

# POWDER TROUBLE PREVENTION EQUIPMENT

## Troubleshooting

Trouble Prevention Equipment Catalog

Air Kocker

Engineering Plastic Kocker

Jet Blaster

Piston Vibrator

Rorary Catcher

Grate Magnets

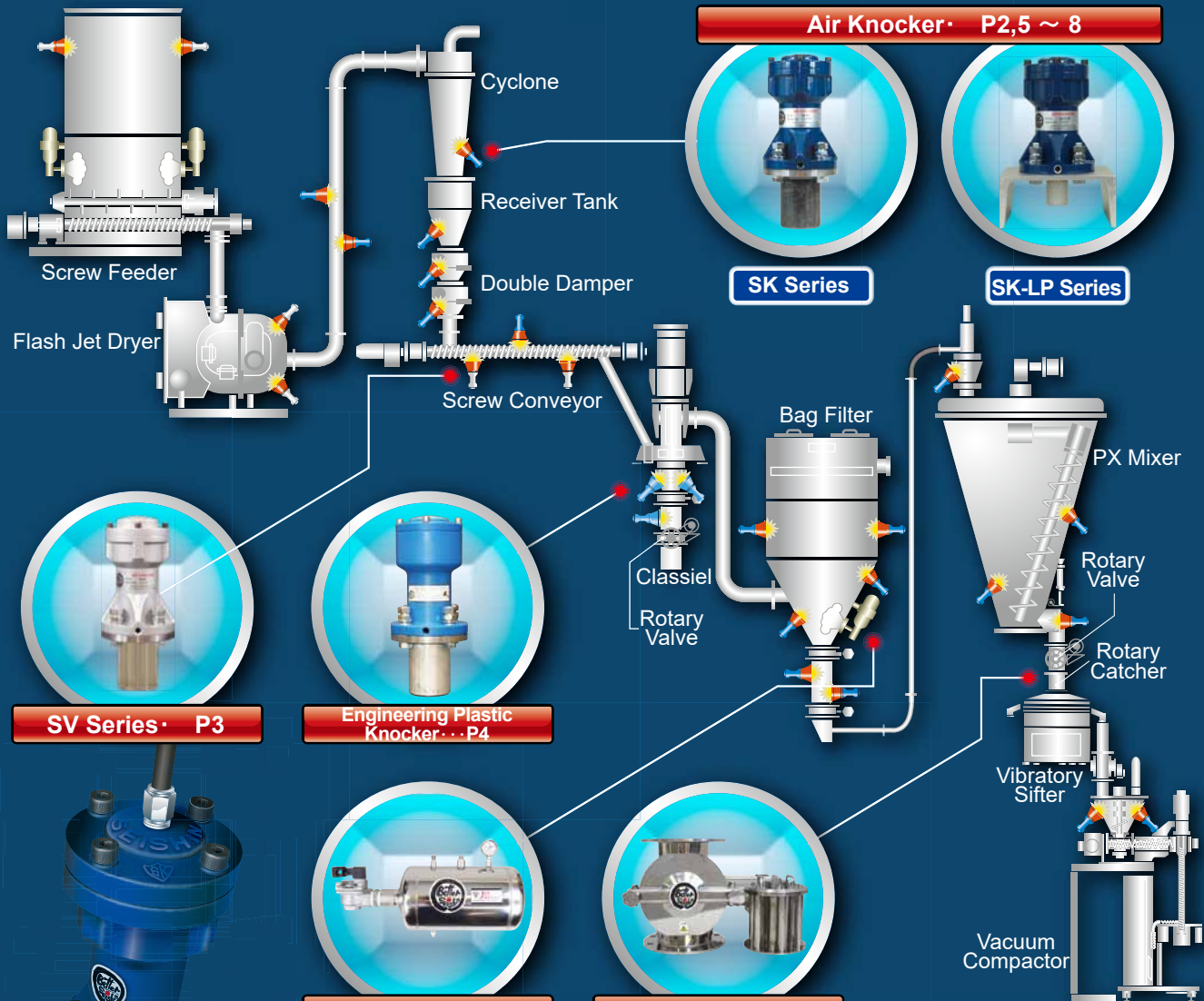
Ceramic Hose



**SEISHIN**  
ENTERPRISE CO.,LTD.

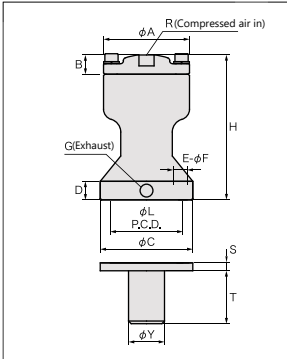


### SEISHIN 's Powder trouble solving equipment / Index



#### Powder trouble solving equipment / Index

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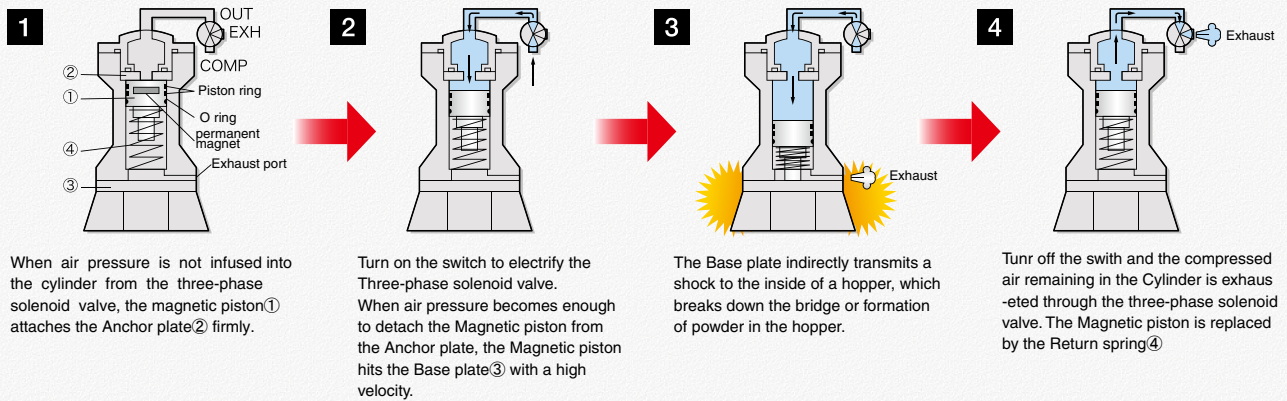
※ Total weight includes weight of base bolt and base plate. Paint color : Mancell5PB3/9

- ▲ Please attach the Airknocker SK type to the base plate and operate it.
- ▲ If it is operated only with the main body, the inside may be damaged.
- ▲ Fall prevention wire is optional, but please be sure to install it.
- ▲ Please attach reinforcing ribs referring to "Air knocker mounting method" on page 8.

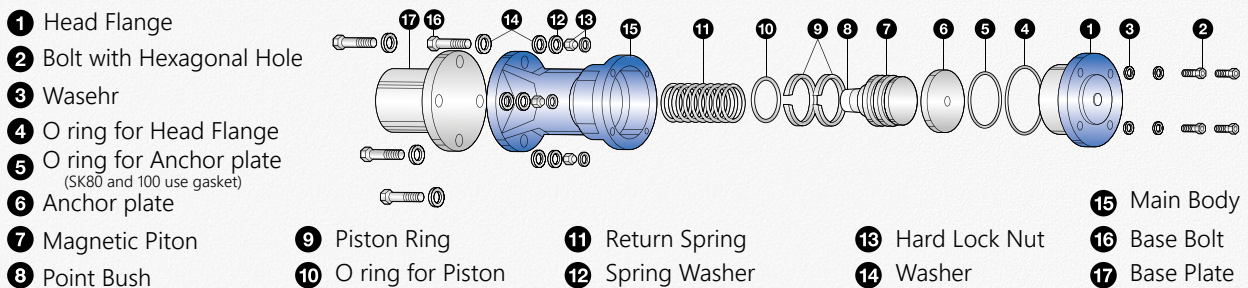
| Model                | SK-30             | SK-40             | SK-60             | SK-80             | SK-100       |
|----------------------|-------------------|-------------------|-------------------|-------------------|--------------|
| <b>Specification</b> |                   |                   |                   |                   |              |
| Pressure             | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa  |
| Air consumption      | 0.028ℓ/time       | 0.082ℓ/time       | 0.228ℓ/time       | 0.455ℓ/time       | 1.012ℓ/time  |
| Impact power         | 1.0~1.5Ns         | 3.3~5.1Ns         | 7.1~10.8Ns        | 19.3~29.5Ns       | 44.5~67.9Ns  |
| Body weight          | 0.7kg             | 1.8kg             | 4.6kg             | 7.9kg             | 23.5kg       |
| Total weight         | 1.0kg             | 2.9kg             | 7.8kg             | 11.8kg            | 35.2kg       |
| Body material        | Aluminium casting | Aluminium casting | Aluminium casting | Aluminium casting | Casting iron |
| <b>Dimension</b>     |                   |                   |                   |                   |              |
| φA                   | 65                | 90                | 120               | 139               | 176          |
| B                    | 15                | 22                | 30                | 40                | 44           |
| φC                   | 70                | 95                | 140               | 150               | 210          |
| D                    | 10                | 16                | 16                | 18                | 24           |
| E                    | 4                 | 4                 | 4                 | 4                 | 6            |
| F                    | 9                 | 11                | 15                | 17                | 21           |
| G                    | 1/8               | 1/8               | 1/4               | 3/8               | 3/8          |
| H                    | 110               | 160               | 210               | 250               | 328          |
| φL                   | 55                | 70                | 110               | 120               | 170          |
| S                    | 6                 | 12                | 12                | 14                | 22           |
| T                    | 40                | 90                | 100               | 110               | 145          |
| φY                   | 27.2              | 34.0              | 76.3              | 76.3              | 114.3        |
| R                    | 1/4               | 1/4               | 1/4               | 3/8               | 3/8          |

(mm)

### Air knocker SK type operation principle



### Part drawing of Air knocker SK type and part names

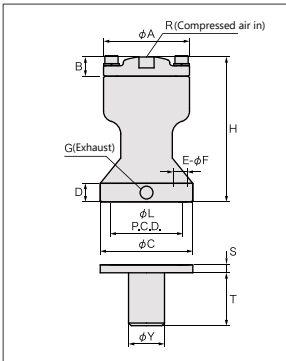


Valve type knocker which can change the impact force greatly by adjusting the air pressure

# Air Knocker Variable type

SV Series

Troubleshooting  
Trouble Prevention Equipment Catalog



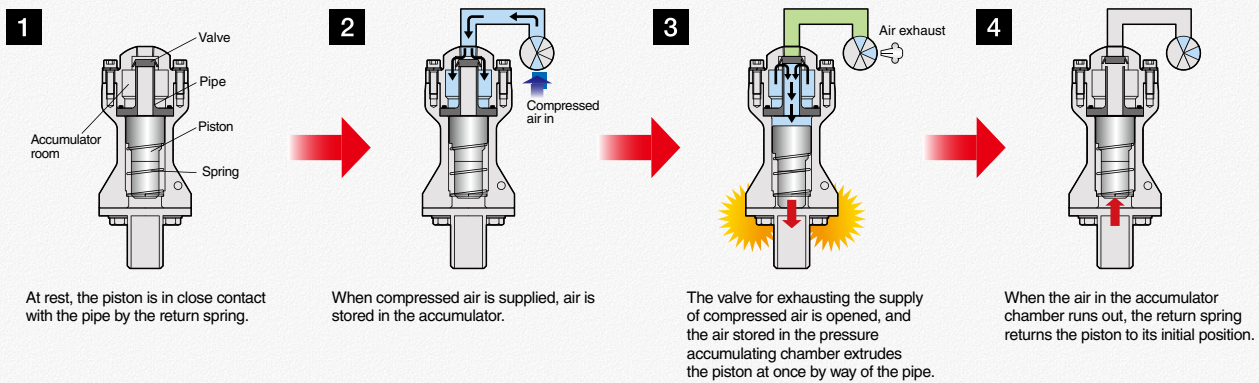
※Total weight includes weight of base bolt and base plate. Paint color : Silver metallic baking finish

- ▲ Please attach the Airknocker SK type to the base plate and operate it.
- ▲ If it is operated only with the main body, the inside may be damaged.
- ▲ Fall prevention wire is optional, but please be sure to install it.
- ▲ Please attach reinforcing ribs referring to "Air knocker mounting method" on page 8.

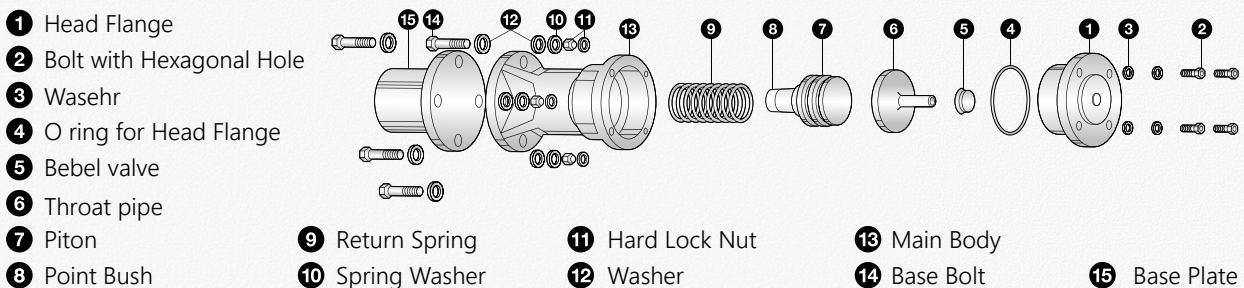
| Model                | SV-30             | SV-40             | SV-60             | SV-80             |
|----------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Specification</b> |                   |                   |                   |                   |
| Pressure             | 0.2~0.6MPa        | 0.2~0.6MPa        | 0.2~0.6MPa        | 0.2~0.6MPa        |
| Air consumption      | 0.023ℓ/回          | 0.06ℓ/time        | 0.129ℓ/time       | 0.277ℓ/time       |
| Impact power         | 0.7~1.2Ns         | 2.4~4.1Ns         | 6.2~10.7Ns        | 16.2~27.9Ns       |
| Body weight          | 0.7kg             | 1.8kg             | 4.4kg             | 7.6kg             |
| Total weight         | 1.0kg             | 2.9kg             | 7.6kg             | 11.5kg            |
| Body material        | Aluminium casting | Aluminium casting | Aluminium casting | Aluminium casting |
| <b>Dimension</b>     |                   |                   |                   |                   |
| φA                   | 65                | 90                | 120               | 139               |
| B                    | 32                | 40                | 38                | 54                |
| φC                   | 70                | 95                | 140               | 150               |
| D                    | 10                | 16                | 16                | 18                |
| E                    | 4                 | 4                 | 4                 | 4                 |
| φF                   | 9                 | 11                | 15                | 17                |
| G                    | 1/8               | 1/4               | 1/4               | 3/8               |
| H                    | 128               | 178               | 218               | 264               |
| φL P.C.D.            | 55                | 70                | 110               | 120               |
| S                    | 6                 | 12                | 12                | 14                |
| T                    | 40                | 90                | 100               | 10                |
| φY                   | 27.2              | 34.0              | 76.3              | 76.3              |
| R                    | 1/4               | 1/4               | 1/4               | 3/8               |

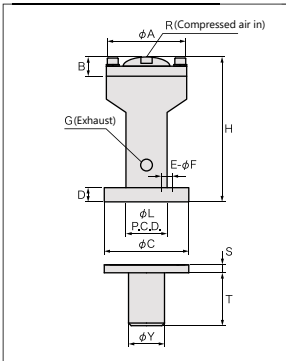
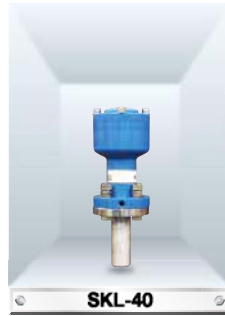
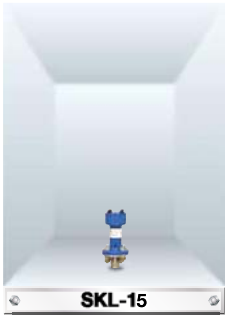
(mm)

## Air knocker SV type operation principle



## Part drawing of Air knocker SV type and part names





※Total weight includes weight of base bolt and base plate. Paint color : Silver metallic baking finish

- ▲ Please attach the Airknocker SK type to the base plate and operate it.
- ▲ If it is operated only with the main body, the inside may be damaged.
- ▲ Fall prevention wire is optional, but please be sure to install it.
- ▲ Please attach reinforcing ribs referring to "Air knocker mounting method" on page 8.

| Model                | SKL-15              | SKL-30              | SKL-40              | SKL-60              | SKL-80              |
|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Specification</b> |                     |                     |                     |                     |                     |
| Pressure             | 0.2~0.6MPa          | 0.35~0.6MPa         | 0.35~0.6MPa         | 0.35~0.6MPa         | 0.35~0.6MPa         |
| Air consumption      | 0.004ℓ/time         | 0.028ℓ/time         | 0.082ℓ/time         | 0.228ℓ/time         | 0.455ℓ/time         |
| Impact power         | 0.1~0.2Ns           | 1.0~1.5Ns           | 3.3~5.1Ns           | 7.1~10.8Ns          | 19.3~29.5Ns         |
| Body weight          | 0.07kg              | 0.4kg               | 1.2kg               | 3.2kg               | 5.6kg               |
| Total weight         | 0.08kg              | 0.7kg               | 2.3kg               | 7.3kg               | 9.5kg               |
| Body material        | Engineering Plastic | Engineering Plastic | Engineering Plastic | Engineering Plastic | Engineering Plastic |
| <b>Dimension</b>     |                     |                     |                     |                     |                     |
| φA                   | 40                  | 65                  | 90                  | 120                 | 139                 |
| B                    | 10                  | 15                  | 20                  | 30                  | 42.5                |
| φC                   | φ50                 | 70                  | 95                  | 140                 | 150                 |
| D                    | 7                   | 14                  | 17                  | 22                  | 25                  |
| E                    | 4                   | 4                   | 4                   | 4                   | 4                   |
| φF                   | 7                   | 9                   | 11                  | 15                  | 17                  |
| G                    | M5                  | 1/8                 | 1/8                 | 1/4                 | 3/8                 |
| H                    | 81                  | 110                 | 160                 | 210                 | 255                 |
| φL P.C.D.            | 37                  | 55                  | 70                  | 110                 | 120                 |
| S                    | 3                   | 6                   | 12                  | 12                  | 12                  |
| T                    | 25                  | 40                  | 90                  | 100                 | 110                 |
| φY                   | 17.3                | 27.2                | 34.0                | 76.3                | 76.3                |
| R                    | 1/8                 | 1/4                 | 1/4                 | 1/4                 | 3/8                 |

(mm)

### Features of Air knocker SKL type



Air knocker SKL type is a knocker we developed as a new type. By changing the body material to engineering plastic, it is resistant to salt damage, oxidation, corrosion, greatly reduces weight without losing strong striking power. By reducing the weight, the installation work time can be shortened considerably, and it is easy to install in high places. Because SKL is not painted, it is possible to use it in a clean environment that does not like peeling of paint.

### Features of Minimum Knocker SKL-15

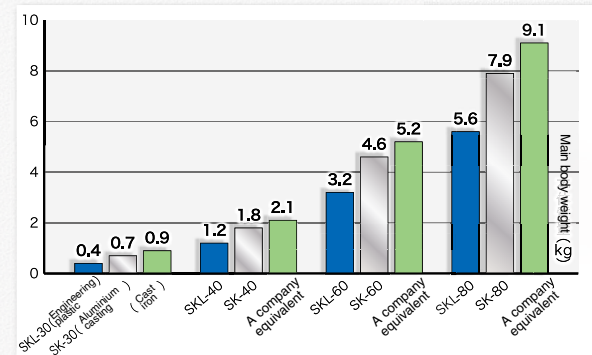
It is the latest model that changed body material to engineering plastic, further miniaturization, weighing 70 g with body weight. It became possible to attach to a small hopper at the laboratory level which was impossible to mount with a conventional knocker and to a shoot etc.

The standard base plate uses SUS, but by changing the material of the base plate to made of resin, it is now possible to install objects other than metal objects.



### Comparison of weight

By becoming lightweight, it can reduce the burden on those who do installation work at high places.



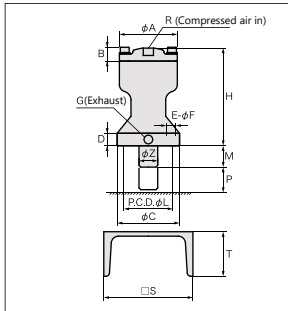
- ※ Base bolt and base plate are not included in the above weight.
- ※ The above graph is a comparison of weights, not a performance comparison.
- ※ Specifications may change without prior notice.

It is suitable for hitting a place which can not be welded or a rotating body.

# Air Knocker Long piston type

SK Series

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※Total weight includes weight of base bolt and base plate. Paint color : Mancell 5PB3/9

- ▲ Please attach the Airknocker SK LP type to the base plate and operate it.
- ▲ If it is operated only with the main body, the inside may be damaged.
- ▲ Fall prevention wire is optional, but please be sure to install it.

| Model                | SK-30LP           | SK-40LP           | SK-60LP           | SK-80LP           | SK-100LP     |
|----------------------|-------------------|-------------------|-------------------|-------------------|--------------|
| <b>Specification</b> |                   |                   |                   |                   |              |
| Pressure             | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa       | 0.35~0.6MPa  |
| Air consumption      | 0.028ℓ/time       | 0.082ℓ/time       | 0.228ℓ/time       | 0.455ℓ/time       | 1.012ℓ/time  |
| Impact power         | 1.4~2.2Ns         | 3.8~5.8Ns         | 9.6~14.7Ns        | 23.5~35.8Ns       | 51.0~77.9Ns  |
| Body weight          | 0.8kg             | 2.1kg             | 5.4kg             | 9.5kg             | 26.3kg       |
| Total weight         | 1.7kg             | 4.8kg             | 11.7kg            | 15.7kg            | 36.3kg       |
| Body material        | Aluminium casting | Aluminium casting | Aluminium casting | Aluminium casting | Casting iron |
| <b>Dimension</b>     |                   |                   |                   |                   |              |
| φA                   | 65                | 90                | 120               | 139               | 176          |
| B                    | 15                | 22                | 30                | 40                | 44           |
| φC                   | 70                | 95                | 140               | 150               | 210          |
| D                    | 10                | 16                | 16                | 18                | 24           |
| φE                   | 4                 | 4                 | 4                 | 4                 | 6            |
| F                    | 9                 | 11                | 15                | 17                | 21           |
| G                    | 1/8               | 1/8               | 1/4               | 3/8               | 3/8          |
| H                    | 110               | 160               | 210               | 250               | 328          |
| φL                   | 55                | 70                | 110               | 120               | 170          |
| □S                   | 100               | 150               | 200               | 200               | 250          |
| T                    | 50                | 75                | 90                | 90                | 90           |
| R                    | 1/4               | 1/4               | 1/4               | 3/8               | 3/8          |
| φZ                   | 20                | 25                | 40                | 50                | 68           |
| M                    | 30                | 55                | 65                | 45                | 26           |
| P                    | 20                | 20                | 25                | 45                | 64           |

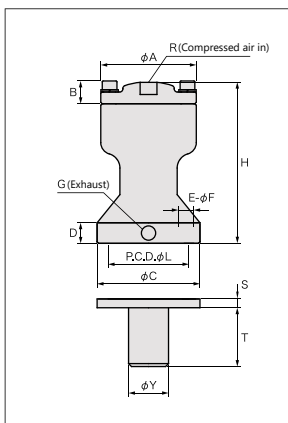
(mm)

SK-sus type can also be used for food and pharmaceutical plants.

# Air Knocker Stainless type

SK Series

Troubleshooting  
Trouble Prevention Equipment Catalog



※Total weight includes weight of base bolt and base plate. Paint color : Mancell 5PB3/9


- ▲ Please attach the Airknocker SK type to the base plate and operate it.
- ▲ If it is operated only with the main body, the inside may be damaged.
- ▲ Fall prevention wire is optional, but please be sure to install it.
- ▲ Please attach reinforcing ribs referring to "Air knocker mounting method" on page 8.




| Model                | SK-30SUS        | SK-40SUS        | SK-60SUS        |
|----------------------|-----------------|-----------------|-----------------|
| <b>Specification</b> |                 |                 |                 |
| Pressure             | 0.35~0.6MPa     | 0.35~0.6MPa     | 0.35~0.6MPa     |
| Air consumption      | 0.028ℓ/time     | 0.082ℓ/time     | 0.228ℓ/time     |
| Impact power         | 1.0~1.5Ns       | 3.3~5.1Ns       | 7.1~10.8Ns      |
| Body weight          | 1.5kg           | 3.8kg           | 9.7kg           |
| Total weight         | 2.1kg           | 5.7kg           | 14.0kg          |
| Body material        | Stainless steel | Stainless steel | Stainless steel |
| <b>Dimension</b>     |                 |                 |                 |
| φA                   | 65              | 90              | 120             |
| B                    | 15              | 22              | 30              |
| φC                   | 70              | 95              | 140             |
| D                    | 10              | 16              | 16              |
| E                    | 4               | 4               | 4               |
| φF                   | 9               | 11              | 15              |
| G                    | 1/8             | 1/8             | 1/4             |
| H                    | 110             | 160             | 210             |
| φL                   | 55              | 70              | 110             |
| S                    | 6               | 12              | 12              |
| T                    | 40              | 90              | 100             |
| φY                   | 27.2            | 34.0            | 76.3            |
| R                    | 1/4             | 1/4             | 1/4             |

(mm)


# Control Box




| Model   | SE-710   | SE-720      |
|---|--|-------------|
| Power supply                                    | 1Ph, AC100V  | 1Ph, AC200V |
| Specification                                   | Indoor type  |             |
| Paint   | Munsell 5Y7/1  |             |
| Dimension                                       | 200W × 120D × 250H   |             |
| Weight  | Approximately 4.2 kg   |             |
| Timer specification                             | Analog timer   |             |
|   | Impact interval time : 0.5sec ~ 30hr<br>Air supplying time : 0.5sec ~ 14 range switching |             |
| Required air pressure                           | 0.35 - 0.6MPa  |             |
| Capacity (Controllable quantity of Air knocker) | SK-30:8units / SK-40:6units / SK-60:6units<br>SK-80:4units / SK-100:2units               |             |




| Model   | SE-1310  | SE-1320     |
|---|--|-------------|
| Power supply                                    | 1Ph, AC100V  | 1Ph, AC200V |
| Specification                                   | Outdoor type (Dustproof and waterproof structure)                                      |             |
| Paint   | Munsell 5Y7/1  |             |
| Dimension                                       | 350W × 150D × 400H   |             |
| Weight  | Approximately 12.3 kg  |             |
| Timer specification                             | Analog timer   |             |
|   | Impact interval time : 1sec ~ 60hr<br>Air supplying time : 0.1sec ~ 16 range switching |             |
| Required air pressure                           | 0.35 - 0.6MPa  |             |
| Capacity (Controllable quantity of Air knocker) | SK-30:8units / SK-40:6units / SK-60:6units<br>SK-80:4units / SK-100:2units             |             |



| Model   | SE-2100  | SE-2200     |
|---|--|-------------|
| Power supply                                    | 1Ph, AC100V  | 1Ph, AC200V |
| Specification                                   | Indoor type / Continuous hit type  |             |
| Paint   | Munsell 5Y7/1  |             |
| Dimension                                       | 250W × 120D × 300H   |             |
| Weight  | Approximately 5.5 kg   |             |
| Timer specification                             | Analog timer   |             |
|   | Impact interval time : 0.5sec ~ 30hr<br>Air supplying time : 0.5sec ~ 14 range switching |             |
| Required air pressure                           | 0.35 - 0.6MPa  |             |
| Capacity (Controllable quantity of Air knocker) | SK-30:8units / SK-40:6units / SK-60:6units<br>SK-80:4units / SK-100:2units               |             |



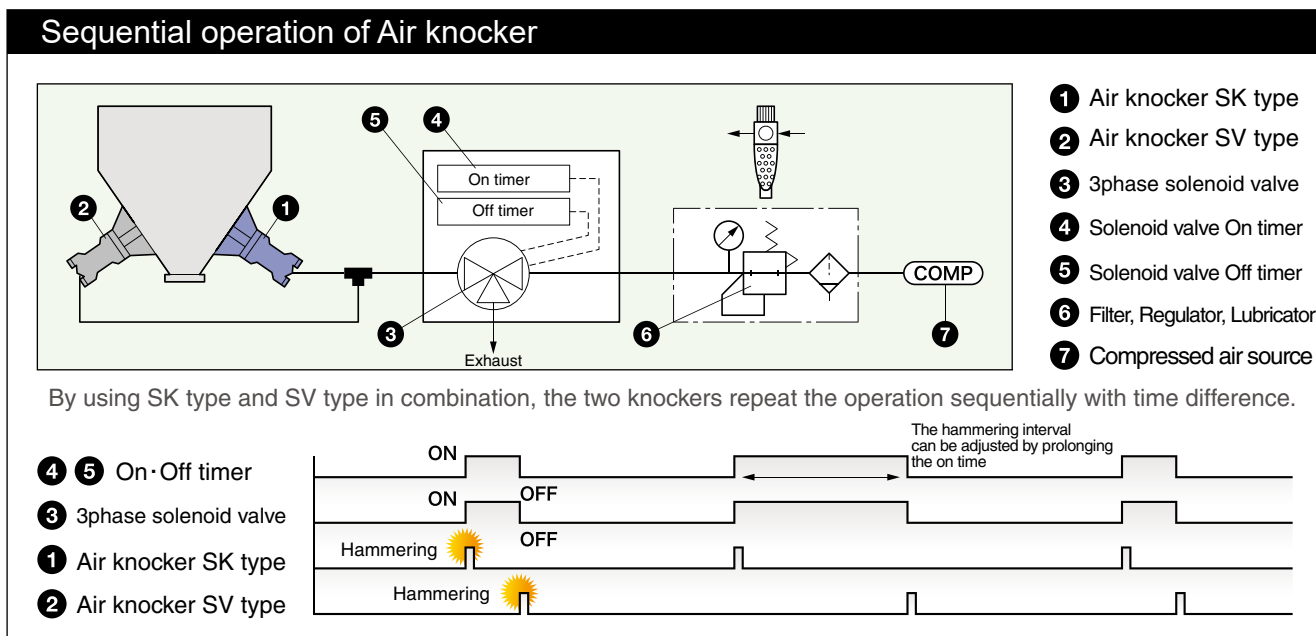
| Model   | SA-1000   |
|---|---|
| Power supply                                    | Air control (No electricity)  |
| Specification                                   | Outdoor type (Dustproof and waterproof structure)   |
| Paint   | Munsell 5Y7/1   |
| Dimension                                       | 400W × 200D × 300H  |
| Weight  | Approximately 10.8 kg   |
| Timer specification                             | Air timer   |
|   | Impact interval time : 1sec ~ 180sec<br>Air supplying time : 0.1sec ~ 30sec<br>16 range switching |
| Required air pressure                           | 0.4 - 0.6MPa  |
| Capacity (Controllable quantity of Air knocker) | SK-30:8units / SK-40:6units / SK-60:6units<br>SK-80:4units / SK-100:2units                        |

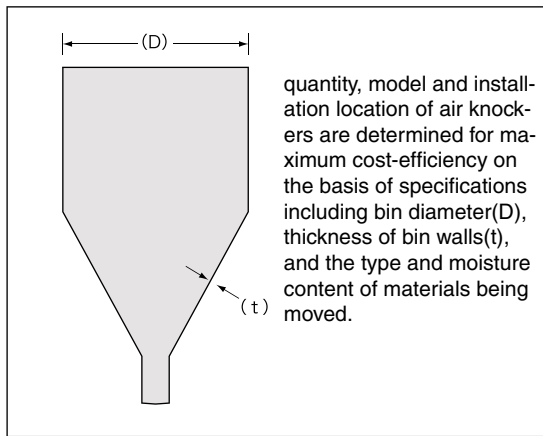


| Model   | SA-01  |
|---|--|
| Power supply                                    | Air control  |
| Specification                                   | Indoor and outdoor type  |
| Paint   | -  |
| Dimension                                       | 150W × 120D × 260H   |
| Weight  | Approximately 2 kg   |
| Timer specification                             | Speed controller   |
|   | Impact interval time : 10sec ~ 60sec<br>Air supplying time :               |
| Required air pressure                           | 0.35 - 0.6MPa  |
| Capacity (Controllable quantity of Air knocker) | SK-30:8units / SK-40:6units / SK-60:6units<br>SK-80:4units / SK-100:2units |

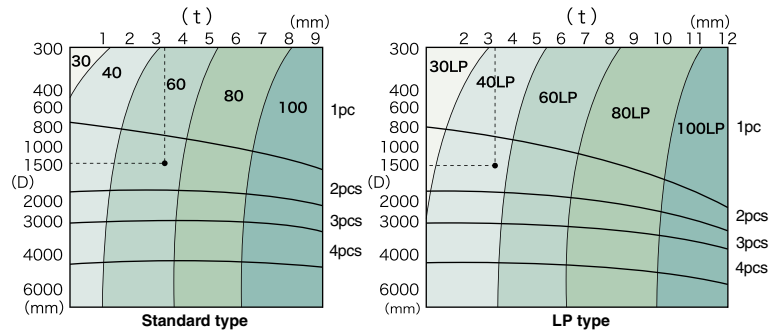
Production of special order control panel, Improvement of current control panel

In accordance with your request, we will also manufacture custom control panels such as changing the material of the box, increasing the number of control circuits, adapting to electrical explosion-proof specifications, and designating IP standards. Please contact us for details.





Example) In case of the hopper diameter(D) is 1500mm and the plate thickness(t) is 3.2mm.  
**Standard type SK60 - 2pcs / LP type SK40LP - 2pcs**



### ▼ In case of hesitation on model selection

- SK Series** ... It is a standard of the knocker that boasts many years of experience. It is used all over the world.
- SV Series** ... By pressure adjustment, impact force can be varied, so it can be used under optimal conditions.
- SKL Series** ... This type is a series that you can use even in clean environments such as pharmaceuticals and food plants. Weight reduced by making it a body made from resin.

# About Air knocker mounting position

Fig.1-1 Usual condition

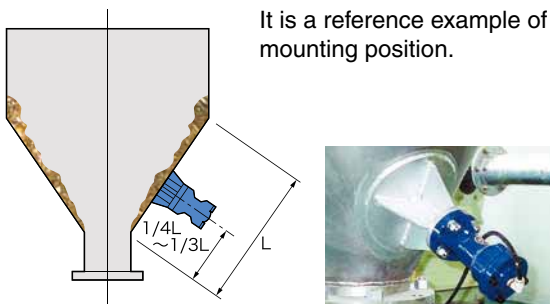


Fig.1-2 Bad flow ability

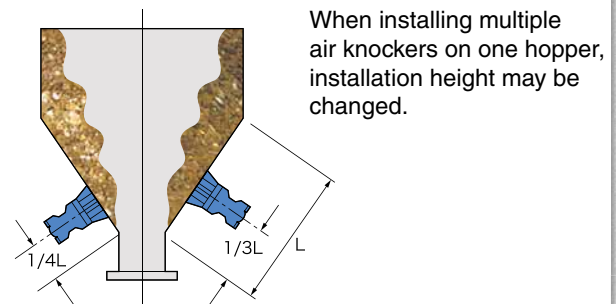


Fig.1-3 On piping

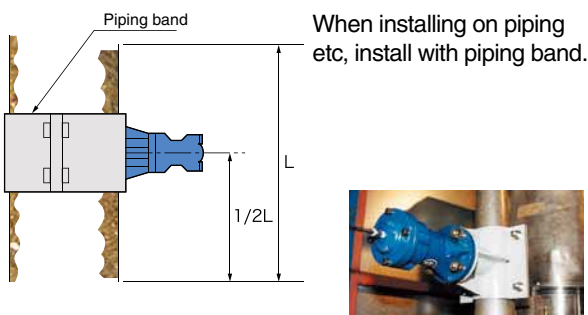
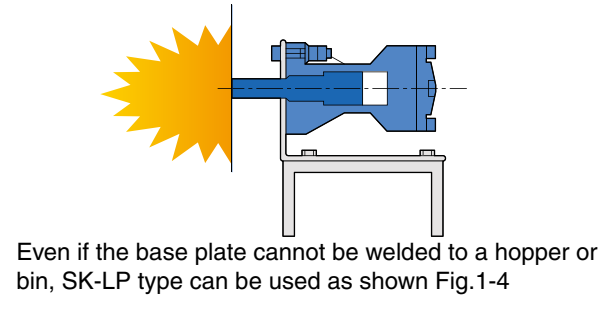


Fig.1-4 In case of the object is a rotating body



### In case of installing in a high-temperature place

The heat-resistant temperature of air knocker of standard specification is 60?.  
When installing to the high temperature part, please use air knocker of heat resistant specification.  
Please contact the dealer for details.



▼ Standard type (Fig.2-1)

▼ Air knocker base plate dimensions (Fig.3-1)

▲ Please be sure to attached base plate ribs for safety. (mm)

| Model  | ϕA  | B     | ϕC           | D  | E   | P.C.D F | Gx No. | H  |
|--------|-----|-------|--------------|----|-----|---------|--------|----|
| SK-30  | 70  | 4-ϕ9  | 27.2(3/4B)   | 6  | 40  | 55      | 4.5x4  | 35 |
| SK-40  | 95  | 4-ϕ14 | 34.0(1B)     | 12 | 90  | 70      | 6x4    | 45 |
| SK-60  | 140 | 4-ϕ16 | 76.3(2 1/2B) | 12 | 100 | 110     | 6x4    | 60 |
| SK-80  | 150 | 4-ϕ18 | 76.3(2 1/2B) | 14 | 110 | 120     | 6x4    | 70 |
| SK-100 | 210 | 6-ϕ22 | 114.3        | 22 | 145 | 170     | 12x6   | 90 |

▼ LP type (Fig.2-2)

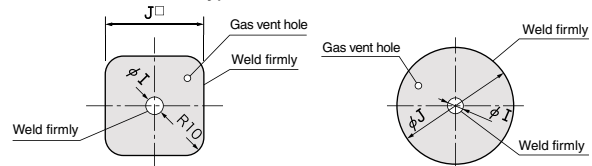
▼ Air knocker base plate dimensions (Fig.3-1)

▲ Please be sure to use safety wire for safety. (mm)

| Model    | B  | C   | ϕD | E     | P.C.D F | G   |
|----------|----|-----|----|-------|---------|-----|
| SK-30LP  | 50 | 100 | 25 | 4-ϕ9  | 55      | 100 |
| SK-40LP  | 75 | 150 | 47 | 4-ϕ14 | 70      | 150 |
| SK-60LP  | 90 | 200 | 64 | 4-ϕ16 | 110     | 200 |
| SK-80LP  | 90 | 200 | 75 | 4-ϕ18 | 120     | 200 |
| SK-100LP | 90 | 250 | 85 | 6-ϕ22 | 170     | 250 |

- ① Attache a base plate on an object by welding firmly. In case that the wall of the object is thin, put a plate for reinforcement of the object before attaching ribs around the base plate.
- ② Attach ribs around the base plate for reinforcement. (Refer Fig.3-1)
- ③ Attach an air knocker on the base plate by bolts. Tighten a hard lock nut firmly.
- ④ Link a chain or wire between the wire hall of air knocker and the stage for safety. (Refer Fig.2 and page9)

▼ Dimension of plate for reinforcement (Reference) (Fig.4) - In case of standard type



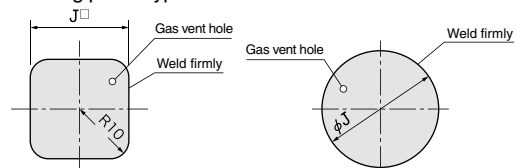
(Fig.4)-1 (t=3~5mm)

(Fig.4)-1 (t=3~5mm)

| Model | ϕI | ϕJ · J |
|-------|----|--------|
| 30    | 5  | 150    |
| 40    | 15 | 250    |
| 60    | 40 | 300    |
| 80    | 40 | 350    |
| 100   | 40 | 450    |

※ Reference example (mm)

▼ Dimension of plate for reinforcement (Reference) (Fig.5) - In case of Long piston type



(Fig.5)-1 (t=3~5mm)

(Fig.5)-1 (t=3~5mm)

| Model | ϕJ · J |
|-------|--------|
| 30    | 150    |
| 40    | 250    |
| 60    | 300    |
| 80    | 350    |
| 100   | 450    |

※ Reference example (mm)

## Recommended welding rod

### • In case of SS

【For manual】 · JIS Z3211 E4316 equivalency product

【Semi automatic】 · JIS Z3312 YGW12 equivalency product

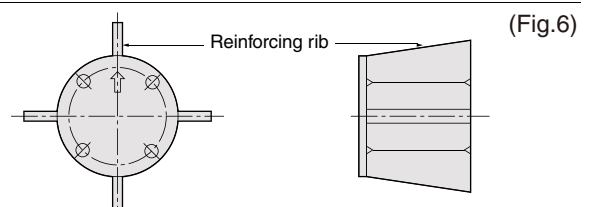
### • In case of SUS304

【For manual】 · JIS Z3221 ES308-16 equivalency product

【Semi automatic】 · JIS Z3323 T308-FB0 equivalency product

【TIG welding】 · JIS Z3321 YS308 equivalency product

Please attach the base plate in the arrow direction as shown in Fig. 6 against the object to be mounted. This method is because the four base bolts are equally loaded and the adverse effect on the knocker body is small.



Eliminate powder clogging by compressed air.

# Jet Blaster

JB Series

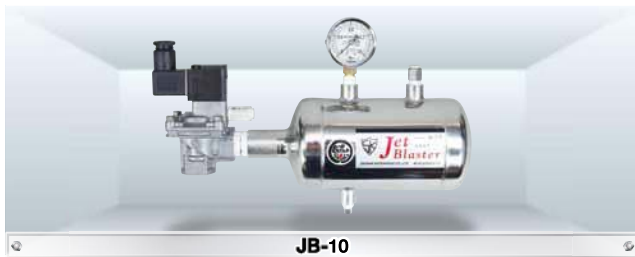
Troubleshooting  
Trouble Prevention Equipment Catalog

**Jet Blaster blows powerful compressed air on the adhered powder, It is a device to prevent powder adhesion and clogging.**

## Feature of Jet Blaster

Feature of Jet Blaster

- 1 Because the tank is made of stainless steel, it is superlightweight.
- 2 Low noise (65 dB at air discharge)
- 3 Air discharge direction can be changed by changing nozzle
- 4 Explosion proof specifications are also possible
- 5 N 2 gas can also be used as discharge fluid
- 6 Simple structure and capable of facilitating maintenance and replacement of parts
- 7 Abundant model
- 8 Can be installed in high temperature places
- 9 The power of discharge air can be converted by converting air pressure



JB-10



JB-30

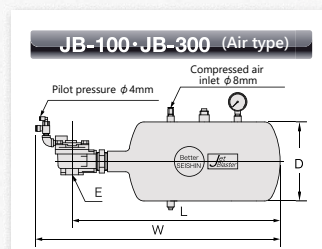
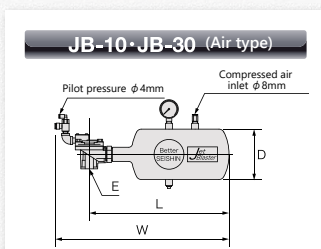
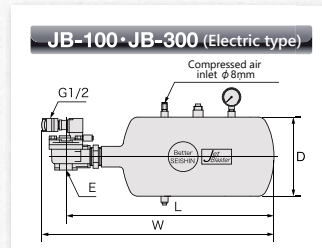
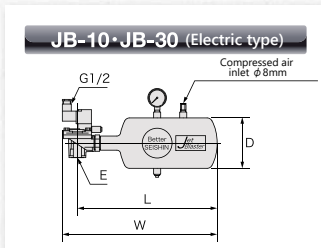


JB-100



JB-300

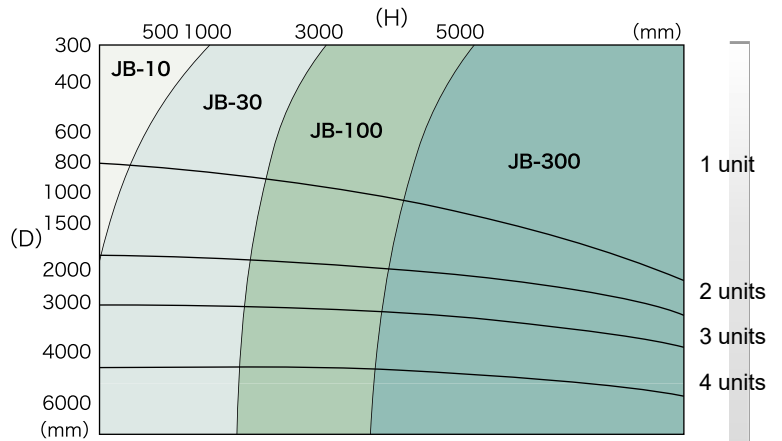
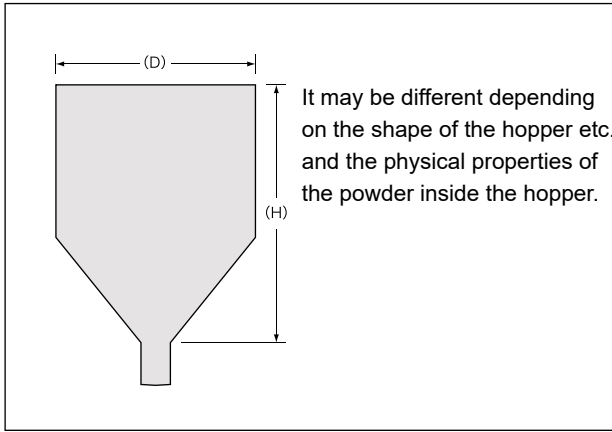
| Model         | JB-10                        | JB-30   | JB-100  | JB-300  |         |
|---------------|------------------------------|---------|---------|---------|---------|
| Specification | Tank capacity (L)            | 1       | 3       | 10      | 30      |
|               | Pressure (MPa)               | 0.1~0.7 | 0.1~0.7 | 0.1~0.7 | 0.1~0.7 |
|               | Total weight (kg)            | 5.4     | 7.5     | 20.1    | 35.4    |
|               | Powder contact area material | SUS304  | SUS304  | SUS304  | SUS304  |



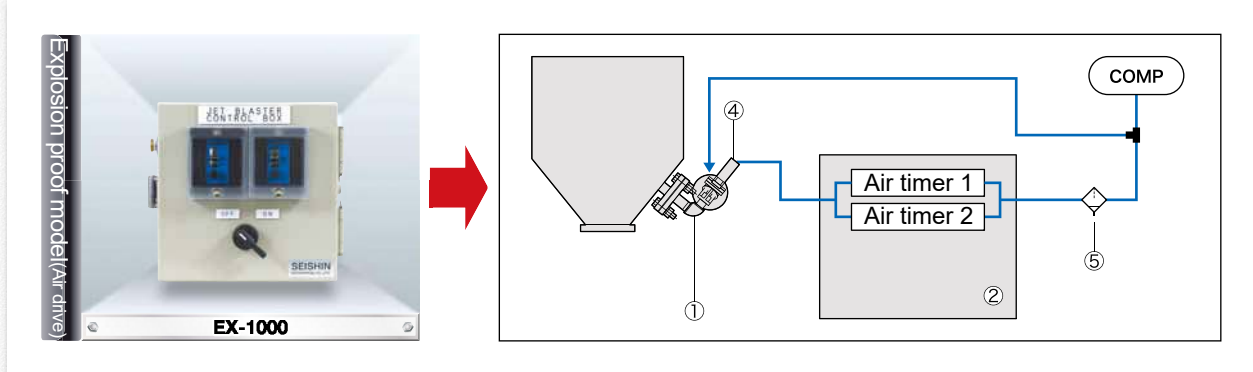
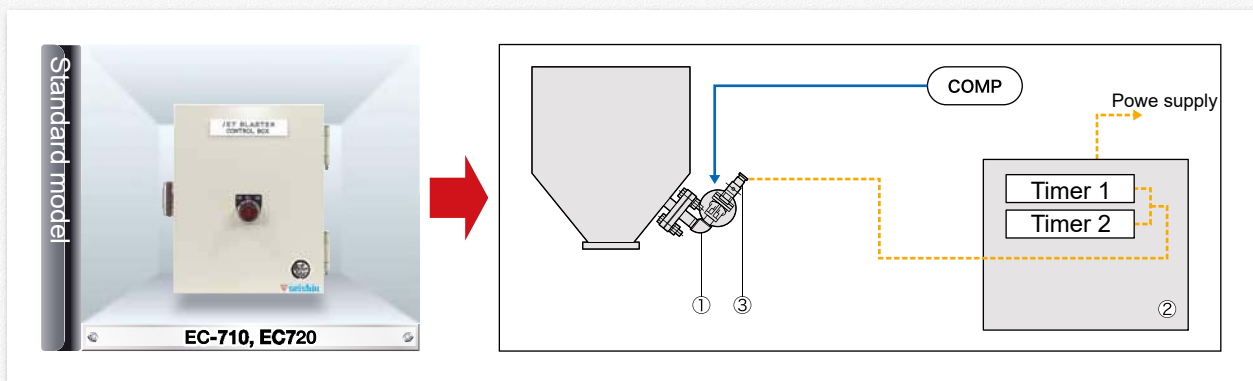
| Dimension                     | L       | W       | D            | E   |
|-------------------------------|---------|---------|--------------|-----|
| <b>JB-10 (Electric type)</b>  | (297)   | (343)   | $\phi$ 100   | 20A |
| <b>JB-10 (Air type)</b>       | (297)   | (381)   | $\phi$ 100   | 20A |
| <b>JB-30 (Electric type)</b>  | (375)   | (416)   | $\phi$ 135   | 25A |
| <b>JB-30 (Air type)</b>       | (375)   | (468)   | $\phi$ 135   | 25A |
| <b>JB-100 (Electric type)</b> | (558)   | (624)   | $\phi$ 212   | 40A |
| <b>JB-100 (Air type)</b>      | (558)   | (657)   | $\phi$ 212   | 40A |
| <b>JB-300 (Electric type)</b> | (826.3) | (901.3) | $\phi$ 265.4 | 50A |
| <b>JB-300 (Air type)</b>      | (826.3) | (901.3) | $\phi$ 265.4 | 50A |

(mm)

## About the model choice of Jet blaster



## Control box for Jet blaster



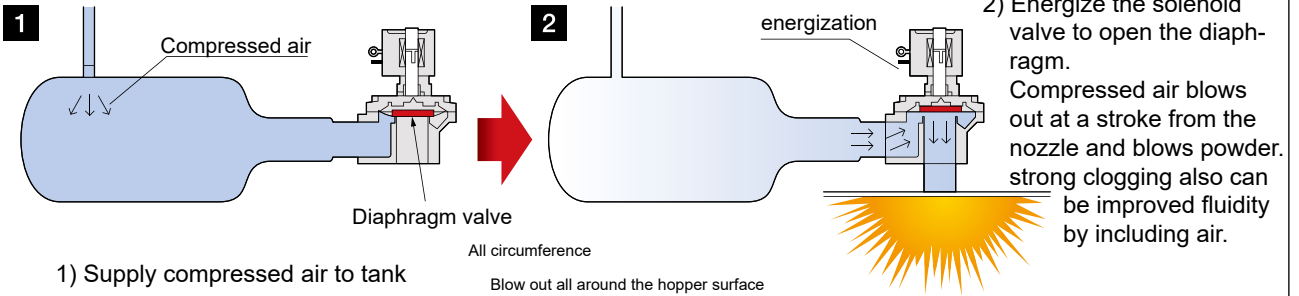
- ① Jet blaster
- ② Control box
- ③ Solenoid valve
- ④ Block valve
- ⑤ Air filter



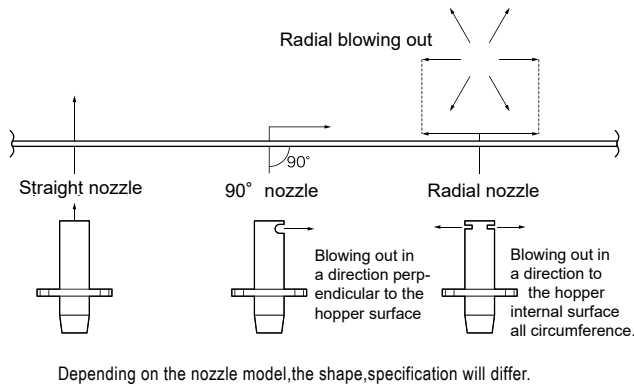
| Model                 | EC-710  | EC-720 | EX-1000  |
|-----------------------|---|--------|--|
| Specification         | Electric non-explosion-proof  |        | Air type explosion-proof   |
| Paint color           | Munsell 5Y7/1   |        | Munsell 5Y7/1  |
| Dimension             | 200W×120D×250H  |        | 200W×120D×200H   |
| Weight                | Approximately 3.9 kg  |        | Approximately 3.4 kg   |
| Power supply          | 1Ph, AC100V(EC-700) / 1Ph, AC200V(EC-720)   |        | Air control  |
| Timer specification   | Air discharge time : 0.2 ~ 2sec<br>Air discharge interval : 0.5sec ~ 30h<br>4 range switching |        | Air discharge time : 0.2 ~ 2sec<br>Air discharge interval : 20sec ~ 250sec |
| Required air pressure | -   |        | 0.3MPa~0.6MPa  |
| Capacity              | Simultaneous control: 4 units   |        | Simultaneous control: 4 units  |

Custom-made control boxes according to customer's specifications can also be produced.

# Jet blaster operation principle

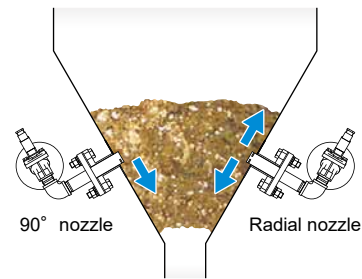


## 1. Difference in ejection direction depending on nozzle type



## 2. Direction of air blowing out depending on powder state

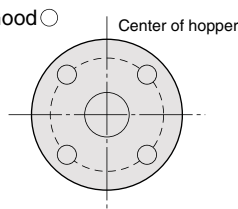
- Reference example
- In case of adhesion, using a radial nozzle.
  - In case of bridge or rat hole, using 90° nozzle.



# Mounting method of Jet blaster

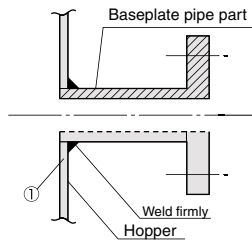
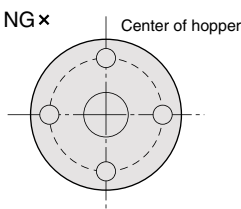
## Base plate mounting direction

Good ○



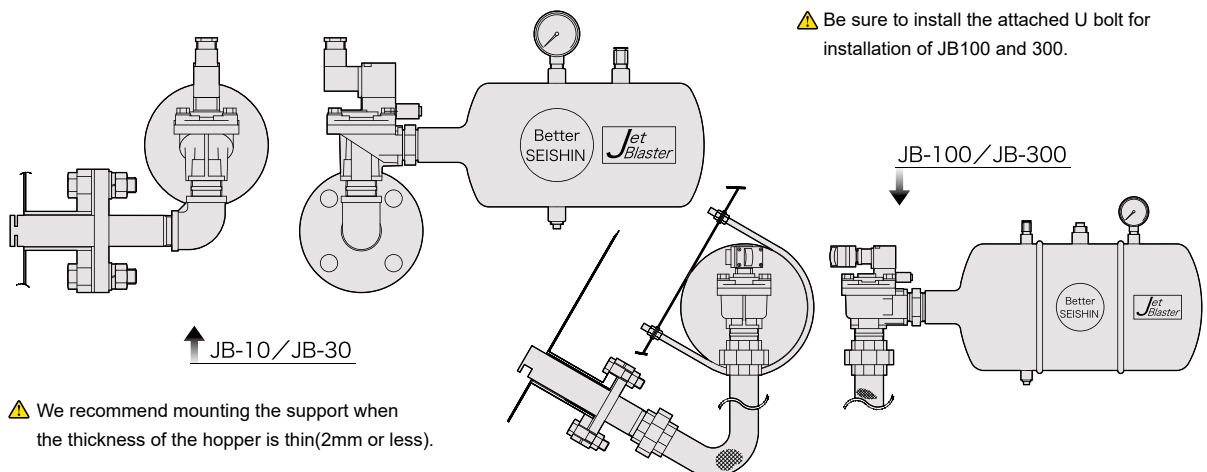
## Base plate mounting direction

NG ×



| Model  | Baseplate pipe standard | Mounting hole size |
|--------|-------------------------|--------------------|
| JB-10  | JIS SUS 25A             | φ34.0              |
| JB-30  | JIS SUS 32A             | φ42.7              |
| JB-100 | JIS SUS 50A             | φ60.5              |
| JB-300 | JIS SUS 65A             | φ76.3              |

## Installation reference drawing



# Piston Vibrator



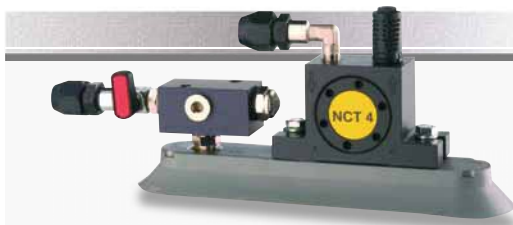
## NTK series

It's a unique air cushion type in which the tip of the piston protrudes outside the casing, and it is best for hopper, feeder, chute, etc.

### Specification of Ntter piston vibrator

| Model   | Drive part |                    | Working moment(cmkg) |        | Frequency(min-1) |        | Vibration force(N) |        | Air consumption(L/min) |        | Noize level(dB(A)) |        |
|---------|------------|--------------------|----------------------|--------|------------------|--------|--------------------|--------|------------------------|--------|--------------------|--------|
|         | Driver     | Vibration load(kg) | 0.2MPa               | 0.6MPa | 0.2MPa           | 0.6MPa | 0.2MPa             | 0.6MPa | 0.2MPa                 | 0.6MPa | 0.2MPa             | 0.6MPa |
| NTK8AL  | Piston     | 0.030              | 0.05                 | 0.06   | 2,440            | 3,657  | 15                 | 44     | 7                      | 32     | 61                 | 75     |
| NTK15x  | Piston     | 0.135              | 0.29                 | 0.29   | 1,745            | 2,544  | 49                 | 104    | 17                     | 72     | 53                 | 64     |
| NTK16   | Piston     | 0.150              | 0.27                 | 0.34   | 1,680            | 2,400  | 42                 | 106    | 14                     | 58     | 54                 | 67     |
| NTK18AL | Piston     | 0.210              | 0.29                 | 0.36   | 1,600            | 2,350  | 41                 | 109    | 19                     | 68     | 55                 | 68     |
| NTK25AL | Piston     | 0.420              | 1.18                 | 1.24   | 1,289            | 1,986  | 107                | 269    | 34                     | 149    | 56                 | 73     |
| NTK25   | Piston     | 0.470              | 1.12                 | 1.32   | 1,40             | 2,270  | 127                | 374    | 38                     | 156    | 57                 | 73     |
| NTK40AL | Piston     | 1.240              | 2.88                 | 2.16   | 1,231            | 2,094  | 239                | 519    | 54                     | 220    | 58                 | 70     |
| NTK40   | Piston     | 1.270              | 3.57                 | 2.46   | 1,200            | 1,930  | 282                | 503    | 49                     | 228    | 58                 | 70     |
| NTK55AL | Piston     | 2.100              | 3.62                 | 2.66   | 1,500            | 2,400  | 447                | 839    | 98                     | 398    | 62                 | 71     |

# Vacuum Clamp

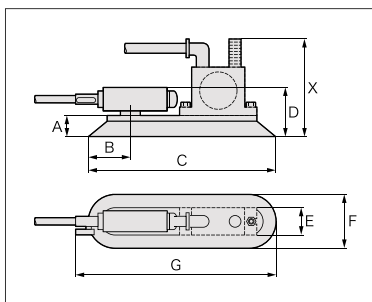


## VAC series

Ideal for hoppers and containers where welding, electricity can not be used.  
Urgent, ideal for carrying, easy to detach.

### Lineup and Dimension

| Model  | A[mm] | B[mm] | C[mm] | D[mm] | E[mm] | F[mm] | G[mm] |
|--------|-------|-------|-------|-------|-------|-------|-------|
| VAC 8  | 20    | 30    | 150   | 53    | 33    | 55    | 190   |
| VAC 10 | 22    | 40    | 200   | 53    | 31    | 55    | 245   |
| VAC 11 | 19    | 40    | 300   | 53    | 31    | 55    | 330   |
| VAC 12 | 25    | 60    | 300   | 60    | 72    | 100   | 330   |



### Rich variation



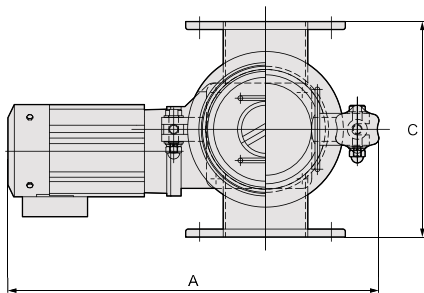
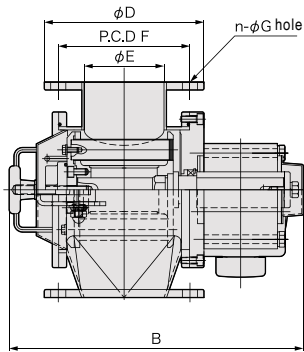
- Quick attachment without bolting or welding
- Strong connection due to high-pressure vacuum
- Can be used on curved or uneven surfaces
- Optional air economizer
- ATEX-compliant and stainless steel versions available
- Customized versions possible

Prevent powder clogging and remove fine iron powder. Devices for removing fine iron and stainless chips.



### Excellent features of Rotary catcher

- 1 Ideal for removing metallic foreign matter in powder.
- 2 Can be installed in the line. By installing a rotary catcher in the final process, high iron removal effect can be obtained.
- 3 Fine iron powder of 1 mm or less which can not be detected with a metal detector, can be collected with a high-powered magnet of 13000 gauss or more which has been upgraded.
- 4 Easy to disassemble, cleaning and assembly. Efficient removal of iron powder. Even stainless chips can be collected. (However, it depends on particle size, shape, etc.)



| Model                              | MRC-100A | MRC-150A | MRC-200A | MRC-250A |
|------------------------------------|----------|----------|----------|----------|
| Flange diameter                    | 100A     | 150A     | 200A     | 250A     |
| Number of magnets                  | 4        | 6        | 6        | 8        |
| Material of powder contact surface | SUS304   | SUS304   | SUS304   | SUS304   |
| Rotation speed (min-1)(50/60Hz)    | 25/30    | 25/30    | 25/30    | 25/30    |
| Motor (kw)                         | 0.25     | 0.4      | 0.4      | 0.4      |

※ Magnetic force : Residual magnetic flux density 1.3 T(13000G) is the standard specification.  
Can be changed to 1.5T specification

※ Flange equivalent to JIS 5K FF

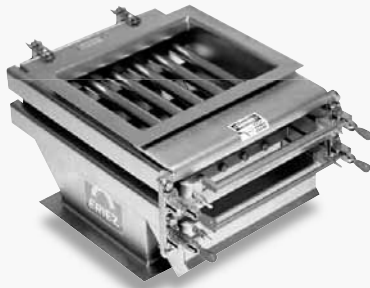
| Model    | MRC-100A | MRC-150A | MRC-200A | MRC-250A |
|----------|----------|----------|----------|----------|
| A        | 453      | 478      | 508      | 538      |
| B        | 368      | 442      | 484      | 585      |
| C        | 270      | 330      | 380      | 440      |
| $\phi D$ | 200      | 265      | 320      | 385      |
| $\phi E$ | 100      | 150      | 200      | 250      |
| P.C.D F  | 165      | 230      | 280      | 345      |
| n        | 8        | 8        | 8        | 12       |
| $\phi G$ | 19       | 19       | 23       | 23       |

(mm)

### Disassembly ▫ Cleaning ▫ Assembly



## Housing type magnet



This product can be used in all industries such as plastics, foods, flour, sugar, grain, paint, chemical, carbon black and minerals.

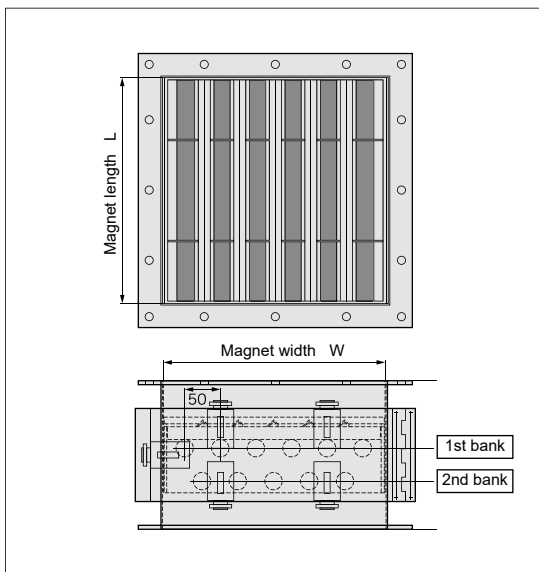
**TG type (Magnet spacing:25mm)**

Remove micro iron pieces such as pins and clips to prevent wear and breakage of machinery and equipment

**FG type (Magnet spacing:13mm)**

Remove fine iron powder to improve quality

## TGH Housing type 2step model Tramp Iron Grate In Housing

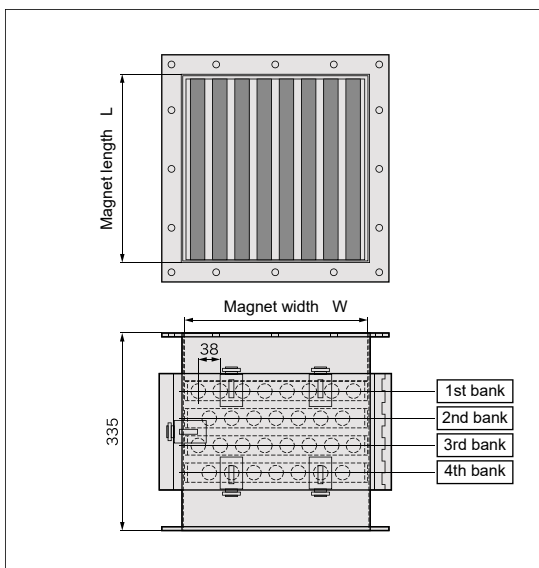


### TGH-2

| W × L (mm) | Number of magnets   |  |
|------------|---------------------|--|
|            | 1st bank / 2nd bank |  |
| 220 × 150  | 4 / 3               |  |
| 270 × 200  | 5 / 4               |  |
| 320 × 250  | 6 / 5               |  |
| 370 × 300  | 7 / 6               |  |
| 420 × 360  | 8 / 7               |  |
| 470 × 410  | 9 / 8               |  |
| 570 × 510  | 11 / 10             |  |
| 620 × 560  | 12 / 11             |  |
| 670 × 610  | 13 / 12             |  |
| 720 × 660  | 14 / 13             |  |

※ Please contact us for special size.

## FGH Housing type 4step model Fine Iron Grate In Housing



### FGH-2

| W × L (mm) | Number of magnets                         |  |  |  |
|------------|---|--|--|--|
|            | 1st bank · 2nd bank / 3rd bank · 4th bank |  |  |  |
| 220 × 150  | 4 / 3                                     |  |  |  |
| 270 × 200  | 5 / 4                                     |  |  |  |
| 320 × 250  | 6 / 5                                     |  |  |  |
| 370 × 300  | 7 / 6                                     |  |  |  |
| 420 × 360  | 8 / 7                                     |  |  |  |
| 470 × 410  | 9 / 8                                     |  |  |  |
| 570 × 510  | 11 / 10                                   |  |  |  |
| 620 × 560  | 12 / 11                                   |  |  |  |
| 670 × 610  | 13 / 12                                   |  |  |  |
| 720 × 660  | 14 / 13                                   |  |  |  |

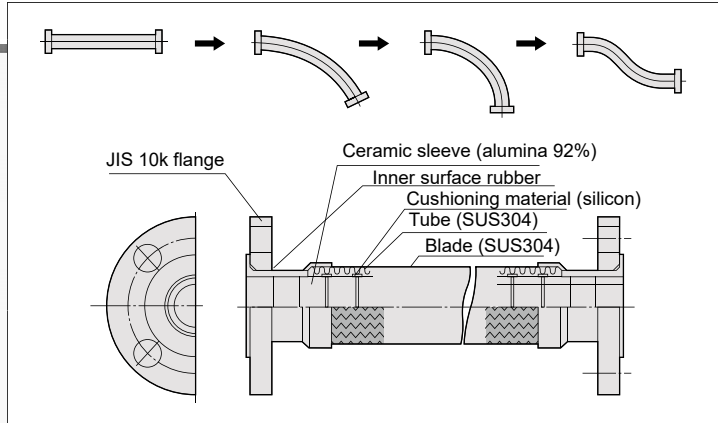
※ Please contact us for special size.

※ Multi-stage type other than 4-stage type can also be manufactured.

## FLEXICEPLA



FLEXICEPLA (Inner surface alumina sleeve, outer pipe SUS blade) is a wear-resistant hose that can bend freely.



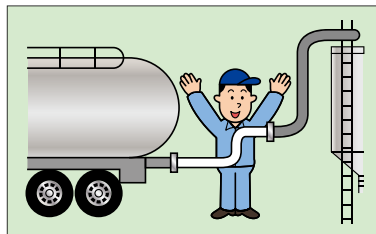
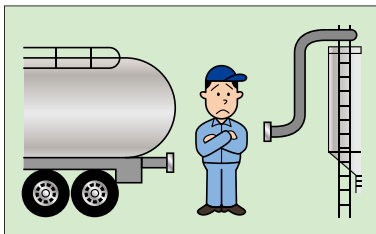
## Terms of use

- Operating temperature / -20°C ~ 80°C
- Available bendable Please do not use it bent below R
- Please use at maximum operating pressure 1 MPa or less

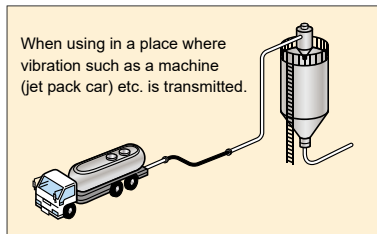
|      | Inner diameter | Joint                  | Usable range |     |        |     |        |     |
|------|----------------|------------------------|--------------|-----|--------|-----|--------|-----|
|      |                |                        | 1000L        |     | 1500L  |     | 2000L  |     |
| 20A  | φ19 (S-20)     | 20A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
| 25A  | φ25 (S-25)     | 25A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
|      | φ28 (S-25)     | 25A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
| 32A  | φ32 (S-32)     | 32A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
|      | φ36 (S-32)     | 32A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
| 40A  | φ39 (S-40)     | 40A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
|      | φ43 (S-40)     | 40A 10kg loose flange  | ≒R600        | 90° | ≒R600  | 90° | ≒R600  | 90° |
| 50A  | φ51 (S-50)     | 50A 10kg loose flange  | ≒R800        | 75° | ≒R800  | 90° | ≒R800  | 90° |
|      | φ54 (S-50)     | 50A 10kg loose flange  | ≒R800        | 75° | ≒R800  | 90° | ≒R800  | 90° |
| 65A  | φ63 (S-65)     | 65A 10kg loose flange  | ≒R800        | 45° | ≒R800  | 90° | ≒R800  | 90° |
|      | φ69 (S-65)     | 65A 10kg loose flange  | ≒R800        | 45° | ≒R800  | 90° | ≒R800  | 90° |
| 80A  | φ73 (S-80)     | 80A 10kg loose flange  | ≒R1200       | 45° | ≒R1200 | 90° | ≒R1200 | 90° |
|      | φ81 (S-80)     | 80A 10kg loose flange  | ≒R1200       | 45° | ≒R1200 | 90° | ≒R1200 | 90° |
| 100A | φ97 (S-100)    | 100A 10kg loose flange | ≒R1200       | 30° | ≒R1200 | 30° | ≒R1200 | 75° |

## Place of use

### When piping works on site

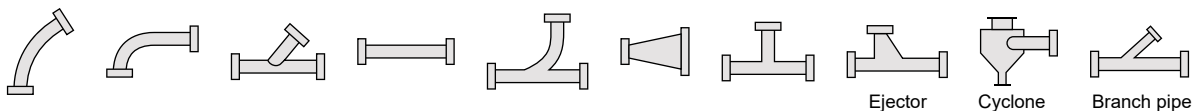


### Intense place of the vibration



In addition, various piping, cyclone, ejector etc. can also be ceramized so please inquire.

The following piping can also be ceramized.





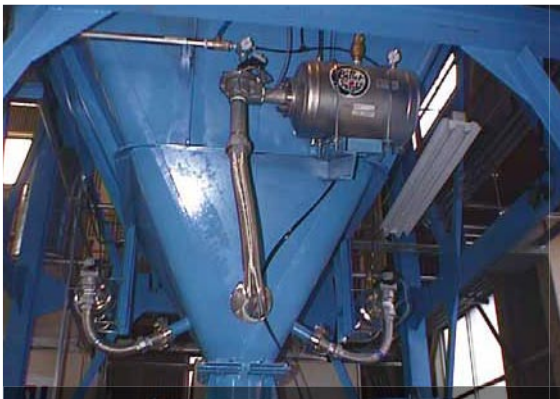
Troubleshooting equipment handled by Seishin Enterprise Co., Ltd. is active in various fields. We will respond to customer's needs, utilize our abundant knowledge and experience, and will support you with full power. Please contact us if you need help with powder and granular equipments



**Pulverising / classification equipments**



**Supply and transport equipment**



**Storage facility**



**Foreign matter removal equipment**



**Storage and transportation equipment**



**Supply equipment**

## Recommended for adhesion measures at hopper, silo designning

**We accept data measurement necessary for hopper design with Jenike & Johanson shear testing machine.**

By performing a shear test, it is possible to experimentally obtain the frictional force and adhesion of the powder.

You can presume the tilt angle, exit diameter, etc. required for hopper and silo design using that numerical value.

### ▼ Measurement item of shear test

Internal friction angle test

Wall friction angle test

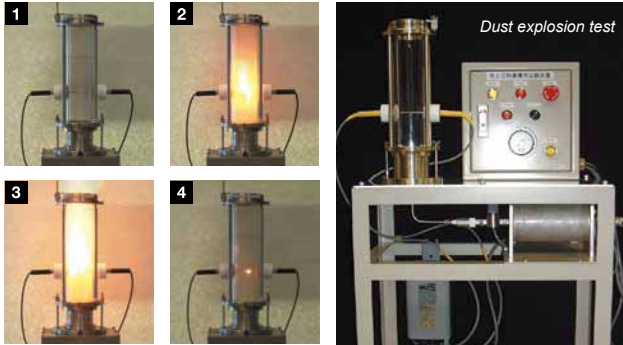
Stillness storage period test



Johanson shear testing machine

## Dust explosion test

It is a test to judge explosive properties of powder. The powder is scattered by compressed air inside the container, and the explosiveness is judged by ignition by the electric fireworks.



### ▼ Measurement item of dust explosion test

Explosion lower limit concentration

Maximum safe percentage of oxygen

Minimum ignition energy

Maximum Explosive Pressure

Explosion pressure increase speed

kst value

※This equipment is for normal powders, but not for dangerous substance (toxic material, explosive substance). In the case of using for dangerous substance, please install the necessary measures.

※In the case of using the equipment in overseas, it is necessary to offer export country name, company name and end use etc in advance. Please feel free to contact the person in charge. Your kind understanding would be much appreciated.

※The specification of goods and the pictures in this catalog will be changed without notice.



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inquiry