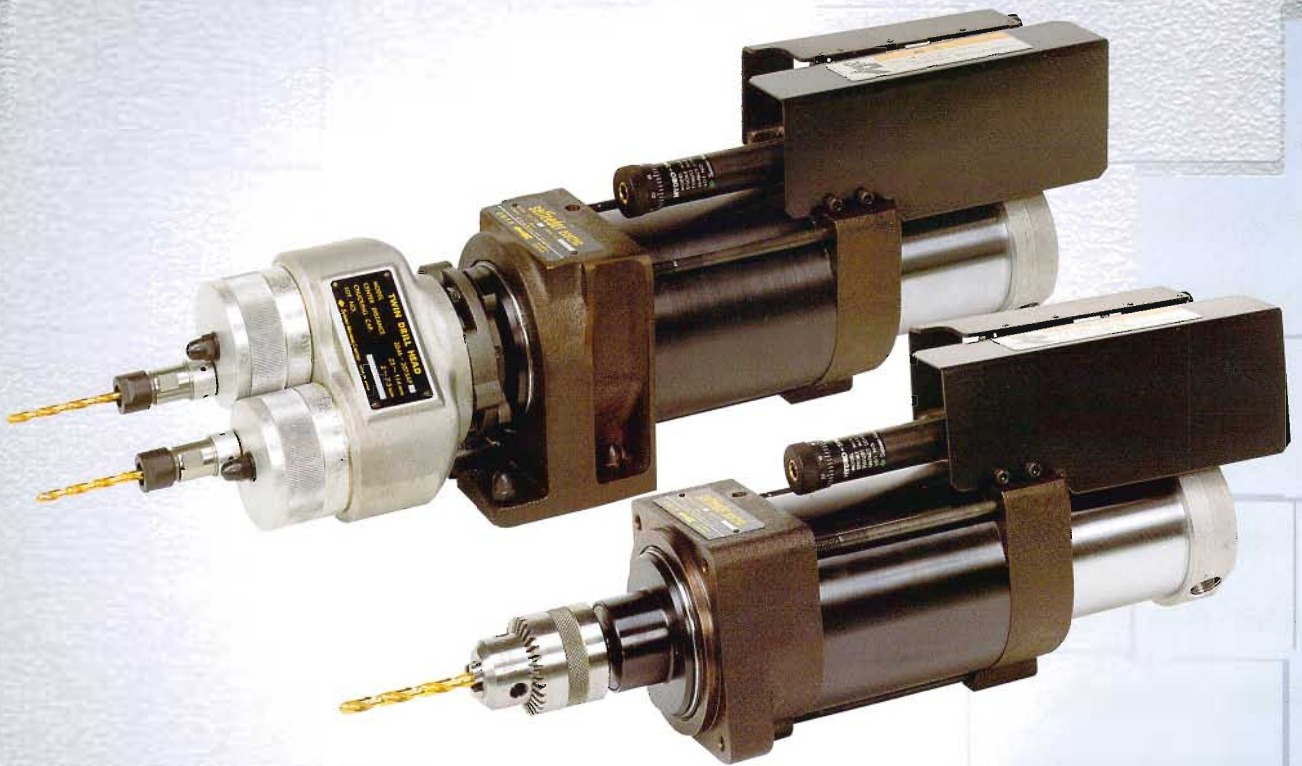


SUGINO

CAT.NO.N2401EA

Small Drill Unit

selffeeder[®]
ecotric^{PAT.P.}



**Units of Low Rotational Speed Type Lined Up
Improved Productivity with Multiple Spindle Drill Heads**

Selfeeder (Ecotric) is a compact and competitively priced drill unit, developed for drilling through wood, resin, aluminum material, etc., and deburring.

0.2 kW and 0.4 kW types of Spindle Motor are provided.

A machine featuring a low rotational speed type has also been added to each series.

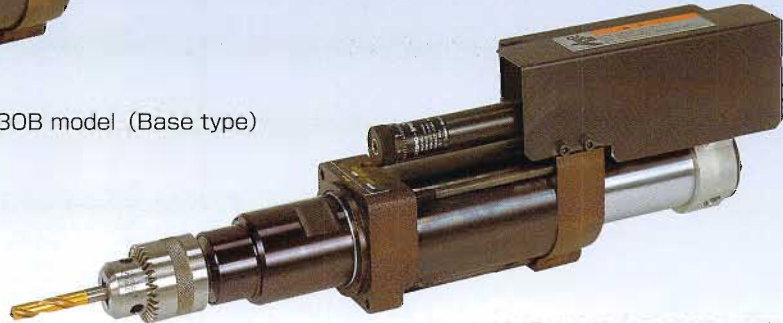
Machines for space-saving drilling and deburring can be fabricated at a low cost.

EC2 Type

[0.2 kW Type Spindle Motor]



EC2-1030B model (Base type)



EC2-1308F model (Flange type)

Features

1. Extremely small and compact

This is a compact drill unit, 85 mm in width and 375 mm in total length.

This compact design offers space-saving efficiency. (EC2-1030 B/F model)

2. Multiple spindle heads attachable

High efficiency processing can be realized with the attachment of multiple spindle heads.

(Available with both EC2 and EC4 models.)

Capacity

Operating air pressure : 0.5MPa

Spec. Model	Spindle Speed (no load)		Chucking Capacity mm	Max.drill size												Stroke		Motor		Thrust N	Air consumption L/Stroke	Weight kg
	50Hz	60Hz		1 Spindle				2 Spindles				3 Spindles				Total mm	Cutting Feed mm	Out put kW	No. of Pole P			
	min ⁻¹			W*	AL*	FC*	ST*	W*	AL*	FC*	ST*	W*	AL*	FC*	ST*							
EC2-1030B/F	3,000	3,600	10	10	5.5	3.5	3	7	4	2.5	2	5	3	2	2	80	30	0.2	2	900	3	12
EC2-1308B/F	800	960	13	15	8	7	6	11	6	5	4	9	4.5	4	3							
EC2-1306B/F	640	770		16	10	8	7	12	7	5	4	10	5	4	3							

Note: 1. Units are expressed in SI in accordance with the international system of units of measurement.

2. Drilling capacity shown above is for a depth equivalent to the drill diameter times two.

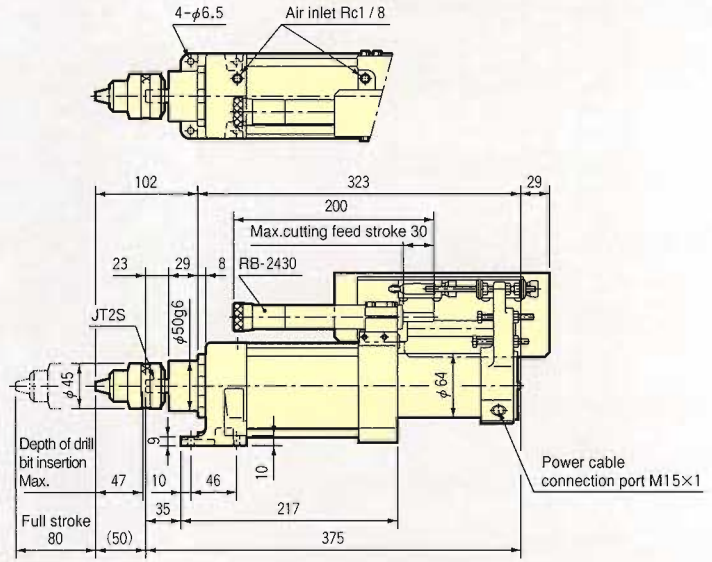
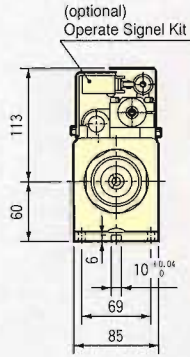
3. The RB-2430 is installed as a standard type Hydro-Speed Regulator. Specify an optional Hydro-Speed Regulator as necessary.

4. W*... Wood and Resin, AL*...Aluminium(ADC), FC*...Cast iron(FC20), ST*...Carbon steel(S45C)*

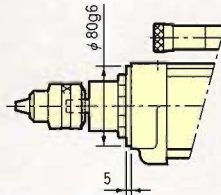
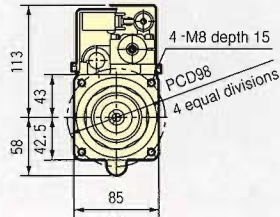
Dimensions (mm)

EC2-1030B/F model

《Base type》



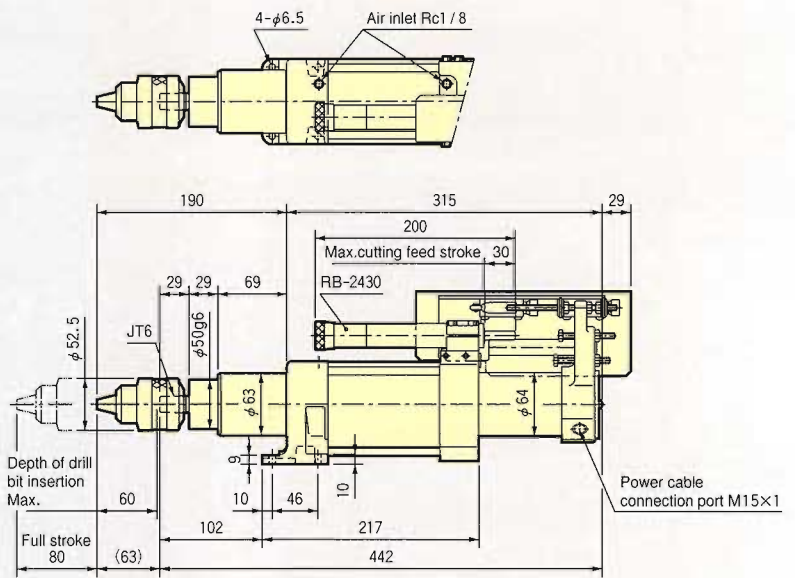
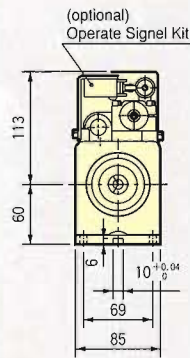
《Flange type》



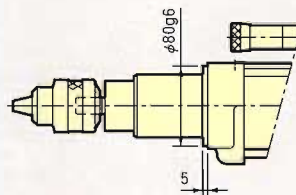
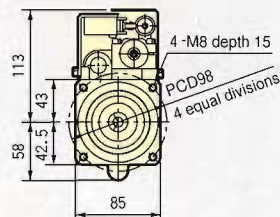
Note: 1. Operate signal kit is optional.
2. 'B' is added to the end of model number for a unit of base type and 'F' for a unit of flange type.

EC2-1308B/F model
EC2-1306B/F model

《Base type》



《Flange type》



Note: 1. Operate signal kit is optional.
2. 'B' is added to the end of model number for a unit of base type and 'F' for a unit of flange type.

EC4 Type

[0.4 kW Type Spindle Motor]



EC4-1330F model (Flange type)



EC4-1308B model (Base type)

Features

1. The Number of the process of the machine designing and assembly can be reduced.

With Base and Flange type provided to mount the unit, it is possible to make optimum design on the machine and to reduce the number of the process.

(Available with both EC2 and EC4 types.)

2. High performance inverter (optional) is provided.

For changing spindle rotation speed, an inverter is provided.

Rated torque (100% torque) can be continuously operated. (Available with both EC2 and EC4 models.)

※Except for EU Countries

Capacity

Operating air pressure: 0.5 MPa

Spec. Model	Spindle Speed (no load)		Chucking Capacity mm	Max.drill size												Stroke		Motor		Thrust N	Air consumption L/Stroke	Weight kg
	50Hz	60Hz		1 Spindle				2 Spindles				3 Spindles				Total	Cutting Feed mm	Out put kW	No. of Pole P			
				W*	AL*	FC*	ST*	W*	AL*	FC*	ST*	W*	AL*	FC*	ST*							
	min ⁻¹			mm												mm	mm					
EC4-1330B/F	3,000	3,600	13	15	7	5	4	10	5	4	3.5	8	4	3	3	80	30	0.4	2	1570	5	20
EC4-1308B/F	800	960		18	11	8.5	7.5	14	8.5	6.5	5.5	12	7	5	4.5							
EC4-1306B/F	640	770		19	13.5	10.5	9	15	9	7	6	13	7.5	5.5	5							

Note: 1. Units are expressed in SI in accordance with the international system of units of measurement.

2. Drilling capacity shown above is for a depth equivalent to the drill diameter times two.

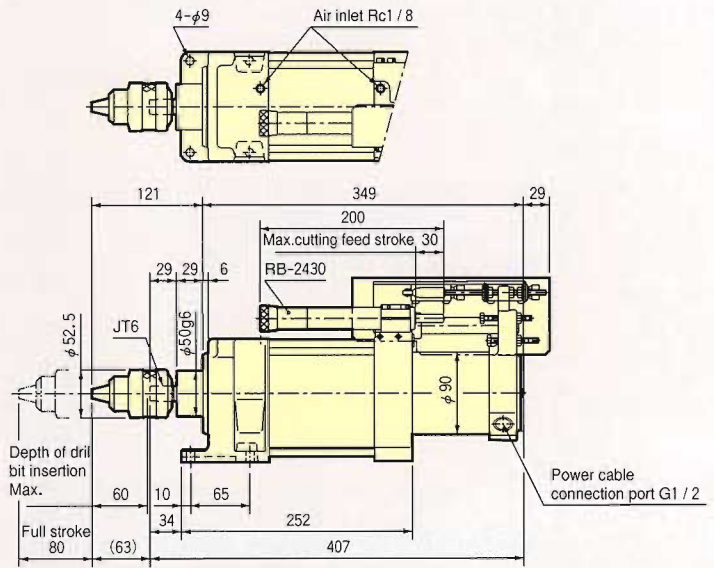
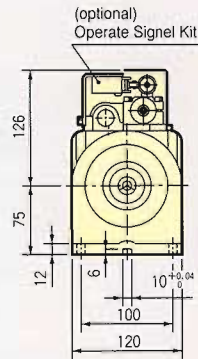
3. The RB-2430 is installed as a standard type Hydro-Speed Regulator. Specify an optional Hydro-Speed Regulator as necessary.

4. W*... Wood and Resin. AL*...Aluminium(ADC). FC*...Cast iron(FC20). ST*...Carbon steel(S45C)

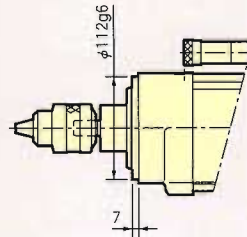
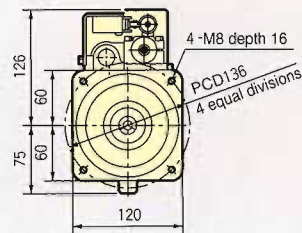
Dimensions (mm)

EC4-1330B/F model

《Base type》



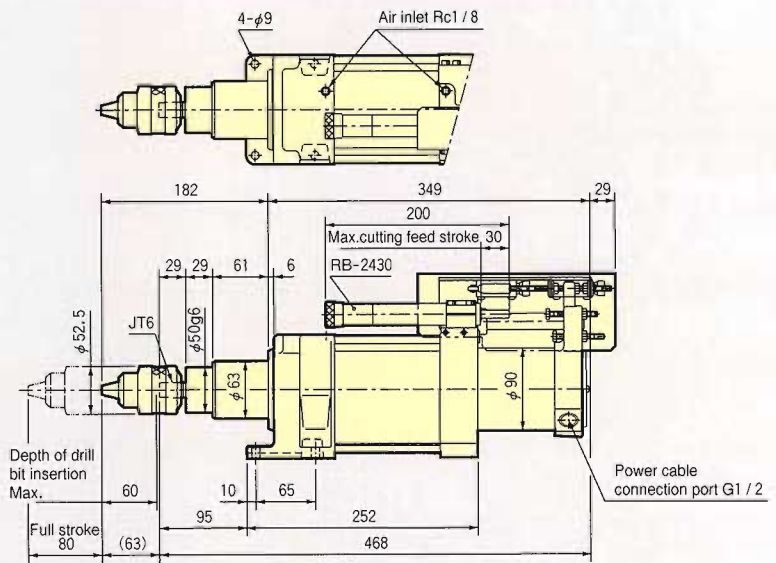
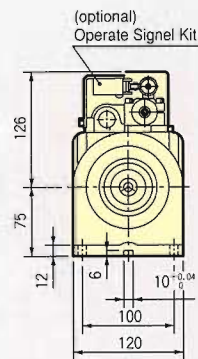
《Flange type》



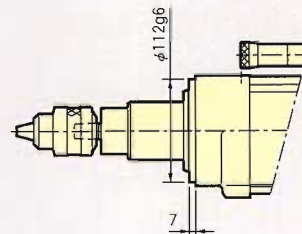
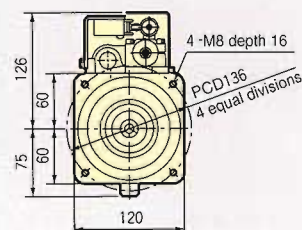
Note: 1. Operate signal kit is optional.
2. 'B' is added to the end of model number for a unit of base type and 'F' for a unit of flange type.

EC4-1308B/F model
EC4-1306B/F model

《Base type》



《Flange type》



Note: 1. Operate signal kit is optional.
2. 'B' is added to the end of model number for a unit of base type and 'F' for a unit of flange type.

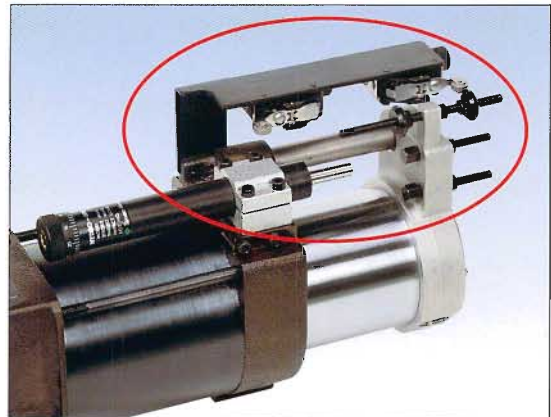
Option

Operate Signal Kit

This is a kit to precisely monitor the operational phases of Selfeeder (Ecotric) and control synchronized operation with other devices (index table or automatic clamp device). It can transmit electric signals.

Model	Types of Detection	Applicable Selfeeder (Ecotric)
OSK-80EC2	Check of max.drilling depth & return position	EC2
OSK-80EC4		EC4

Note: When Selfeeder (Ecotric) is used, a limit switch is necessary to confirm the forward and return ends without fail.



Inverter

Use this when spindle rotation speed of Selfeeder (Ecotric) is to be changed. Spindle rotation speed can be adjusted in any way within the range of 15~60 Hz, and rated torque (100% torque) can be continuously operated.

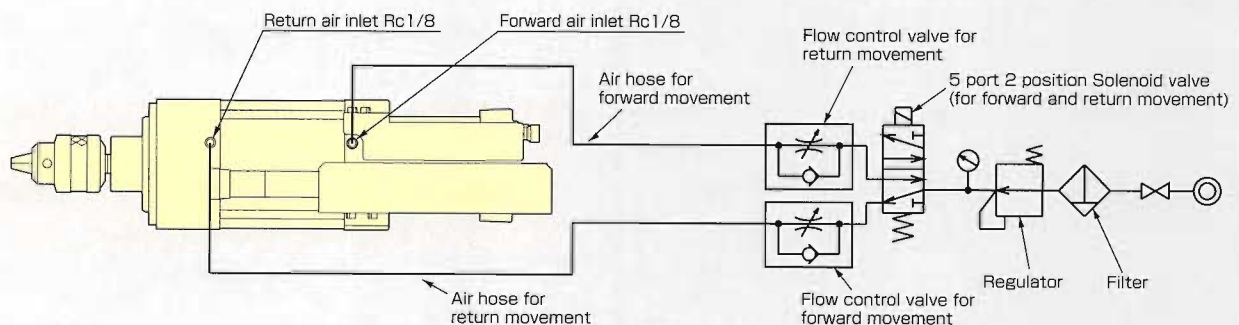
Spec.	Model	SJ100-002LFR (for EC2)	SJ100-004LFR (for EC4)
Input AC Voltage	V	3phase 200-220/200-230 ± 10% 50/60Hz ± 5%	
Capacity	kVA	0.6	1.1
Output Voltage	V	3phase 200-230	
Output Amps	A	1.6	3.0
Measurement	mm	W 84×D 100×H 120	W 84×D 114×H 120
Weight	kg	0.7	0.85

- Note: 1. Units are expressed in SI in accordance with the international system of units of measurement.
 2. Different voltage in the range of 380~460V and amperage are also available. please contact our subsidiaries or local distributors for details
 3. For EU countries, the Inverter available on the market which you can change the spindle speed in the range of 15~60Hz should be prepared by users.



Air Control Circuit

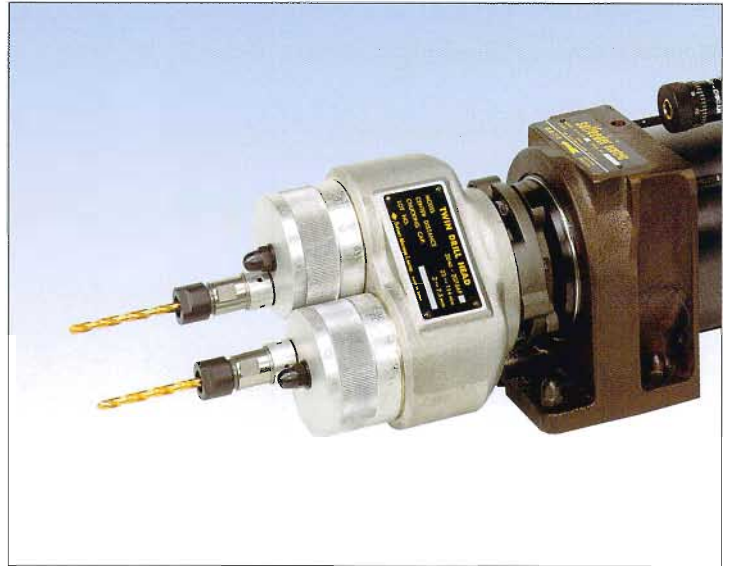
Forward and return movement of Selfeeder (Ecotric) is controlled by supplying air directly to Forward Air Inlet Rc 1/8 and Return Air Inlet Rc 1/8.



- Note: 1. Be sure to use the meter-out flow control valve (to be provided by the user) to control the speed of forward and return movement.
 2. Pneumatic equipment and the like to be connected to Selfeeder (Ecotric) are to be provided by the user.

Multiple Spindle Drill Head

By attaching a multiple spindle drill head, productivity can be raised.
Sugino Machine designs and manufactures drill heads best suited to the processing specifications of users.



Spindle pitch adjustable type (Collet chuck type)

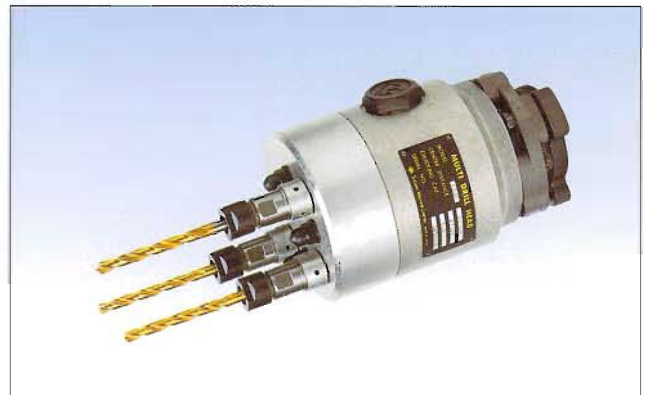
Spindle pitch adjustable type (Drill chuck type)

This is a useful drill head capable of adjusting the spindle pitch in almost any way.
There are two types of spindle pitch adjustable type drill head, namely collet chuck and drill chuck types.



Spindle pitch fixed type (Collet chuck type)

This is a drill head made to order, capable of designing and manufacturing spindle pitch specified by the user.
Different types of collets suitable for shank diameter of tools to be used are provided.



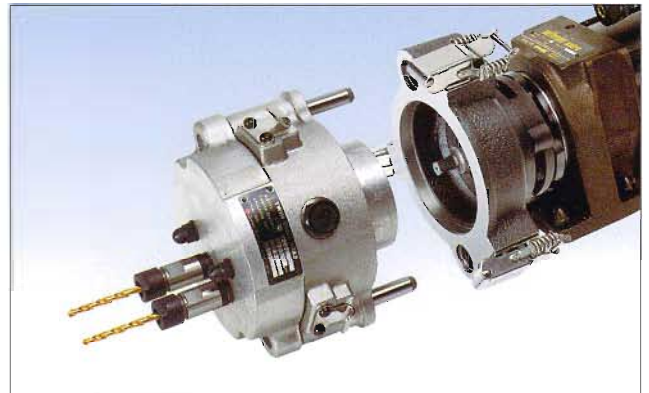
Spindle pitch fixed type (Adjustable spindle nose type)

This is a spindle shaped drill head to which an adjustable holder can be mounted.



Catch clip type (Collet type)

This is a drill head of which the main body can be attached or removed with one touch.
Time for initial setup can be reduced greatly.





Sugino Selfeeder continues to respond constantly to the needs of drilling with higher speed and precision, making use of the full-range of innovative technologies. Selfeeders best suited to your needs are provided.

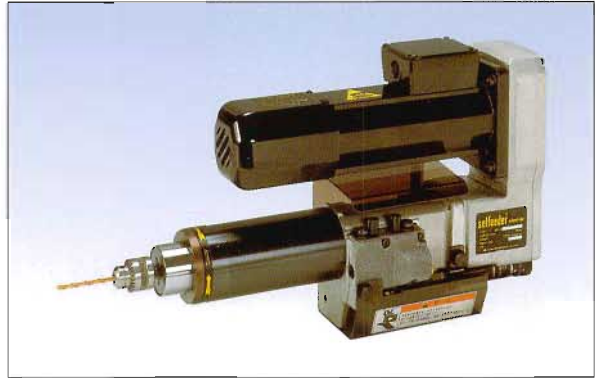
Pneumatic SF Type

This is a drill unit whose rotation, feed and control are all conducted by air pressure. Despite its small diameter, this drill unit elaborated to be small and light with an air motor providing high torque, endures severe use conditions and demonstrates excellent performance.



Electric ES Type

This is a drill unit featuring outstanding cost performance, whose rotation is conducted by electricity while feed and control are conducted by air pressure. The unit best suited to the specifications of processing or processing machine can be selected from a wide range of different types which are available.



Mechatronic MSC - WP Model

This is a drill unit whose feed is conducted mechanically and whose control is conducted electronically. As its processing pattern and cutting feed can be set arbitrarily, it can promptly respond to any change in processing specifications. In spite of its compact design, its stroke is long and its power high. Automatic machines can be easily manufactured in house at a low cost.



CNC MSX - D Model

This is a drill unit developed for high-precision drilling and stepped hole counter boring, whose feed is conducted mechanically and whose control is conducted electronically. It is also capable of oil hole drilling by spindle through method as well as high-speed and high-precision deep drilling.



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*Specifications in this catalogue are subject to change without prior notice due to product improvement.
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