

## SELFEEDER REVO

**SUGINO**  
SUPER! TECHNOLOGY

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This is the online center for customer support. You can submit technical inquiries and requests for specifications and price.

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CAT NO. N5007E

Sugino

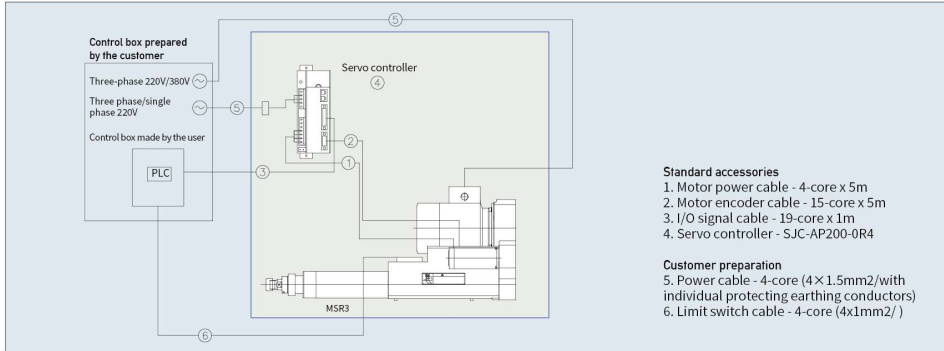
## SELFEEDER REVO SERIES

High speed, high precision and high efficiency unit

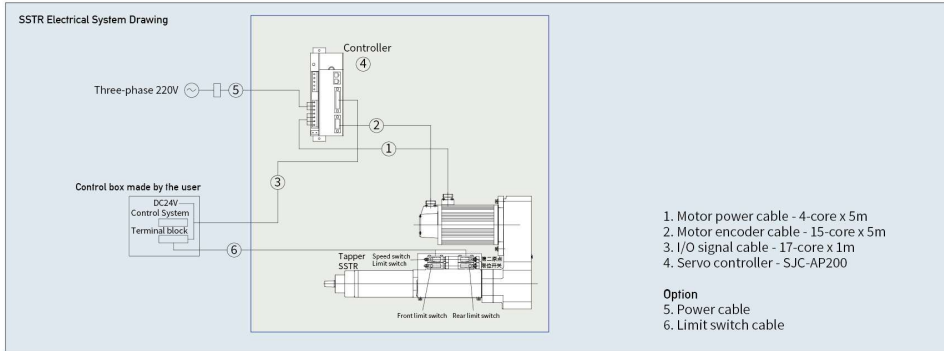


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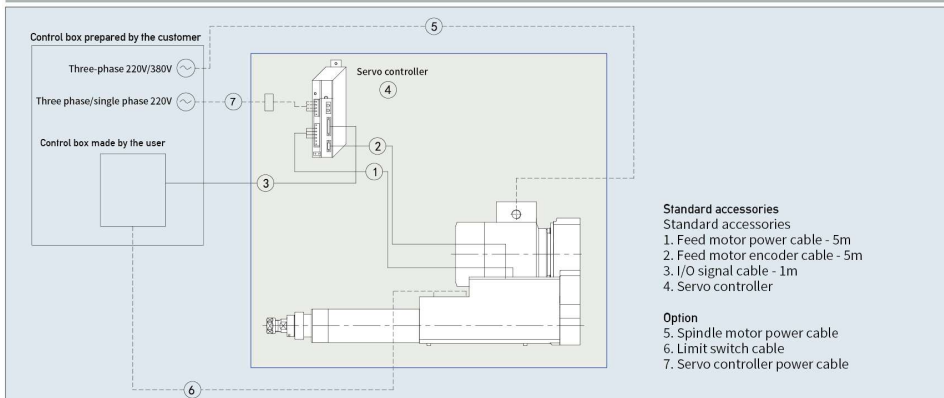
To MSR series



To SSTR series



Servo electric diagram to MSR and SSTR series



Servo system developed by Sugino applies to multiple machining environments with easy operation. Please contact Sugino business outlets for more.

Pneumatic feed drilling unit  
**Model SRV2**

The smallest and lightest model in the series, reflecting the true value of small aperture machining



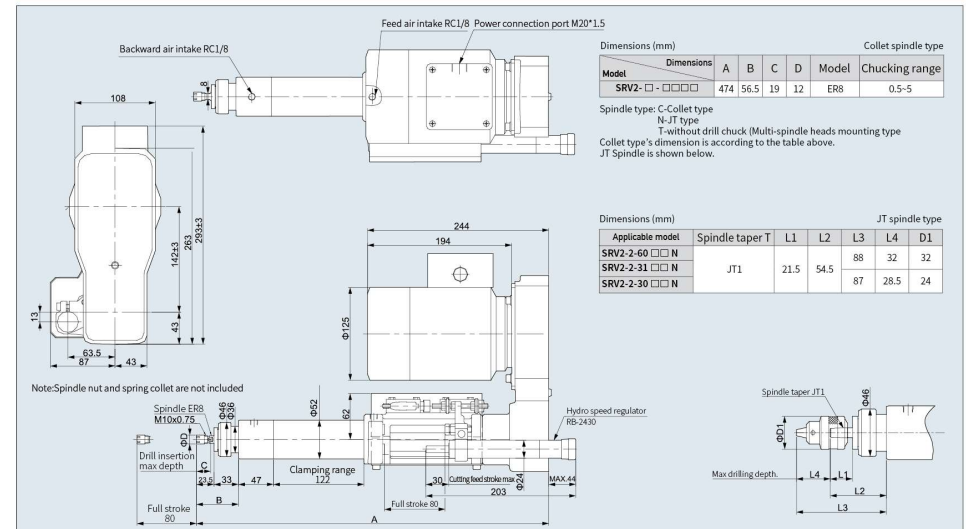
Specifications and Parameters

Operating air pressure: 0.6MPa

Parameters	Spindle speed (No-load)	Drill chuck capacity	Maximum drilling diameter						Stroke		Power	Poles	Feed Thrust	Air consumption	Weight
			1 spindle			2 spindles			Full stroke	Cutting Feed Stroke					
			Aluminum	Cast iron	Steel	Aluminum	Cast iron	Steel							
Model	min <sup>-1</sup>	mm	mm			mm			mm	kW	P	N	L/ Stk	kg	
SRV2-2-3100	10,000	3 (非钥匙拧紧型)	2	1.5	1	-	-	-	80	0-30	0.25	2	600	2-3	14
SRV2-2-3075	7,500	3	3	2	1	-	-	-							
SRV2-2-6051	5,100	6.5	4	3	1.5	4	3	1.5							
SRV2-2-6030	3,000	6.5	6.5	5	3	5	4	3							
SRV2-2-6020	2,000	6.5	7	6	4.5	6	5	3.5							
SRV2-2-6014	1,400	6.5	8	7	6	6	5	3.5							

Notes: 1. Refer to the above table for selecting the model according to the workpiece shape, the material hardness, the drill diameter and the speed (cutting speed).  
2. The maximum drilling diameter in the table refers to the value when the hole depth is twice the diameter.  
3. The cutting feed stroke is determined by the stroke of the hydraulic damper, and the standard auxiliary hydraulic damper is Model RB-2430. Refer to page 20 if other models are required.  
4. Please indicate the required motor voltage and frequency when ordering.  
5. This table takes JT spindle as an example.  
6. The Physical Dimension shows the recommended standard ER8 spindle.

Dimensions (mm)



Refer to the Physical Dimension of this page for spring collet spindle specifications.

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Maximum tapping capacity

Aluminum Q8

Steel Q6

Boring and milling power head

Servo power head

Servo synchronous taper

Pneumatic drilling power head

Associated products



Pneumatic feed drilling unit

# Model SRV5

The high hardness model with high-power motor, large torque and strong thrust

- Max. 6100 rpm
- Mounting multi-spindle head
- Light Compact
- Large hole machining



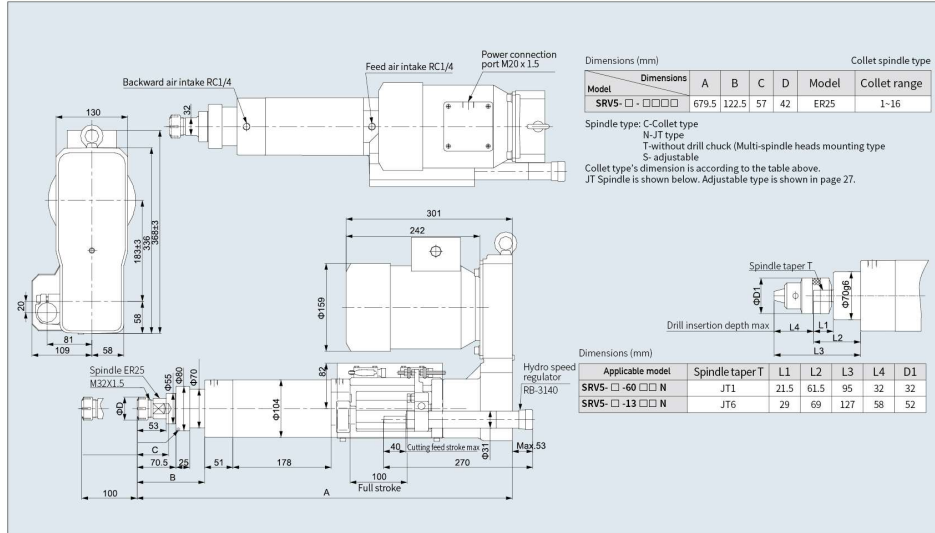
### Specifications and Parameters

Operating air pressure: 0.6MPa

Parameters	Spindle speed (No-load) 50Hz	Drill chuck specifications	Maximum drilling diameter												Stroke		Motor		Feed thrust	Air consumption	Weight		
			1 spindle			2 spindles			3 spindles			4 spindles			Full stroke	Cutting feed stroke	Power	Poles					
			Alum	Cast Iron	Steel	Alum	Cast Iron	Steel	Alum	Cast Iron	Steel	Alum	Cast Iron	Steel									
Model	min <sup>-1</sup>	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kW	P	N	L/Stk	kg		
SRV5-2-6061	6,100	6.5	3.5	2.5	1.5	-	-	-	-	-	-	-	-	-	100	0 ~ 40	0.75	2			7 ~ 10	38	
SRV5-2-6040	4,000	6.5	5.5	4	2	5.5	4	2	5.5	4	2	5.5	4	2									
SRV5-2-1322	2,200	13	10	7	4	8	6.5	4	7	6	4	6.5	5.5	4									
SRV5-2-1315	1,500	13	12.5	10	6	9	7.5	6	8	6.5	6	7.5	6	5.5									
SRV5-6-1320	2,000	13	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	13	11.5	9	7	8.5	7	6.5	7.5	6	5.5	7	6	5									
SRV5-6-1307	750	13	14.5	12	10	10.5	8.5	7.5	9	7.5	6.5	8.5	7	6									
SRV5-6-1305	500	13	16	14	12	13	10.5	8.5	11	8.5	7	9	7	6									

- Notes: 1. Refer to the above table for selecting the model according to the workpiece shape, the material hardness, the drill diameter and the speed (cutting speed).  
 2. The maximum drilling diameter in the table refers to the value when the hole depth is twice the diameter.  
 3. The cutting feed stroke is determined by the stroke of the hydraulic damper, and the standard auxiliary hydraulic damper is Model RB-3140. Refer to page 20 if other models are required.  
 4. Please indicate the required motor voltage and frequency when ordering.  
 5. This table illustrates by taking JT spindle as an example. 6. The Physical Dimension shows the recommended standard ER25 spindle.

### Dimensions (mm)



Refer to page 27 for quick change spindle specifications.

Pneumatic feed drilling unit

# Model SRV5P

Strong thrust, high hardness and most powerful pneumatic power head

- Max. 6100 rpm
- Mounting multi-spindle head
- Light Compact
- Large hole machining



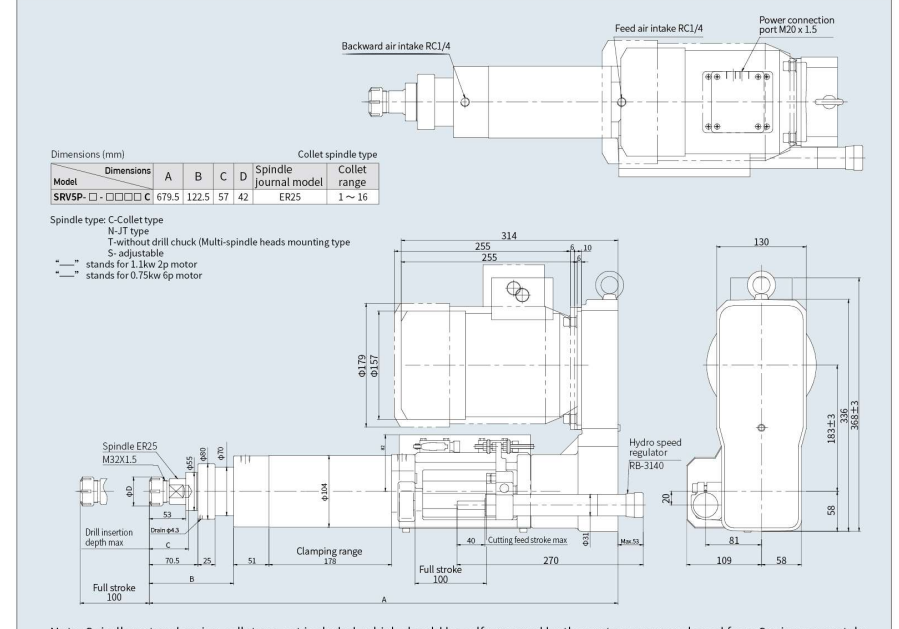
### Specifications and Parameters

Operating air pressure: 0.6MPa

Parameters	Spindle speed (No-load) 50Hz	Drill chuck specifications	Maximum drilling diameter												Stroke		Motor		Feed thrust	Air consumption	Weight		
			1 spindle			2 spindles			3 spindles			4 spindles			Full stroke	Cutting feed stroke	Power	Poles					
			Alum	Cast Iron	Steel	Alum	Cast Iron	Steel	Alum	Cast Iron	Steel	Alum	Cast Iron	Steel									
Model	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kW	P	N	L/Stk	kg		
SRV5P-2-6061	6,100	6.5	5	3	2	-	-	-	-	-	-	-	-	-	100	0~40	1.1	2			7~10	38.5	
SRV5P-2-6040	4,000	6.5	7	5	2	6.5	5	2	6.5	5	2	6.5	5	2									
SRV5P-2-1322	2,200	13	12	9	4	9.5	8	4	8.5	7.5	4	8	6.5	4									
SRV5P-2-1315	1,500	13	15	10	6	11	9	6	9.5	8	6	9	7	6									
SRV5P-6-1320	2,000	13	11	8	5	8.5	7	4.5	7.5	6.5	4.5	7	5.5	4.5									
SRV5P-6-1313	1,300	13	13	9	7	10	8	7	8.5	7	6.5	8	7	5.5									
SRV5P-6-1307	750	13	16.5	14	12	12.5	10	8.5	10.5	8	7	9.5	7.5	6									
SRV5P-6-1305	500	13	18	16	14	15	11	8.5	11	8.5	7	9.5	7.5	6									

※ The high power specification adopts timing pulleys

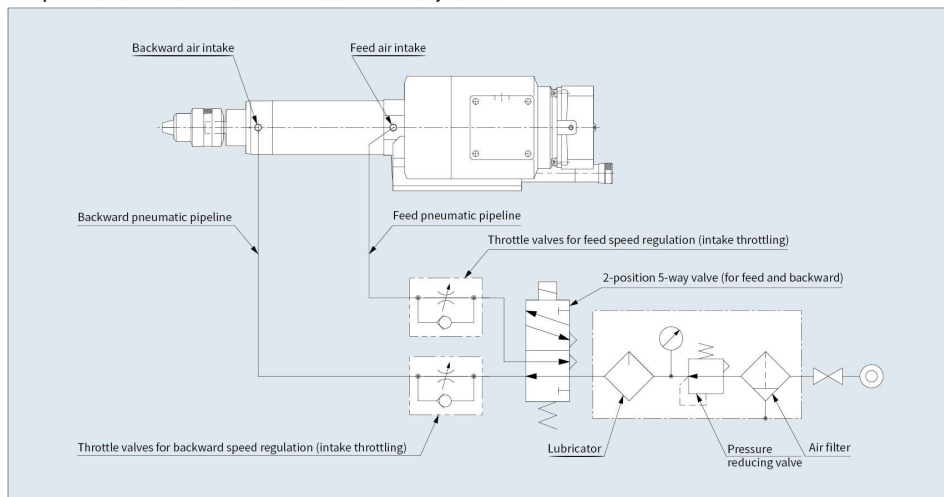
### Dimensions (mm)



Note: Spindle nut and spring collet are not included, which should be self-prepared by the customer or purchased from Sugino separately.

**Pneumatic control circuits**

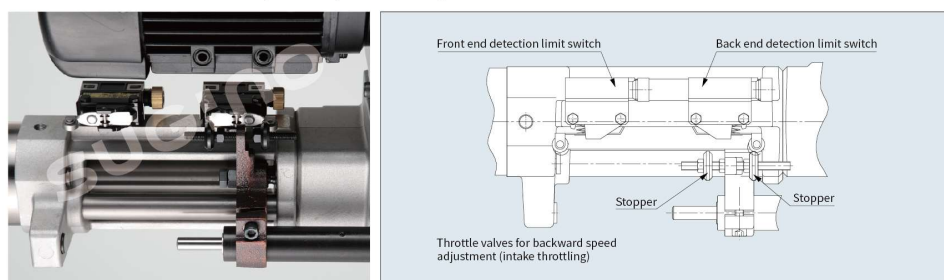
The power head is built in with forward and backward cylinders



- Notes:**
1. Please provide 0.4-0.6MPa working pressure.
  2. Customers need to prepare various pneumatic components including air source.
  3. Because the piston areas on the forward and backward sides of the power head are different, please use the intake throttling check valve to control the loop.

**Operate-Signal Kits**

The supporting components used to check the forward and backward end positions of the power head, which can be used as a control signal for synchronous operation with other associated devices.



Note: The motor adopts "SL1-P" limit switch made by Yamatake.

selffeeder revo®

revo®, the high precision drilling power head, uses the latest international new technology to provide customers with durable and high cost performance power head for high speed and high precision hole machining

# Options

The drilling power head coming out of the "Sugino" technology, capable of adapting to multiple machining requirements, achieving high precision and high efficiency product machining.

**Multi-spindle heads**

Sugino can provide various drilling and tapping heads according to customers' special requirements on spindle spacing, spindle number and spindle shape.

**Spindle spacing adjustable (drilling)**



**Spindle body replacement**



**Spindle spacing fixed**



**Spindle spacing fixed**



**Spindle spacing adjustable (tapping)**



**Spindle spacing fixed, narrow spacing drilling head**



**Mirror finishing tool, Superroll**

The surface finish of RZ0.1-0.8µm can be achieved in one feed, indicating that it is a super finishing tool for improving wear resistance and fatigue strength of workpiece.



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## Hydro speed regulators

Hydraulic damper is a hydraulic feed speed control device which can freely adjust the cutting feed from low to high. There are two types of return, namely the spring return and air return, which are alternative as per actual use. In addition, Sugino also has progressive hydraulic damper for pipe machining

**RB**

Spring return type

When the load on the piston rod of RB hydraulic damper is unloaded, the piston rod automatically returns to its original position.



**Feature**

1. Compact structure, free mounting direction.
2. The fully enclosed structure without the need for adding working oil can maintain long-term stable control.
3. The change of control speed caused by rapid load change is very small, enabling stable feed speed.
4. Feed speed can be easily adjusted by speed adjusting knob.

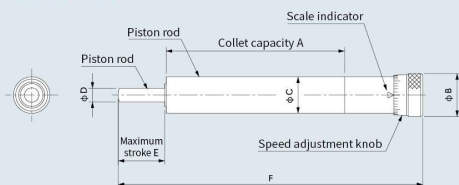
## Parameters

Model	Maximum stroke	Load range	Speed control range for various thrusts	Allowable impact energy	Mass (Body)						
	mm		N		mm/sec	J	kg				
RB-2412	12	98~490	F= 98N 时 0.2~20 F= 290N 时 0.3~30 F= 490N 时 0.4~35	1.47	0.35						
RB-2430	30		200~1,500			F= 200N 时 0.1~5 F= 490N 时 0.2~25 F= 980N 时 0.3~40 F=1,500N 时 0.4~50	2.45	0.41			
RB-2460	60					490~2,900			F= 490N 时 0.1~10 F=1,500N 时 0.2~25 F=2,200N 时 0.3~35 F=2,900N 时 0.5~40	3.92	0.58
RB-3140	40								1.20		
RB-3160	60										

Sugino can also provide dampers beyond those listed in the above table. Please contact business outlets for more.

## Physical Dimensions (mm)

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



Dimensions (mm)

Model	A	B	C	D	E	F
RB-2430	115			30	200	
RB-2460	196	28	24	9	60	311
RB-2412	93			12	160	
RB-3140	150			40	270	
RB-3160	190	36	31	12	60	311

**R-A**

Air return type

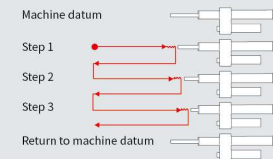
Even when the load on the piston rod of the R-A hydraulic damper is removed, the piston rod remains in its original position and can only be returned by providing compressed air, which enables easy feed control for step drilling.



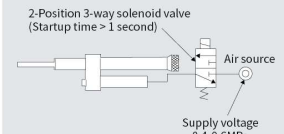
**Feature**

1. The piston rod can stop at any time on the stroke, achieving efficient step feed.
2. Some models have an extended stroke and can be used for a variety of purposes.

### Example of step feed



### Example of air line coupling for piston rod return



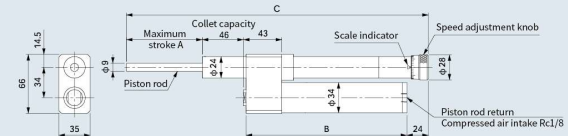
## Parameters

Model	Maximum stroke	Load range	Speed control range for various thrusts	Allowable impact energy	Mass (Body)
	mm		N		mm/sec
R-2442A	40	200~1,500	F= 200N 时 0.3~5 F= 980N 时 0.5~25 F=1,500N 时 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 时 0.3~12 F=2,200N 时 0.5~25 F=2,900N 时 0.8~30	3.92	2.2

Sugino can also provide dampers beyond those listed in the above table. Please contact business outlets for more.

## Physical Dimensions (mm)

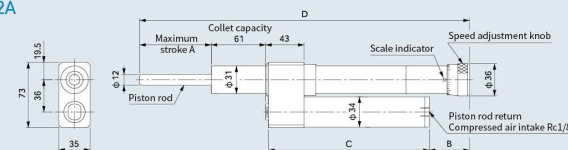
R-2442A, R-2462A, R-2482A



Dimensions (mm)

Model	Dimensions			
	A	B	C	D
R-2442A	40	127	240	-
R-2462A	60		260	-
R-2482A	80	180	333	-
R-3182A	80	39	180	363

R-3182A



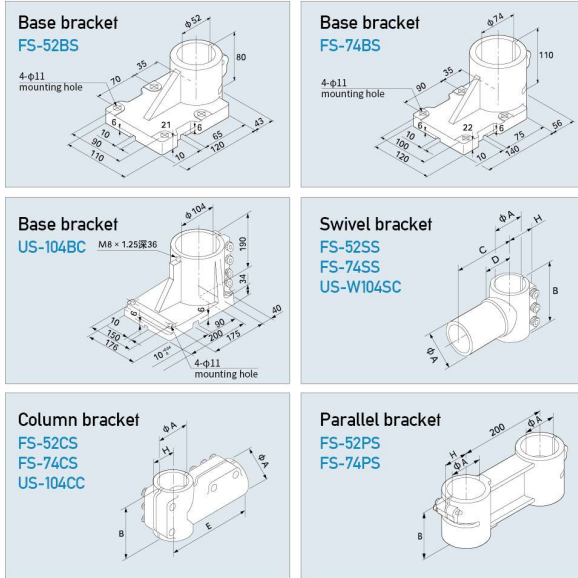
# Options

## Flex Stands

The universal fastening bracket can fix the power head at any angle.

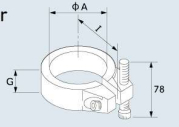


## Physical Dimensions (mm)



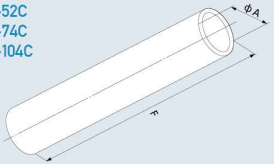
## Height regulator

US-52HA  
US-74HA  
US-104HA



## Column

FS-52C  
FS-74C  
FS-104C



## Dimensions (mm)

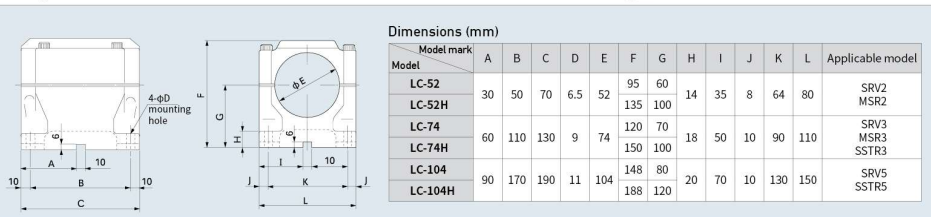
Model mark	A	B	C	D	E	F	G	H	I	Applicable model
FS-52 US-52	52	80	115	40	120	500	30	43	52	SRV2 MSR2
FS-74 US-74	74	110	135	45	140	600	30	56	65	SRV3 MSR3 SSTR3
FS-104 US-104	104	190	250	70	248	1,000	38	77	95	SRV5 SSTR5

## Level Clamps

The parallel collet can mount the drilling power head parallel to the base. There are high and low types depending on the spindle height.



## Physical Dimensions (mm)



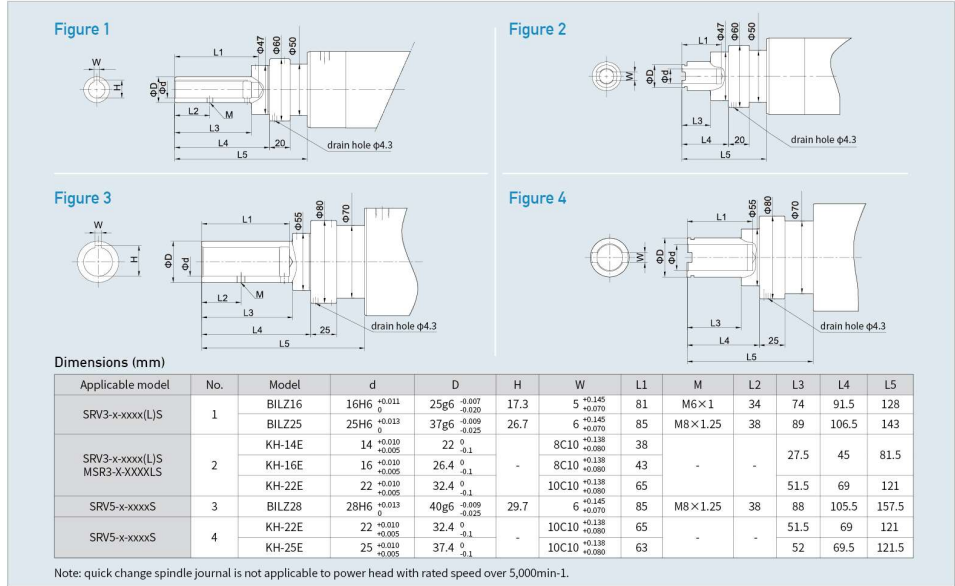
Model mark	A	B	C	D	E	F	G	H	I	J	K	L	Applicable model
LC-52	95	60											SRV2 MSR2
LC-52H	135	100											
LC-74	120	70											SRV3 MSR3 SSTR3
LC-74H	150	100											
LC-104	148	80											SRV5 SSTR5
LC-104H	188	120											

## Adjustable Spindle Noses

Quick change spindle is applicable to SRV, MSR, SSTR series power heads. Please indicate the spindle model and type (e.g. KH-14E) when ordering quick change spindles. Sugino can provide various quick change spindle journals according to customer requirements.



## Physical Dimensions (mm)

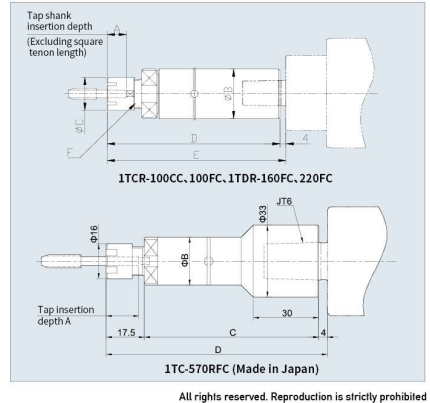


## ER single spindle tapper head

Applicable to single spindle tap chuck of Models SSTR3, SSTR5 and SSTR6, with higher collet precision.



## Physical Dimensions (mm)



## Parameters

Model	Machining capacity	Screw tap Holding mechanism	Dimensions code						Applicable to synchronous tapping power head
			A	B	C	D	E	F	
1TCR-100CC	M1 ~ M3	Centering	16	33	22	115	119	ER16	SSTR3
1TC-570RFC	M1 ~ M3	Centering	15-28	22	80	101.5	-	ER11	SSTR3
1TCR-100FC	M3 ~ M12	Floating	16	33	22	115	119	ER16	SSTR3
1TDR-160FC	M8 ~ M16	Floating	20	40	34	120	124	ER20	SSTR5、6
1TDR-220FC	M12 ~ M22	Floating	22	54	42	132	136	ER25	SSTR5、6

※ Made in Japan