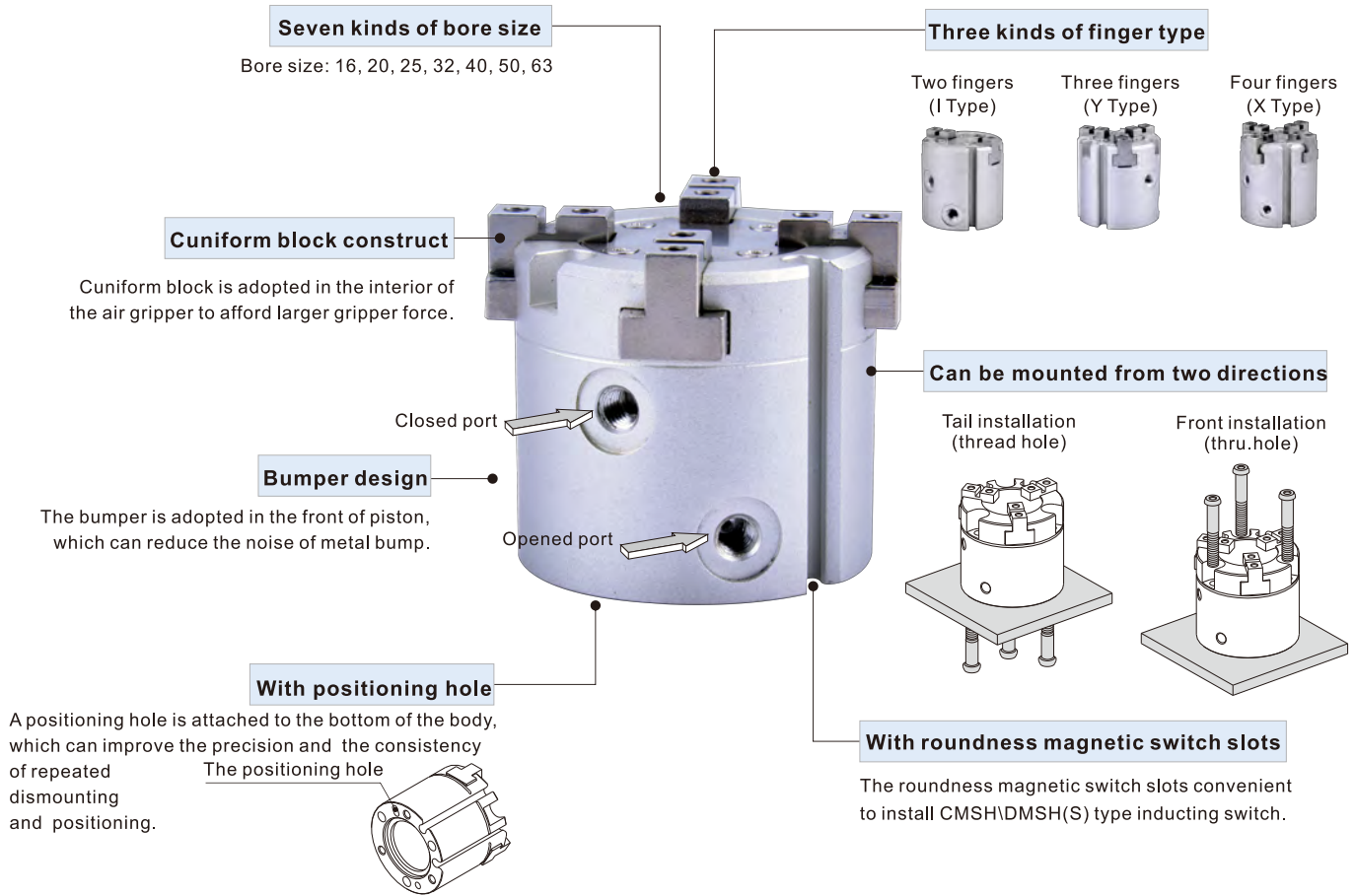




Air gripper—HFC Series

Parallel open/close style

Compendium of HFC Series



Gripping force and stroke

| Model | Gripping force per finger Effective valve(N) | | Opening/Closing stroke (Both sides)(mm) | |
|------------|--|----------|---|----|
| | Internal | External | | |
| 2 grippers | HFCI16 | 23 | 21 | 4 |
| | HFCI20 | 42 | 37 | 4 |
| | HFCI25 | 71 | 63 | 6 |
| | HFCI32 | 123 | 111 | 8 |
| | HFCI40 | 195 | 177 | 8 |
| | HFCI50 | 306 | 280 | 12 |
| 3 grippers | HFCI63 | 537 | 502 | 16 |
| | HFCY16 | 16 | 14 | 4 |
| | HFCY20 | 28 | 25 | 4 |
| | HFCY25 | 47 | 42 | 6 |
| | HFCY32 | 82 | 74 | 8 |
| | HFCY40 | 130 | 118 | 8 |
| 4 grippers | HFCY50 | 204 | 187 | 12 |
| | HFCY63 | 359 | 335 | 16 |
| | HFCX16 | 12 | 10 | 4 |
| | HFCX20 | 21 | 19 | 4 |
| | HFCX25 | 35 | 31 | 6 |
| | HFCX32 | 61 | 55 | 8 |
| | HFCX40 | 97 | 88 | 8 |
| | HFCX50 | 153 | 140 | 12 |
| | HFCX63 | 268 | 251 | 16 |

Note) The gripping force in the above table is in the working pressure of 0.5MPa, and with a gripping point of L=20mm (Φ16~Φ25) or L=30mm (Φ32~Φ63).

Add) Please refer to page 484 for the definition of "L".

Installation and application

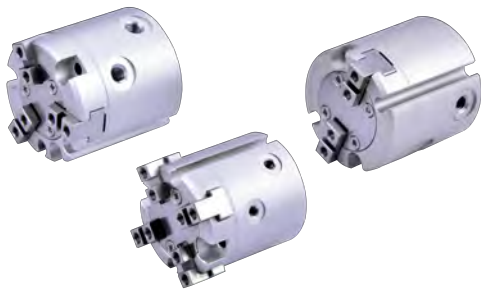


1. Dirty substances in the pipe must be eliminated before air gripper is connected with pipeline to prevent the entrance of impurities into the cylinder.
2. The medium used by cylinder shall be filtered to 40μm or below.
3. Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
4. If the air gripper is dismantled and stored for a long time, pay attention to conduct anti-rust treatment to the surface. Anti-dust caps shall be added in air inlet and outlet ports.



Air gripper(parallel open/close style)

HFC Series

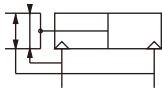


Specification

| Bore size (mm) | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
|--------------------|--|----|----|------------------------------------|-----------|----|----|
| Acting type | Double acting | | | | | | |
| Fluid | Air(to be filtered by 40μm filter element) | | | | | | |
| Operating pressure | 0.2~0.7MPa(28~100psi)(2.0~7.0bar) | | | 0.15~0.7MPa(22~100psi)(1.5~7.0bar) | | | |
| Temperature °C | -10~60 | | | | | | |
| Lubrication | Not required | | | | | | |
| Repeatability mm | ±0.01 | | | | | | |
| Max. frequency | 120(c.p.m) | | | | 60(c.p.m) | | |
| Sensor switches | CMSH\DMSH [Note] | | | | | | |
| Port size | M3×0.5 | | | M5×0.8 | | | |

[Note] Sensor switch should be ordered additionally, please refer to P524 for detail of sensor switch.

Symbol



Product feature

1. Cuniform block is adopted in the interior of the air gripper to afford larger gripper force.
2. The bumper is adopted in the front of piston, which can reduce the noise of metal bump.
3. A positioning hole is attached to the bottom of the body, which can improve the precision and the consistency of repeated dismounting and positioning.
4. Precision repeating snatch which adopted roboticized equipment.
5. Kinds of series and styles for you to choice which snatch multiform workpiece.

Ordering code

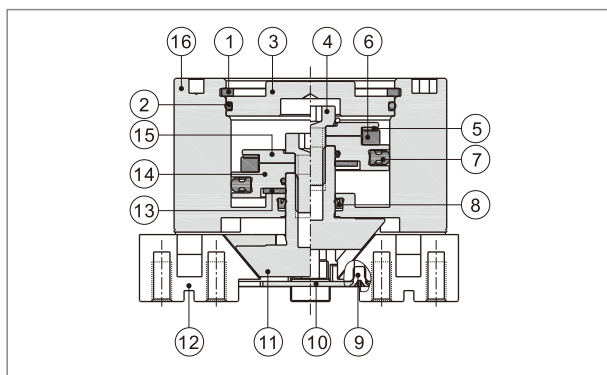
HFC Y 20



| ① Model | ② Finger type | | | ③ Bore size |
|---|---------------------|-----------------------|----------------------|--|
| HFC: Air finger (Double acting, parallel type) | I: Two grippers | Y: Three grippers | X: Four grippers | 16 20 25 32 40 50 63 |

Note: HFC series are all attached with magnet.

Inner structure and material of major parts



| NO. | Item | Material |
|-----|-------------------|--------------------------------------|
| 1 | C clip | Spring steel |
| 2 | O-ring | NBR |
| 3 | Back cover | Aluminum alloy |
| 4 | Screw | Carbon steel |
| 5 | Magnet washer | NBR |
| 6 | Magnet | Sintered metal(Neodymium-iron-boron) |
| 7 | Piston seal | NBR |
| 8 | Rod packing | NBR |
| 9 | Countersink screw | Stainless steel |
| 10 | Cover blank | Stainless steel |
| 11 | Piston rod | Stainless steel |
| 12 | Gripper | Stainless steel |
| 13 | Bumper | TPU |
| 14 | Piston | Aluminum alloy |
| 15 | Magnet holder | Aluminum alloy |
| 16 | Body | Aluminum alloy |

Air gripper(parallel open/close style)

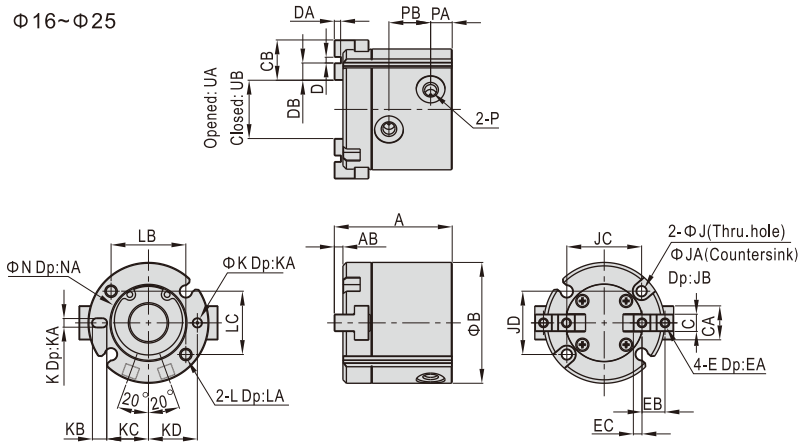


HFC Series

Dimensions

Two grippers

Φ16~Φ25

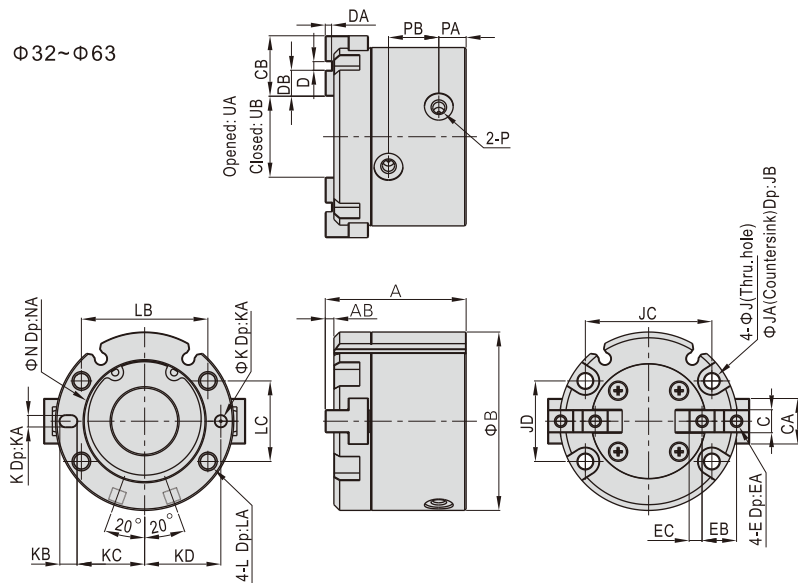


| Model/Item | A | AB | B | C | CA | CB | D | DA | DB | E | EA |
|------------|----|----|----|-------------------------------------|----|----|-------------------------------------|--------------------------------|----|--------|----|
| HFCI16 | 35 | 3 | 30 | 5 ^{+0.01} _{-0.03} | 8 | 10 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 4 | M3×0.5 | 5 |
| HFCI20 | 39 | 3 | 36 | 6 ^{+0.01} _{-0.03} | 10 | 12 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 5 | M3×0.5 | 5 |
| HFCI25 | 41 | 3 | 42 | 6 ^{+0.01} _{-0.03} | 12 | 14 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 6 | M3×0.5 | 5 |

| Model/Item | EB | EC | J | JA | JB | JC | JD | K | KA | KB | KC | KD |
|------------|----|-----|-----|----|----|----|----|-------------------------------------|----|----|------|------|
| HFCI16 | 6 | 2 | 3.4 | 6 | 6 | 18 | 16 | 2 ^{+0.04} _{-0.01} | 2 | 3 | 11 | 12.5 |
| HFCI20 | 7 | 2.5 | 3.4 | 6 | 6 | 24 | 18 | 2 ^{+0.04} _{-0.01} | 2 | 3 | 13 | 14.5 |
| HFCI25 | 8 | 3 | 3.4 | 6 | 6 | 26 | 22 | 3 ^{+0.04} _{-0.01} | 3 | 5 | 14.5 | 17 |

| Model/Item | L | LA | LB | LC | N | NA | P | PA | PB | UA | UB |
|------------|--------|----|----|----|----------------------------------|-----|--------|-----|------|----|----|
| HFCI16 | M4×0.7 | 8 | 18 | 16 | 17 ^{+0.05} ₀ | 1.5 | M3×0.5 | 7 | 10 | 14 | 10 |
| HFCI20 | M4×0.7 | 8 | 24 | 18 | 21 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7 | 13 | 16 | 12 |
| HFCI25 | M4×0.7 | 8 | 26 | 22 | 26 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7.5 | 14.5 | 20 | 14 |

Φ32~Φ63

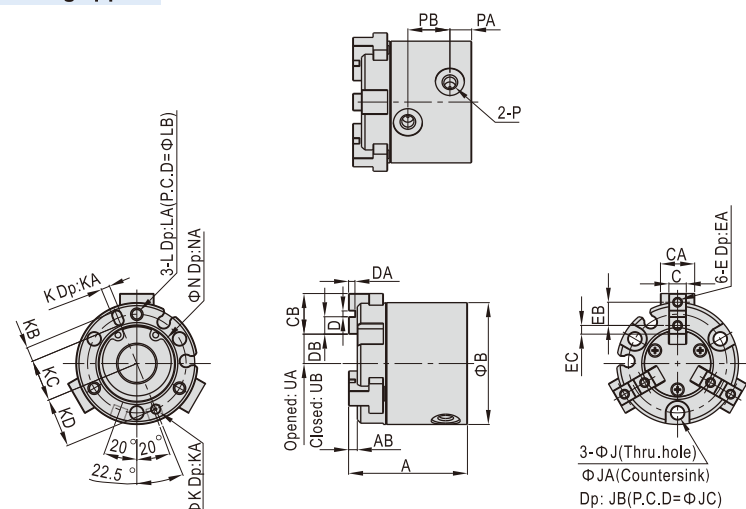


| Model/Item | A | AB | B | C | CA | CB | D | DA | DB | E | EA |
|------------|----|----|----|--------------------------------------|----|----|-------------------------------------|--------------------------------|----|--------|----|
| HFCI32 | 45 | 3 | 55 | 8 ^{+0.01} _{-0.03} | 14 | 20 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCI40 | 49 | 3 | 62 | 8 ^{+0.01} _{-0.03} | 16 | 21 | 3 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCI50 | 57 | 3 | 70 | 10 ^{+0.01} _{-0.03} | 18 | 24 | 4 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 10 | M5×0.8 | 9 |
| HFCI63 | 68 | 4 | 86 | 12 ^{+0.01} _{-0.03} | 24 | 28 | 6 ^{+0.04} _{-0.01} | 3 ^{+0.2} ₀ | 11 | M5×0.8 | 9 |

| Model/Item | EB | EC | J | JA | JB | JC | JD | K | KA | KB | KC | KD |
|------------|----|-----|-----|-----|----|----|----|-------------------------------------|----|----|------|------|
| HFCI32 | 11 | 4.5 | 4.2 | 8 | 9 | 38 | 25 | 3 ^{+0.04} _{-0.01} | 3 | 5 | 20.5 | 23 |
| HFCI40 | 12 | 4.5 | 5.2 | 9.5 | 9 | 44 | 28 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 23.5 | 26.5 |
| HFCI50 | 14 | 5 | 5.2 | 9.5 | 12 | 52 | 34 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 28 | 31 |
| HFCI63 | 17 | 5.5 | 5.2 | 9.5 | 14 | 66 | 38 | 5 ^{+0.04} _{-0.01} | 5 | 7 | 34.5 | 38 |

| Model/Item | L | LA | LB | LC | N | NA | P | PA | PB | UA | UB |
|------------|--------|----|----|----|----------------------------------|-----|--------|-----|------|----|----|
| HFCI32 | M5×0.8 | 10 | 38 | 25 | 34 ^{+0.05} ₀ | 2 | M5×0.8 | 8.5 | 16 | 24 | 16 |
| HFCI40 | M6×1.0 | 12 | 44 | 28 | 42 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 17.5 | 28 | 20 |
| HFCI50 | M6×1.0 | 12 | 52 | 34 | 52 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 21 | 34 | 22 |
| HFCI63 | M6×1.0 | 12 | 66 | 38 | 65 ^{+0.05} ₀ | 2.5 | M5×0.8 | 12 | 24 | 46 | 30 |

Three grippers



| Model/Item | A | AB | B | C | CA | CB | D | DA | DB | E | EA |
|------------|----|----|----|--------------------------------------|----|----|-------------------------------------|--------------------------------|----|--------|----|
| HFCY16 | 35 | 3 | 30 | 5 ^{+0.01} _{-0.03} | 8 | 10 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 4 | M3×0.5 | 5 |
| HFCY20 | 39 | 3 | 36 | 6 ^{+0.01} _{-0.03} | 10 | 12 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 5 | M3×0.5 | 5 |
| HFCY25 | 41 | 3 | 42 | 6 ^{+0.01} _{-0.03} | 12 | 14 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 6 | M3×0.5 | 5 |
| HFCY32 | 45 | 3 | 52 | 8 ^{+0.01} _{-0.03} | 14 | 20 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCY40 | 49 | 3 | 62 | 8 ^{+0.01} _{-0.03} | 16 | 21 | 3 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCY50 | 57 | 3 | 70 | 10 ^{+0.01} _{-0.03} | 18 | 24 | 4 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 10 | M5×0.8 | 9 |
| HFCY63 | 68 | 4 | 86 | 12 ^{+0.01} _{-0.03} | 24 | 28 | 6 ^{+0.04} _{-0.01} | 3 ^{+0.2} ₀ | 11 | M5×0.8 | 9 |

| Model/Item | EB | EC | J | JA | JB | JC | K | KA | KB | KC | KD | L |
|------------|----|-----|-----|-----|----|----|-------------------------------------|----|----|------|------|--------|
| HFCY16 | 6 | 2 | 3.4 | 6 | 6 | 25 | 2 ^{+0.04} _{-0.01} | 2 | 3 | 11 | 12.5 | M3×0.5 |
| HFCY20 | 7 | 2.5 | 3.4 | 6 | 6 | 29 | 2 ^{+0.04} _{-0.01} | 2 | 3 | 13 | 14.5 | M3×0.5 |
| HFCY25 | 8 | 3 | 4.5 | 8 | 9 | 34 | 3 ^{+0.04} _{-0.01} | 3 | 5 | 14.5 | 17 | M4×0.7 |
| HFCY32 | 11 | 4.5 | 4.5 | 8 | 9 | 44 | 3 ^{+0.04} _{-0.01} | 3 | 5 | 19.5 | 22 | M4×0.7 |
| HFCY40 | 12 | 4.5 | 5.5 | 9.5 | 9 | 53 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 23.5 | 26.5 | M5×0.8 |
| HFCY50 | 14 | 5 | 5.5 | 9.5 | 12 | 62 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 28 | 31 | M5×0.8 |
| HFCY63 | 17 | 5.5 | 6.6 | 11 | 14 | 76 | 5 ^{+0.04} _{-0.01} | 5 | 7 | 34.5 | 38 | M6×1.0 |

| Model/Item | LA | LB | N | NA | P | PA | PB | UA | UB |
|------------|----|----|----------------------------------|-----|--------|-----|------|----|----|
| HFCY16 | 6 | 25 | 17 ^{+0.05} ₀ | 1.5 | M3×0.5 | 7 | 10 | 7 | 5 |
| HFCY20 | 6 | 29 | 21 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7 | 13 | 8 | 6 |
| HFCY25 | 8 | 34 | 26 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7.5 | 14.5 | 10 | 7 |
| HFCY32 | 8 | 44 | 34 ^{+0.05} ₀ | 2 | M5×0.8 | 8.5 | 16 | 12 | 8 |
| HFCY40 | 10 | 53 | 42 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 17.5 | 14 | 10 |
| HFCY50 | 10 | 62 | 52 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 21 | 17 | 11 |
| HFCY63 | 12 | 76 | 65 ^{+0.05} ₀ | 2.5 | M5×0.8 | 12 | 24 | 23 | 15 |



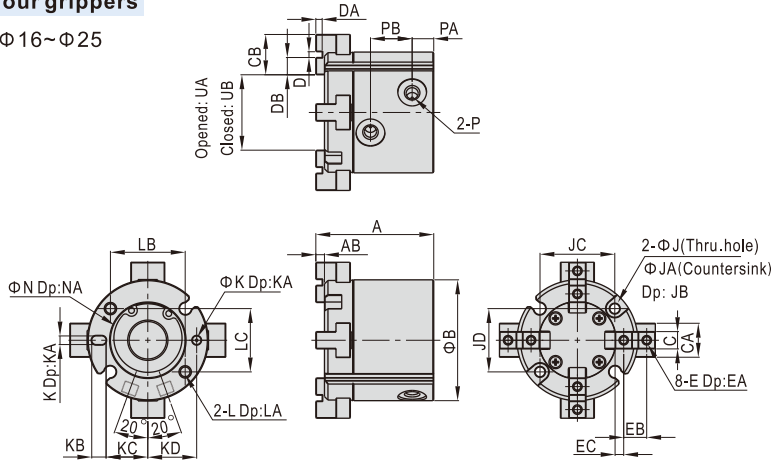
Air gripper(parallel open/close style)



HFC Series

Four grippers

Φ16~Φ25

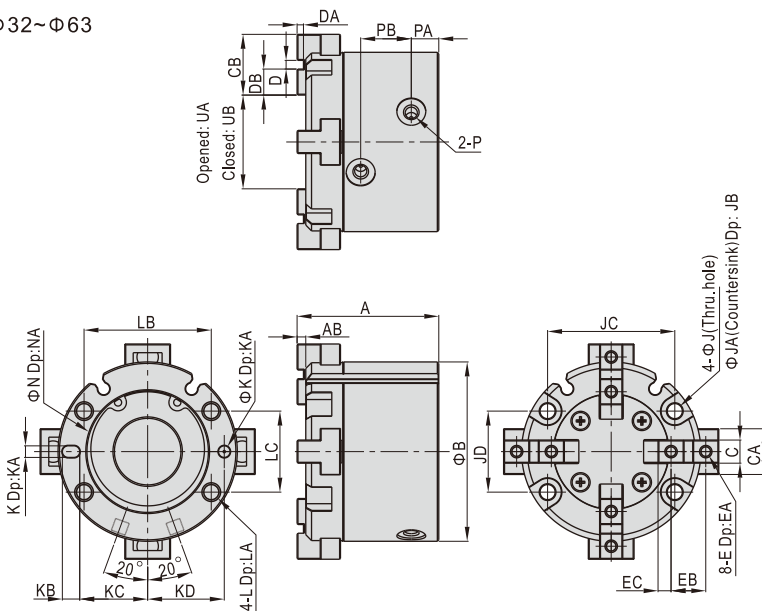


| Model/Item | A | AB | B | C | CA | CB | D | DA | DB | E | EA |
|------------|----|----|----|-------------------------------------|----|----|-------------------------------------|--------------------------------|----|--------|----|
| HFCX16 | 35 | 3 | 30 | 5 ^{-0.01} _{-0.03} | 8 | 10 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 4 | M3×0.5 | 5 |
| HFCX20 | 39 | 3 | 36 | 6 ^{-0.01} _{-0.03} | 10 | 12 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 5 | M3×0.5 | 5 |
| HFCX25 | 41 | 3 | 42 | 6 ^{-0.01} _{-0.03} | 12 | 14 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 6 | M3×0.5 | 5 |

| Model/Item | EB | EC | J | JA | JB | JC | JD | K | KA | KB | KC | KD |
|------------|----|-----|-----|----|----|----|----|---------------------------------|----|----|------|------|
| HFCX16 | 6 | 2 | 3.4 | 6 | 6 | 18 | 16 | 2 ^{+0.05} ₀ | 2 | 3 | 11 | 12.5 |
| HFCX20 | 7 | 2.5 | 3.4 | 6 | 6 | 24 | 18 | 2 ^{+0.05} ₀ | 2 | 3 | 13 | 14.5 |
| HFCX25 | 8 | 3 | 3.4 | 6 | 6 | 26 | 22 | 3 ^{+0.05} ₀ | 3 | 5 | 14.5 | 17 |

| Model/Item | L | LA | LB | LC | N | NA | P | PA | PB | UA | UB |
|------------|--------|----|----|----|----------------------------------|-----|--------|-----|----|----|----|
| HFCX16 | M4×0.7 | 8 | 18 | 16 | 17 ^{+0.05} ₀ | 1.5 | M3×0.5 | 7 | 10 | 17 | 13 |
| HFCX20 | M4×0.7 | 8 | 24 | 18 | 21 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7 | 13 | 19 | 15 |
| HFCX25 | M4×0.7 | 8 | 26 | 22 | 26 ^{+0.05} ₀ | 1.5 | M5×0.8 | 7.5 | 14 | 26 | 20 |

Φ32~Φ63



| Model/Item | A | AB | B | C | CA | CB | D | DA | DB | E | EA |
|------------|----|----|----|--------------------------------------|----|----|-------------------------------------|--------------------------------|----|--------|----|
| HFCX32 | 45 | 3 | 55 | 8 ^{-0.01} _{-0.03} | 14 | 20 | 2 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCX40 | 49 | 3 | 62 | 8 ^{-0.01} _{-0.03} | 16 | 21 | 3 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 9 | M4×0.7 | 8 |
| HFCX50 | 57 | 3 | 70 | 10 ^{-0.01} _{-0.03} | 18 | 24 | 4 ^{+0.04} _{-0.01} | 2 ^{+0.2} ₀ | 10 | M5×0.8 | 9 |
| HFCX63 | 68 | 4 | 86 | 12 ^{-0.01} _{-0.03} | 24 | 28 | 6 ^{+0.04} _{-0.01} | 3 ^{+0.2} ₀ | 11 | M5×0.8 | 9 |

| Model/Item | EB | EC | J | JA | JB | JC | JD | K | KA | KB | KC | KD |
|------------|----|-----|-----|-----|----|----|----|-------------------------------------|----|----|------|------|
| HFCX32 | 11 | 4.5 | 4.2 | 8 | 9 | 38 | 25 | 3 ^{+0.04} _{-0.01} | 3 | 5 | 20.5 | 23 |
| HFCX40 | 12 | 4.5 | 5.2 | 9.5 | 9 | 44 | 28 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 23.5 | 26.5 |
| HFCX50 | 14 | 5 | 5.2 | 9.5 | 12 | 52 | 34 | 4 ^{+0.04} _{-0.01} | 4 | 6 | 28 | 31 |
| HFCX63 | 17 | 5.5 | 5.2 | 9.5 | 14 | 66 | 38 | 5 ^{+0.04} _{-0.01} | 5 | 7 | 34.5 | 38 |

| Model/Item | L | LA | LB | LC | N | NA | P | PA | PB | UA | UB |
|------------|--------|----|----|----|----------------------------------|-----|--------|-----|------|----|----|
| HFCX32 | M5×0.8 | 10 | 38 | 25 | 34 ^{+0.05} ₀ | 2 | M5×0.8 | 8.5 | 16 | 28 | 20 |
| HFCX40 | M6×1.0 | 12 | 44 | 28 | 42 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 17.5 | 32 | 24 |
| HFCX50 | M6×1.0 | 12 | 52 | 34 | 52 ^{+0.05} ₀ | 2 | M5×0.8 | 9.5 | 21 | 38 | 26 |
| HFCX63 | M6×1.0 | 12 | 66 | 38 | 65 ^{+0.05} ₀ | 2.5 | M5×0.8 | 12 | 24 | 51 | 35 |

How to select product

Please select pneumatic finger according to the following steps:

① The selection of the effective gripping force

② the confirmation of the gripping point

1. The selection of the gripping force

The gripping work-pieces shown below, on the impact condition of ordinary handling state, taking safety coefficient a=4, have a gripping force that is more than 10-20 times of the mass of the gripped objects.

| | The work-pieces as shown in the left : | $\mu = 0.2$ | $\mu = 0.1$ |
|--|---|---|---|
| | <p>The condition that the work-pieces won't drop is: $n \times \mu F > mg$</p> <p>so: $F > \frac{mg}{n \times \mu}$</p> <p>Safety coefficient is a, so F is:</p> <p>$F = \frac{mg}{n \times \mu} \times a$</p> | $F = \frac{mg}{2 \times 0.2} \times 4 = 10 \times mg$ | $F = \frac{mg}{2 \times 0.1} \times 4 = 20 \times mg$ |
| | | 10 times of the mass of the gripped objects | 20 times of the mass of the gripped objects |

Note) If the friction coefficient $\mu > 0.2$, for safety, please also select clamping force according to the principle of 10~20 times of the mass of the clamped objects. As for large acceleration and shock, it requires for greater safety coefficient.

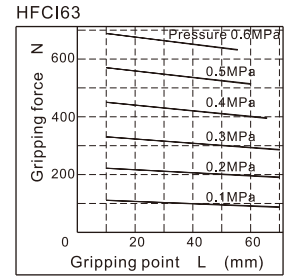
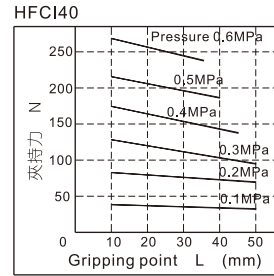
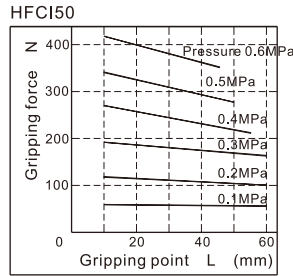
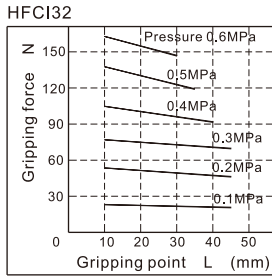
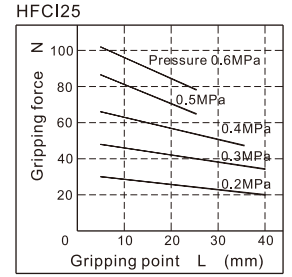
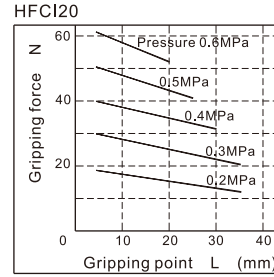
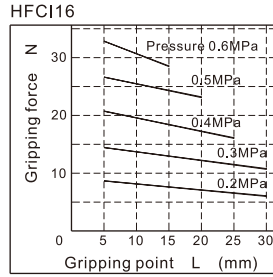
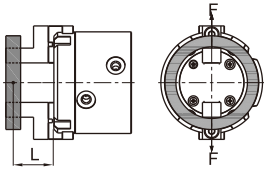
1.1) The actual gripping force must be within the effective gripping forces of different pneumatic fingers specifications shown in the below chart.



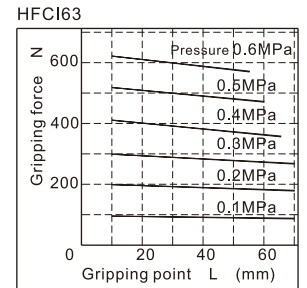
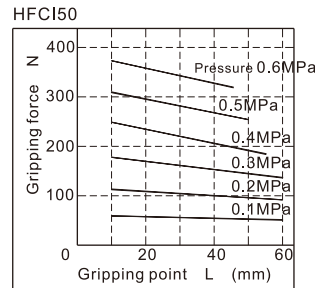
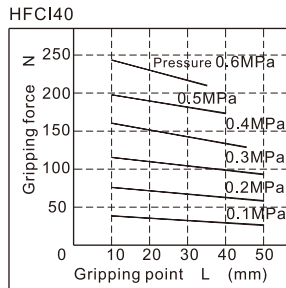
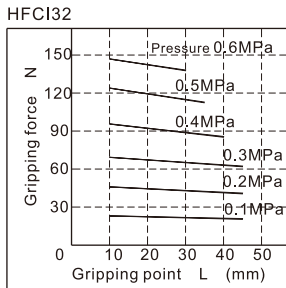
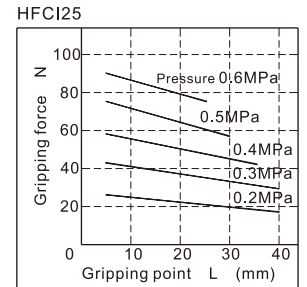
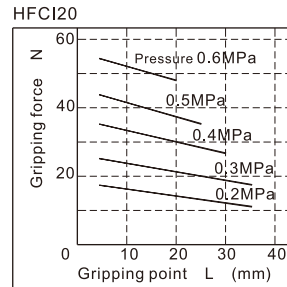
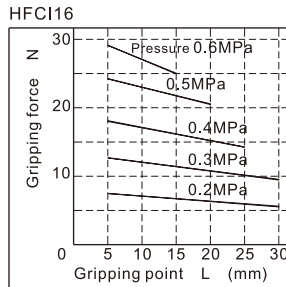
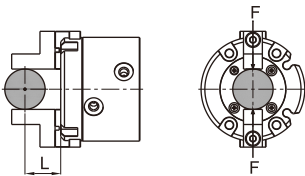
Air gripper(parallel open/close style)

HFC Series

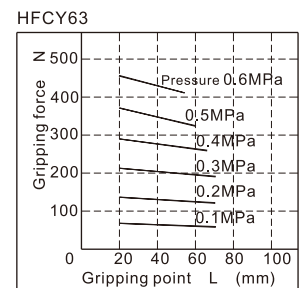
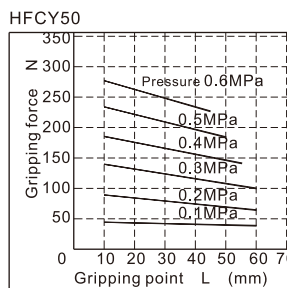
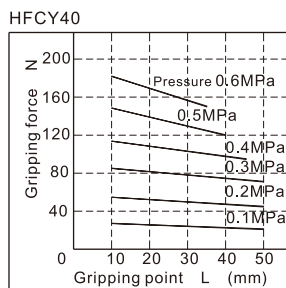
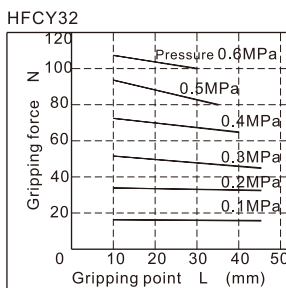
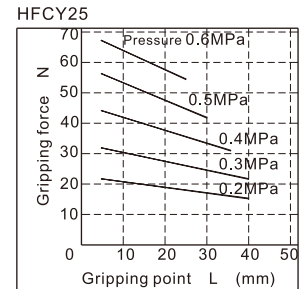
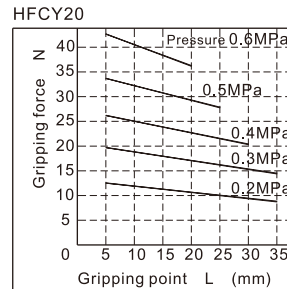
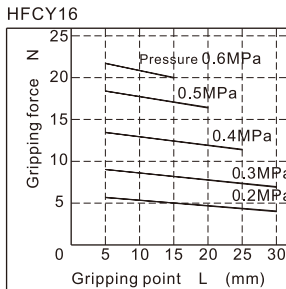
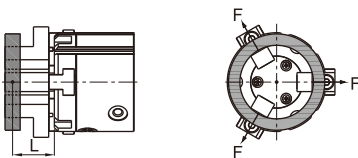
Opened gripping force(I Type)



Closed gripping force(I Type)



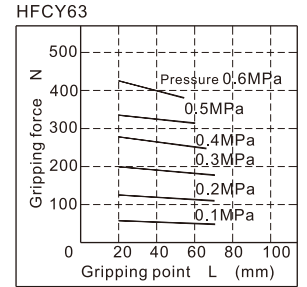
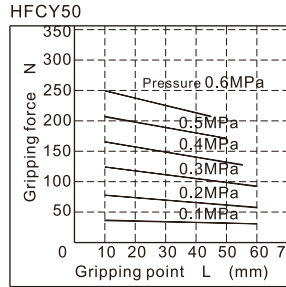
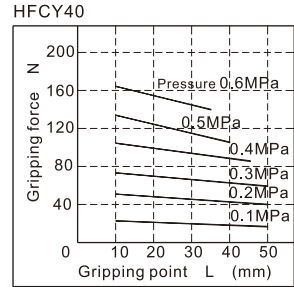
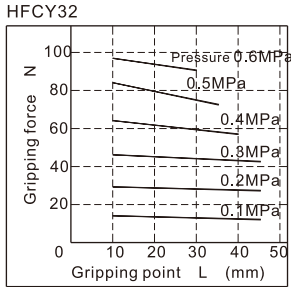
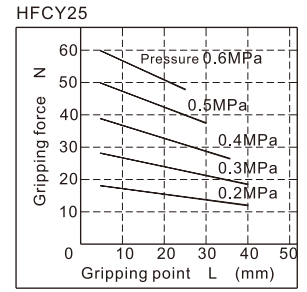
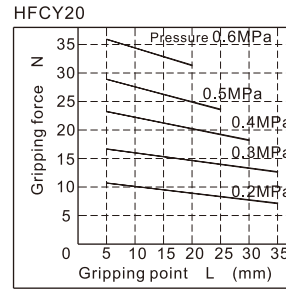
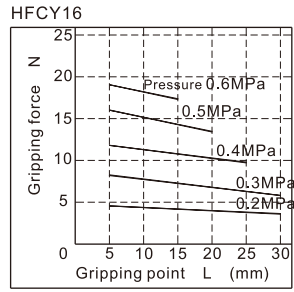
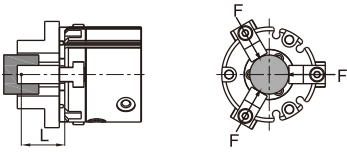
Opened gripping force(Y Type)



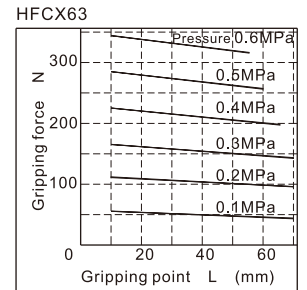
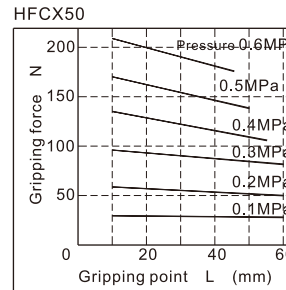
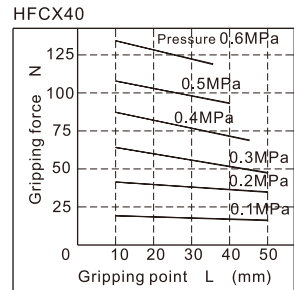
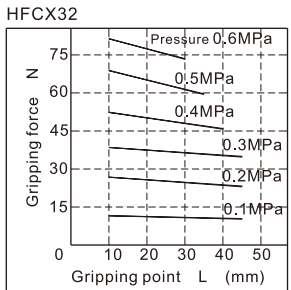
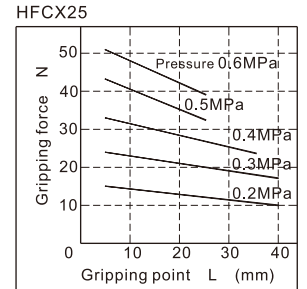
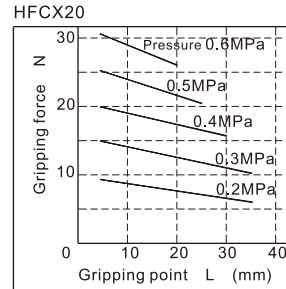
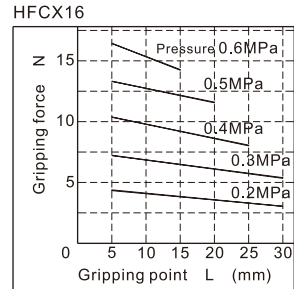
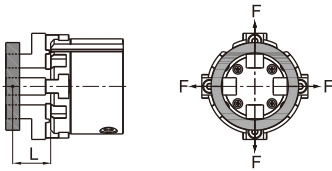
Air gripper(parallel open/close style)

HFC Series

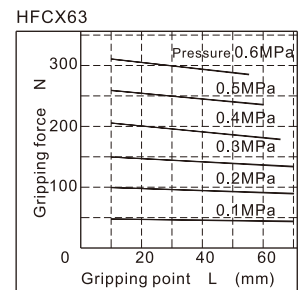
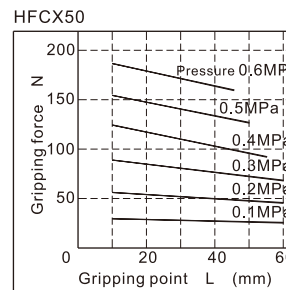
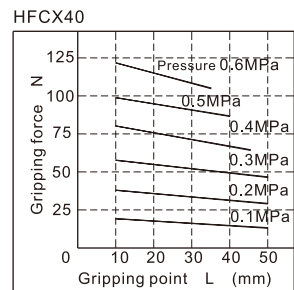
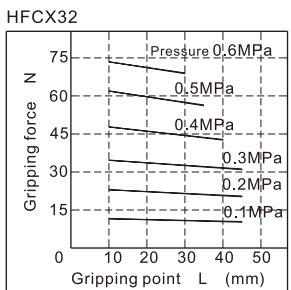
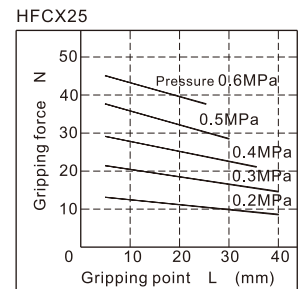
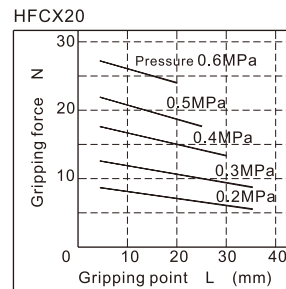
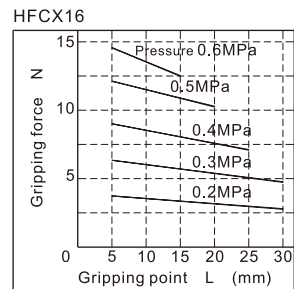
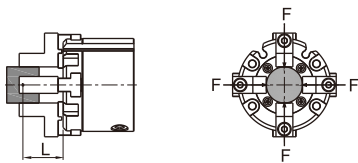
Closed gripping force(Y Type)



Opened gripping force(X Type)



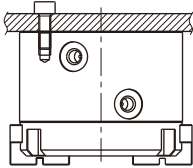
Closed gripping force(X Type)



Installation and application

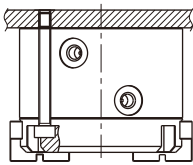
1. Due to the abrupt changes, the circuit pressure is low, which will lead to the decrease of the gripping force and falling of the work-pieces. In order to avoid the harm to the human body and damage to the equipment, anti-dropping device must be equipped.
2. Don't use the air gripper under strong external force and impact force.
3. When install and fix the air gripper, avoid falling down, collision and damage.
4. When fixing the gripping jaw parts, don't twist the gripping jaw.
5. There are several kinds of installation method, and the locking torque of fastening screw must be within the prescribed torque range shown in the below chart.
If the locking torque is too large, it will cause the dysfunctional. If the locking torque is too small, it will cause the position deviation and fall.

Tail installation type



| Model | Bore size | The bolts type | Max. locking moment(Nm) | Max. screwed depth(mm) | The aperture of the positioning bore(mm) | The depth of the positioning bore(mm) |
|--------------|-----------|----------------|-------------------------|-----------------------------------|--|---------------------------------------|
| HFCI HFCX | 16 | M4×0.7 | 2.1 | 8 | Φ17 ^{+0.05} ₀ | 1.5 |
| | 20 | M4×0.7 | 2.1 | 8 | Φ21 ^{+0.05} ₀ | 1.5 |
| | 25 | M4×0.7 | 2.1 | 8 | Φ26 ^{+0.05} ₀ | 1.5 |
| | 32 | M5×0.8 | 4.3 | 10 | Φ34 ^{+0.05} ₀ | 2 |
| | 40 | M6×1.0 | 7.3 | 12 | Φ42 ^{+0.05} ₀ | 2 |
| | 50 | M6×1.0 | 7.3 | 12 | Φ52 ^{+0.05} ₀ | 2 |
| HFCY | 63 | M6×1.0 | 7.3 | 12 | Φ65 ^{+0.05} ₀ | 2.5 |
| | 16 | M3×0.5 | 0.88 | 6 | Φ17 ^{+0.05} ₀ | 1.5 |
| | 20 | M3×0.5 | 0.88 | 6 | Φ21 ^{+0.05} ₀ | 1.5 |
| | 25 | M4×0.7 | 2.1 | 8 | Φ26 ^{+0.05} ₀ | 1.5 |
| | 32 | M4×0.7 | 2.1 | 8 | Φ34 ^{+0.05} ₀ | 2 |
| | 40 | M5×0.8 | 4.3 | 10 | Φ42 ^{+0.05} ₀ | 2 |
| 50 | M5×0.8 | 4.3 | 10 | Φ52 ^{+0.05} ₀ | 2 | |
| 63 | M6×1.0 | 7.3 | 12 | Φ65 ^{+0.05} ₀ | 2.5 | |

The installation of the front through hole

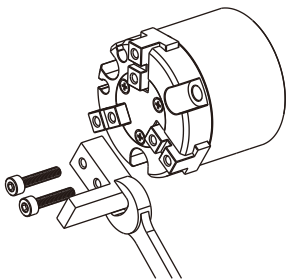


| Model | Bore size | The bolts type | Max. locking moment(Nm) |
|--------------|-----------|----------------|-------------------------|
| HFCI HFCX | 16 | M3×0.5 | 0.88 |
| | 20 | M3×0.5 | 0.88 |
| | 25 | M3×0.5 | 0.88 |
| | 32 | M4×0.7 | 2.1 |
| | 40 | M5×0.8 | 4.3 |
| | 50 | M5×0.8 | 4.3 |
| HFCY | 63 | M5×0.8 | 4.3 |
| | 16 | M3×0.5 | 0.88 |
| | 20 | M3×0.5 | 0.88 |
| | 25 | M4×0.7 | 2.1 |
| | 32 | M4×0.7 | 2.1 |
| | 40 | M5×0.8 | 4.3 |
| 50 | M5×0.8 | 4.3 | |
| 63 | M6×1.0 | 7.3 | |

6. The installation method of the gripping jaw fittings

When install the gripping jaw fittings, you have to pay particular attention that you can only hold the gripping jaw by using spanner, and then lock the screws with allen wrench. Never clamp the body directly and then lock the screws, otherwise the parts will be easily damaged.

Install the gripping jaw fittings



| Bore size | The bolts type | Max. locking moment(Nm) |
|-----------|----------------|-------------------------|
| 16 | M3×0.5 | 0.59 |
| 20 | M3×0.5 | 0.59 |
| 25 | M3×0.5 | 0.59 |
| 32 | M4×0.7 | 1.4 |
| 40 | M4×0.7 | 1.4 |
| 50 | M5×0.8 | 2.8 |
| 63 | M5×0.8 | 2.8 |