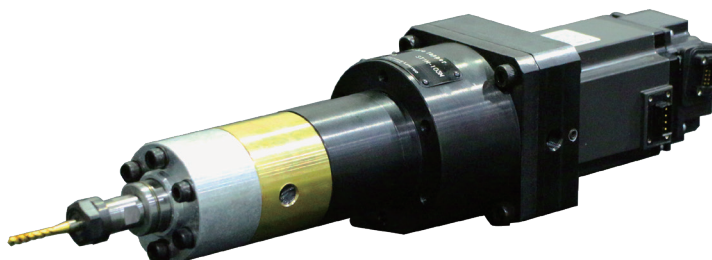


Mechanical feed/electronically controlled tapping unit

SYNCHROTAPPER SERVO

ST1M

1. Because the total length of the unit is 372.5mm and compact, achieved downsizing of the tapping machine.
2. High-efficiency tapping is possible at a maximum of 3,000min<sup>-1</sup>
3. Up to 15 programs with different strokes and rotation speeds can be registered.

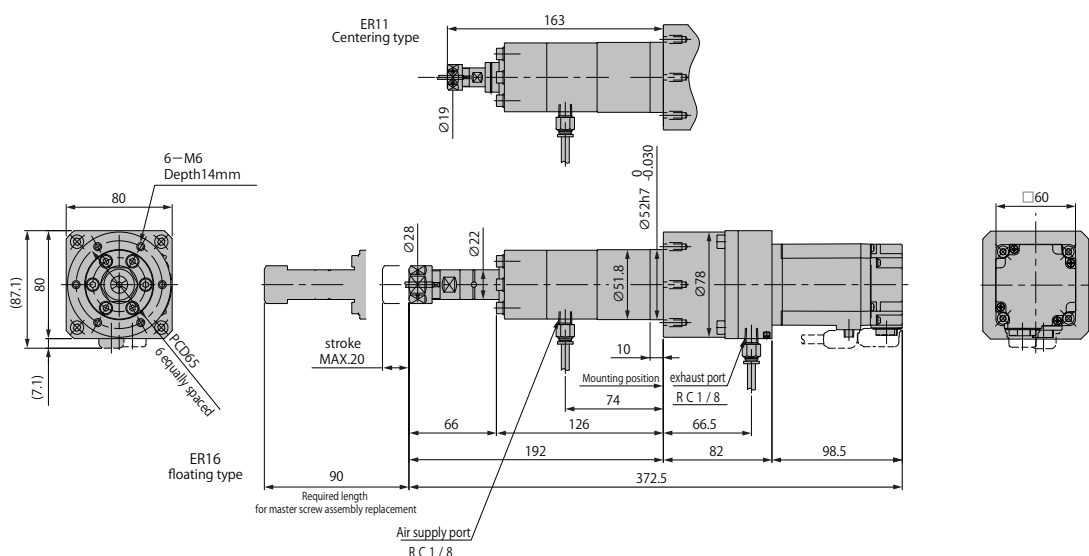


SPEC (Standard type)

Model	Rotation speed		Tapping capacity		Stroke			Electric motor	Thread pitch		Weight
	fast forward	Lead feed	AL (ADC)	ST (S45C)	fast forward	Lead feed	full stroke		mm	thread /inch	
	min <sup>-1</sup>		mm		mm			kW			kg
ST1M-103M	Max.3,000	Max.3,000	M5	M3.5	Max.20	Max.20	Max.20	0.4 AC Servo motor	0.25	64	7
									0.3		
									0.35	56	
									0.4		
									0.45	48	
									0.5		
									0.6	40	
0.7											
0.8	32										

Note 1. Tapping capacity uses a spiral tap or point tap, and the tapping depth is 1.5 times the thread diameter.  
 2. Determine the rotation speed based on the workpiece material, machinability, tap diameter and material, and cutting speed.  
 3. Select a master screw assembly that matches the pitch of the tap you are using.

Dimensions(mm)

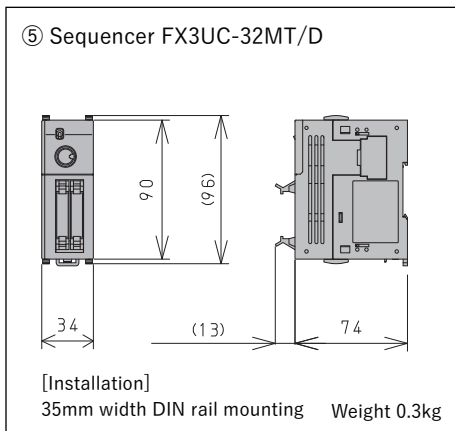
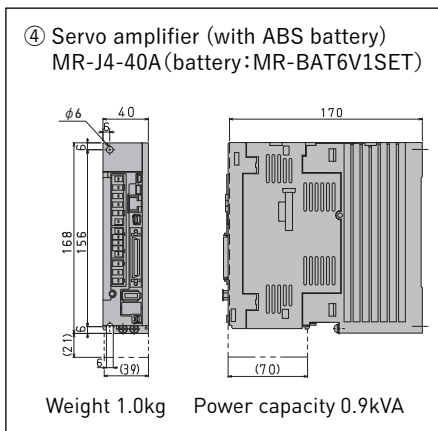
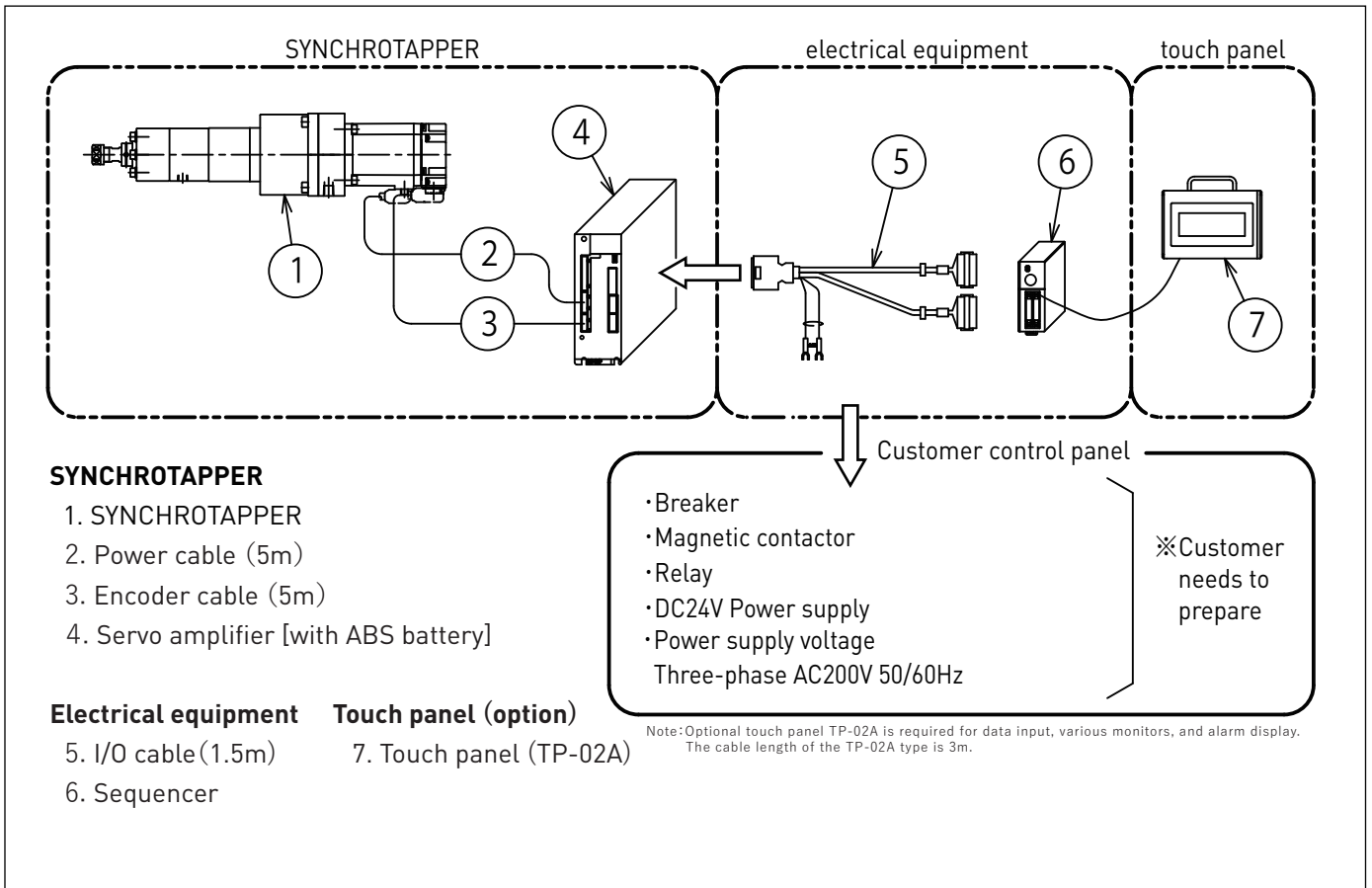


The following two types of master screw Ass'y are available depending on the tap holding mechanism.

Tap retention mechanism

•Floating type  
 (for large diameter, low speed machining)  
 Misalignment with pilot hole is allowed.  
 Radial floating amount 0.2mm (at diameter)

•Centering type  
 (for small diameter and high speed processing)  
 The amount of radial floating is kept extremely small.



Note: Dedicated parameters and software for controlling the SYNCHROTAPPER are input to the attached servo amplifier and sequencer.

I/O signal specifications		
Input/Output	Signal name	Name
Input *1	X06	A-axis operation preparation
	X07	A-axis emergency stop
	X10	A-axis automatic start
	X11	A-axis mechanical origin return
	X12	A-axis error reset
	X13	A-axis EXT/MANUAL
	X14	A-axis program selection 1
	X15	A-axis program selection 2
Output *2	X16	A-axis program selection 4
	X17	A-axis program selection 8
	Y12	A-axis during automatic operation
	Y13	A-axis cycle end
	Y14	A-axis machine origin
	Y15	A-axis ready
	Y16	A-axis error
	Y17	A-axis emergency stop condition

\*1 Voltage: DC24V, Current: 7mA  
\*2 Voltage: DC24V, Current: 100mA



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