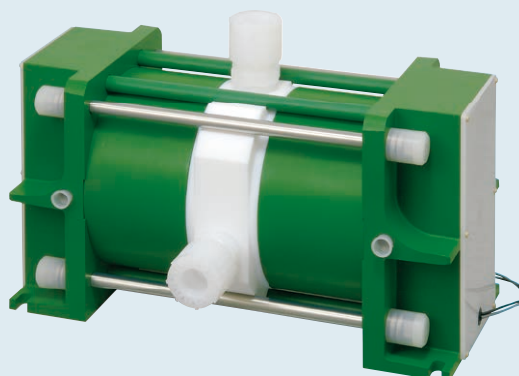


# PK Series Large Flow Rate Bellows Pump



Large flow rate type coping with high driving pressure  
Separately arranged accumulator can reduce pulsation



## ■ Features

### ■ Coping with high driving pressure

This product can also be used for applications that require high lift.

### ■ Action against water hammer

This product employs a structure to reduce vibration on inlet pipes.

### ■ Low pulsation achieved with the dedicated accumulator

Separately arranging an accumulator dedicated to the PK series makes it possible to achieve low-pulsation discharge.

## ■ Specifications

| Pump model                                       | PK-100H         |   |            |            |             |
|--|-----------------|---|------------|------------|-------------|
| Pump connection size*1                           | mm              | 1-1/4" ( φ 31.8)  |            |            |             |
| Pump connector                                   |                 | Super 300 Type PILLAR Fitting™                                |            |            |             |
| Max discharge capacity                           | L/min           | 121   |            |            |             |
| Operating temperature                            | °C              | 10 to 40  | 41 to 100  | 101 to 140 | 141 to 180  |
| Supply air pressure                              | MPaG            | 0.2 to 0.7  | 0.2 to 0.4 | 0.2 to 0.3 | 0.15 to 0.2 |
| Max discharge pressure                           | MPaG            | 0.65  | 0.35       | 0.25       | 0.15        |
| Allowable differential pressure of bellows*2     | MPa             | 0.4   | 0.3        | 0.2        | 0.15        |
| Discharge capacity per stroke*3                  | L               | 1.27  |            |            |             |
| Air consumption                                  | L/min (Normal)  | 45 to 1750  |            |            |             |
| Ambient temperature                              | °C              | 10 to 50  |            |            |             |
| Effective cross-sectional area of solenoid valve | mm <sup>2</sup> | 75 or more  |            |            |             |
| Air inlet ports                                  |                 | 2-Rc1/2   |            |            |             |
| Weight   | kg              | Approx. 53.5  |            |            |             |
| Pump size (excluding piping)*4                   | mm              | Max. 533.2 <sup>L</sup> × 235 <sup>W</sup> × 292 <sup>H</sup> |            |            |             |

\*1: To obtain performance with this pump, pipes with the pump connection size shown above are required. Install the pump so that the length of the suction pipe does not exceed two meters.

\*2: Allowable differential pressure of bellows = Air supply pressure - Discharge pressure

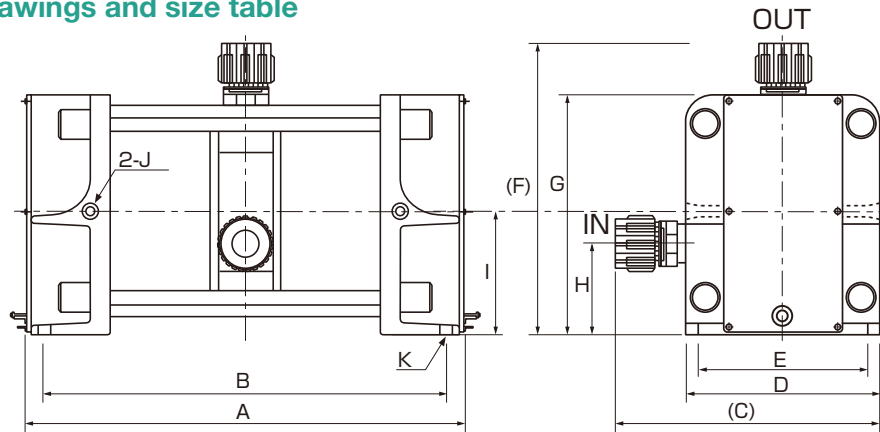
\*3: This is a reference value. Make sure that the stroke speed is always 100 spm or lower.

\*4: The pump size is a reference value.

Notes 1) If the fluid to be used requires anti-explosion treatment because it is an organic or similar liquid, anti-explosive pumps with proximity sensors are available. Please consult with us separately for more information.

2) If the fluid to be used is CMP slurry, we recommend the "PC series slurry pump" dedicated to use with CMP slurry.

## Structural drawings and size table



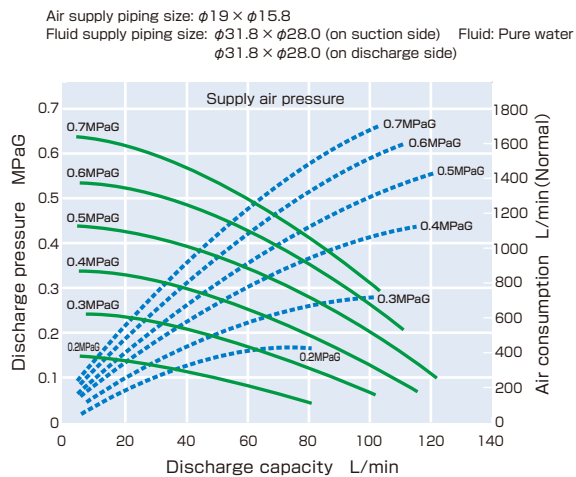
Unit: mm

|         | A     | B     | (C) | D   | E   | (F)   | G   | H   | I   | J      | K             |
|---------|-------|-------|-----|-----|-----|-------|-----|-----|-----|--------|---------------|
| PK-100H | 533.2 | 491.2 | 322 | 235 | 208 | 355.5 | 292 | 112 | 151 | Rc 1/2 | 4 - $\phi$ 14 |

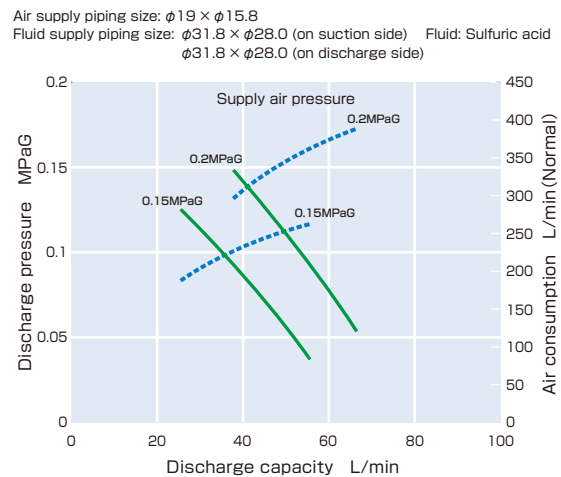
## Performance curve

H-Q characteristics — Air consumption - - - - -

Temperature: 25°C



Temperature: 180°C



## PK series specific auto accumulator PA-100H

If the PK series bellows pump requires smooth liquid flow, please use this PA series auto accumulator in combination with the pump.



| Auto accumulator model                |      | PA-100H  |
|---------------------------------------|------|--|
| Applicable pump                       |      | PK-100H  |
| Auto accumulator connection diameter  | mm   | 1-1/4" ( $\phi$ 31.8)  |
| Auto accumulator connector            |      | Super 300 Type PILLAR Fitting™   |
| Pulsation pressure range              |      | Within $\pm 12.5\%$ of the pump discharge pressure when it is 0.2 MPaG or more<br>0.04 MPa or lower when the pump discharge pressure is less than 0.2 MPaG |
| Air inlet ports                       | inch | Rc 1/4   |
| Weight                                | kg   | Approx. 22.0   |
| Accumulator size (excluding piping)*1 | mm   | 228 <sup>t</sup> × 265 <sup>w</sup> × 328 <sup>h</sup>   |

\*1: The size is a reference value.

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**Safety precaution**

● When using this product, please use correctly and pay sufficient attention to safety.

\* Please understand that this catalog may change without prior notice.  
 \* The values shown on this catalog are reference values, not guaranteed values.