

# SUGINO

# selfeeder® global

Highly Accurate and Durable Drill Units



SUGINO MACHINE LIMITED

# The latest models unveiled

Global Selfeeders are drill units designed and built to maintain high accuracy and high durability in the most demanding applications. These units were developed on the forefront of holemaking technology in order to meet current requirements of high speed, high accuracy and lower cost for world-wide markets.

## High Accuracy and High Durability

A foot mount type body leads to very precise unit alignment and high repeatability when replacing and reinstalling units.

A two piece guide bar system creates a very stable and highly accurate drilling condition.

## Very Compact Size and Lower Noise

No speed reduction or increasing gears are used for spindle rotation, so this allows the units length to be shorter.

Eliminating speed increasing and reduction gears creates smoother rotation, which translates to lower noise levels.

## Great Versatility

Standard motors which are highly efficient and generate high output are used for spindle rotation. A speed inverter to the motor allows for fast and easy spindle speed changes.



# for the world !



### Through-The-Tool Coolant Supply (Option)

Selfeeder global can be supplied with an optional hole through the spindle for using coolant feed tooling. High pressure coolant through the tools is recommended for optimum performance, to prolong tool life and aid in flushing chips from the hole.



### Multi Spindle Head

By mounting a multi spindle head to a Selfeeder, drilling efficiency is improved which results in lower holemaking cost.



### Motor Mounting Flexibility

To satisfy space requirements, the spindle motor can be mounted behind the unit or at 90° to the left or right of the unit.



### L-Type Bracket

A L-type bracket is available for adjusting the swivel angle of a global Selfeeder.

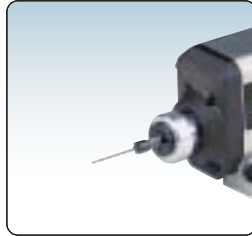


## GSA type



Small and light weight unit with 0.25kW motor.  
Steady small hole drilling can be done.

Collet spindle nose



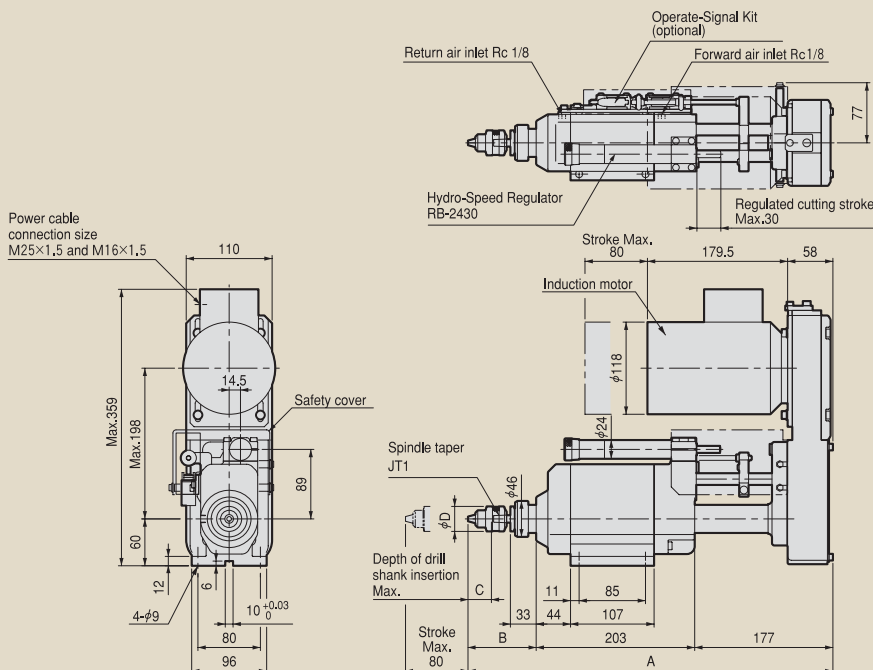
### Capacity

Operating air pressure: 0.5 MPa

Model	Spindle speed (no load)		Drill Chuck Capacity	Max. drill size			Stroke		Motor		Thrust	Air Consumption	Weight
	50Hz	60Hz		Aluminium	Cast Iron	Carbon Steel	Max.	Regulated cutting	Output	No. of Pole			
	min <sup>-1</sup>												
GSA-2-3100	10,000	12,000	3 (Keyless Drill Chuck)	2.5	1	1	80	0~30	0.25	2	840	4	17
GSA-2-3085	8,500	10,000		3	1	1							
GSA-2-3060	6,000	7,200		4	1.5	1.5							
GSA-2-6045	4,500	5,400	6.5	5.5	2	2							
GSA-2-6030	3,000	3,600		6.5	3	3							
GSA-2-6020	2,000	2,400		7.5	4.5	4.5							
GSA-2-6015	1,500	1,800		8	6	6							
GSA-2-6011	1,100	1,300		9	8	6.5							

- Notes 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 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. When ordering, specify the voltage and frequency of the motor.  
 5. The materials quoted are equivalent to following JIS code. Aluminium : ADC, Cast Iron : FC200, Carbon Steel : S45C

### Dimensions (mm)



Type	Dimensions			
	A	B	C	D
GSA-2-31□□	465	85	14	24
GSA-2-30□□	465	85	14	24
GSA-2-60□□	467	87	30	32

# GSB type



Full line-up from high speed to low speed.  
It is suitable for machining with special tools such as carbide drill, reamer and mill.

Adjustable spindle nose



Refer to page 8 for details



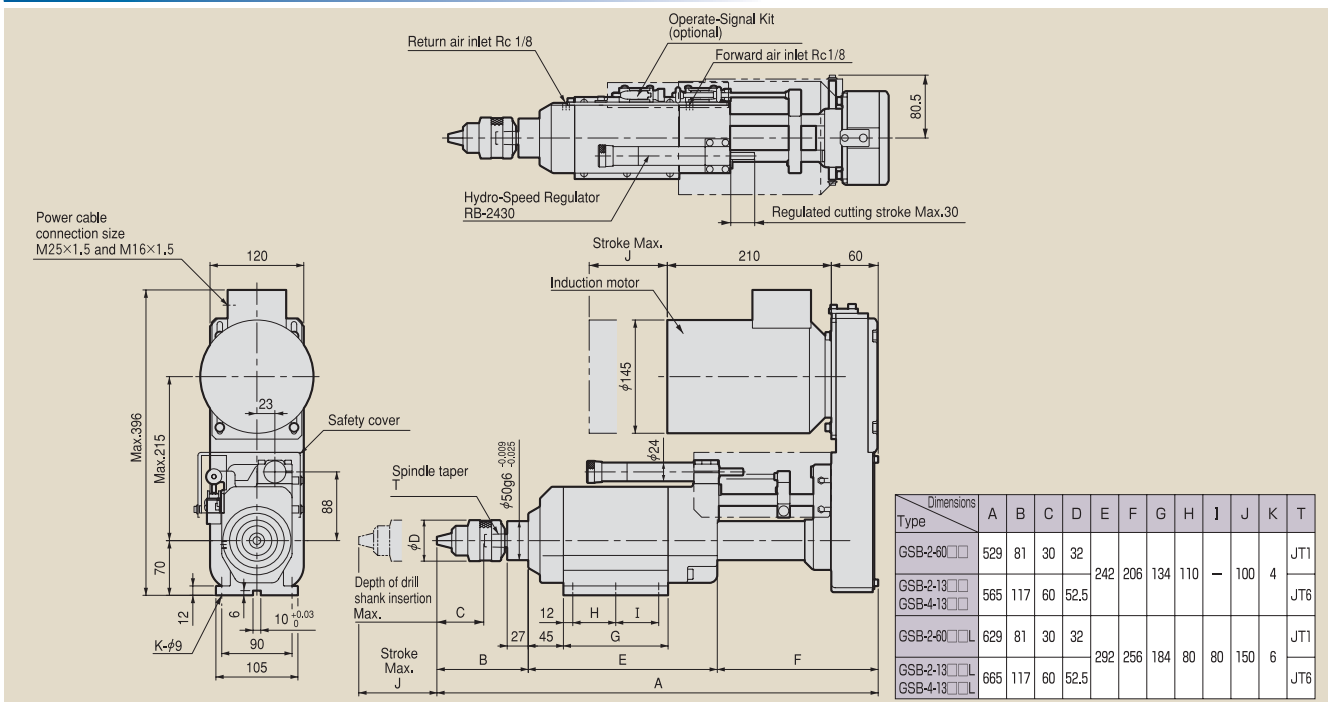
## Capacity

Operating air pressure: 0.5 MPa

Specs. Model	Spindle speed (no load)		Drill Chuck Capacity	Max. drill size			Stroke		Motor		Thrust	Air Consumption	Weight
	50Hz	60Hz		Aluminium	Cast Iron	Carbon Steel	Max.	Regulated cutting	Output	No. of Pole			
	min <sup>-1</sup>		mm								mm		
GSB-2-6075(L)	7,500	9,000	6.5	3	1.5	1	100 (150)	0~30	0.55	2	1,225	5 (8)	27.5 (29)
GSB-2-6060(L)	6,000	7,200		4	1.5	1.5							
GSB-2-6046(L)	4,600	5,500		5.5	2	2							
GSB-2-1330(L)	3,000	3,600		8	3	3							
GSB-2-1320(L)	2,000	2,400		9.5	4.5	4.5							
GSB-2-1315(L)	1,500	1,800		10.5	6	6							
GSB-2-1312(L)	1,200	1,400	12	8	8	0.37			4	27 (28.5)			
GSB-4-1337(L)	3,700	4,500	6.5	2.5	2.5								
GSB-4-1330(L)	3,000	3,600	7.5	3	3								
GSB-4-1323(L)	2,300	2,700	8	4	4								
GSB-4-1315(L)	1,500	1,800	9	6	6								
GSB-4-1310(L)	1,000	1,200	10.5	9	7.5								
GSB-4-1307(L)	750	900	12.5	10	8.5								
GSB-4-1306(L)	600	700	13	11	9.5								

- Numbers in bracket are for the long stroke models.
- 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 for a depth equivalent to the drill diameter times two.
- The RB-2430 is installed as a standard type Hydro-Speed Regulator. Specify an optional Hydro-Speed Regulator as necessary.
- When ordering, specify the voltage and frequency of the motor.
- The materials quoted are equivalent to following JIS code. Aluminium : ADC, Cast Iron : FC200, Carbon Steel : S45C

## Dimensions (mm)

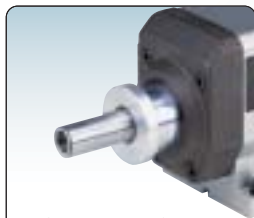


## GSC type



Heavy duty unit with high torque and high thrust.  
High efficiency production can be done with multi spindle drill head.

Adjustable spindle nose



Refer to page 8 for details



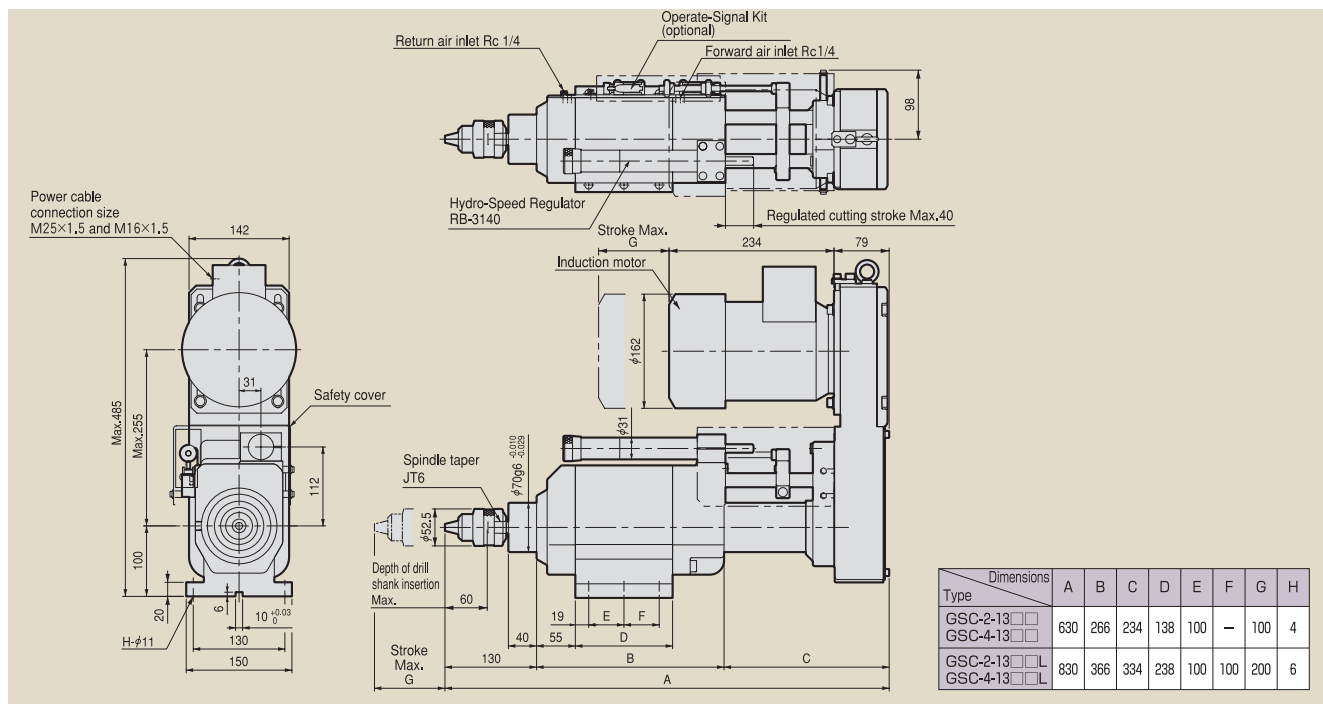
## Capacity

Operating air pressure: 0.5 MPa

Model	Spindle speed (no load)		Drill Chuck Capacity	Max. drill size			Stroke		Motor		Thrust	Air Consumption	Weight
	50Hz	60Hz		Aluminium	Cast Iron	Carbon Steel	Max.	Regulated cutting	Output	No. of Pole			
	min <sup>-1</sup>												
GSC-2-1361(L)	6,100	7,300	13	4	1.5	1.5	100 (200)	0~40	1.1	2	2,260	9 (16)	53 (60)
GSC-2-1342(L)	4,200	5,000		6	2	2							
GSC-2-1330(L)	3,000	3,600		8.5	3	3							
GSC-2-1321(L)	2,100	2,600		12	4.5	4.5							
GSC-2-1315(L)	1,500	1,800		14	6	6							
GSC-4-1330(L)	3,000	3,600		8.5	3	3			0.75	4			52.5 (59.5)
GSC-4-1321(L)	2,100	2,500		10.5	4.5	4.5							
GSC-4-1315(L)	1,500	1,800		12.5	6	6							
GSC-4-1311(L)	1,100	1,300		14	8.5	8.5							
GSC-4-1307(L)	750	900		16	12	11.5							

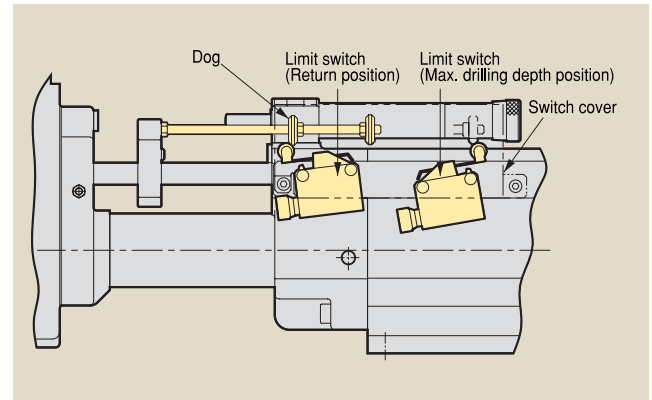
- Numbers in bracket are for the long stroke models.
- Model selection should be done from the above chart, based on workpiece specifications, material hardness, diameter of hole and cutting speed.
- The drilling capacity shown above is for a depth equivalent to the drill diameter times two.
- The RB-3140 is installed as a standard type Hydro-Speed Regulator. Specify an optional Hydro-Speed Regulator as necessary.
- When ordering, specify the voltage and frequency of the motor.
- The materials quoted are equivalent to following JIS code. Aluminium : ADC, Cast Iron : FC200, Carbon Steel : S45C

## Dimensions (mm)



## Operate-Signal Kits

Operate-Signal Kit (OSK) is designed to detect return position and Maximum drilling depth and to provide the signals necessary for sequencing with other operations and equipment.



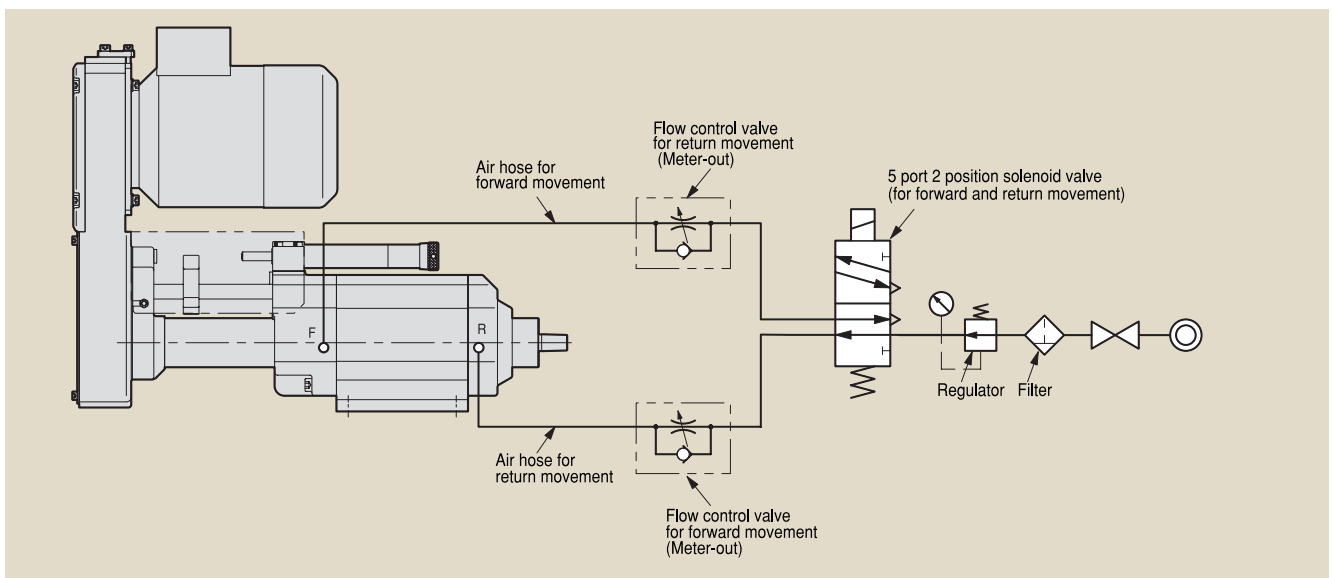
### Specifications of Operate-Signal Kits

Model of Operate-Signal Kit is depended on the model of global Selffeeder and select a model from those in the following table.

Model No.	Detection Point	Applicable Selffeeder Type
OSK-80G-WM	Max. Drilling depth & Return position	GSA
OSK-100G-WM		GSB
OSK-150G-WM		GSB-L
OSK-100GC-WM		GSC
OSK-200G-WM		GSC-L

## Air Pressure Control Circuits

Air cylinder for the forward and return operation is built in.  
Supply filtered 0.4~0.6 MPa pressure air to each global Selffeeder.



Note : Air regulating equipment is supplied by customer.  
The cylinder diameter for forward and return is the same, so meter-out flow control valves are required for each unit.

## Adjustable Spindle Noses

Adjustable spindle noses are available for GSB and GSC type Selffeeders.  
Please specify the adjustable spindle nose model number when ordering.



## Dimensions (mm)

Fig. 1

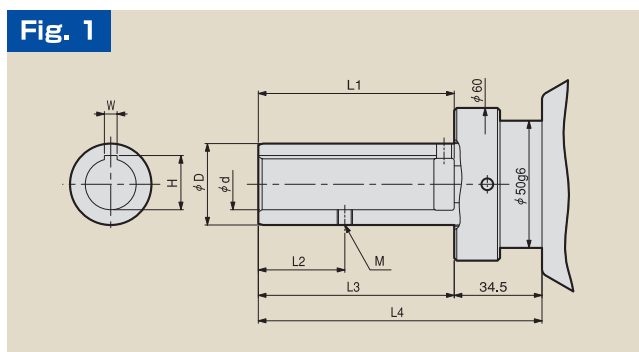
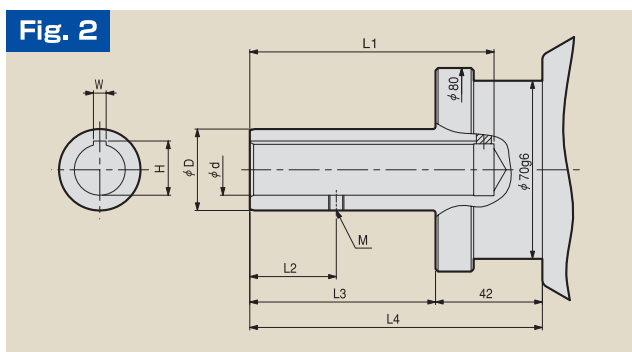


Fig. 2



Applicable Selffeeder	Fig.No.	Spindle Nose Model No.	d	D	H <sup>+0.1</sup> <sub>0</sub>	W	L 1	M	L 2	L 3	L 4
GSB	1	Bilz16	16H6 <sup>+0.011</sup> <sub>0</sub>	25g6 <sup>-0.007</sup> <sub>-0.020</sub>	17.3	5 <sup>+0.145</sup> <sub>+0.070</sub>	74	M6×1	34	74	108.5
		Bilz20	20H6 <sup>+0.013</sup> <sub>0</sub>	32g6 <sup>-0.009</sup> <sub>-0.025</sub>	21.3		77			77	111.5
		Bilz25	25H6 <sup>+0.013</sup> <sub>0</sub>	37g6 <sup>-0.009</sup> <sub>-0.025</sub>	26.7	6 <sup>+0.145</sup> <sub>+0.070</sub>	85	M8×1.25	38	89	123.5
GSC	2	Bilz16	16H6 <sup>+0.011</sup> <sub>0</sub>	25g6 <sup>-0.007</sup> <sub>-0.020</sub>	17.3	5 <sup>+0.145</sup> <sub>+0.070</sub>	91	M6×1	34	68	110
		Bilz20	20H6 <sup>+0.013</sup> <sub>0</sub>	32g6 <sup>-0.009</sup> <sub>-0.025</sub>	21.3		96			73	115
		Bilz25	25H6 <sup>+0.013</sup> <sub>0</sub>	37g6 <sup>-0.009</sup> <sub>-0.025</sub>	26.7	6 <sup>+0.145</sup> <sub>+0.070</sub>	102	M8×1.25	38	79	121

Note : Adjustable spindle noses cannot be installed on global Selffeeders which will operate at 5,000min<sup>-1</sup> or above.



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