#### **PNEUTEC THAILAND**



## PRODUCT

**Product Information** 

### Air knocker SK series

# Air knocker SK series (automatic powder removal device)

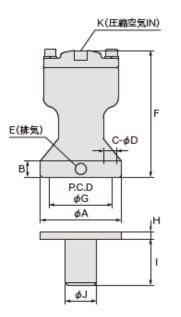
This powerful magnetic knocker has a long history of success and is marked by its blue body.



| Model                  | SK-30            | SK-40                | SK-60              | SK-80              | SK-100               |
|------------------------|------------------|----------------------|--------------------|--------------------|----------------------|
| Operating pressure     |                  |                      | 0.35 to 0.5<br>MPa | 0.35 to 0.5<br>MPa |                      |
| Airconsumptionpower *1 | 0.028ℓ/time      | 0.082<br>liters/time | 0.228ℓ/time        | 0.455ℓ/time        | 1.012<br>liters/time |
| Impact force *2        | 1.0 to 1.5<br>Ns | 3.3 to 5.1<br>Ns     | 7.1 to 10.8<br>Ns  | 19.3 to<br>29.5NS  | 44.5 to<br>67.9 Ns   |
| Body weight            | 0.7kg            | 1.8kg                | 4.7kg              | 8.2kg              | 23.5kg               |
| Total mass             | 1.3kg            | 3.8kg                | 9.0kg              | 13.5kg             | 40.8kg               |
| Body Material          | aluminum         | aluminum             | aluminum           | aluminum           | iron                 |

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\*If the operating pressure is 0.35MPa or less, we will use a low pressure air knocker.

\*The total mass includes the mass of the mounting bolts and base plate.

Paint color: Munsell 5PB3/9

- Please operate the Air Knocker SK type while it is attached to the base plate. If you operate it by itself, it may damage the internal parts.
- ✓ Be sure to install a wire shackle to prevent falls.
- Please be sure to install the reinforcing plate and reinforcing rib by referring to the "Air knocker selection/installation method" page .

| Model |              | SK-30 | SK-40 | SK-60 | SK-80 | SK-100      |
|-------|--------------|-------|-------|-------|-------|-------------|
|       | $\phi$ A     | 70    | 95    | 140   | 150   | 210         |
|       | В            | 10    | 16    | 16.5  | 18    | twenty four |
|       | С            | 4     | 4     | 4     | 4     | 6           |
|       | $\phi$ D     | 9     | 11    | 15    | 17    | twenty one  |
|       | E            | 1/8   | 1/8   | 1/4   | 3/8   | 3/8         |
|       | F            | (110) | (160) | (210) | (253) | (328)       |
| size  | $\phi{ m G}$ | 55    | 70    | 110   | 120   | 170         |
|       | Н            | 6     | 12    | 12    | 14    | twenty two  |
|       | I            | 40    | 90    | 100   | 110   | 145         |
|       | $\phi$ J     | 27.2  | 34.0  | 76.3  | 76.3  | 114.3       |
|       | к            | 1/4   | 1/4   | 1/4   | 3/8   | 3/8         |

Unit: mm

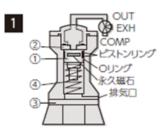
\*1 The air consumption is the capacity of the pressure chamber inside the air knocker.

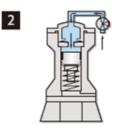
\*2Impact force values are for operating pressures of 0.3 to 0.7 MPa.

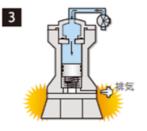
\*3 Total mass is the mass of the base plate with ribs.

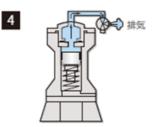


#### Air knocker SK type operating principle







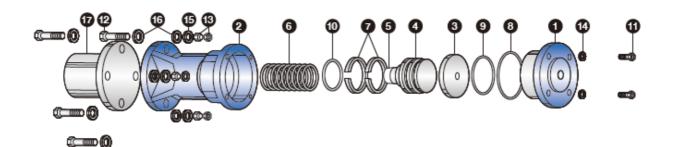


The magnetic piston ①, which has a permanent magnet embedded in it, is attached to the anchor plate ② by magnetic force. When air (0.35MPa or more) is introduced by energizing the three-way solenoid valve, the magnetic piston is released at high speed from the magnet storage state. The magnetic piston strikes the base plate ③, indirectly transmitting a shock wave to the hopper. When the power supply to the threeway solenoid valve is cut off, the air is exhausted. The magnetic piston rises due to the return spring ④, and the magnetic force brings them into contact again (returning to the state [1]).

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#### Parts diagram and names of each part of the Air Knocker SK type



| 1 | Head flange     | 7    | Piston ring   |      | Hardlock Nut  |
|---|-----------------|------|---|------|---------------|
| 2 | Main unit case  | 8    | Head flange O-ring                                      | 14   | Spring washer |
| 3 | Anchor plate    | 9    | O-ring for anchor plate<br>(gasket only for SK-80, 100) | (15) | Spring washer |
| 4 | Magnetic Piston | 10   | Piston O-ring   | (16) | Flat washer   |
| 5 | Point Bush      | (11) | Head flange bolt  | (17) | Base plate    |
| 6 | Return spring   | (12) | Base Bolt   |      |               |

\*Do not hit the air knocker empty when it is removed from the base plate. This will damage the return spring. \*We recommend that you periodically tighten the mounting bolts. (This will protect the unit and prevent it from falling off.)