



Compact, Versatile Drilling and Tapping in one unit

# SELFEEDER DUO series



# SUGINO

SUPER! TECHNOLOGY

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### For inquiries, please visit our website

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



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# SUGINO

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# Versatility for special-purpose machines !

Since their release, SELFEEDER has been used widely in many drilling and tapping processes. The latest model is now available, with enhanced versatility to the utmost limit.

## SELFEEDER DUO

A total of 600K units of SELFEEDER series has been sold worldwide. Latest model SELFEEDER DUO contributes to the next generation manufacturing by "Shorter cycle time", "Lower running cost", "Less environmental impact".

**STRONG POINT** **01**

### Both Drilling and Tapping in one unit

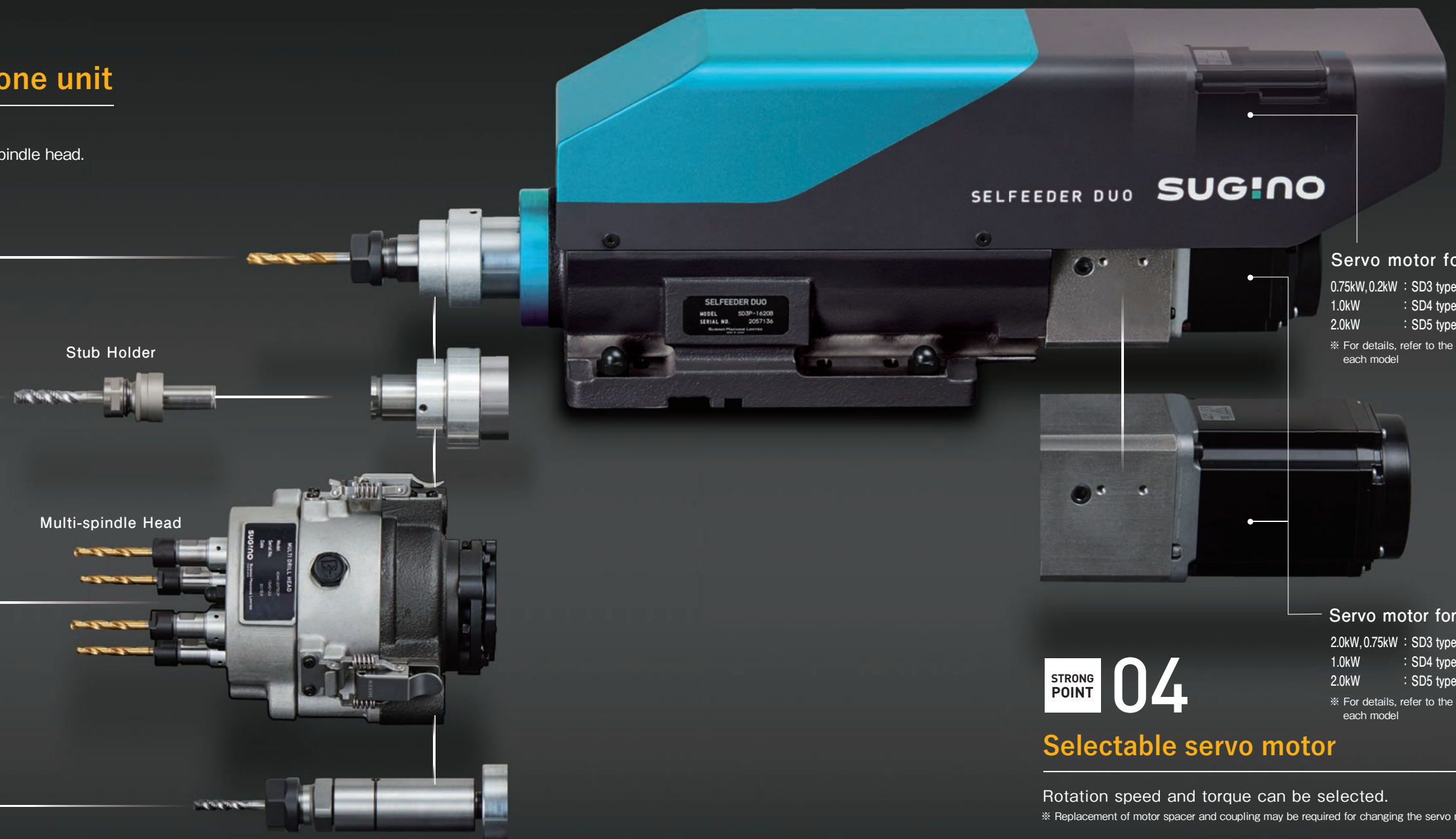
Servo motors are installed on both spindle and feed axis. Tapping is also available by changing tool, holder, multi-spindle head.

Collet Chuck Spindle Nose

Adjustable Spindle Nose

Multi-spindle Head

Single-spindle Tapper Head



**STRONG POINT** **02**

### Airless drive for energy saving

Power consumption reduced by 40% compared to existing models, Airless main spindle motor cooling.

**STRONG POINT** **03**

### Easy to program

Preloaded programs of basic parameters and machining patterns. Easy to operate, can immediately start using on the same day of installation.

Servo motor for feed

- 0.75kW, 0.2kW : SD3 type (see Pg. 4-5)
- 1.0kW : SD4 type (see Pg. 6-7)
- 2.0kW : SD5 type (see Pg. 8-9)

※ For details, refer to the page by each model

Servo motor for spindle

- 2.0kW, 0.75kW : SD3 type (see Pg. 4-5)
- 1.0kW : SD4 type (see Pg. 6-7)
- 2.0kW : SD5 type (see Pg. 8-9)

※ For details, refer to the page by each model

**STRONG POINT** **04**

### Selectable servo motor

Rotation speed and torque can be selected. ※ Replacement of motor spacer and coupling may be required for changing the servo motor.

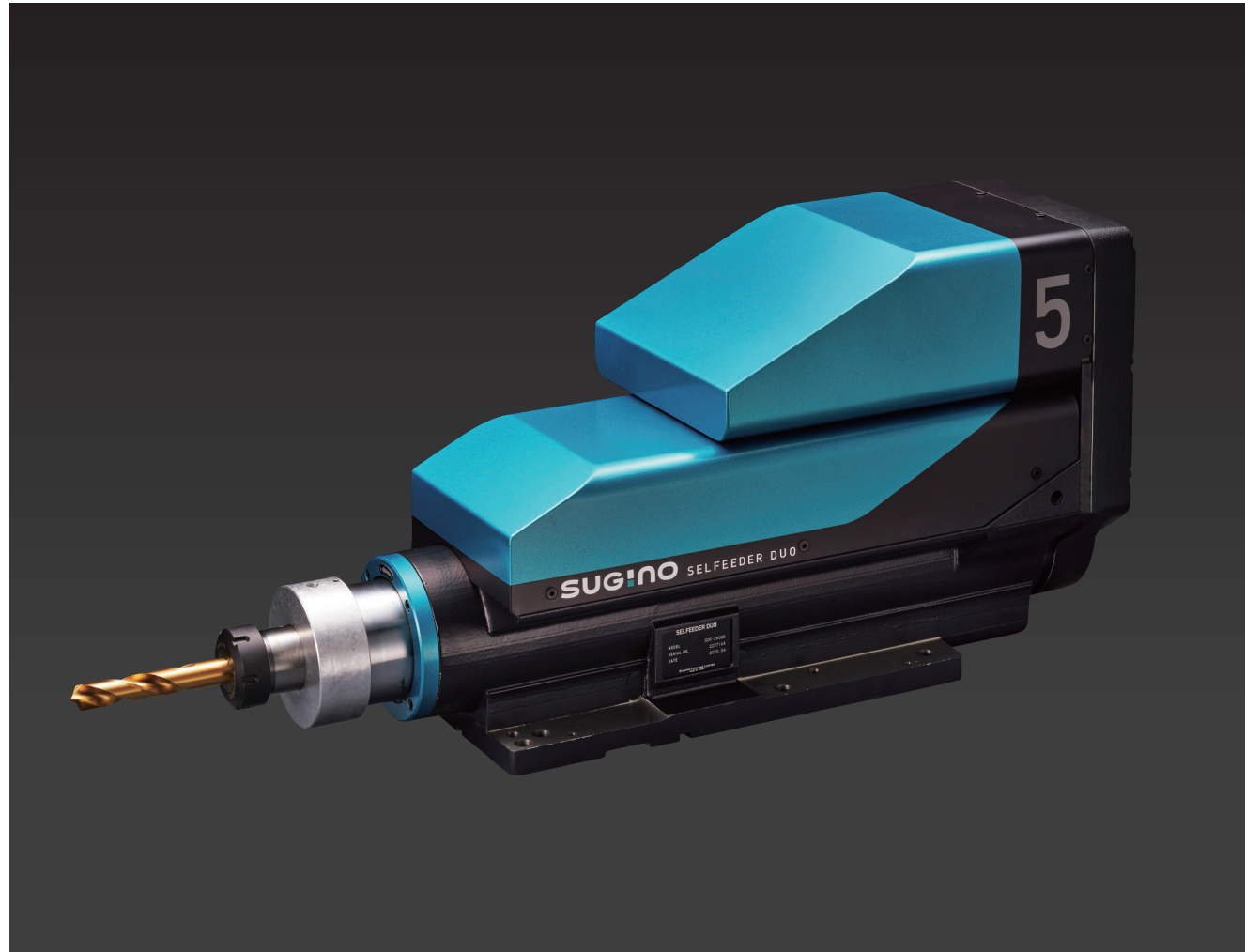






# SD5 type Basic specification

The SD5 type is a high-output model of the SELFEEDER DUO which achieves both drilling and tapping in one unit. Powerful unit with a maximum drilling capacity of  $\phi 33$  mm and a tapping capacity of M27 in aluminum, achieved by maximum spindle torque of 46.3 N·m and thrust of 8,350 N.



## Specification Chart / Drilling and tapping dual-purpose type

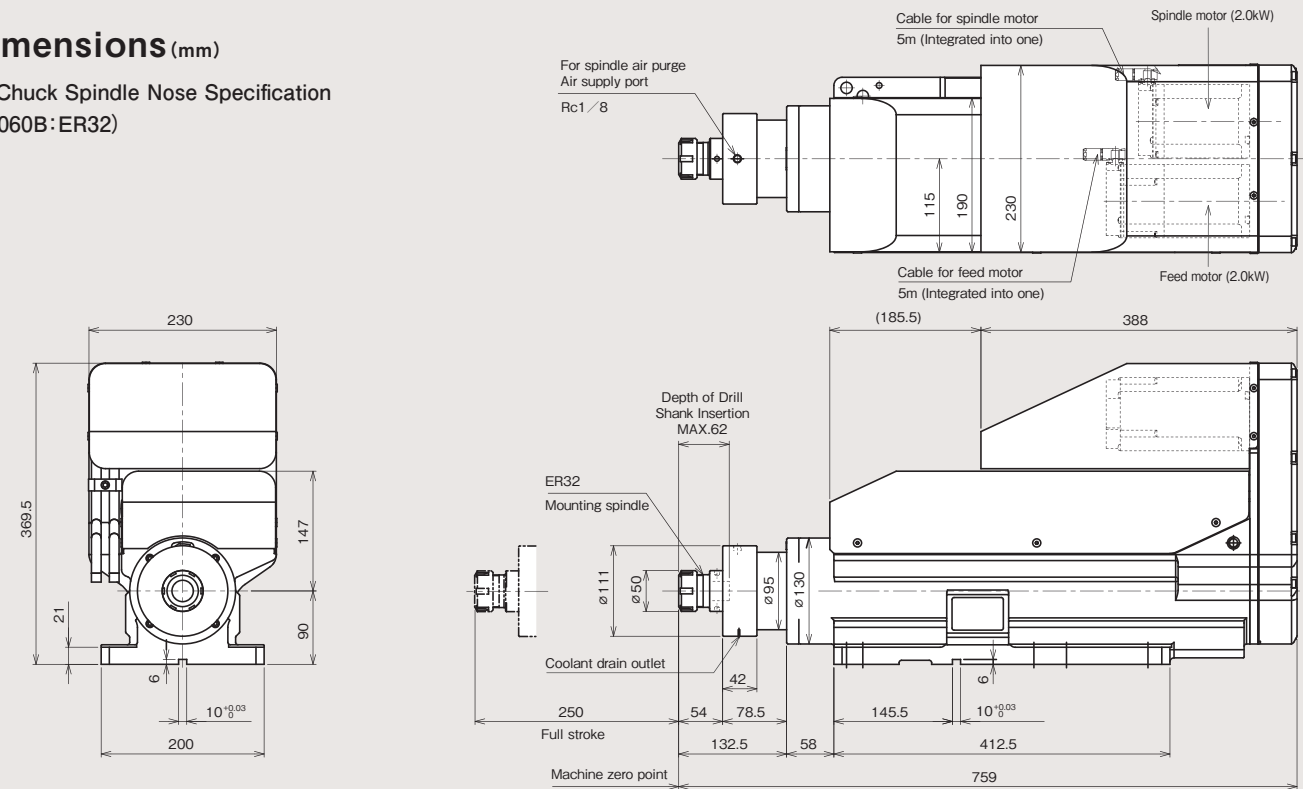
Model	Spindle speed min <sup>-1</sup>	Spindle torque N·m	Chuck type (Collet chuck)	Chucking capacity mm	Max. drilling size			Max. tapping size		AC servo motor for spindle kW	AC servo motor for feed kW	Thrust N	Rapid approach speed mm/sec	Weight kg
					AL★ (ADC12)	FC★ (FC200)	ST★ (S45C)	AL★ (ADC12)	ST★ (S45C)					
SD5-2060B	Max. 6,000	3,000~6,000min <sup>-1</sup> 6.4~3.2 3,000min <sup>-1</sup> or less 6.4	ER32	1.0 ~ 20.0	16.0	13.0	11.0	M12	M8	2.0	2.0	8,350	Max. 225	100
SD5-2608B	Max. 825	414~825min <sup>-1</sup> 46.3~23.1 414min <sup>-1</sup> or less 46.3	ER40	2.0 ~ 30.0	33.0	25.0	22.0	M27	M18					

- Notes
- Select a model based on workpiece specifications, machinability, tool specifications and cutting speed. The maximum drilling capacity shown above is the value at a drilling depth of twice the drill diameter. Tapping capacities are conditional on the depth of tapping being limited to 1.5 times of the tap diameter.
  - If the maximum drilling capacity exceeds the chucking capacity, special tools (with steps) shall be prepared by the customer.
  - If your drilling and tapping needs exceed the figures in the capacity chart, please contact the nearest sales office.
  - ER collet is adopted for spindle nose. Use collet ER-GB when chucking a tap.
  - Misalignment between a pre-hole and a tap can cause early tap damage, select a tap holder shown on page 9.
  - A servo motor for feed is with a holding brake, "B" is added to the end of SELFEEDER DUO model number.

AL★...Aluminium, FC★...Cast Iron, ST★...Steel

## Dimensions (mm)

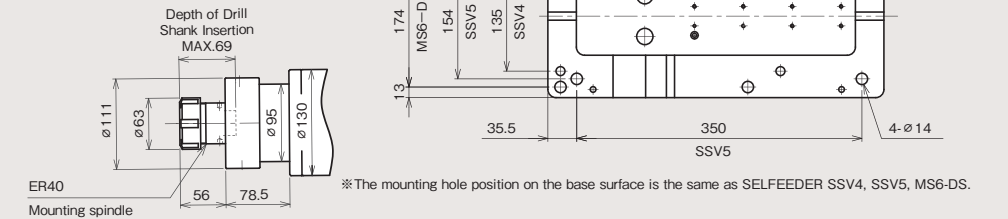
### Collet Chuck Spindle Nose Specification (SD5-2060B:ER32)



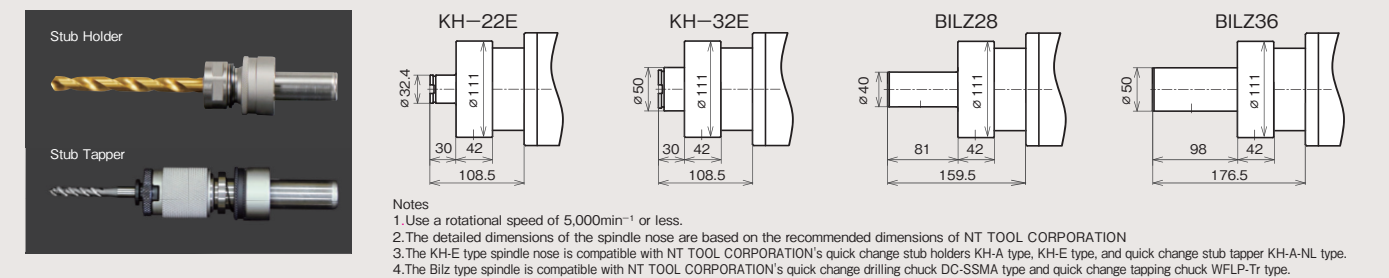
## Spindle

### 1. Collet Chuck Spindle Nose Specification

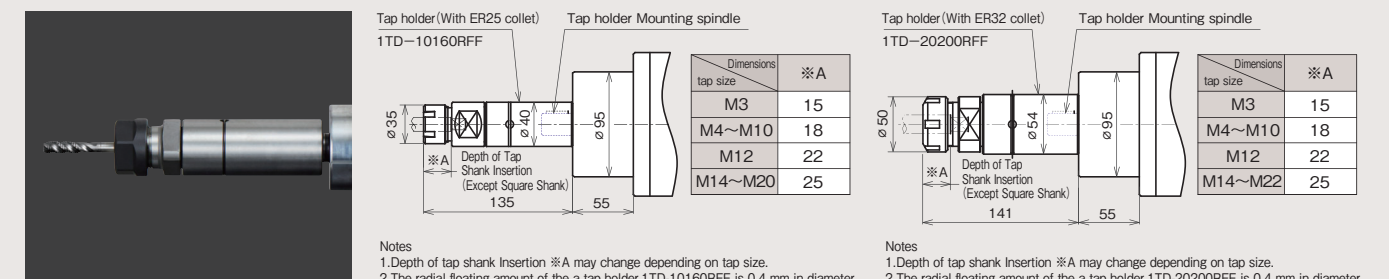
(SD5-2608B:ER40)



### 2. Adjustable Spindle Nose Optional item for easy changeover between drilling and tapping.



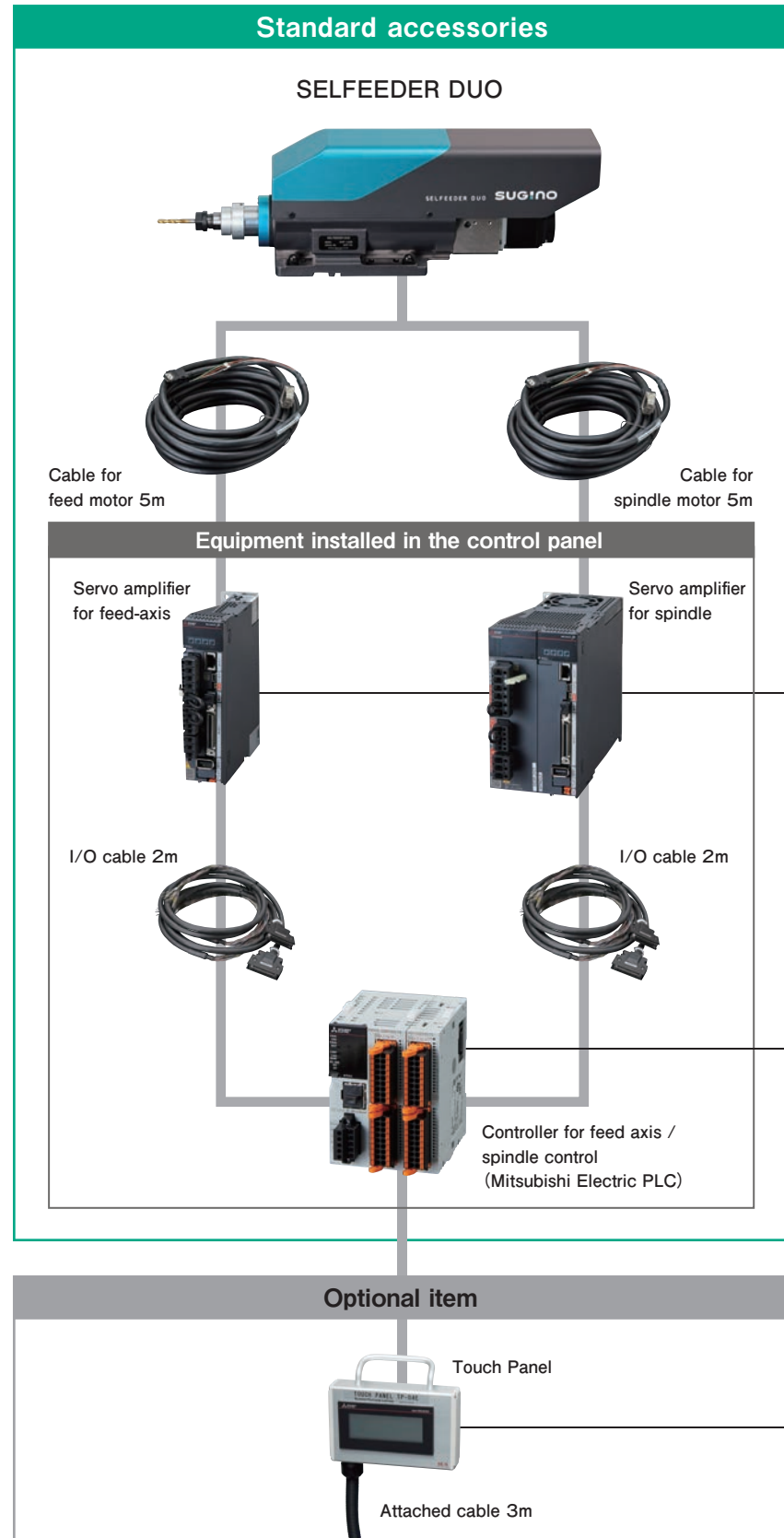
### 3. Tap Holder





## Electrical accessories

Pre-installed basic operation system parameters and machining operation patterns.  
Can easily start using on the same day of installation, just by simple operation.



### Customer preparation

- Control box
- Relay
- Earth Leakage Breaker
- Power Supply DC24V
- Magnetic Contactor

Power voltage is a 3-phase AC 200V, 50/60Hz.

### Examples of special specification

- Compatible with Customer-prepared servo motor made by Mitsubishi Electric Corporation or other manufacturers. Please contact SUGINO for (specific) types of servo motors available for installation.
- Overseas models are also available, with specifications compatible with overseas voltages.
- The touch panel TP-05 is not required when using a customer-prepared touch panel, made by Mitsubishi Electric Corporation equipped with a "multi-channel"

※ More options available for cost reductions besides above.  
For details, please contact SUGINO from the 2D code on page 11.

### Servo amp for feed and spindle

High-performance, high-efficiency model.  
Complies with overseas standards and laws including United States, Europe, and China.

### Controller for feed and spindle

Control of customer-prepared fixtures and coolant are available.

### Touch Panel TP-05

Equipped with a 4.5-inch screen, easy to program and operate for beginners.

## Various proposals to utilize SELFEEDER DUO

### Automatic drilling and tapping machine utilizing SELFEEDER DUO

Applicable model: SD3

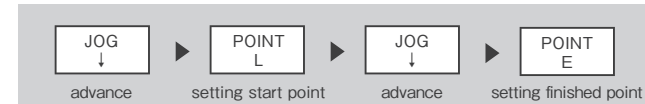
Everything needed for drilling and tapping is integrated in one unit.  
Available for immediate use, can start using the same-day of installation.

Power voltage AC200V

Operation BOX included as standard  
4.5inch small touch panel for easy programming and operation

Various functions  
Preset counters 6 digits × 5 Can save up to 200 programs  
Easy teaching function included

Easy teaching function included  
Stroke setting can be completed by only 4 steps of button operation.



Check here for more details



### Coolant Through

Applicable model: SD3, SD4, SD5

Drills and taps with oil holes can be used, and highly efficient deep hole drilling is possible.



Coolant Pressure  
Max.5.0MPa

Spindle Speed  
Max. 7,000min<sup>-1</sup> (SD3 type)  
Max. 6,000min<sup>-1</sup> (SD4, SD5 type)

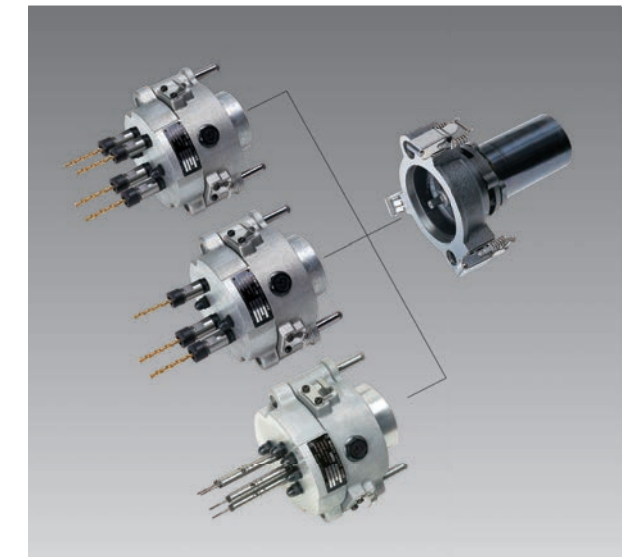
Check here for more details



### Changeable Multi-spindle Head

Applicable model: SD3, SD4, SD5

Can drill and tap holes of multiple locations simultaneously as specified. "Catch-Clip" enables the multi-spindle head changeover easy and fast.



### Contact Please feel free to contact us from the following.

Contact for price and model selection



If you need CAD data, click here.  
CAD data is available on our website.

Q sugino CAD

Direct Contact for any clarification  
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