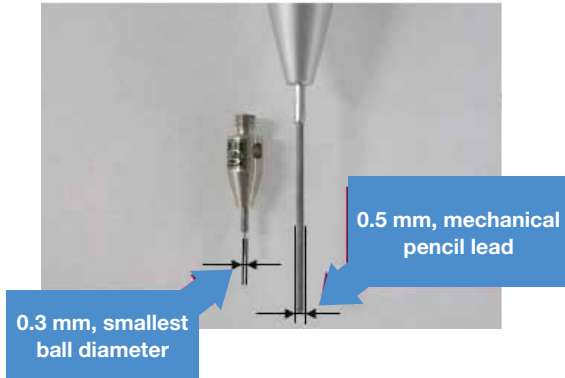
## Environment Resistant Design

Bellows are equipped against dust on X-and Y-axes as standard. An air bearing prevents dust from Y-axis (left). Z-axis scale is mounted on Z-axis column inside of Z-cover for steady air condition. Temperature compensation is implemented as standard.



## Smallest Stylus Ball Diameter: $\Phi$ 0.3 mm

Stylus with smallest ball diameter is appropriate for measurements of small workpieces and extra small holes.



## Deliverable through common door frame

Compact design makes it possible to deliver through a common door. As it is not necessary to break the wall for delivery, no extra cost is required.

\*Special work expense may incur depending on the delivery condition.

	Standard transport dimension	Minimum transport dimension	Separated transport dimension
Depth (mm)	1070	1000	1070
Width (mm)	1080	1033	1080
Height (mm)	2112	2096	1570

## Probe System



Automatic touch trigger probe corresponding to Max.300 mm extension.  
 Horizontal rotation angle:  $\pm 180^\circ$   
 Vertical rotation angle: 0 to  $+105^\circ$   
 Indexing steps:  $7.5^\circ$  step  
 <For TP200B>  
 Stylus length: Max. 100 mm with GR Stylus  
 Extension bar: Max 200 mm



Automatic touch trigger probe utilizes power of Coordinate Measuring Machine (TP20 Built-in)  
 Horizontal/vertical rotation angle:  $15^\circ$  steps

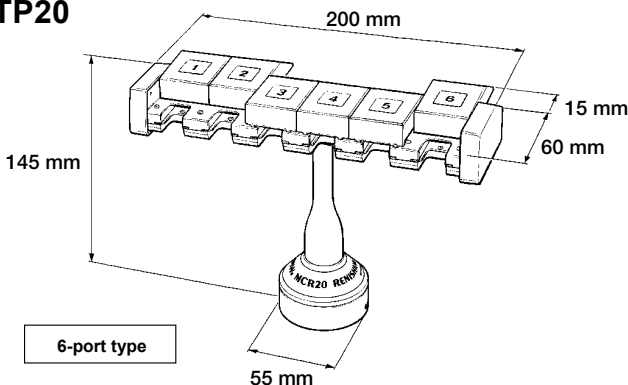


Horizontal rotation angle:  $15^\circ$  step  
 Vertical rotation angle: Fixed at optional angle  
 Extension bar: Max 200 mm  
 <For TP200B>  
 Horizontal rotation angle:  $15^\circ$  step  
 Vertical rotation angle: Fixed at optional angle (Max. permissible length measurement error: E0, MPE( $\mu$ m)  $2.2 + L/250$ )

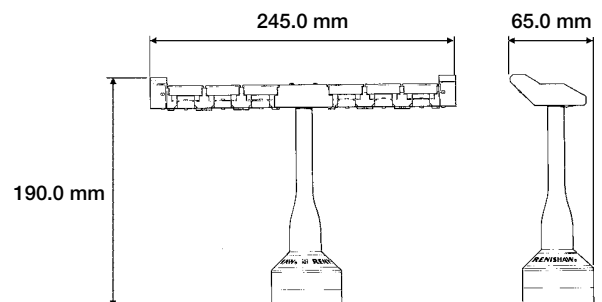
## ACR200/MCR20 module change rack (Option)

Module change rack enables automated changing of TP20/TP200B stylus modules and improves measuring efficiency. MCR is designed to store up to six TP20 probe modules for automatic changing under measurement program control and to protect them from dust.

### ■ TP20



### ■ TP200B



## Specifications

Type		mju NEX -□4	mju NEX -□6	mju NEX -□8	mju NEX -□9	mju NEX -□2
		C4 : CALYPSO X4 : XYANA	C6 : CALYPSO X6 : XYANA	C8 : CALYPSO X8 : XYANA	C9 : CALYPSO X9 : XYANA	C2 : CALYPSO X2 : XYANA
Measuring range	X-axis (mm)	510				
	Y-axis (mm)	460				
	Z-axis (mm)	410				
Length measuring method		Linear scale system				
Minimum unit (μm)		0.01				
Measurement precision *	Maximum permissible error of length measurement E0, MPE (μm) E150, MPE (μm)	2.7 + L/250 3.2 + L/250	2.2 + L/250 2.7 + L/150	2.7 + L/150 -	2.2 + L/250 2.7 + L/150	2.7 + L/250 3.2 + L/250
	Maximum permissible limit of the repeatability range R0, MPL (μm)	1.8	1.4 <sup>*1</sup>	2.0	1.4 <sup>*1</sup>	1.8
	Maximum permissible single-stylus form error PFTU, MPE (μm)	2.7	2.5 <sup>*1</sup>	3.3	2.5 <sup>*1</sup>	2.7
	Probe System	PH10T/TP20	PH10T/TP200B	RTP20	PH1/TP200B	PH1/TP20
Guide system of each axis		linear guides with air bearings				
Table	Material	Gabbro				
	Effective width (X) (mm)	700				
	Effective depth (Y) (mm)	900				
	Height from floor (mm)	725				
	Flatness	Class JIS 1				
	Fixing screw for object to be measured	M10 internal screw				
Workpiece measured	Max. height (mm)	520				
	Max. mass (kg)	200				
Drive speed	Max. acceleration /deceleration (mm/s <sup>2</sup> )	1732				
	Variable speed range (mm/sec)	Auto measurement mode:0.01 to 433 (Stepless control)				
		Joystick and manual mode (Automatic measurement) 0 to 120 (Stepless control)				
Measuring speed (mm/sec)	Joystick and manual mode (Automatic measurement) 0 to 5					
External dimensions of measuring unit	Width (mm)	1145				
	Depth (mm)	1256				
	Height (mm)	2170				
Body mass (kg)		660				
Precision assurance environmental temp. condition	Environmental temp.(°C)		18 to 22			
	Temp. change	(°C/hr)	1.0			
		(°C/day)	2.0			
	Temp. gradient (°C/m)		1.0			

\*1 Temperature condition: Environment temperature 18 to 24 °C

\* Measurement precision [E0, MPE, E150, MPE and R0, MPL] are based on evaluation method of JIS B 7440-2: 2013 (ISO 10360-2: 2009).

[PFTU, MPE] is the evaluation method based on JIS B 7440-5:2013(ISO 10360-5:2010)

\*L is the distance between any two points (mm).

\*The measuring accuracy is a numerical value measured under following specifications.

•TP20,RTP20... LFModule and Standard stylus

•TP200B...SF Module and Standard stylus

\*Standard stylus specification :

Stylus tip diameter = φ4, L=20 mm, Custom stylus of RENISHAW.

## Power supply condition

Power supply voltage	AC100 V / AC110 V ±10 % AC220 V / AC230 V / AC240 V ±10 % 50/60 Hz
Power consumption	801 W (including PC and monitor)
Power plug	2-pole receptacle with a grounding terminal:15 A, 125 V(only for AC 100/110 V) No power plug is included for overseas use measuring machine main unit.
Earth	D type grounding

\*Provide the supplied power before the delivery. To avoid the impact by the power noise, it is recommended to provide one system for the Coordinate measuring machine.

\*Please prepare power sockets for the machine(mainbody)/PC/monitor/printer

## Air source condition

Supply pressure	0.40 to 0.69 MPa
Used pressure	0.30 MPa
Consumption (Status value: 20 °C for atmospheric pressure, and 65 % for relative humidity)	10 NI/min
Attached nipple model	High coupler: 1/4"plug (male screw)
Supply position	Measuring machine main unit right side

\*The maximum value is applied for the above consumption.

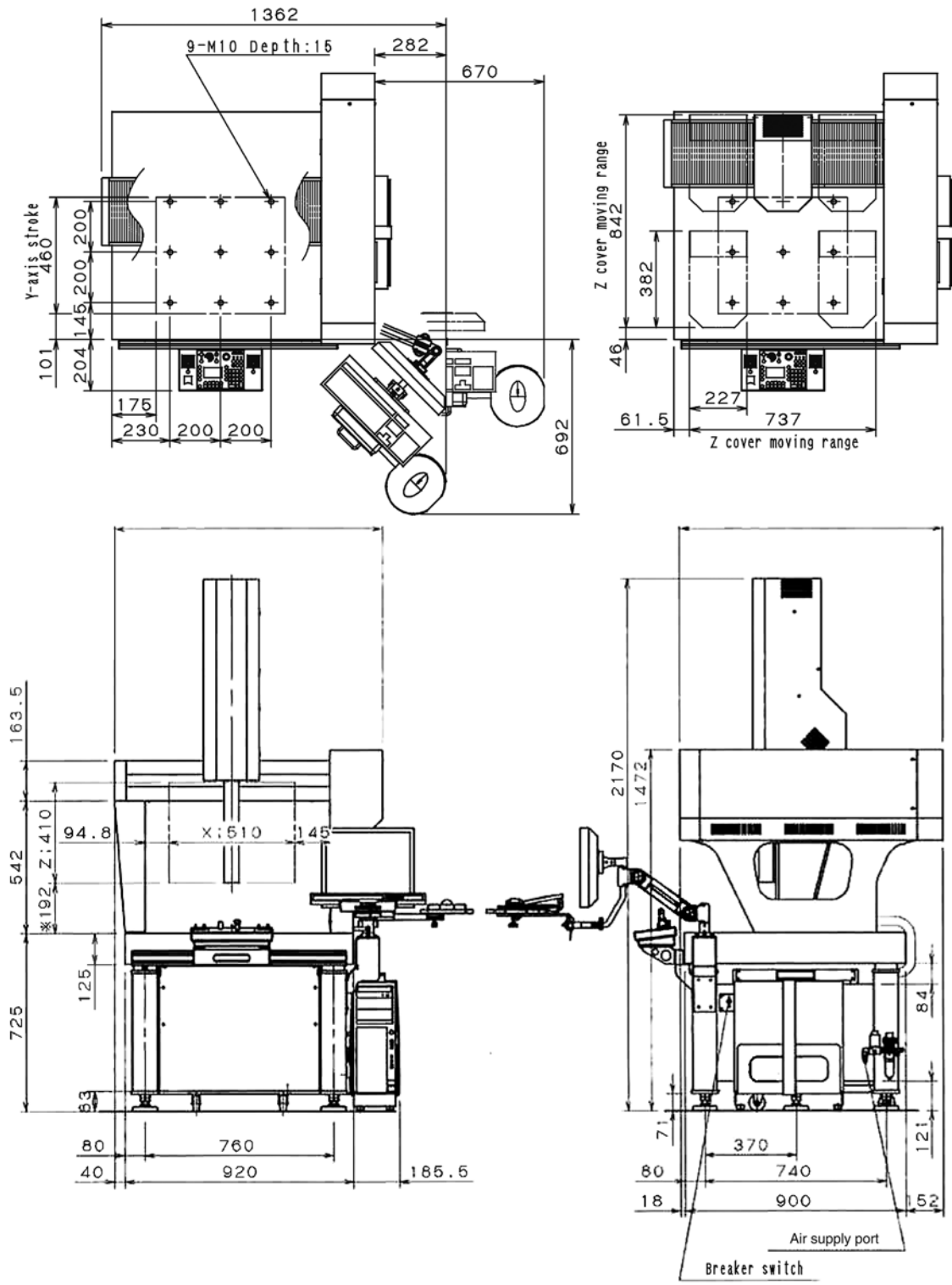
\*Provide an air source and a connection hose before the delivery.

\*The moisture and the oil content included in the compression air supplied must be removed by using various devices. Our company can provide recommended various removal device. For more details, contact our branch offices.

## ■ Option

- A4 ink jet printer
- Compact wagon for printer
- Notebook PC
- Stand for notebook PC integrated model with anti-vibration rubber, monitor arm, table for PC
- System rack
- MCR20 module change rack
- Modules
- Extensions
- Styli
- Optional software

## External View and Dimensions mju NEX



High coupler : 1/4"plug (male screw)

\*Distance from the probe attachment surface to the center of referende stylus(L=20) ball is 192 mm.  
(PH10T+TP20/PH1+TP20 /RTP20 type is common)

\*Standard air source socket  
High coupler : 1/4"plug (male screw)