

Product Name: Pneumatic-swing clamp cylinders

Item No.: PAS, PAD

Description: Product name: PAS, PAD

Port size: M5, PT1/8

Max. operating pressure: 1 ~ 10 kgf/cm<sup>2</sup>

Max. supply pressure: 10 kgf/cm<sup>2</sup>

## Features:

| Туре                       | PAS, PAD   |      |      |      |      |
|----------------------------|--|------|------|------|------|
| Bore Diameter (mm)         | ∮ 25   | ∮ 32 | ∮ 40 | ∮ 50 | ∮ 63 |
| Swing stroke (mm)          | 9 11   |      | 1    | 13   |      |
| Clamping stroke (mm)       | 13 15 17   |      |      | 7    |      |
| Operation                  | Double acting  |      |      |      |      |
| Power fluid                | Filtered air with or without lubrication   |      |      |      |      |
| Pressure range             | 1 ~ 10 kgf/cm2   |      |      |      |      |
| Maximum pressure           | 15 kgf/cm2   |      |      |      |      |
| Standard angle of rotation | $90^{\circ}$ $\pm$ $2^{\circ}$ (Optional angle $0^{\circ}$ 、 $45^{\circ}$ 及 $60^{\circ}$ ) |      |      |      |      |
| Rotating direction         | Clockwise or counter clockwise   |      |      |      |      |

- 1.Swing clamp cylinders are used at limit working space, easy to fix the work piece with out additional plate.
- 2. This machine with MC clamp is exclusively to mass-produce spare parts. It is a great helper to raise the production efficiency.
- 3. The clamping arm of this cylinder will swing around the angle when the piston traveling down, and then keep straight on until the clamping arm clamps the work-piece tightly.
- 4. These pull-type cylinders have five standard sizes and two additional plates which can be installed at any angle.
- 5. The cylinder is made of aluminum alloy, the surface is processed with the hard membrane, and the inside of it is smooth. It is long-lived to use.

## Otherdescription:

| <b>Clampin</b> | Clamping force: ] U |          |    |                            |     | Uni | t: kg |     |     |     |     |
|----------------|---------------------|----------|----|----------------------------|-----|-----|-------|-----|-----|-----|-----|
| Bore           | Piston              | Pressure |    | Operation pressure kgf/cm2 |     |     |       |     |     |     |     |
| Diameter       | rod                 | area     | 2  | 3                          | 4   | 5   | 6     | 7   | 8   | 9   | 10  |
| (mm)           | (mm)                | (cm2)    |    |                            |     |     |       |     |     |     |     |
| ∮ 25           | ∮ 14                | 3.37     | 7  | 10                         | 13  | 17  | 20    | 24  | 27  | 30  | 34  |
| ∮ 32           | ∮ 16                | 6.03     | 12 | 18                         | 24  | 30  | 36    | 42  | 48  | 54  | 60  |
| ∮ 40           | ∮ 16                | 10.56    | 21 | 32                         | 42  | 53  | 63    | 74  | 84  | 95  | 106 |
| ∮ 50           | ∮ 20                | 16.49    | 33 | 49                         | 66  | 82  | 99    | 115 | 132 | 148 | 165 |
| ∮ 63           | ∮ 20                | 28.03    | 56 | 84                         | 112 | 140 | 168   | 196 | 224 | 252 | 280 |

- 1.Please don't exceed 1.5 times of the original length, if it is necessary to increase the length of the clamping arm.
- 2.Suggested to install a flow control valve protect cylinder barrel and internal components against fretting wear.



Product Name: Grippers(Air chucks-fulcrum type)

Item No.: CHV

Description: Product name: CHV

Port size: M5

Max. operating pressure: 1 ~ 7 kgf/cm<sup>2</sup>
Max. supply pressure: 10 kgf/cm<sup>2</sup>

Features:

| Туре                      | CHV                                      |            |            |            |            |  |
|---------------------------|--|------------|------------|------------|------------|--|
| Bore Diameter (mm)        |  | ∮ 16       | ∮ 20       | ∮ 25       | ∮ 32       |  |
| Holding moment<br>M (N.m) | Open                                     | 0.8 ×<br>P | 1.7 ×<br>P | 3.4 ×<br>P | 6.1 ×<br>P |  |
|                           | Close                                    | 1.1 ×<br>P | 2.3 ×<br>P | 4.3 ×<br>P | 8.1 ×<br>P |  |
| Max. clamp length         | 40                                       | 60         | 70         | 85         |            |  |
| Opening angle             | -10° ~ + 30°                             |            |            |            |            |  |
| Operation                 | Double acting                            |            |            |            |            |  |
| Power fluid               | Filtered air with or without lubrication |            |            |            |            |  |
| Pressure range            | 1 ~ 7 kgf/cm2                            |            |            |            |            |  |
| Maximum pressure          | 10 kgf/cm2                               |            |            |            |            |  |
| Temperature range         | 0 ~ 60 ℃                                 |            |            |            |            |  |

- 1.CH series with magnetic piston is standard accessory.
- 2. There are 8 different with light weight and compact body design, type of air chucks.
- 3. The air chucks mounting housing from three direction.
- 4. Sensor mounted in the groove of the air chucks body.
- 5. Compact body has high holding force.



Product Name : Grippers(Air chucks-parallel type)

Item No.: CHU

Description: Product name: CHU

Port size: M5

Max. operating pressure: 1 ~ 7 kgf/cm<sup>2</sup>

5. Compact body has high holding force.

Max. supply pressure: 10 kgf/cm<sup>2</sup>

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| :   | Туре   | CHU   |  |      |      |      |  |
|---|--|-------|--|------|------|------|--|
|   | Bore Diameter (mm)                                       |       | ∮ 16                                     | ∮ 20 | ∮ 25 | ∮ 32 |  |
|   | Holding force Open                                       |       | 18                                       | 35   | 60   | 85   |  |
|   | (N)  | Close | 24                                       | 46   | 75   | 100  |  |
|   | Max. clamp length (mm)                                   |       | 40                                       | 60   | 70   | 85   |  |
|   | Opening stroke (mr                                       | m)    | 8  | 12   | 14   | 16   |  |
|   | Operation  |       | Double acting                            |      |      |      |  |
|   | Power fluid  |       | Filtered air with or without lubrication |      |      |      |  |
| Pressure range  |  |       | 1 ~ 7 kgf/cm2                            |      |      |      |  |
| Maximum pressure  |  |       | 10 kgf/cm2                               |      |      |      |  |
| Temperature range   |  |       | 0 ~ 60 ℃                                 |      |      |      |  |
|   | PS. Holding force (L = 30 mm 及 Pressure = 5 kgf/cm2)     |       |  |      |      |      |  |
|   | 1.CH series with magnetic piston is standard accessory.  |       |  |      |      |      |  |
| 2. There are 8 different with light weight and compact body design, |  |       |  |      |      |      |  |
| t   | type of air chucks.                                      |       |  |      |      |      |  |
| (   | 3. The air chucks mounting housing from three direction. |       |  |      |      |      |  |
| 4   | 4. Sensor mounted in the groove of the air chucks body.  |       |  |      |      |      |  |



Product Name : Parallel guide type mini chuck

Item No.: CHL

Description: Product name: CHL

Port size:  $M5 \times 0.8$ 

Max. operating pressure: 2 ~ 7 kgf/cm<sup>2</sup>
Max. supply pressure: 10 kgf/cm<sup>2</sup>

Features:

| Туре   | CHL 20               | CHL 32              |  |  |
|--|----------------------|---------------------|--|--|
| Bore Diameter (mm)                                   | ∮ 20                 | ∮ 32                |  |  |
| Operation  | Double               | acting              |  |  |
| Power fluid  | Filtered air with or | without lubrication |  |  |
| Pressure range                                       | 2 ~ 7 kgf/cm2        |                     |  |  |
| Maximum pressure                                     | 10 kgf/cm2           |                     |  |  |
| Temperature range                                    | 5 ~ 60 ℃             |                     |  |  |
| Max. clamp length (mm)                               | 50                   | 70                  |  |  |
| Holding force (N)                                    | 30                   | 105                 |  |  |
| Opening stroke (mm)                                  | 11                   | 11                  |  |  |
| Ps: Holding force (L = 30 mm 及 Pressure = 5 kgf/cm2) |                      |                     |  |  |