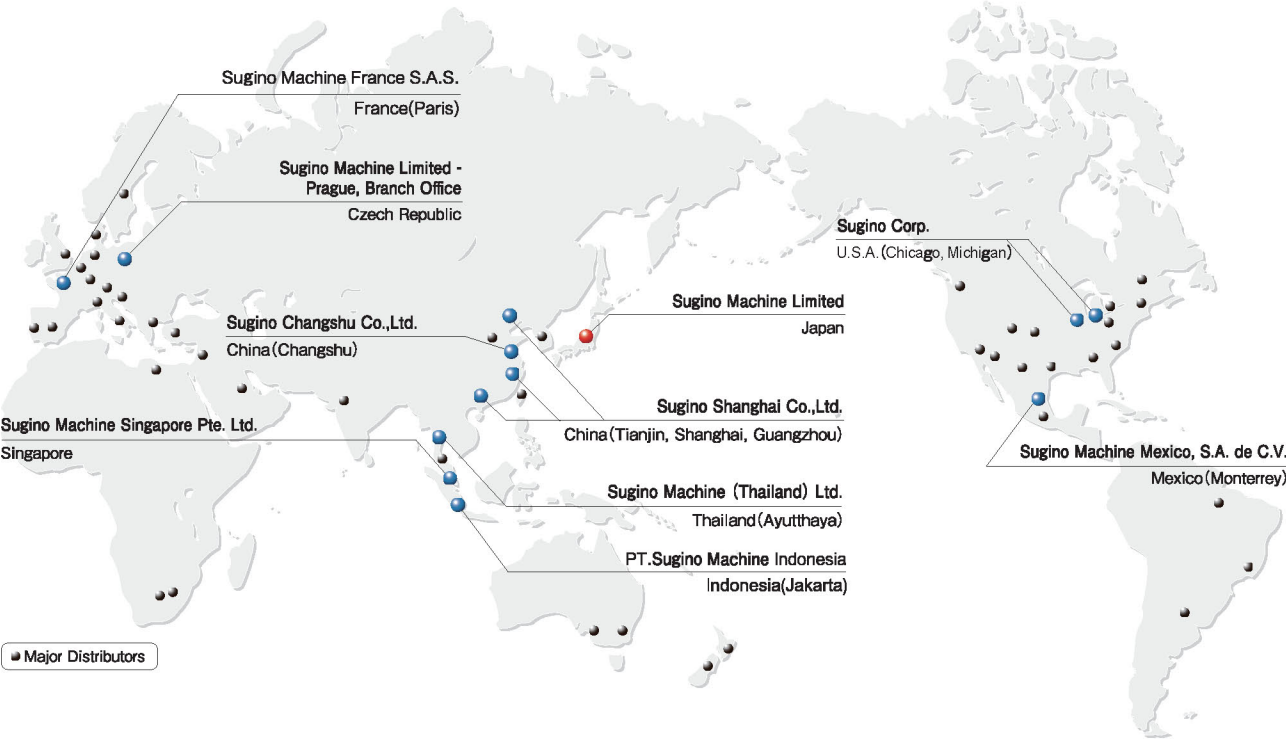


Sugino Global Network



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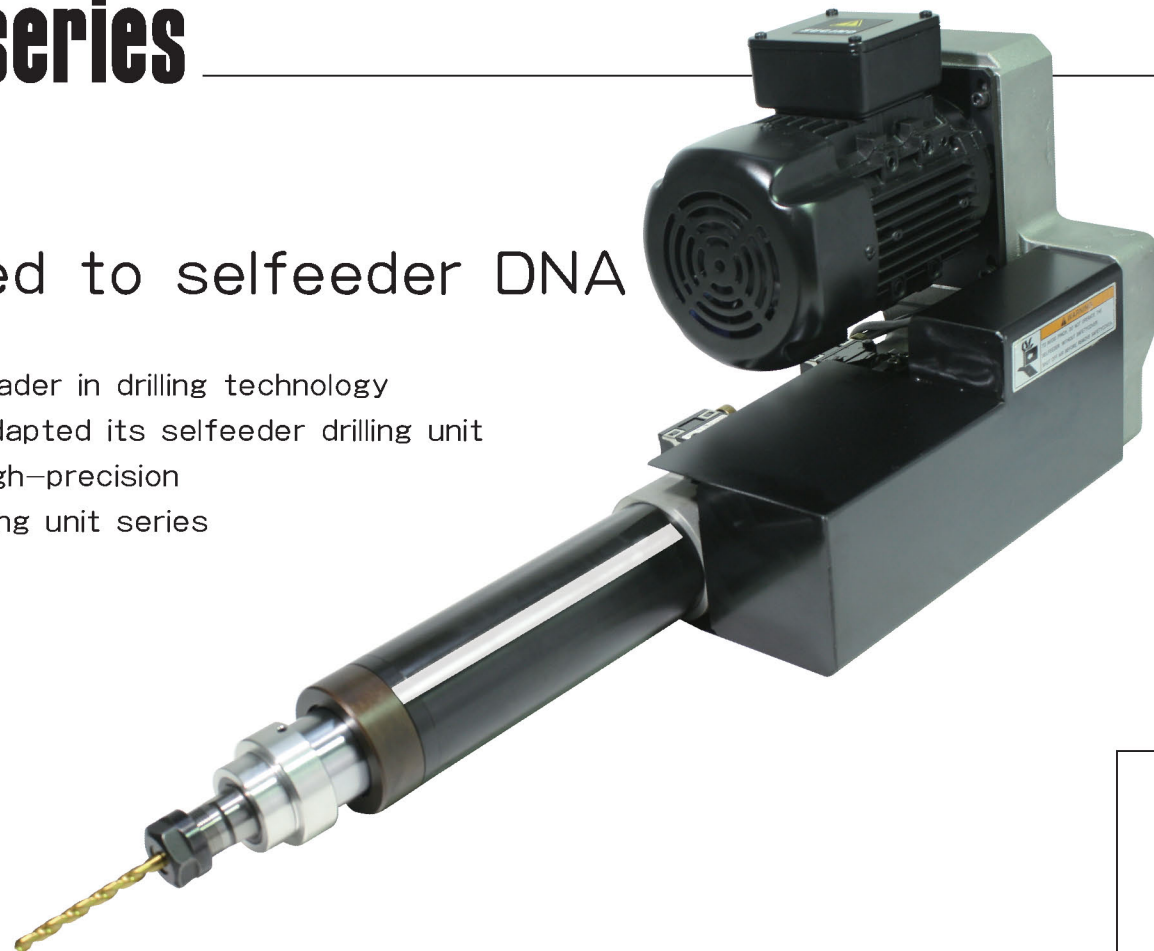
*Specifications in this catalog are subject to change without prior notice for further improvement.
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revo Series



Succeed to selffeeder DNA

As a world leader in drilling technology Sugino has adapted its selffeeder drilling unit into a new high-precision economic drilling unit series named REVO.

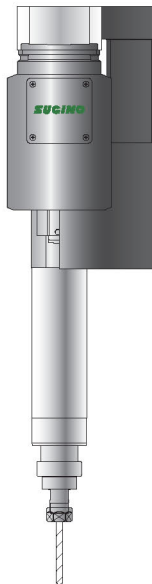


selffeeder revo®



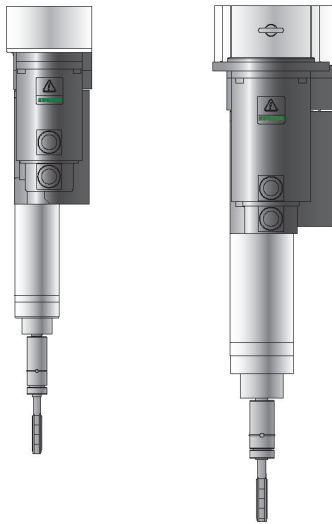
SRV2 SRV3 SRV5

mechafeed selffeeder revo®



MSR3

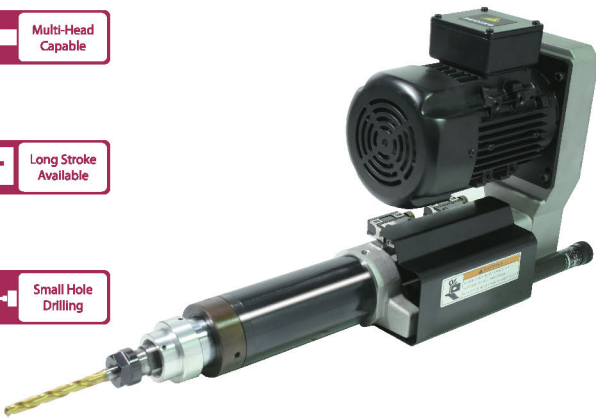
synchro tapper™ revo



SSTR3 SSTR5

selffeeder revo®

- Light & Simple Construction
- Multi-Head Capable
- Spindle Speed Max.10,000min⁻¹
- Long Stroke Available
- Large Hole Drilling
- Small Hole Drilling



Capacity			Page
AL Φ 8	ST Φ 6	SRV2	P.4
AL Φ 11.5	ST Φ 8	SRV3	P.5
AL Φ 16	ST Φ 12	SRV5	P.6

mechafeed selffeeder revo®

- Light & Simple Construction
- Multi-Head Capable
- Long Stroke Available
- Small Hole Drilling
- Spindle Speed Max.7500 min⁻¹
- 1 2 Second origin



Capacity			Page
AL Φ 11.5	ST Φ 8	MSR3	P.8

synchro tapper™ revo

- Multi-Head Capable
- Variable Speed
- Small Hole Drilling
- Large Hole Drilling
- Right Hand Tapping
- Rigid Body
- 1 2 Second origin



Capacity			Page
AL M12	ST M12	SSTR3	P.10
AL M22	ST M16	SSTR5	P.11

Option Items

Multispindle head, Regulator, Flex stand, Level clamp , Adjustable spindle, Single spindle tapper head ... P.12-P.23

SRV2

Smallest in the series;best suited for small hole drilling.



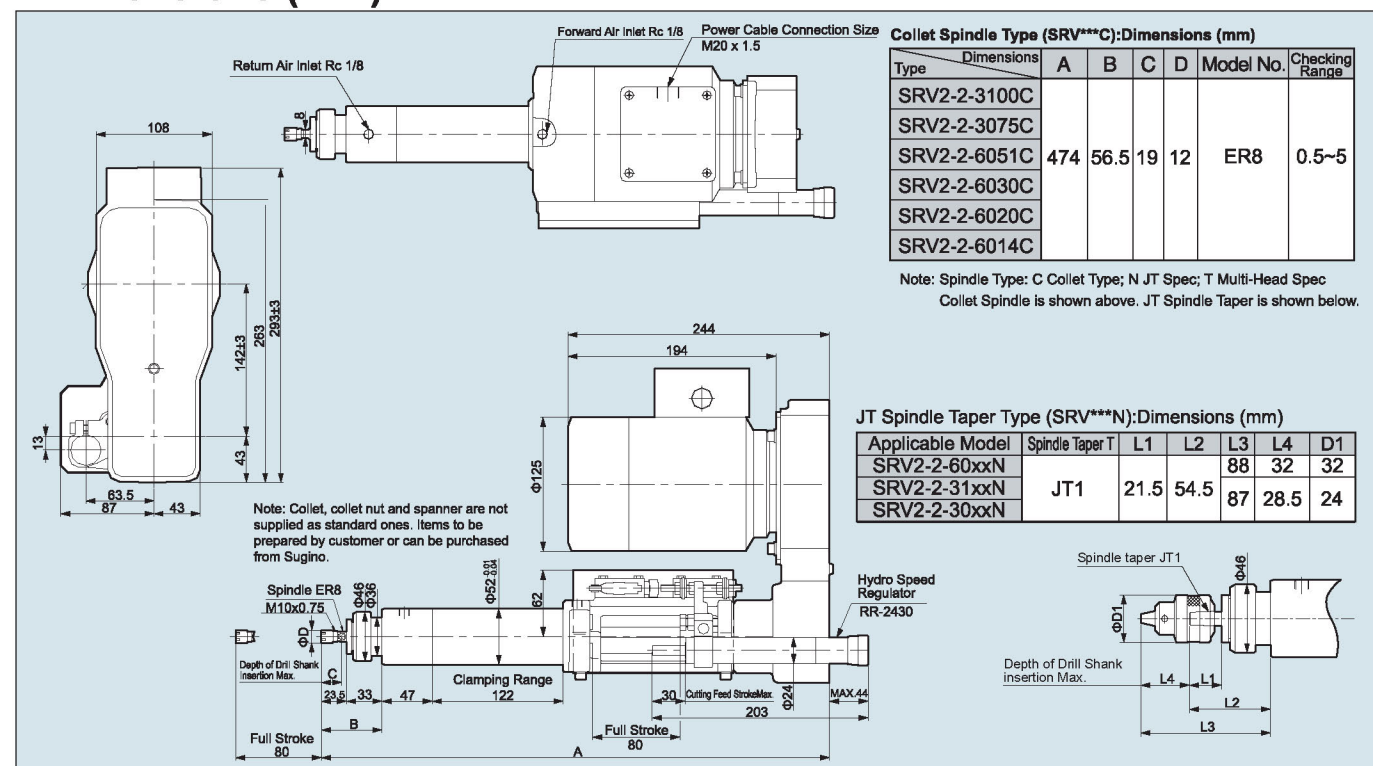
Operating Air Pressure: 0.6 MPa

Capacity

Specs 	Spindle Speed (no load)		Drill Chuck Capacity	Max. Drill Size						Stroke		Motor		Thrust	Air Cons.	Wt.
				1-Spindle			2-Spindle			Max.	Cutting Feed Stroke	Output	No. of Pole			
	50Hz	60Hz		AL*	FC*	ST*	AL*	FC*	ST*							
	min ⁻¹	min ⁻¹		mm	mm	mm	mm	mm	mm							
Models	min ⁻¹	min ⁻¹	mm	mm	mm	mm	mm	mm	mm	kW	P	N	L/Stk	kg		
SRV2-2-3100	10,000	12,000	3 (Keyless Drill Chuck) 6.5	2	1.5	1	—	—	—	80	0~30	0.25	2	600	2~3	14
SRV2-2-3075	7,500	9,000		3	2	1	—	—	—							
SRV2-2-6051	5,100	6,100		4	3	1.5	4	3	1.5							
SRV2-2-6030	3,000	3,600		6.5	5	3	5	4	3							
SRV2-2-6020	2,000	2,400		7	6	4.5	6	5	3.5							
SRV2-2-6014	1,400	1,700		8	7	6	6	5	3.5							

- Note
- 1.Model selection should be done from the above chart, based on workpiece specifications, material hardness, diameter of hole and cutting speed.
 - 2.The drilling capacity shown above is a depth equivalent to 2 times the drill diameter.
 - 3.The RR-2430 is installed as a standard type hydro speed regulator. Specify an optional hydro speed regulator as necessary, refer to page 15 for details.
 - 4.When ordering, please specify the voltage and frequency of the motor.
 - 5.This table is for JT spindle type. 6.The dimensional drawing is for ER8 spindle type. 7.AL*:Aluminium, FC*: Cast Iron, ST*: Carbon Steel, Wt*: Weight

Dimensions (mm)



Refer to the dimensional drawing for the spindle standard of JT speculation.

SRV3

Substantial cutting stroke of 30mm with standard model at 577mm and long stroke model at 677mm of total overall length available for wide variety of applications.



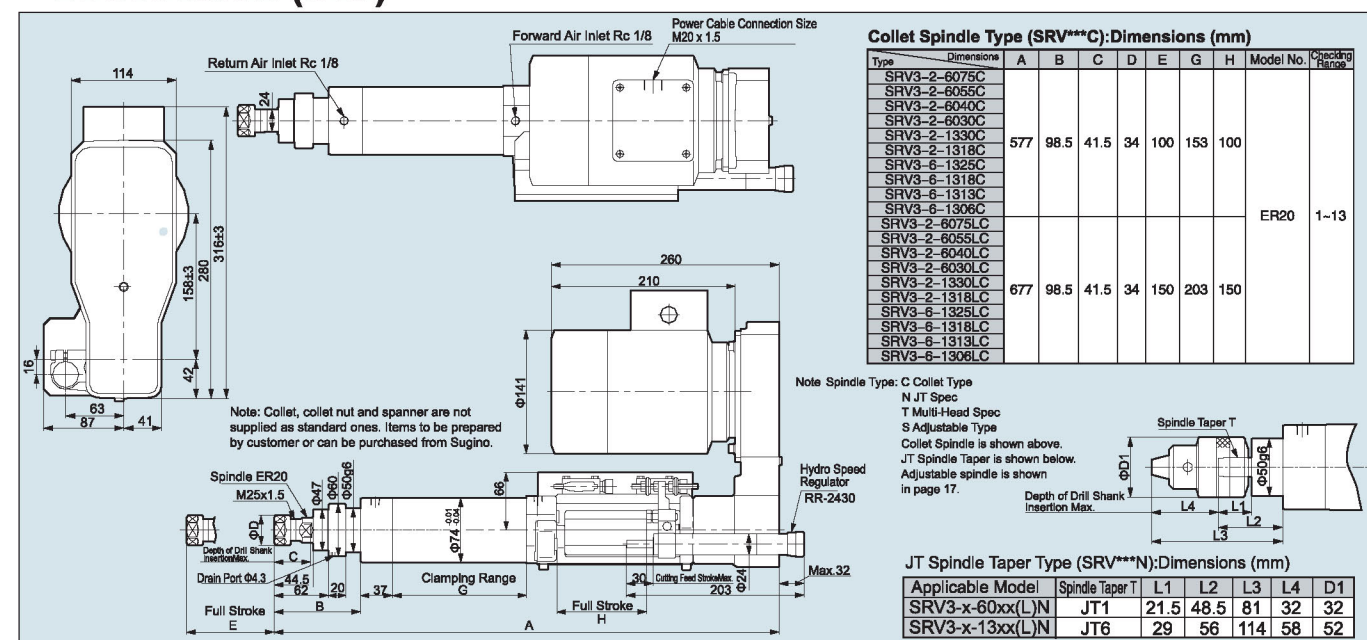
Operating Air Pressure: 0.6 MPa

Capacity

Specs Models	Spindle Speed (no load)		Drill Chuck Capacity	Max. Drill Size												Stroke		Motor		Thrust	Air Cons.	Wt
	50Hz	60Hz		1-Spindle			2-Spindle			3-Spindle			4-Spindle			Max.	Cutting Feed Stroke	Output	No. of Pole			
				AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*	ST*							
min ⁻¹	min ⁻¹	mm	mm			mm			mm			mm				kW	P	N	L/Stk	kg		
SRV3-2-6075(L)	7,500	9,000	6.5	3	2	1	—	—	—	—	—	—	—	—	—	100 (150)	0~30	0.37	2	1,250	3~5 (4.5-7.5)	20 (22)
SRV3-2-6055(L)	5,500	6,600		4	2.5	1.5	4	2.5	1.5	—	—	—	—	—	—							
SRV3-2-6040(L)	4,000	4,800		5.5	4	2	5	4	2	4	3.5	2	3.5	3	2							
SRV3-2-6030(L)	3,000	3,600		7	5	3	6	5	3	5	4	3	4	3.5	3							
SRV3-2-1330(L)	3,000	3,600	13	7	5	3	6	5	3	5	4	3	4	3.5	3			0.25	6			
SRV3-2-1318(L)	1,800	2,200		9	7.5	5	7	5.5	5	6	5	4	5.5	4	3.5							
SRV3-6-1325(L)	2,500	3,000		7	5.5	3.5	5.5	4.5	3.5	4.5	3.5	3	4	3	2.5							
SRV3-6-1318(L)	1,800	2,200		7.5	6	5	6	5	4	5	4	3.5	5	3.5	3							
SRV3-6-1313(L)	1,300	1,600		8	7	6	6.5	5.5	5	6	5	4	5.5	4.5	3.5							
SRV3-6-1306(L)	600	700		11.5	9	8	8.5	7	6	7	5.5	4.5	5.5	4.5	3.5							

- Note
- 1.Model selection should be done from the above chart, based on workpiece specifications, material hardness, diameter of hole, and cutting speed.
 - 2.The drilling capacity shown above is a depth equivalent to 2 times the drill diameter.
 - 3.The RR-2430 is installed as a standard type hydro speed regulator. Specify an optional hydro speed regulator as necessary, refer to page 15 for details.
 - 4.When ordering, please specify the voltage and frequency of the motor.
 - 5.This table is for JT spindle type. 6.The dimensional drawing is for ER20 spindle type. 7.AL*:Aluminium, FC*: Cast Iron, ST*: Carbon Steel, Wt*: Weight

Dimensions (mm)



Please refer to the specifications for adjustable spindle on page 17.

SRV5

Heavy-duty model comes with 0.75kW motor, offering high torque and powerful thrust.

Max. Drilling size (mm)

Speed
Max. 7,300 min⁻¹

Multi-Head Capable

Light & Simple Construction

Large Hole Drilling



Capacity

Operating Air Pressure: 0.6 MPa

Specs	Spindle Speed (no load)		Drill Chuck Capacity	Max. Drill Size												Stroke		Motor		Thrust	Air Cons.	Wt.
	50Hz	60Hz		1-Spindle			2-Spindle			3-Spindle			4-Spindle			Max.	Cutting Feed Stroke	Output	No. of Pole			
				AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*	ST*							
Models	min ⁻¹	min ⁻¹	mm	mm			mm			mm			mm			mm	kW	P	N	L/Stk	kg	
SRV5-2-6061	6,100	7,300	6.5	3.5	2.5	1.5	—	—	—	—	—	—	—	—	100	0~40	0.75	2	2,700	7~10	38	
SRV5-2-6040	4,000	4,800		5.5	4	2	5.5	4	2	5.5	4	2	5.5	4								2
SRV5-2-1322	2,200	2,600	13	10	7	4	8	6.5	4	7	6	4	6.5	5.5			4	0.55				6
SRV5-2-1315	1,500	1,800		12.5	10	6	9	7.5	6	8	6.5	6	7.5	6			5.5					
SRV5-6-1320	2,000	2,400		9.5	8	4.5	7.5	6	4.5	6.5	5.5	4.5	6	5			4.5					
SRV5-6-1313	1,300	1,600		11.5	9	7	8.5	7	6.5	7.5	6	5.5	7	6			5					
SRV5-6-1307	750	900		14.5	12	10	10.5	8.5	7.5	9	7.5	6.5	8.5	7			6					
SRV5-6-1305	500	600		16	14	12	13	10.5	8.5	11	8.5	7	9	7			6					

- Note
- Model selection should be done from the above chart, based on workpiece specifications, material hardness, diameter of hole and cutting speed.
 - The drilling capacity shown above is a depth equivalent to 2 times the drill diameter.
 - The RB-3140 is installed as a standard type hydro speed regulator. Specify an optional hydro speed regulator as necessary, refer to page 12 for details.
 - When ordering, please specify the voltage and frequency of the motor.
 - This table is for JT spindle type. 6. The dimensional drawing is for ER25 spindle type. 7. AL*: Aluminium, FC*: Cast Iron, ST*: Carbon Steel, Wt.*: Weight

Dimensions (mm)

Collet Spindle Type (SRVC): Dimensions (mm)**

Type	Dimensions	A	B	C	D	Model No.	Checking Range
SRV5-2-6061C							
SRV5-2-6040C							
SRV5-2-1322C							
SRV5-2-1315C	679.5	122.5	57	42	ER25	1~16	
SRV5-6-1320C							
SRV5-6-1313C							
SRV5-6-1307C							
SRV5-6-1305C							

Note Spindle Type: C Collet Type
N JT Spec
T Multi-Head Spec
S Adjustable Type
Collet Spindle is shown above. JT Spindle Taper is shown below.

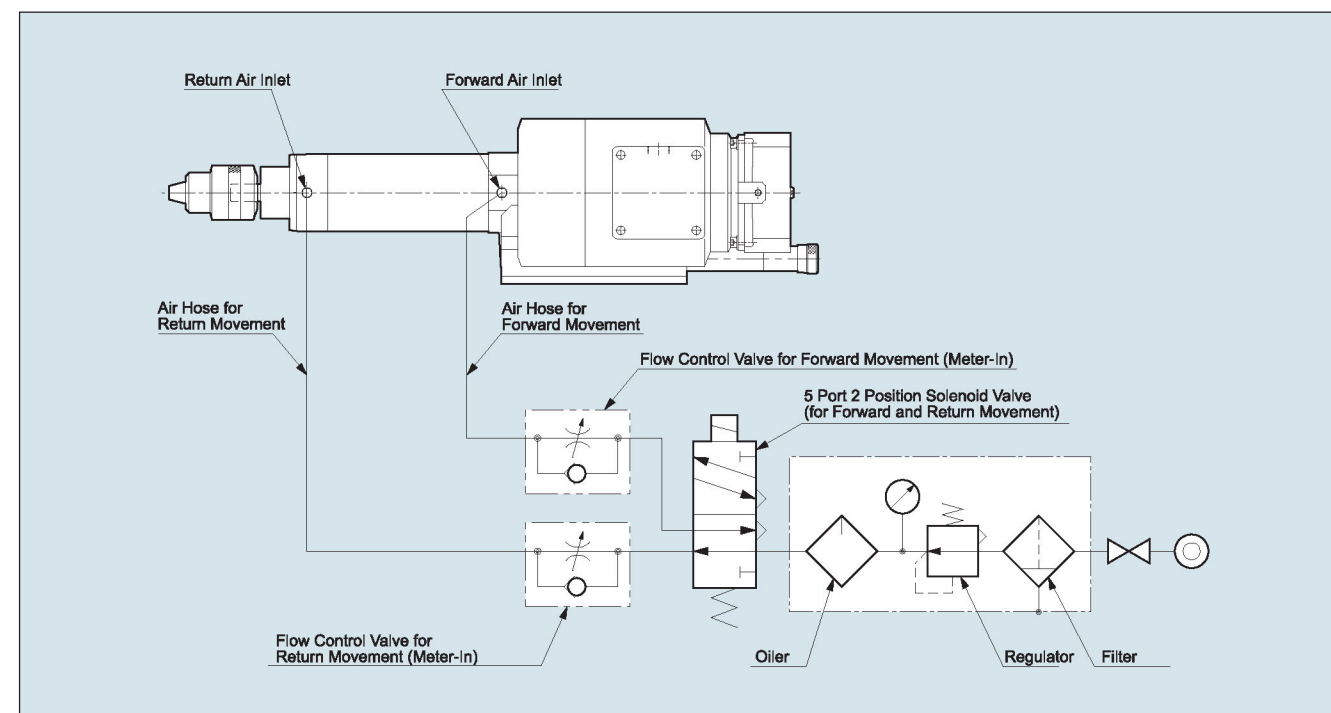
JT Spindle Taper Type (SRVN): Dimensions (mm)**

Applicable Model	Spindle Taper T	L1	L2	L3	L4	D1
SRV5-x-60xxN	JT1	21.5	61.5	95	32	32
SRV5-x-13xxN	JT6	29	69	127	58	52

Please refer to the specifications for adjustable spindle on page 17.

Air Pressure Control Circuits for Selffeeder revo

Selffeeder revo is equipped with a built-in cylinder for the control of forward and return movements.



- Note
- Selffeeder revo requires filtered air with 0.4 - 0.6MPa.
 - Pneumatic equipments to the air inlets are prepared by customer.
 - Selffeeder revo has same dimension of air cylinder for forward and return movement. Be sure to use the Meter-in flow control valve.

Operate-Signal Kits for selffeeder revo

Operation Signal Kit (OSK) is a kit designed to detect maximum drilling depth and return positions for the Selffeeder revo. It is utilized for synchronized operations with peripheral devices via micro switches.

Note Limit Switch is SL1-P by Yamatake

selffeeder revo®

High-precision drilling unit Selffeeder Revo is a highly cost effective drilling equipment which uses the latest international technology to satisfy high-speed and high-precision type drilling needs.

Max. Drilling size (mm)

Aluminium

φ11.5

Steel

φ8

MSR3

It is a high precision type equipment with good positioning accuracy with controllable feed rate.

Speed
Max. 7,500min⁻¹

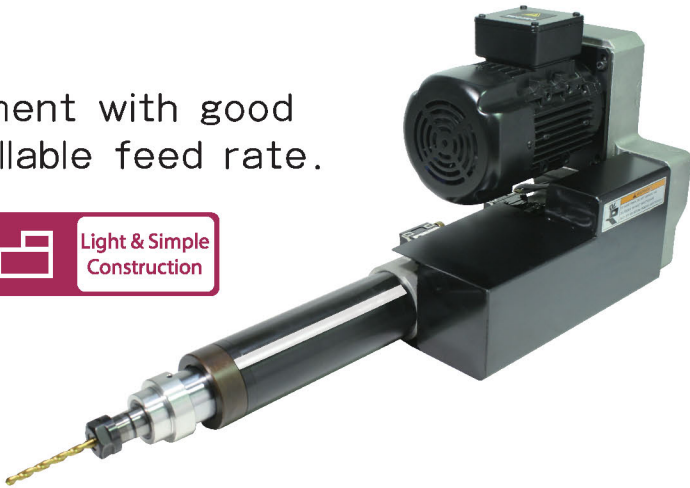
Small Hole
Drilling

Light & Simple
Construction

Multi-Head
Capable

Long Stroke
Available

Second origin



Capacity

Specs Models	Spindle Speed (no load)	Max. Drill Size												Stroke		Spindle motor	Feed motor	Fast forward speed	Feed thrust	Wt.	
		1-Spindle			2-Spindle			3-Spindle			4-Spindle			Max.	Cutting Feed Stroke						
		50Hz	AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*	ST*	AL*	FC*								ST*
		min ⁻¹	mm			mm			mm			mm									mm
MSR3-2-6075(L)(B)	7,500	3	2	1	—	—	—	—	—	—	—	—	—	95 (145)	0~95 (0~145)	0.37	0.4 Servo motor	Max. 250	1,450	23/26	
MSR3-2-6055(L)(B)	5,500	4	2.5	1.5	4	2.5	1.5	—	—	—	—	—	—								
MSR3-2-6040(L)(B)	4,000	5.5	4	2	5	4	2	4	3.5	2	3.5	3	2								
MSR3-2-6030(L)(B)	3,000	7	5	3	6	5	3	5	4	3	4	3.5	3								
MSR3-2-1330(L)(B)	3,000	7	5	3	6	5	3	5	4	3	4	3.5	3								
MSR3-2-1318(L)(B)	1,800	9	7.5	5	7	5.5	5	6	5	4	5.5	4	3.5								
MSR3-6-1325(L)(B)	2,500	7	5.5	3.5	5.5	4.5	3.5	4.5	3.5	3	4	3	2.5			0.25					
MSR3-6-1318(L)(B)	1,800	7.5	6	5	6	5	4	5	4	3.5	5	3.5	3								
MSR3-6-1313(L)(B)	1,300	8	7	6	6.5	5.5	5	6	5	4	5.5	4.5	3.5								
MSR3-6-1306(L)(B)	600	11.5	9	8	8.5	7	7	7	5.5	4.5	5.5	4.5	3.5								

Note 1. Model selection should be done from the chart above based on workpiece specifications, material hardness, diameter and material of tool , rotational speed (cutting speed) and so on.2. The drilling capacity shown above is a depth equivalent to 2 times the drill diameter. 3. The stroke of cutting feed is adjusted from the stroke of ball screw. The maximum stroke is 150mm.4. Please specify voltage and frequency of the spindle motor while placing your order. 5. The table above assumes E20 as main spindle. 6. The dimension digram above is while using recommended E20 as a main spindle. 7. Model 'B' shows feed axis type servo motor with brake. It is used in cases when equipment is installed vertically and when load on main spindle is more than 2 kg.

Dimensions (mm)

Power Cable Connection Size
M20x1.5

spindle motor

Spindle ER20
M25x1.5

Depth of Drill Shank
Insertion Max.

Drain Port φ4.3

Full Stroke

Clamping Range
G

A

F

114
88

158±3
42

131
57

188

Mutispindle Heads for revo series

Spindle taper JT6

φ50g6

32

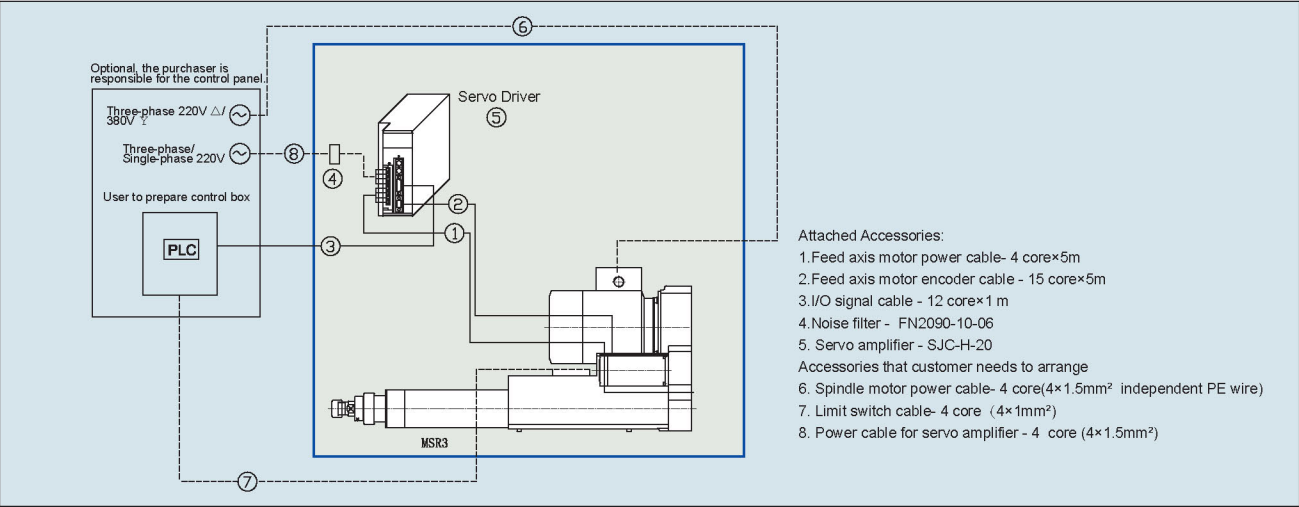
61

Type	A	B	C	D	E	F	G
MSR3-2-6075(B)							
MSR3-2-6055(B)							
MSR3-2-6040(B)							
MSR3-2-6030(B)							
MSR3-2-1330(B)							
MSR3-2-1318(B)							
MSR3-6-1325(B)							
MSR3-6-1318(B)							
MSR3-6-1313(B)							
MSR3-6-1306(B)							
MSR3-2-6075(L)							
MSR3-2-6055(L)							
MSR3-2-6040(L)							
MSR3-2-6030(L)							
MSR3-2-1330(L)							
MSR3-2-1318(L)							
MSR3-6-1325(L)							
MSR3-6-1318(L)							
MSR3-6-1313(L)							
MSR3-6-1306(L)							

Spindle type: C -Collet type
N- JT type
T- Without Chuck(Multi Heads mounting type)
S- Adjustable
Collet type's dimension is according to the table above

Please refer to the specifications for adjustable spindle on page 17.

Electrical System Diagram for Synchro taper revo



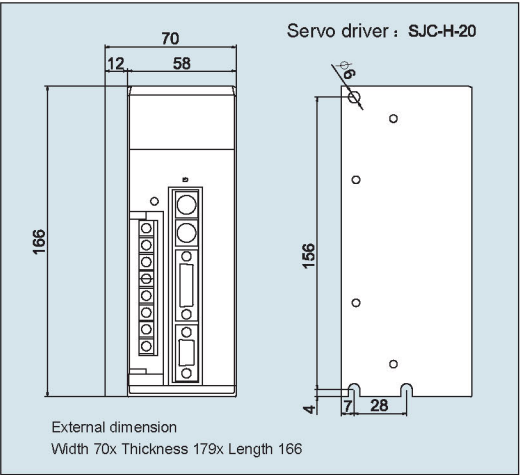
Servo Driver for MSR3



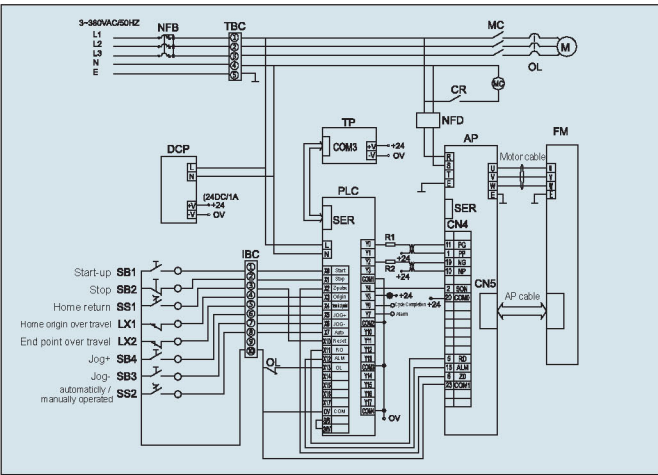
Specification of I/O Signal

Input signal	Input voltage	DC24V Use relay or open collector type transistor circuit's input signal
	Input current	5mA / point
Output signal	Load Capacity	Open collector model's transistor circuit DC24V, 50mA (Drive micro relay or optical coupler circuit)
	External Power Supply	DC24V, 200mA Please set all input/output current below this value

Dimensions(mm)



Electric Schematic



High-precision drilling unit Selffeeder revo is a highly cost effective drilling equipment which uses the latest international technology to satisfy high-speed and high-precision type drilling needs.

Selffeeder

Synchro Tapper

Option Items

Reference

Tapping Capacity

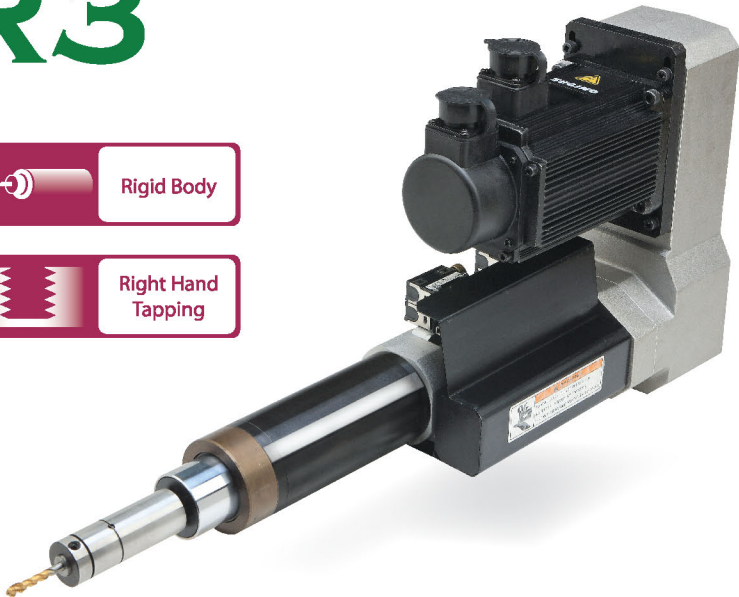
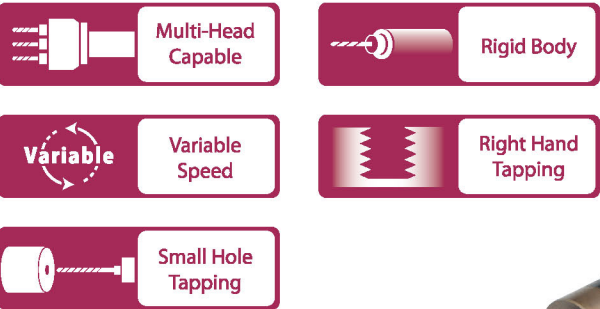
Aluminium

M12

Steel

M12

SSTR3



Tapping Capacity

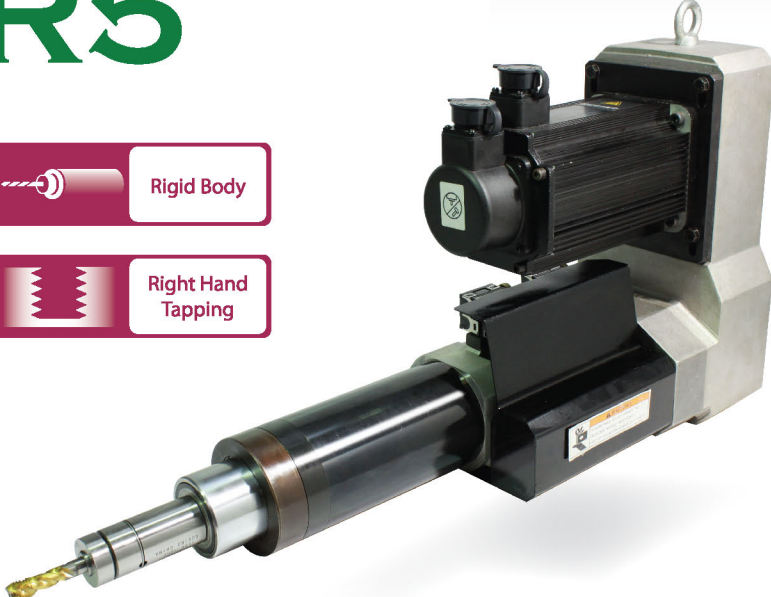
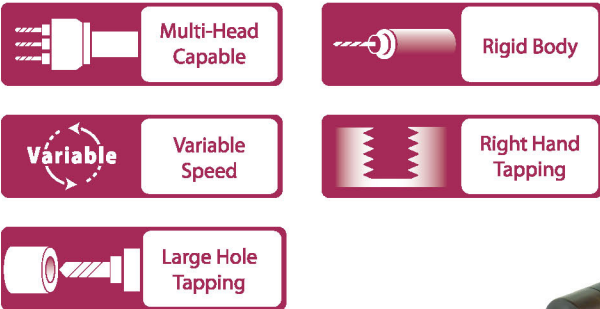
Aluminium

M22

Steel

M16

SSTR5



Selffeeder

Synchro Tapper

Option Items

Reference

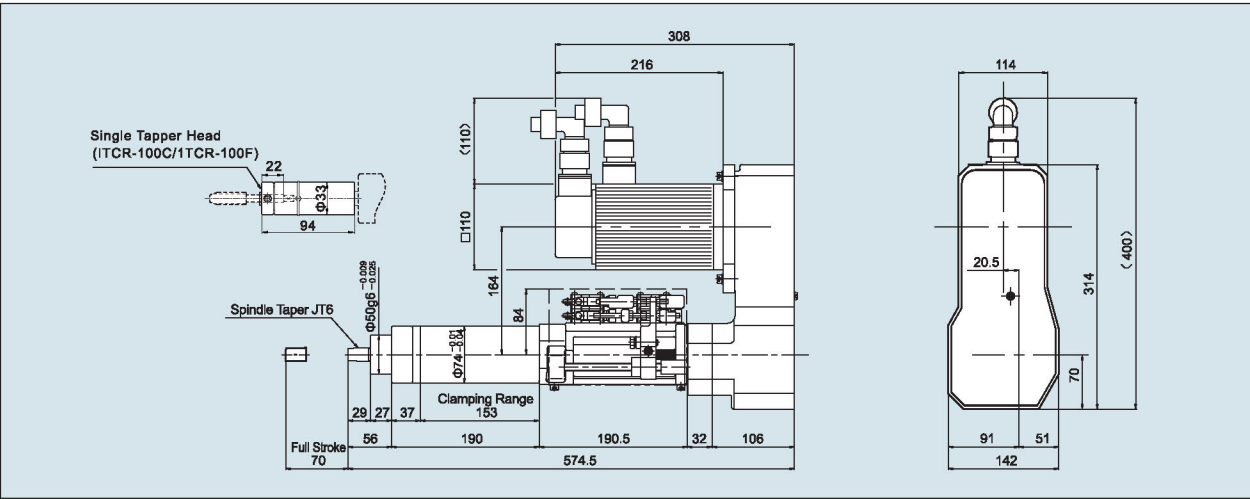
Capacity

Weight : 24kg

Models	Spindle Speed		Max. Tap Size								Stroke(mm)			Motor	Thread Pitch					
	Fast Approach	Pitch feed rate	1-Spindle		2-Spindle		3-Spindle		4-Spindle		Full Stroke	Fast Approach Stroke	Pitch Feed Stroke		mm	Threads Per Inch				
	min ⁻¹		AL*	ST*	AL*	ST*	AL*	ST*	AL*	ST*										
SSTR3-H108	MAX. 3,370	Speed Adjustable Range 0~1,999	M10	M8	M8	M6	M6	M5	M6	M4	MAX 70	MAX 70	MAX 40	1.8 kW 220V Single/ 3 Phase Rated Current 8A	0.3	40				
			M8	M6	M6	M5	M5	M4	M5	M3					0.5	36				
															0.7	28				
SSTR3-L108	MAX. 1600	Speed Adjustable Range 0~960	M12	M12	M10	M8	M8	M6	M8	M6					MAX 70	MAX 70	MAX 40	1.8 kW 220V Single/ 3 Phase Rated Current 8A	0.8	26
			M12	M10	M8	M6	M6	M5	M6	M5									1.0	20
																			1.25	18
											1.5	16								
													1.75	14						

Note 1.Tapping capacities are for spiral tap or point tap (upper part) and for hand tap 2 (lower part).
2.When mounting the unit upward, please provide water proof cover in order to protect the unit from cutting oil and chips.
3.Rotation speed is decided by the material, tapping diameter and tapping speed, etc.
4.The adequate feed gears should be selected for tapping pitch.
5.Pitch feed rate speed can be changed freely by dial of the speed control box.
6.Allowable weight of spindle head must be less than 15kg for horizontal use and 12kg for vertical downward use.
7.Material cross reference: S45C(JIS), 1045(SAE/AISI), C45(ISO).

Single Tapper Head and Unit Dimensions (mm)



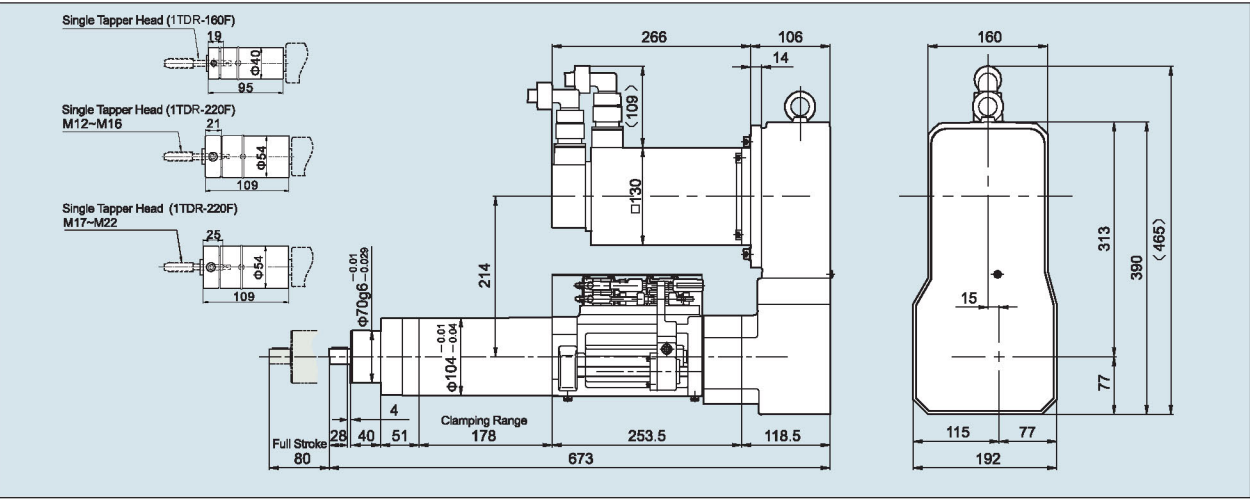
Capacity

Weight : 50kg

Models	Spindle Speed		Max. Tap Size								Stroke(mm)			Motor	Thread Pitch			
	Fast Approach	Pitch Feed Speed	1-Spindle		2-Spindle		3-Spindle		4-Spindle		Full Stroke	Fast Approach Stroke	Pitch Feed Stroke		mm	Threads Per Inch		
	min ⁻¹		AL*	ST*	AL*	ST*	AL*	ST*	AL*	ST*								
SSTR5-H316	MAX. 2,200	Speed Adjustable Range 0~1,980	M14	M8	M10	M6	M8	M6	M8	M5	MAX 80	MAX 80	MAX 40	2.3 kW 220V Single/ 3 Phase Rated Current 9.5A	0.5	40		
																	0.7	36
																	0.8	28
																	1.0	24
SSTR5-L316	MAX. 875	Speed Adjustable Range 0~780	M22	M16	M16	M10	M12	M8	M12	M6	MAX 80	MAX 80	MAX 40	2.3 kW 220V Single/ 3 Phase Rated Current 9.5A	1.25	18		
																	1.5	16
																	1.75	14
																	2	12
			M18	M12	M12	M8	M10	M6	M10	M6					2.5	10		

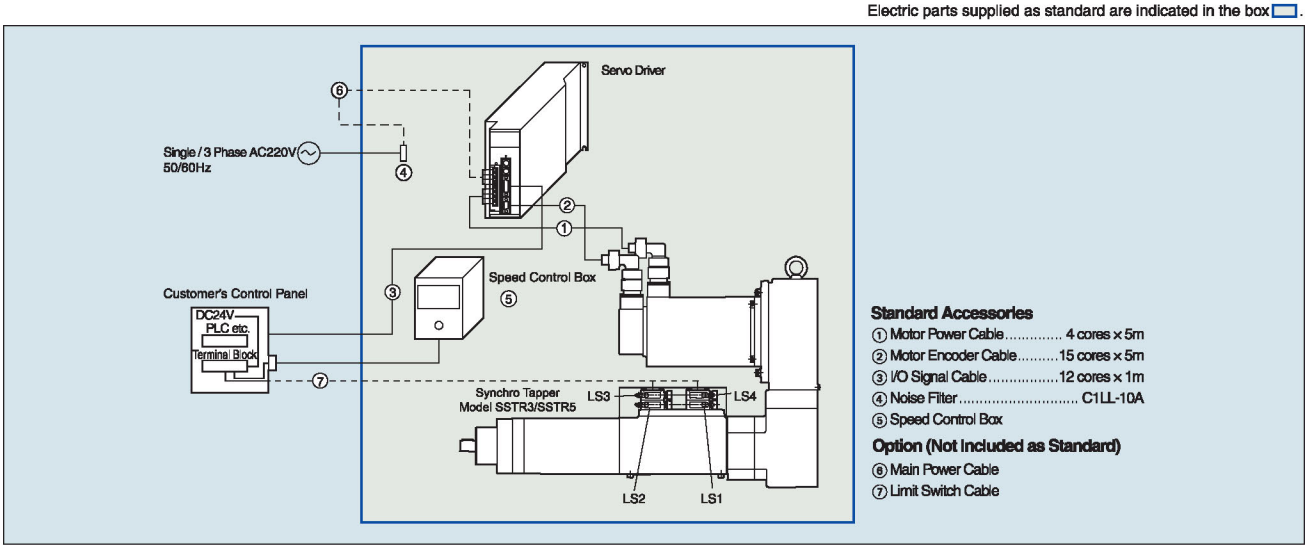
Note 1.Tapping capacities are for spiral tap or point tap (upper part) and for hand tap 2 (lower part).
2.When mounting the unit upward, Please use waterproof cover in order to protect the unit from cutting oil and chips.
3.Rotation speed is decided by the material, tapping diameter and tapping speed, etc.
4.The adequate feed gears should be selected for tapping pitch.
5.Pitch feed rate speed can be changed freely by dial of the speed control box.
6.Allowable weight of spindle head must be less than 35kg for horizontal use and 25kg for vertical downward use.
7.Material cross reference: S45C(JIS), 1045(SAE/AISI), C45(ISO).

Single Tapper Head and Unit Dimensions (mm)



Supplementary explanation for Synchro tapper revo

Electrical System Diagram for Synchro tapper revo



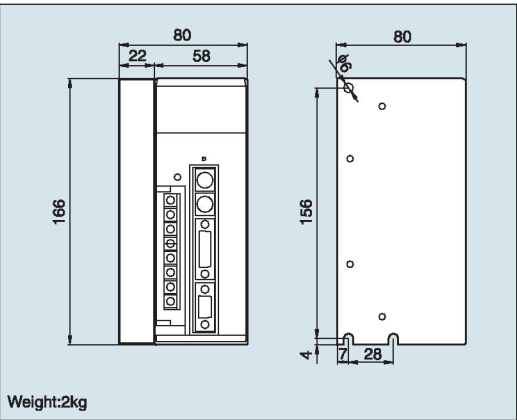
Servo Driver for Synchro tapper revo



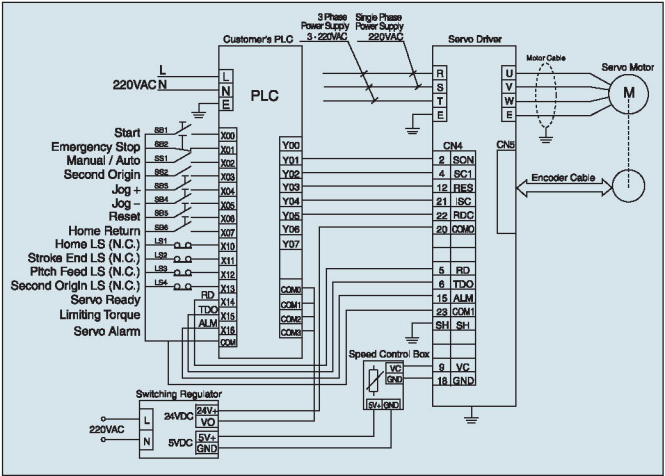
Specification of I/O Signal

Input Signal	Input Voltage	DC24V (Input signal at relay contact point or open collector transistor)
	Input Electric Current	5mA / Point
Output Signal	Max. Contact Capacity	Open Collector DC24V, 50mA (Open collector can drive miniature relay and photo coupler.)
External Power Supply	DC24V, 200mA (The sum of the input and output electric current must be less than 200mA.)	

Dimensions (mm)



Electric Schematic

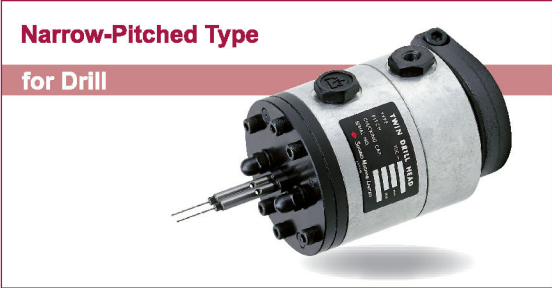
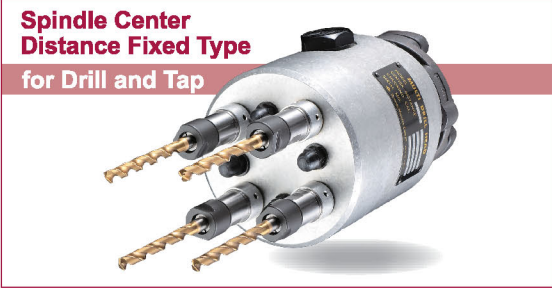
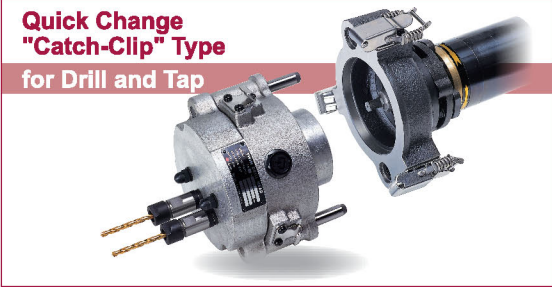
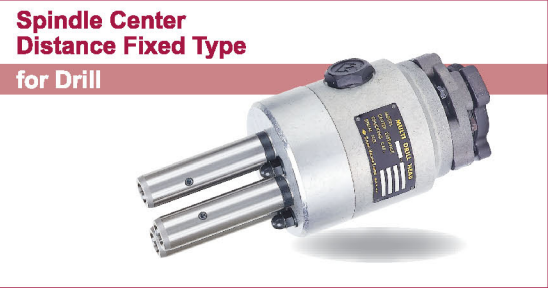
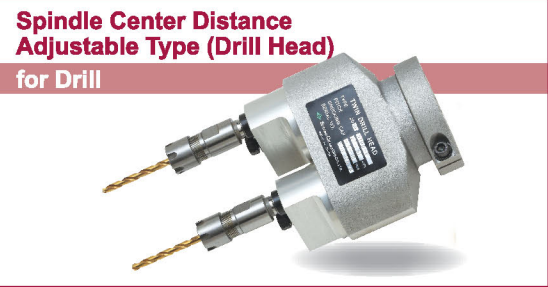


Option Items

Only Sugino manufactures such a wide variety of equipment designed for multiple chip removal applications.

Multispindle Heads for Selfeeder revo and Synchro tapper revo

We can provide our customers with any type of multispindle heads according to the customers' requirements of spindle pitch, spindle shape and so on.



Roller Burnishing Tool Superroll for Selfeeder revo

This tool will process the material surface finish down to the range of Ry0.1-0.8μm. Superroll processing will decrease wear and fatigue resistance of critical ID and OD finishes.



Hydro Speed Regulators for Selfeeder revo

The hydro speed regulator is an oil-operated feed rate control unit. The feed rate of the air cylinder is controlled to a desired one. The regulator is available in two different types to suit the control patterns. Select a type from the spring return type and air return type.

Hydro speed regulator with skip motion model is optimal for machining the piping materials.

RR TYPE
RB TYPE
Spring Return Type

In the Hydro Speed Regulator RR type and RB type, the piston rod is automatically returned to its original position by the built-in spring when the piston rod is no longer loaded.



Features

- 1. Compact and handy size realize free direction of installation.
- 2. The completely sealed structure eliminates the need for resupplying the unit with operating oil and realizes stable speed control over a long time.
- 3. Stable feed speed is obtained as a variation of the controlled speed is very little against sudden load changes.
- 4. Feed can be easily controlled by the speed adjusting knob.

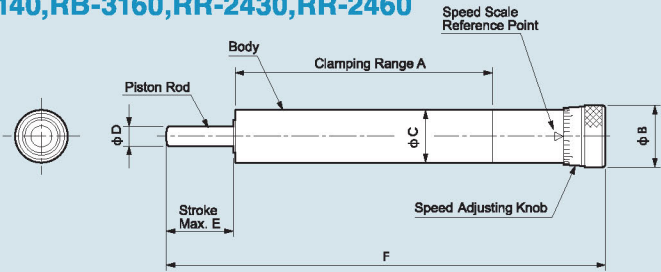
Specifications

Model	Max. Stroke	Load Range	Range of Speed Control for Each Thrust	Permissible Impact	Wt.(Main Body Only)
	mm				kg
RB-2412	12	98~ 490	F= 98N 0.2~20 F= 290N 0.3~30 F= 490N 0.4~35	1.47	0.35
RB-2430	30	200~1,500	F= 200N 0.1~ 5 F= 490N 0.2~25 F= 980N 0.3~40	2.45	0.41
RB-2460	60				0.58
RB-3140	40	490~2,900	F= 490N 0.1~10 F= 1,500N 0.2~25 F= 2,200N 0.3~35	3.92	0.95
RB-3160	60				1.20
RR-2430	30	200~1,470	F= 200N 0.2 ~ 6 F= 1,470N 0.5~47	2.45	0.45
RR-2460	60				0.56

Note Special models other than those in the above table are also available upon request.

Dimensions (mm)

RB-2412,RB-2430,RB-2460
RB-3140,RB-3160,RR-2430,RR-2460



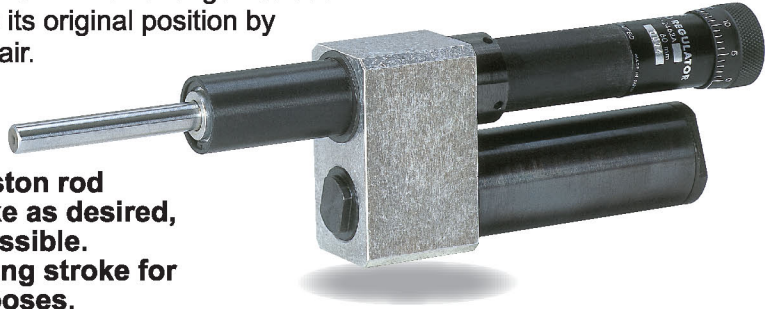
Dimensions (mm)						
Type	Dimensions	A	B	C	D	F
RB-2412	93	28	24	9	12	160
RB-2430	115				30	200
RB-2460	196	36	31	12	60	311
RB-3140	150				40	270
RB-3160	190	28	24	9	60	311
RR-2430	120				30	203
RR-2460	164	28	24	9	60	277

R-A
TYPE

Air Return Type

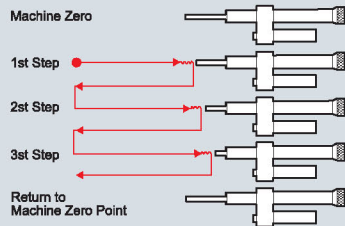
Features

In the hydro speed regulator R-A type, the position of the piston rod is maintained even if it is no longer loaded and the piston rod is returned to its original position by supplying external compressed air. Effective for step feed motion.

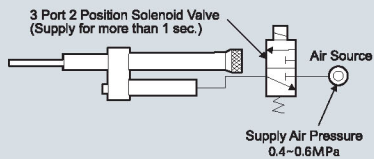


- 1. With the position of the piston rod maintained along the stroke as desired, efficient step feeding is possible.
- 2. Some models features a long stroke for expanded application purposes.

Step Feeding Example



Air Piping Example for Piston Rod Return



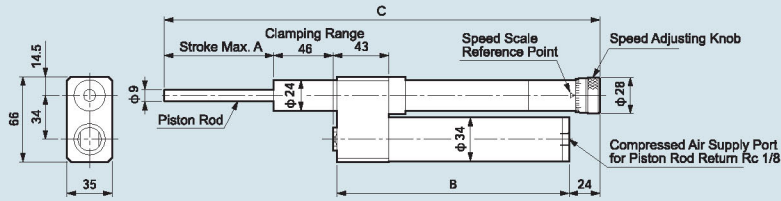
Specifications

Model	Max. Stroke	Load Range	Range of Speed Control for Each Thrust	Permissible Impact Load	Wt.(Main Body Only)
	mm				kg
R-2442A	40	200~1,500	F= 200N 0.3~ 5 F= 980N 0.5~25 F=1,500N 0.8~30	2.45	1.3
R-2462A	60				1.4
R-2482A	80				1.5
R-3182A	80	490~2,900	F= 490N 0.3~12 F=2,200N 0.5~25 F=2,900N 0.8~30	3.92	2.2

Note Special models other than those in the above table are also available upon request.

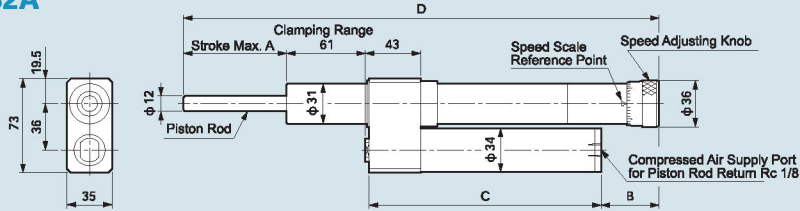
Dimensions (mm)

R-2442A,R-2462A,R-2482A



Dimensions (mm)				
Type	Dimensions	A	B	C
R-2442A	40	127	240	
R-2462A	60		260	
R-2482A	80	180	333	

R-3182A



Dimensions (mm)				
Type	Dimensions	A	B	C
R-3182A	80	39	180	363

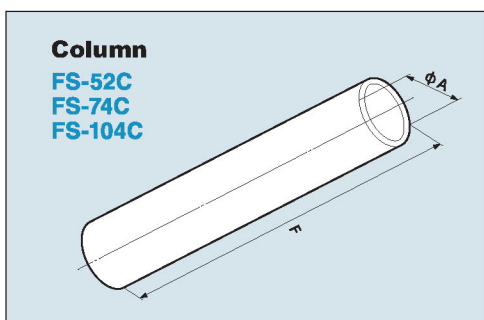
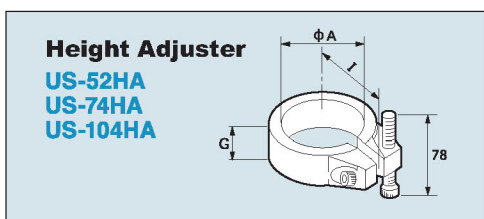
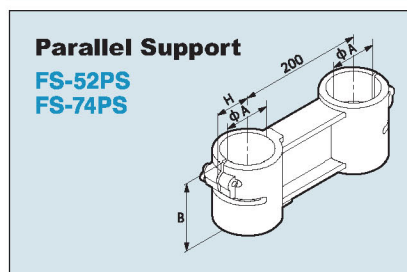
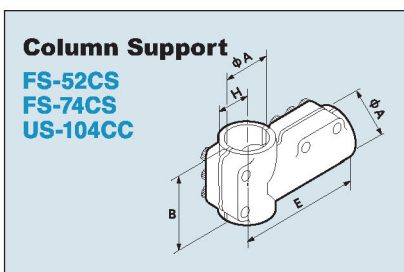
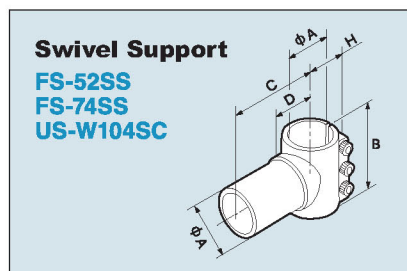
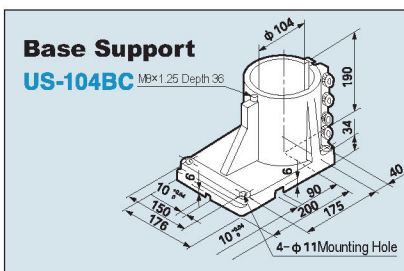
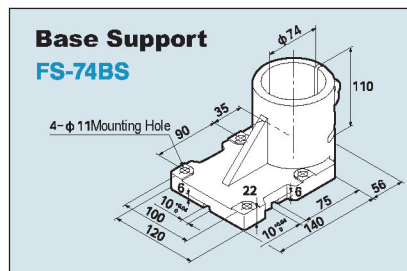
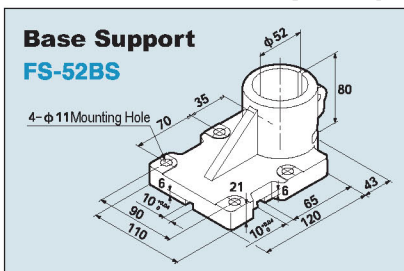
Option Items

■ **Flex Stand for selffeeder revo and synchro tapper revo**

The Flex Stand is a jig for fixing a round-body type Selffeeder revo and Synchro tapper revo at a desired angle of operation



■ Dimensions (mm)



Dimensions (mm)

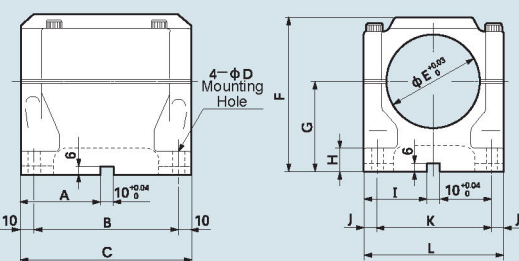
Dimension	A	B	C	D	E	F	G	H	I	Applicable Models
FS-52 US-52	52	80	115	40	120	500	30	43	52	SRV2
FS-74 US-74	74	110	135	45	140	600	30	56	65	SRV3 MSR3 SSTR3
FS-104 US-104	104	190	250	70	248	1,000	38	77	95	SRV5 SSTR5

■ Level Clamps for selffeeder revo and Synchro tapper revo

Level clamp is a jig for installing a round -body type Selffeeder revo and Synchro tapper revo parallel with the machine base.
According to the center height, 2 types are provided.



■ Dimensions (mm)



Dimensions (mm)

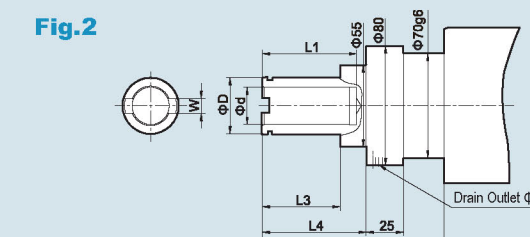
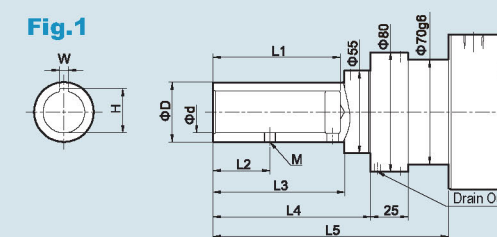
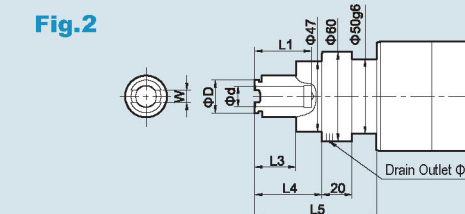
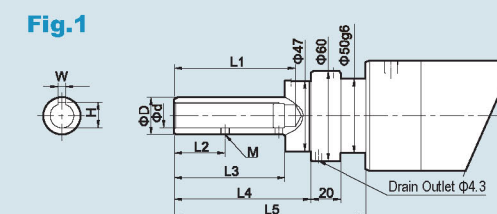
Dimension Type	A	B	C	D	E	F	G	H	I	J	K	L	Applicable Models
LC-52	30	50	70	6.5	52	95	60	14	35	8	64	80	SRV2
LC-52H						135	100						
LC-74	60	110	130	9	74	120	70	18	50	10	90	110	SRV3 MSR3 SSTR3
LC-74H						150	100						
LC-104	90	170	190	11	104	148	80	20	70	10	130	150	SRV5 SSTR5
LC-104H						188	120						

- **Adjustable Spindle Noses for selffeeder revo**

Adjustable spindle noses are applicable to both SRV3,SRV5 and MSR3
Please specify the adjustable spindle nose(ex. KH-14E)when placing an order.
Sugino supplies adjustable spindle noses other than those shown below, upon request.



■ Dimensions (mm)



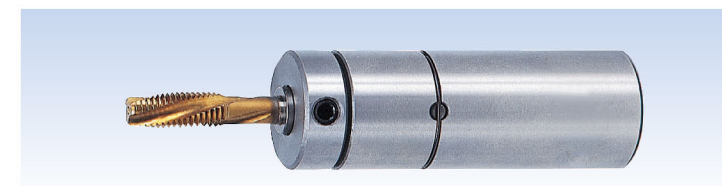
Dimensions (mm)

Applicable Selffeeders	Fig.NO.	Spindle Nose Model Model No.	d	D	H ^{+0.1} _{-0.3}	W	L1	M	L2	L3	L4	L5
SRV3-x-xxxx(L)S MSR3-x-xxxx(L)S	1	BILZ16	16H6 ^{+0.011} ₀	25g6 ^{-0.007} _{-0.020}	17.3	5 ^{+0.145} _{+0.070}	81	M6x1	34	74	91.5	128
		BILZ25	25H6 ^{+0.013} ₀	37g6 ^{-0.009} _{-0.025}	26.7	6 ^{+0.145} _{+0.070}	85	M8x1.25	38	89	106.5	143
SRV3-x-xxxx(L)S MSR3-x-xxxx(L)S	2	KH-14E	14 ^{+0.010} _{+0.005}	22 ⁰ _{-0.1}	-	8C10 ^{+0.138} _{+0.080}	38	-	-	27.5	45	81.5
		KH-16E	16 ^{+0.010} _{+0.005}	26.4 ⁰ _{-0.1}	-	8C10 ^{+0.138} _{+0.080}	43	-	-	-	-	-
		KH-22E	22 ^{+0.010} _{+0.005}	32.4 ⁰ _{-0.1}	-	10C10 ^{+0.138} _{+0.080}	65	-	-	51.5	69	121
SRV5-x-xxxxS	3	BILZ28	28H6 ^{+0.013} ₀	40g6 ^{-0.009} _{-0.025}	29.7	6 ^{+0.145} _{+0.070}	85	M8x1.25	38	88	105.5	157
SRV5-x-xxxxS	4	KH-22E	22 ^{+0.010} _{+0.005}	32.4 ⁰ _{-0.1}	-	10C10 ^{+0.138} _{+0.080}	65	-	-	51.5	69	121
		KH-25E	25 ^{+0.010} _{+0.005}	37.4 ⁰ _{-0.1}	-	10C10 ^{+0.138} _{+0.080}	63	-	-	52	69.5	121

Note : Adjustable spindle noses cannot be used in Selffeeders with specific speed above 5,000min⁻¹

- Tap Holders for Synchro tapper revo

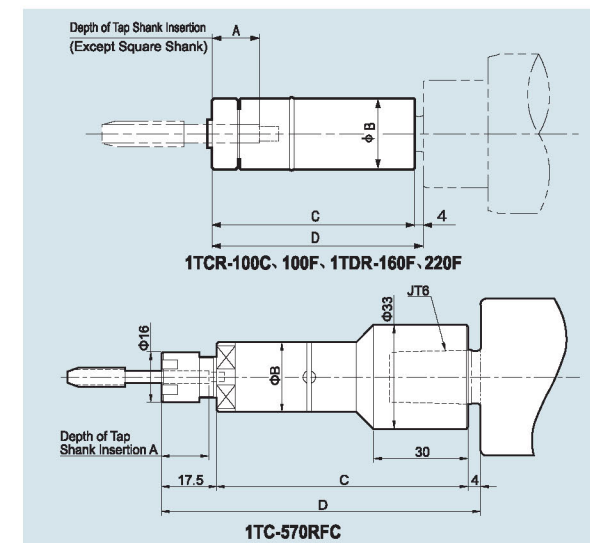
Single Tapper Head for SSTR3 and SSTR5



■ **Capacity (mm)**

Spec. Model	Chuck Capacity	Type of Tap	Symbol				Applicable Synchro Tap
			A	B	C	D	
1TCR-100C	M1~M3	Centering	22	33	94	98	SSTR3
1TC-570RFC	M1~M3	Centering	15~28	22	80	101.5	SSTR3
1TCR-100F	M3~M12	Floating	22	33	94	98	SSTR3
1TDR-160F	M8~M16	Floating	19	40	95	99	SSTR5
1TDR-220F	M12~M22	Floating	21(M12~M16) 25(M17~M22)	54	109	113	SSTR5

Capacity(mm)



Visualized Operation Sysytem

Input parameter,display alarm,and input system is highly efficient and easy to operate.

Visualized Operation Sysytem

You can input parameter, display alarm and input program easily by using controller box.

1 Servo Parameter monitor

Monitor operating condition by the load display.

power current, spindle speed, alarm, etc.



2 Touch Panel

Easy operation touch panel. 7-inch color touch panel is adopted and easy to operate NC program even for beginners.

Language
Japanese, English, Chinese
(Switch in operation display)
3m cable is attached.



3 Touch Panel Operation Screen

Programming is not needed. Just input parameter directly.

We realized visualization of screen, simplifying operation and inputting size directly. It has a various processing mode and deal with complex hole processing.

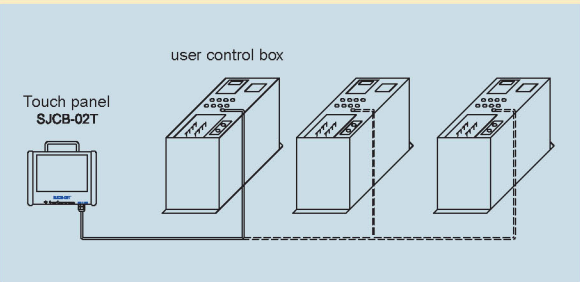


Prameter Setting

Touch panel can be connected to control box by the special cable and can input and correct parameter easily.

Operation Procedure

The touch panel is adjusted to parameter setting and control box button is all operatable.



Processing pattern of MSR3

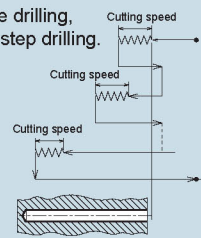
Input suitable processing condition depend on requested processing.

Processing Pattern	Pattern No.	Application
Single Mode	01	Normal Drilling
	02	Chamfering
Step Mode	03	High-speed deep hole drilling
	04	Deep hole drilling
	05	Pipe hole drilling
Skip Mode	06	Drilling Counterboring
	07	Low-speed feed drilling
	08	Slow speed feed + High-speed deep hole drilling
	09	Slow speed feed + Deep hole drilling
	10	Slow speed feed + Pipe hole drilling
	11	Slow speed feed + Counterboring
	12	Slow speed feed + Quill pipe multi-step drilling
	13	2-step chamfering

Application Example

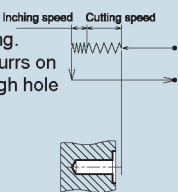
No.04 Deep hole drilling (Step feed drilling)

Applied for Deep hole drilling, generally referred to step drilling.



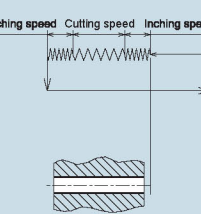
No.06 Drilling Counterboring

Applied to perform counterboring after drilling. Also applied to reduce burrs on the rear surface at through hole drilling.



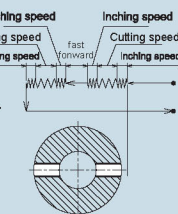
No.07 Low-speed feed drilling

Applied to reduce burrs on the rear surface at through hole drilling.



No.10 Slow speed feed + Pipe hole drilling

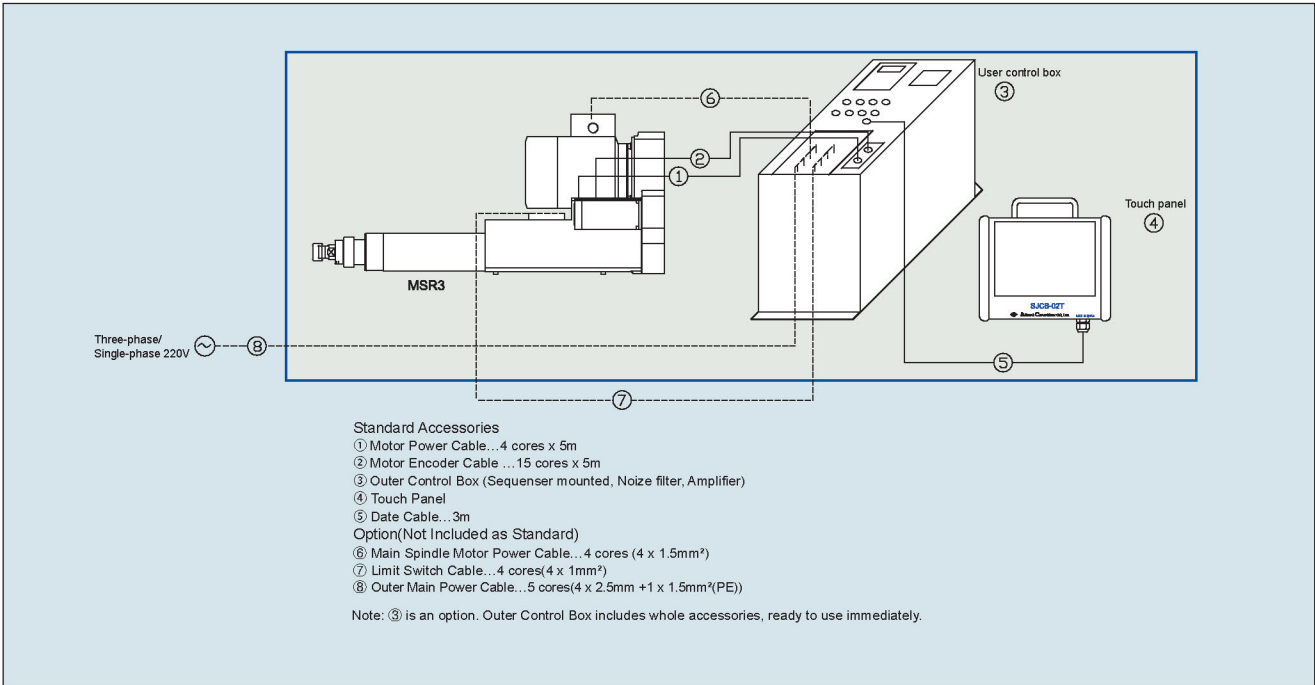
Applied to reduce burrs on both front and rear surfaces in slow speed feeding by process pattern No.4.



Sugino Machine can provide you technical supports.

Control box is included in the package. Set up, connect to a power source, and you are ready to drill and tap in high-precision instantly.

1 High accuracy drilling (Select processing pettern) Applied to MSR3.

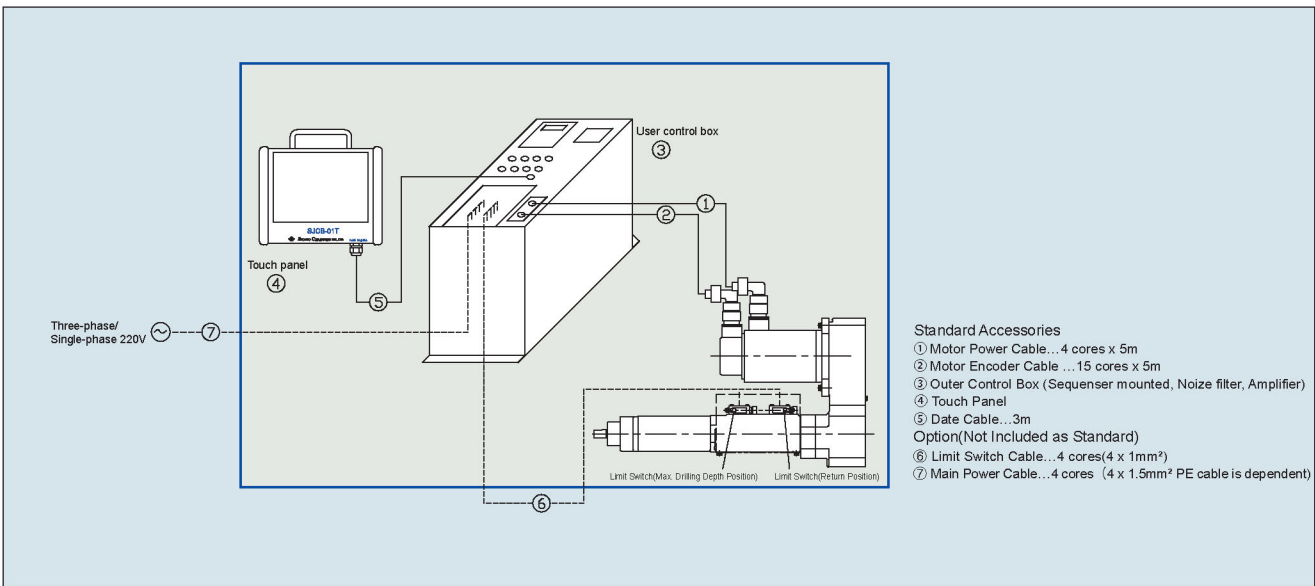


Standard Accessories

- ① Motor Power Cable...4 cores x 5m
- ② Motor Encoder Cable ...15 cores x 5m
- ③ Outer Control Box (Sequenser mounted, Noise filter, Amplifier)
- ④ Touch Panel
- ⑤ Date Cable...3m
- Option(Not Included as Standard)
- ⑥ Main Spindle Motor Power Cable...4 cores (4 x 1.5mm²)
- ⑦ Limit Switch Cable...4 cores(4 x 1mm²)
- ⑧ Outer Main Power Cable...5 cores(4 x 2.5mm +1 x 1.5mm²(PE))

Note: ③ is an option. Outer Control Box includes whole accessories, ready to use immediately.

2 High accuracy tapping (Position control type) SSTR3, SSTR5



Standard Accessories

- ① Motor Power Cable...4 cores x 5m
- ② Motor Encoder Cable ...15 cores x 5m
- ③ Outer Control Box (Sequenser mounted, Noise filter, Amplifier)
- ④ Touch Panel
- ⑤ Date Cable...3m
- Option(Not Included as Standard)
- ⑥ Limit Switch Cable...4 cores(4 x 1mm²)
- ⑦ Main Power Cable...4 cores (4 x 1.5mm² PE cable is dependent)

※Please contact our sales office for further information.

Step Controller for Selfeeder revo

Measures must be taken to prevent the wear and fracture of the drill in such machining processes as drilling a hole with depth exceeding 5 to 6 times the drill diameter. Step-feed machining is the most effective way of preventing such problems. Sugino's Step Controller MCB-1, which equips timers, secures the optimum cutting condition and operates Selfeeder in the step-feed and inching drilling.

Features

1. Optimum cutting conditions can be freely specified

The controller is equipped with three timers, realizing fine conditions. Fine inching feed is possible through timer adjustment.

2. Light weight and small size

As shown in the right photo, the controller is space-efficient and can be installed in a corner of the drill operation panel.

3. Complete variety of output signals

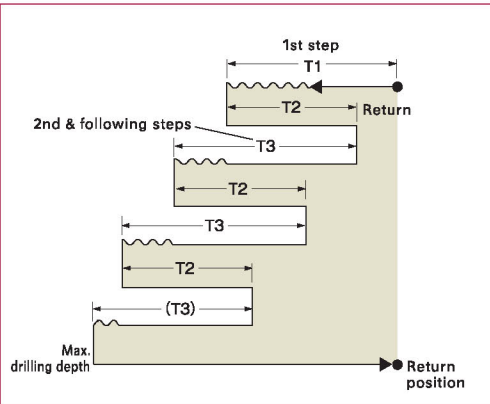
Automated drilling is easily realized with various types of output signals such as start point, maximum drilling depth, and in-process checking.



Drilling motion

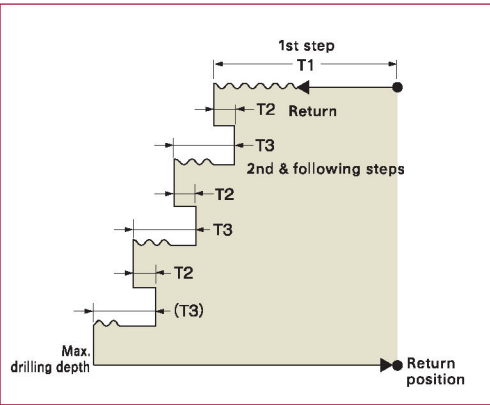
Step Feed Pattern

The 1st step T1, completes the first step and following steps controlled by T3, drills little by little in the optimum cutting condition. The return timer T2 helps the Selfeeder work immediately on the next step without returning to the machine zero point, thus performing efficient deep hole drilling.



Inching Feed Pattern

Inching feed results from setting the return timer T2 in a short period. Chips are broken down and the cutting torque on the cutting blade is reduced, extending the life of the blade.

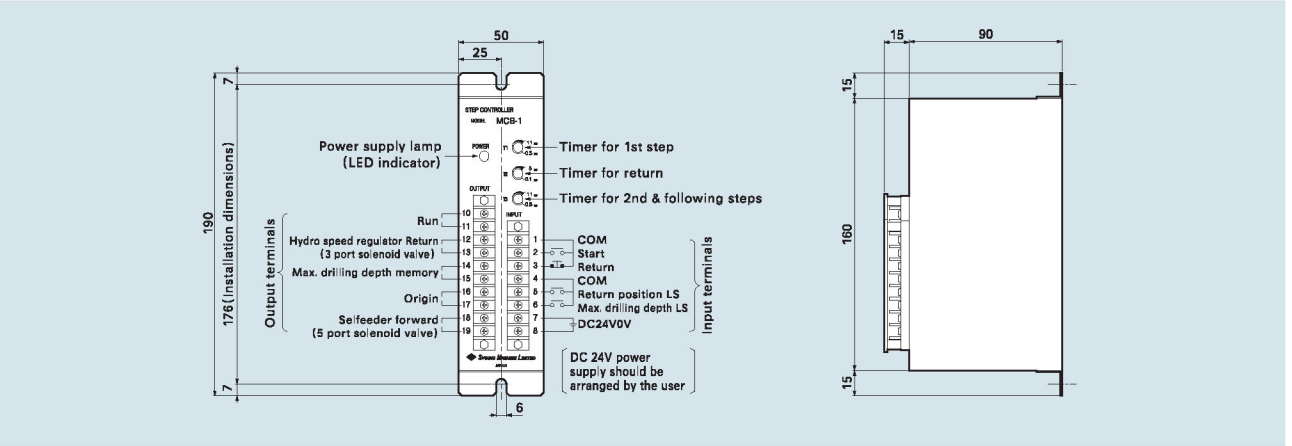


Specifications

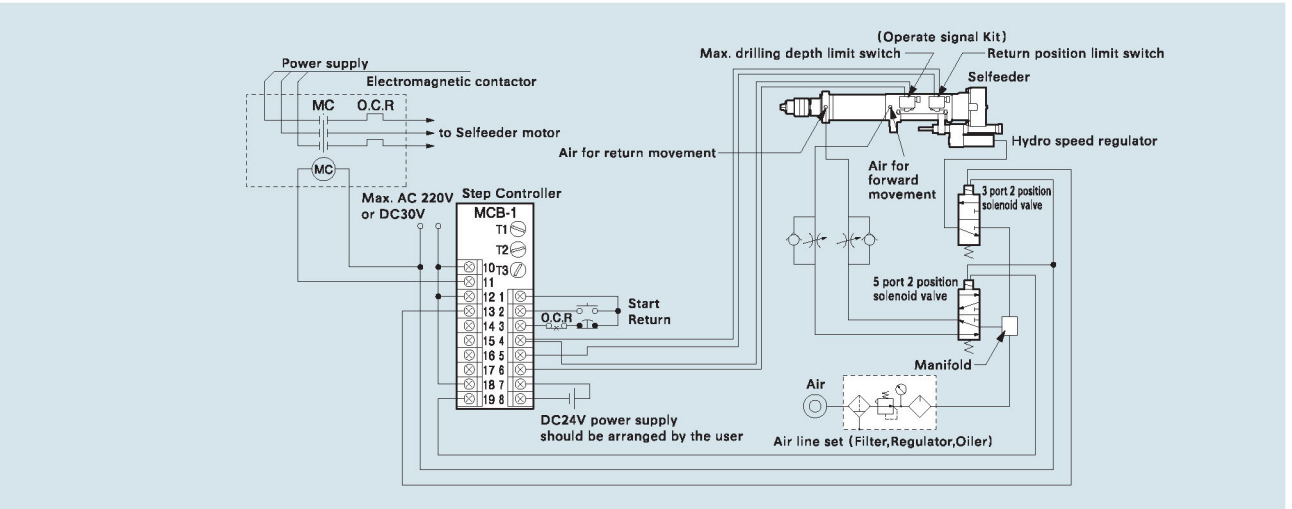
Power Supply	DC24V, ripple 5% or below, 4.8W	
Timer set range	T1: 1st step	0.5~11sec.±20%
	T2: Return	0.1~ 5sec.±20%
	T3: 2nd & following steps	0.5~11sec.±20%
Input signal	Start	Non-voltage contact signal (DC24V internally supplied)
	Return	
	LS to check return position	
	LS to check max. drilling depth	
Output signal	Run	Contact capacity AC220V DC 30V 1A (resistance load)
	Hydro speed regulator return	
	Max. drilling depth memory	
	Origin	
	Selfeeder forward	
Operating environment	Temp	0°C~40°C
	Humidity	RH85% or below, without dew condensation
Applicable no. of Selfeeder	1 unit	

Note Use the Step Controller MCB-1 by installing in the control cabinet. Note that the controller is not waterproof.

Dimensions (mm)



Electric and air circuit



Notes 1. The solenoid valves in the above application are designed for AC200V. Transformer (200V→100V) is required for AC100V use. 2. The solenoid valve and Operate Signal Kit above application are not attached with the step controller MCB-1 as a standard accessories. Other air devices are to be provided by the customer.

■ Standrill for Selfeeder revo

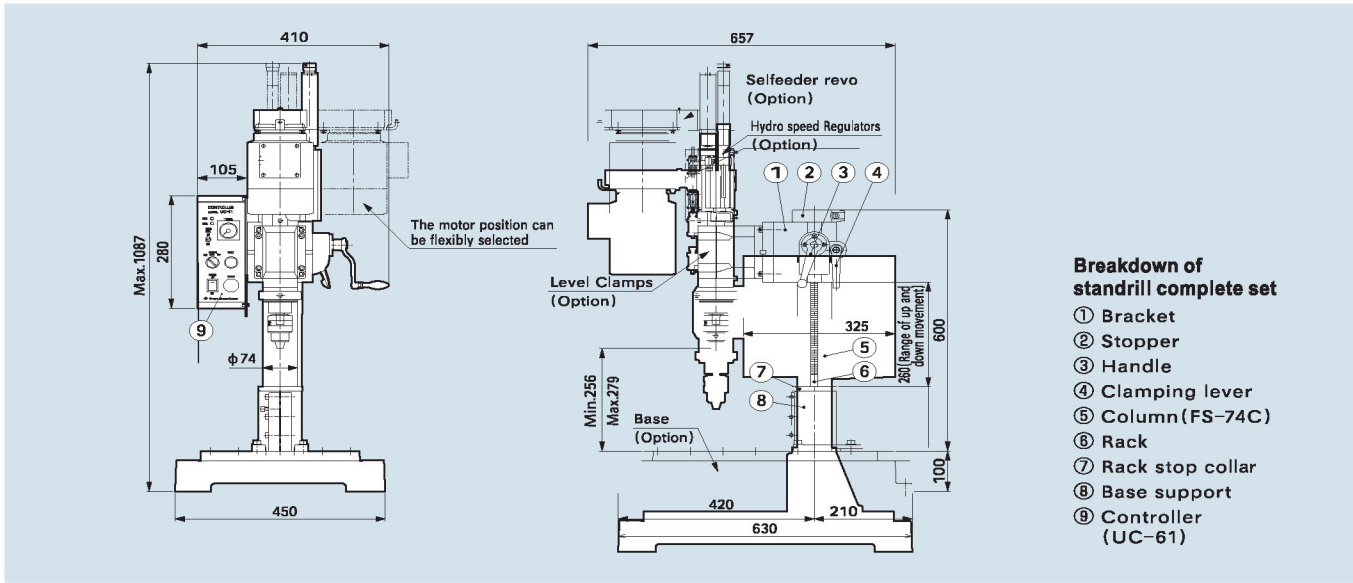
Standrill is a highly precise automatic drilling stand equipped with up-down height adjustable function and head swing mechanism for flexible use. Various motions such as standard Dwell and step drilling are free to select. This feature makes the Standrill most suitable for drilling of small volume and assorted parts and for secondary machining process after machining center.



Specifications

Model no.	SSD-74	Controller	UC-61
Applicable Selfeeder	SRV2 SRV3	Power source	Single phase AC 200V (50/60Hz)
Up-down stroke of the unit	Max.260mm	Motion selection	Standard/Dwell/Step-feed
Allowable unit weight	Max.45kg	Dwell/Step timer set	0.05~1.2sec 0.3~ 3 sec 1.2~12 sec 3~ 30 sec 4 ways selectable
		Input signal	Start Non contact signal Return (DC24V internal supply)
		Output signal	1 Cycle end Contact capacity AC220V DC30V 1A(Resistance load)
Notes			
1. Applicable electromagnetic contactor is different in each Selfeeder model. Specify the model No. of the Selfeeder revo, the voltage, frequency, and rated amperage of the motor.			
2. 5 port 2 position and 3 port 2 position solenoid valves supplied are for coil rating of DC24V.			

Dimensions (mm)



- Breakdown of standrill complete set
- ① Bracket
 - ② Stopper
 - ③ Handle
 - ④ Clamping lever
 - ⑤ Column(FS-74C)
 - ⑥ Rack
 - ⑦ Rack stop collar
 - ⑧ Base support
 - ⑨ Controller (UC-61)

Note This is the dimension of Standrill equipped with SRV3-13** type and Hydro Speed Regulator R-2482A.

Reference

■ Application Examples

Business Machine Parts (Die Cast Aluminum)	Window Sash (Aluminum Alloy)	Machine Sprocket (Steel)
Swing Frame (Steel Pipe)	Windshield (Glass)	Motorcycle Piston (Silicon Aluminum)
Circuit Board (Epoxy Plastic on Glass Base)	Door Hinge (Stainless Steel)	Hydraulic Valve Body (Cast Iron)
Ski Binding (Steel)	Sound Absorption Panel (Steel)	Electric Planer Case (Die Cast Aluminum)
Golf Club Head (Compressed Wood)	Door Runner (Cast Iron)	Cross Pin (Steel)