

Made to Order Air Gripper

Series **MH**□

Made to Order Common Specifications



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| -X81B (Special black chromium treatment is made on the finger and guide.) | |

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X□

MRHQ

MA

D-□

Made to Order Common Specifications: Air Gripper -X4: Heat Resistance



Symbol

1 Heat Resistance (-10 to 100°C)

-X4

Seal material and grease have been changed, so that it could be used even at higher temperature up to 100 from -10°C.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|-------------------------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | Magnet is not built-in. | P.666 |
| | | MHCM2 | Single acting (Normally open) | Magnet is not built-in. | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| | | MHS2 | Double acting | | P.588 |
| MHS | 2-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type | MHSJ3 | Double acting | | P.606 |
| | 3-finger type with dust cover | MHS3 | Double acting | | P.614 |
| | With through hole | MHSH3 | Double acting | | |
| | With through hole and dust cover | MHSHJ3 | Double acting | | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 |
| | 4-finger type | MHS4 | Double acting | | P.640 |
| MHT | Toggle type | MHT2 | Double acting | Including MHT2-□DZ | P.688 |
| MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | Magnet is not built-in. | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | Magnet is not built-in. | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

Standard part number for each series - **X4**

Heat resistance ↓

Note 1) Magnet is built-in, but when using an auto switch, the acceptable temperature range becomes -10 to 60 °C.

Note 2) With the part number for the dust cover option, only fluororubber (F) or silicon rubber (S) options may be selected.

Note 3) With the part number compatible with body options for Series MHZ, only E type or M type are compatible.

Note 4) For lubrication, specialized grease GR-F is recommended.

Specifications

| | |
|--|------------------------------|
| Ambient temperature range | -10°C to 100°C |
| Seal material | Fluororubber |
| Grease | Heat resistant grease (GR-F) |
| Specifications/dimensions other than the above | Same as the standard type |

Warning

Handling Precautions

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

Replacement Parts: Seal Kit

| Series | Model | Seal kit no. | Series | Model | Seal kit no. |
|--------|---------------|-----------------------------------|--------------|-------------|--|
| MHC | MHC2-10 to 25 | MHC□□-PS-X4 | MHS | MHSHJ3 | MHSH□□A-PS-X4(For cylinder type center pusher) |
| | MHC2-6 | Repaired or replaced by SMC. | | MHSL3 | MHSL□□-PS-X4 |
| | MHCA2 | Repaired or replaced by SMC. | | MHS4 | MHS□□-PS-X4 |
| | MHCM2 | MHCM7-PS-X4 | | MHT | MHT2 |
| MHF | MHF2 | MHF□□-PS-X4 | MHW | MHW2 | MHW□□-PS-X4 |
| | | MHF8-PS-2-X4 for only MHF2-8DS-X4 | MHY | MHY2 | MHY□□-PS-X4 |
| MHK | MHK2 | MHK□□-PS-X4 | MHZ | MHZA2 | Repaired or replaced by SMC. |
| | | MHKL2 | | MHK□□-PS-X4 | MHZAJ2 |
| MHL | MHL2 | MHL□□-PS-X4 | | MHZ2-6 | Repaired or replaced by SMC. |
| | | MHS2 | | MHS□□-PS-X4 | MHZ2 |
| MHS | MHS3 | MHS□□-PS-X4 | | MHZL2 | MHZL□□-PS-X4 |
| | | MHSJ3 | MHSJ□□-PS-X4 | MHZJ2 | MHZJ□□-PS-X4 |
| | | MHSH3 | MHSH□□-PS-X4 | | |

Note 1) The cylinder bore size enters □□ of the seal kit no. Refer to the replacement parts of each model.

Note 2) The seal kit does not include grease. Please order the grease separately.

•Grease pack part no.: GR-F-005 (5 g)

Made to Order Common Specifications: Air Gripper -X5: Fluororubber Seal



2 Fluororubber Seal

Symbol
-X5

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|---|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| | | MHCM2 | Single acting (Normally open) | | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is fluororubber only. | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is fluororubber only. | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| | 2-finger type | MHS2 | Double acting | | P.588 |
| MHS | 3-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type with dust cover | MHSJ3 | Double acting | Dust cover material is fluororubber only. | P.606 |
| | With through hole | MHSH3 | Double acting | | P.614 |
| | With through hole and dust cover | MHSHJ3 | Double acting | Dust cover material is fluororubber only. | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 |
| | 4-finger type | MHS4 | Double acting | | P.640 |
| MHT | Toggle type | MHT2 | Double acting | Including MHT2-□DZ | P.688 |
| MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is fluororubber only. | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is fluororubber only. | P.468 |

How to Order

Standard part number for each series **-X5**

Fluororubber Seal

Specifications

| | |
|--|--|
| Seal material | Fluororubber |
| Specifications/dimensions other than the above | Same as the standard type of each series |

Note 1) Please contact SMC, since the type of chemical and the operating temperature may not allow the use of this product.

Note 2) Since the standard-type magnet is built-in, please contact SMC for the product's adaptability to the operating environment.

Note 3) For the air gripper with a dust cover, the dust cover material is also fluororubber. Thus, enter (F) for the fluororubber dust cover in the part number.

Note 4) With the part number compatible with body options for Series MHZ, only E type or M type are compatible.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X□

MRHQ

MA

D-□

Made to Order Common Specifications: Air Gripper -X7: Closing Direction Spring Assist



Symbol

-X7

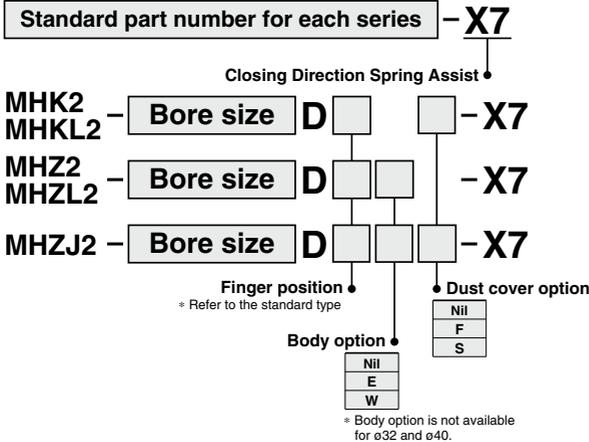
3 Closing Direction Spring Assist

When gripping the exterior of the workpiece, this assists to hold the workpiece in place even when there is no supply of compressed air.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|---------------------------------|-------|---------------|------|---------------------|
| MHK | Wedge cam operation glide guide | MHK2 | Double acting | | P.566 |
| | | MHKL2 | Double acting | | |
| MHZ | Parallel style | MHZ2 | Double acting | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting | | P.468 |

How to Order



Note 1) Operating pressure is different from that of the standard double acting type. (Refer to the table below.)

Note 2) For the body options of MHZ2, MHZJ2 and MHZL2 ø10 to ø25, only E type or W type are compatible.

Note 3) Dimensions of MHZ2-32D/40D and MHZL2 are the same as the single acting type.

Note 4) For internal grip, the gripping point range limit is the same as the standard type.

Specifications

MHK□2

| Bore size (mm) | | 12 | 16 | 20 | 25 |
|--|---------------|----------------------|-----|------|------|
| Operating pressure (MPa) | | 0.25 to 0.5 | | | |
| Gripping Point Range Limit (External grip) | | Refer to the graphs. | | | |
| MHK2 | Weight (g) | 76 | 114 | 237 | 443 |
| | External grip | 18.5 | 41 | 57 | 91.5 |
| MHKL2 | Weight (g) | 105 | 165 | 314 | 565 |
| | External grip | 18.5 | 34 | 56.5 | 103 |

* Gripping force is measured at a pressure of 0.5 MPa, gripping point L = 20 mm, center of stroke.

MHZ□2

| Bore size (mm) | | 6 | 10 | 16 | 20 | 25 | 32 | 40 |
|--|---------------|----------------------|-------------|-------------|-----|-----|-----|------|
| Operating pressure (MPa) | | 0.3 to 0.6 | 0.35 to 0.6 | 0.25 to 0.6 | | | | |
| Gripping Point Range Limit (External grip) | | Refer to the graphs. | | | | | | |
| MHZ2 | Weight (g) | 27 | 55 | 115 | 240 | 435 | 760 | 1370 |
| | External grip | 5.5 | 14.5 | 40 | 50 | 84 | 187 | 300 |
| MHZL2 | Weight (g) | - | 70 | 140 | 290 | 515 | - | - |
| | External grip | - | 14.5 | 40.5 | 50 | 82 | - | - |
| MHZJ2 | Weight (g) | 28 | 60 | 130 | 255 | 465 | - | - |
| | External grip | 5.5 | 14.5 | 38 | 51 | 84 | - | - |

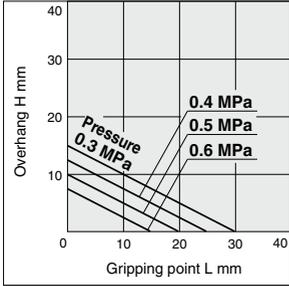
* Series MHZL2 ø32 and ø40 have the same dimensions as the single acting type.

* Gripping force is measured at a pressure of 0.5 MPa, gripping point L = 20 mm, center of stroke.

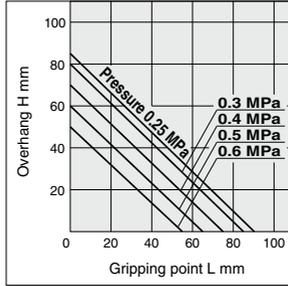
Gripping Point Range Limit

Series MHZ

MHZ 2-6D -X7

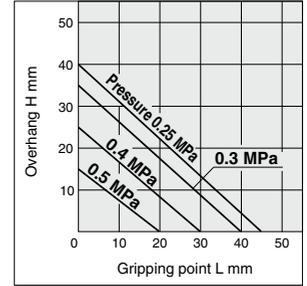


MHZ 2-25D -X7

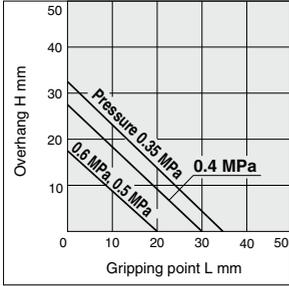


Series MHK

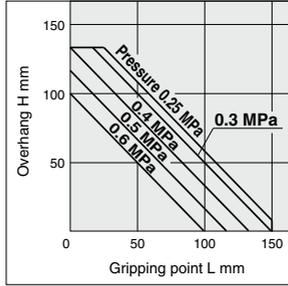
MHK 2-12D -X7



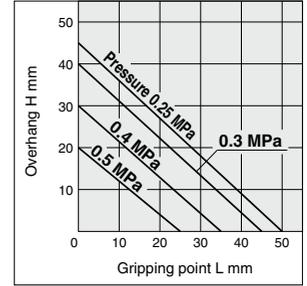
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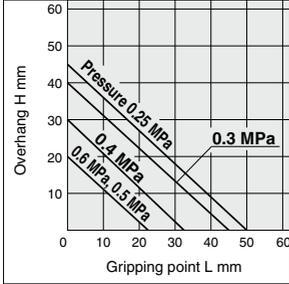
MHZ 2-32D -X7



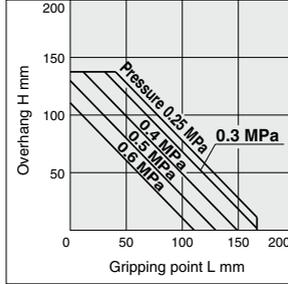
MHK 2-16D -X7



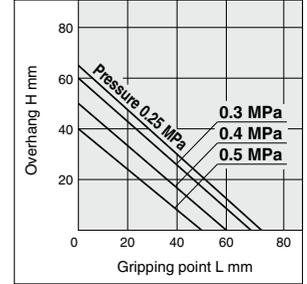
MHZ 2-16D -X7



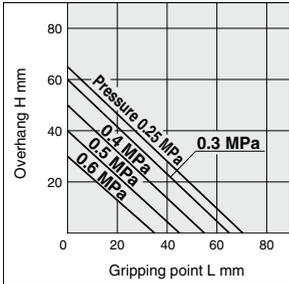
MHZ 2-40D -X7



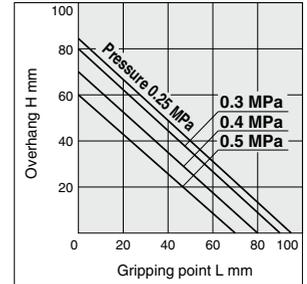
MHK 2-20D -X7



MHZ 2-20D -X7



MHK 2-25D -X7



MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X

MRHQ

MA

D

Made to Order Common Specifications: Air Gripper -X12: Opening Direction Spring Assist



4 Opening Direction Spring Assist

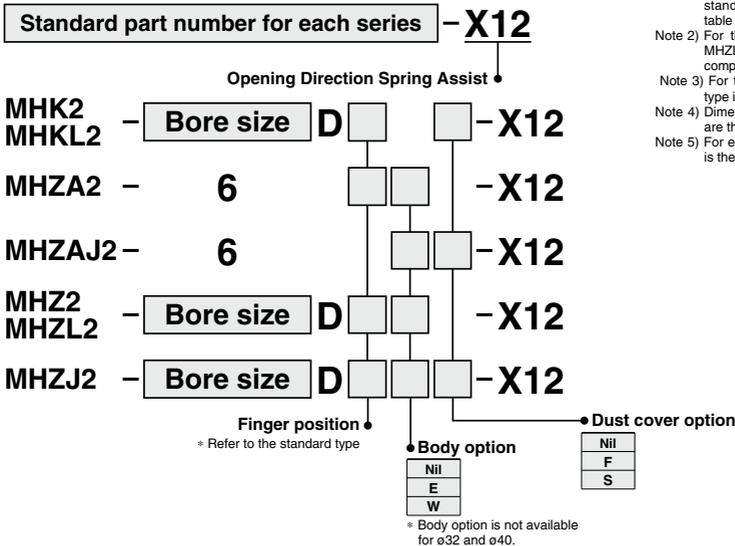
Symbol
-X12

When gripping the interior of the workpiece, this assists to hold the workpiece in place even when there is no supply of compressed air.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---------------|------|---------------------|
| MHK | Wedge cam operation glide guide | MHK2 | Double acting | | P.566 |
| | | MHKL2 | Double acting | | |
| MHZ | Parallel style (compact) | MHZA2 | Double acting | | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting | | |
| | Parallel style | MHZ2 | Double acting | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting | | P.468 |

How to Order



Note 1) Operating pressure is different from that of the standard double acting type. (Refer to the table below.)

Note 2) For the body options of MHZ2, MHZJ2 and MHZL2 ø10 to ø25, only E type or W type are compatible.

Note 3) For the body option of MHZA(J)2-6D, only E type is compatible.

Note 4) Dimensions of MHZ2-32D/40D and MHZL2 are the same as the single acting type.

Note 5) For external grip, the gripping point range limit is the same as the standard type.

Specifications

MHK□2

| Bore size (mm) | | 12 | 16 | 20 | 25 |
|--|-----------------------------|----------------------|-----|------|-------|
| Operating pressure (MPa) | | 0.25 to 0.5 | | | |
| Gripping Point Range Limit (Internal grip) | | Refer to the graphs. | | | |
| MHK2 | Weight (g) | 76 | 114 | 237 | 443 |
| | Internal gripping force (N) | 21.5 | 43 | 67 | 106 |
| MHKL2 | Weight (g) | 105 | 165 | 314 | 565 |
| | Internal gripping force (N) | 20.5 | 39 | 64.5 | 113.5 |

* Gripping force is measured at a pressure of 0.5 MPa, gripping point L = 20 mm, center of stroke.

MHZ□2

| Bore size (mm) | | 6 | 10 | 16 | 20 | 25 | 32 | 40 |
|--|-----------------------------|----------------------|-------------|-------------|------|-------|-------|-------|
| Operating pressure (MPa) | | 0.3 to 0.6 | 0.35 to 0.6 | 0.25 to 0.6 | | | | |
| Gripping Point Range Limit (Internal grip) | | Refer to the graphs. | | | | | | |
| MHZA2 | Weight (g) | 26 | - | - | - | - | - | - |
| | Internal gripping force (N) | 7.3 | - | - | - | - | - | - |
| MHZAJ2 | Weight (g) | 27 | - | - | - | - | - | - |
| | Internal gripping force (N) | 7.3 | - | - | - | - | - | - |
| MHZ2 | Weight (g) | 27 | 55 | 115 | 240 | 435 | 760 | 1370 |
| | Internal gripping force (N) | 7.3 | 20.5 | 51.5 | 74 | 122 | 217.5 | 351.5 |
| MHZL2 | Weight (g) | - | 70 | 140 | 290 | 515 | - | - |
| | Internal gripping force (N) | - | 20.5 | 51.5 | 74 | 117.5 | - | - |
| MHZJ2 | Weight (g) | 28 | 60 | 130 | 255 | 465 | - | - |
| | Internal gripping force (N) | 7.3 | 20 | 45.5 | 78.5 | 122 | - | - |

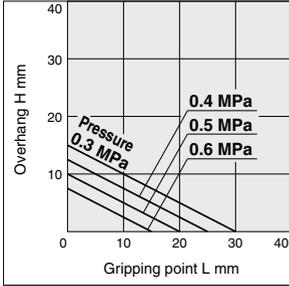
* Series MHZL2 ø32 and ø40 have the same dimensions as the single acting type.

* Gripping force is measured at a pressure of 0.5 MPa, gripping point L = 20 mm, center of stroke.

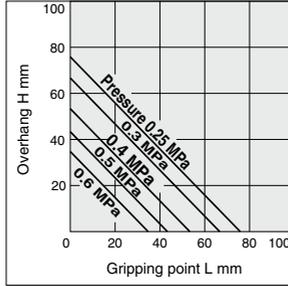
Gripping Point Range Limit

Series MHZ

MHZ 2-6D -X12

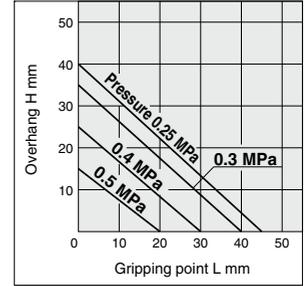


MHZ 2-25D -X12

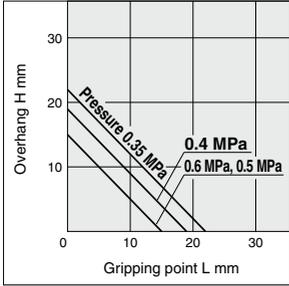


Series MHK

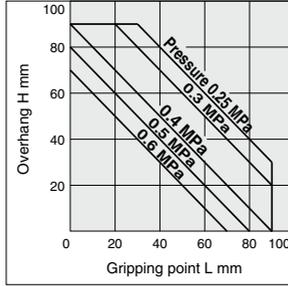
MHK 2-12D -X12



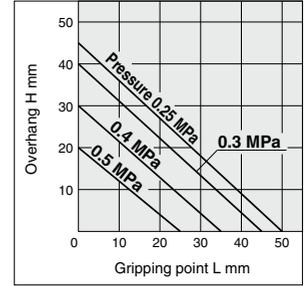
MHZ 2-10D -X12



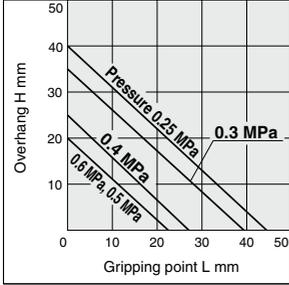
MHZ2-32D -X12



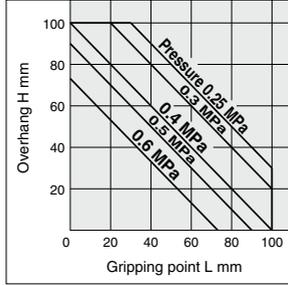
MHK 2-16D -X12



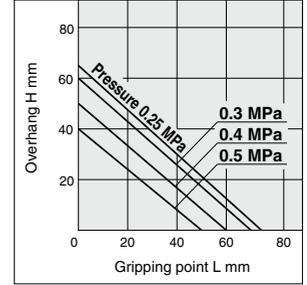
MHZ 2-16D -X12



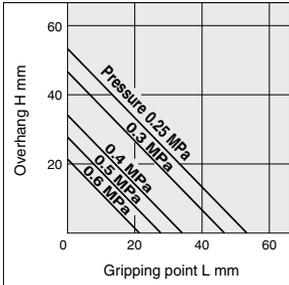
MHZ2-40D -X12



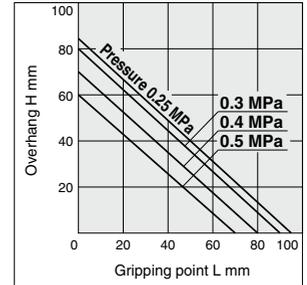
MHK 2-20D -X12



MHZ 2-20D -X12



MHK 2-25D -X12



MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X

MRHQ

MA

D-

Made to Order Common Specifications: Air Gripper -X50: Without Magnet



5 Without Magnet

Symbol
-X50

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|------------|----------------------------------|---------------|---|---------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | Note 3) | P.677 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| MHS | 2-finger type | MHS2 | Double acting | | P.588 |
| | 3-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 |
| | With through hole | MHSH3 | Double acting | | P.614 |
| | With through hole and dust cover | MHSHJ3 | Double acting | | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 |
| | 4-finger type | MHS4 | Double acting | | P.640 |
| MHT | Toggle type | MHT2 | Double acting | | P.688 |
| MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| MHZ | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | Note 4) | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | Note 5) | P.468 |

How to Order

Standard part number for each series **-X50**

Without Magnet ●

Specifications Same as the standard type of each series

- Note 1) No symbol is specified for a product without a magnet as standard.
 Note 2) Series MDHR comes with a magnet. Use Series MHR when a product without a magnet is needed.
 Note 3) MHC2-6 is not applicable. Please use the MHC2A2-6.
 Note 4) MHZ2-6 is not applicable. Please use the MHZA2-6.
 Note 5) MHZJ2-6 is not applicable. Please use the MHZAJ2-6.

| |
|------------------|
| MHZ |
| MHF |
| MHL |
| MHR |
| MHK |
| MHS |
| MHC |
| MHT -Z |
| MHY |
| MHW |
| -X □ |
| MRHQ |
| MA |
| D -□ |



Made to Order Common Specifications: Air Gripper -X53: Ethylene Propylene Rubber Seal (EPDM)

6 Ethylene Propylene Rubber Seal

Symbol

-X53

Seal material has been changed to ethylene propylene (EPDM), and grease to fluorine grease.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page | |
|--------|--|--------------------|---|---|---------------------|-------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 | |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 | |
| MHF | Low profile | MHF2 | Double acting | | P.496 | |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is EPDM only. | P.566 | |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is EPDM only. | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 | |
| | 2-finger type | MHS2 | Double acting | | P.588 | |
| | 3-finger type | MHS3 | Double acting | | P.596 | |
| | 3-finger type with dust cover | MHSJ3 | Double acting | Dust cover material is EPDM only. | P.606 | |
| | With through hole | MHSH3 | Double acting | | P.614 | |
| | With through hole and dust cover | MHSHJ3 | Double acting | Dust cover material is EPDM only. | | |
| MHS | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 | |
| | 4-finger type | MHS4 | Double acting | | P.640 | |
| | MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| | | MHY | 180° angular style cam style | MHY2 | Double acting | |
| MHZ | Parallel style (compact) | | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is EPDM only. | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 | |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 | |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | Dust cover material is EPDM only. | P.468 | |

How to Order

Standard part number for each series **-X53**

Ethylene Propylene Rubber Seal (EPDM)

Note 1) For the product with a dust cover, dust cover material is also ethylene propylene rubber. Thus, enter no symbol for the dust cover in the part number.

Note 2) With the part number compatible with body options, only E type or M type are compatible.
Note 3) For lubrication, specialized grease GR-F is recommended.

Specifications

| | |
|--|---|
| Seal material | Ethylene propylene rubber (EPDM) |
| Grease | Fluorine grease (GR-F) |
| Specifications/dimensions other than the above | Same as the standard type for each series |

Warning

Handling Precautions

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X

MRHQ

MA

D-

Made to Order Common Specifications: Air Gripper -X56: Axial Ported



7 Axial Ported

Symbol
-X56

Applicable Series

| Series | Description | Model | Action | Note | Standard model page | |
|--------|--|--------|---|----------------------------------|---------------------------------------|-------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | ø10, 16, 20, 25 only | P.677 | |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 | |
| | | MHCM2 | Single acting (Normally open) | | P.675 | |
| MHS | 2-finger type | MHS2 | Double acting | ø16, 20, 25, 32, 40, 50, 63 only | P.588 | |
| | 3-finger type | MHS3 | Double acting | | P.596 | |
| | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 | |
| | With through hole | MHSH3 | Double acting | | Center pusher type is not compatible. | P.614 |
| | With through hole and dust cover | MHSHJ3 | Double acting | | | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | ø16, 20, 25, 32, 40, 50, 63 only | P.630 |
| | 4-finger type | MHS4 | Double acting | | | P.640 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | ø10, 16, 20, 25 only | P.432 | |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.442 | |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 | |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | ø10, 16, 20, 25 only | P.468 |

How to Order

Standard part number for each series **-X56**

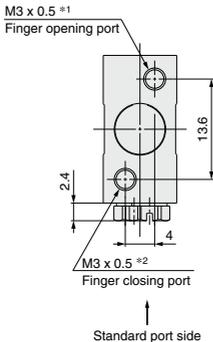
Axial Ported

Note 1) Body option is not compatible.
Note 2) Series MHSH3 and MHSHJ3 (center pusher type) are not compatible.

Dimensions (Dimensions other than specified below are the same as the standard type.)

(mm)

Series MHCA2-6 Series MHZA2-6



Series MHCA2

*1) Single acting (normally open) type is not available with a finger opening port. Standard opening port will be a breathing hole.

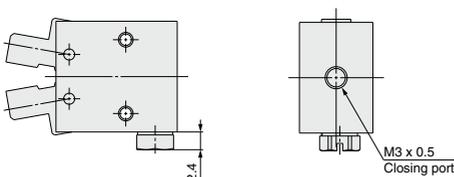
Series MHZA2, MHZAJ2

*1) Normally open type is not available with a finger opening port. Standard opening port will be a breathing hole.

*2) Normally closed type is not available with a finger closing port. Standard closing port will be a breathing hole.

Note 1) Standard port is blocked with a M-3P plug. M-3P plug is not interchangeable with a hexagon socket head set screw.
Note 2) This cannot be mounted from top side.

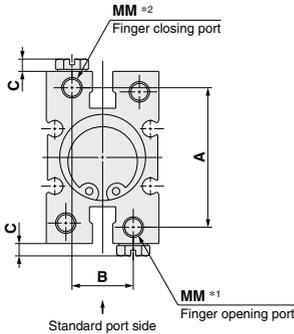
Series MHCM2-7S



Note 1) Standard port is blocked with a M-3P plug.

Dimensions (Dimensions other than specified below are the same as the standard type.)

Series MHC2
Series MHZ2
Series MHZL2
Series MHZJ2



(MHC2 has different switch groove.)

Series MHC2 (mm)

| Model | A | B | C | MM |
|--------------|------|----|-----|----------|
| MHC2-10□-X56 | 13 | 11 | 2.4 | M3 x 0.5 |
| MHC2-16□-X56 | 22.6 | 13 | 3 | M3 x 0.5 |
| MHC2-20□-X56 | 34 | 15 | 3 | M5 x 0.8 |
| MHC2-25□-X56 | 44 | 20 | 3 | M5 x 0.8 |

*1) For the single acting type, a standard port does not include a plug and will be a breathing hole.

For the single acting type, axial opening ports are not available.

Note 1) Switch groove and standard port positions are different for each model.

Note 2) Standard port is blocked with a M-3P or M-5P plug.

Series MHZ2 (mm)

| Model | A | B | C | MM |
|----------------|----|----|-----|----------|
| MHZ2-10□□□-X56 | 13 | 11 | 2.4 | M3 x 0.5 |
| MHZ2-16□□□-X56 | 22 | 15 | 3 | M3 x 0.5 |
| MHZ2-20□□□-X56 | 34 | 15 | 3 | M5 x 0.8 |
| MHZ2-25□□□-X56 | 44 | 20 | 3 | M5 x 0.8 |

Series MHZL2 (mm)

| Model | A | B | C | MM |
|-----------------|------|----|-----|----------|
| MHZL2-10□□□-X56 | 13 | 11 | 2.4 | M3 x 0.5 |
| MHZL2-16□□□-X56 | 22.6 | 13 | 3 | M3 x 0.5 |
| MHZL2-20□□□-X56 | 34 | 15 | 3 | M5 x 0.8 |
| MHZL2-25□□□-X56 | 44 | 20 | 3 | M5 x 0.8 |

Series MHZJ2 (mm)

| Model | A | B | C | MM |
|-----------------|------|----|-----|----------|
| MHZJ2-10□□□-X56 | 13 | 11 | 2.4 | M3 x 0.5 |
| MHZJ2-16□□□-X56 | 22.6 | 13 | 3 | M3 x 0.5 |
| MHZJ2-20□□□-X56 | 34 | 15 | 3 | M5 x 0.8 |
| MHZJ2-25□□□-X56 | 44 | 20 | 3 | M5 x 0.8 |

*1) For the single acting type, the port on one side becomes the breathing hole.

Note 1) Please contact SMC for bore sizes ø32 and ø40 of Series MHZ2.

Note 2) A plug is located at the same position for the end boss type.

Note 3) Bore size ø6 of Series MHZ2 and MHZJ2 is not compatible.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X □

MRHQ

MA

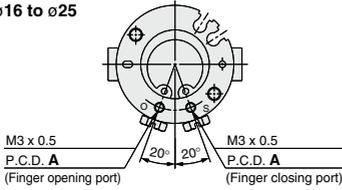
D- □

Series MH□

Dimensions (Dimensions other than specified below are the same as the standard type.)

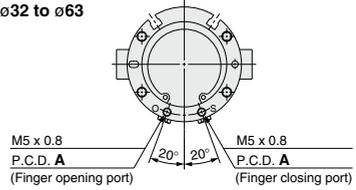
Series MHS₄²

ø16 to ø25



| (mm) | |
|--|----|
| Model | A |
| MHS ₄ ² -16D-X56 | 23 |
| MHS ₄ ² -20D-X56 | 27 |
| MHS ₄ ² -25D-X56 | 32 |

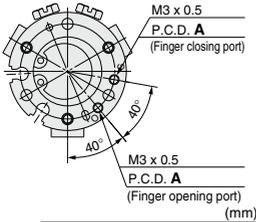
ø32 to ø63



| (mm) | |
|--|----|
| Model | A |
| MHS ₄ ² -32D-X56 | 44 |
| MHS ₄ ² -40D-X56 | 52 |
| MHS ₄ ² -50D-X56 | 62 |
| MHS ₄ ² -63D-X56 | 75 |

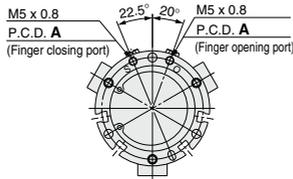
Series MHS₃³

ø16 to ø25



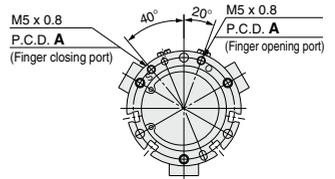
| (mm) | |
|--|----|
| Model | A |
| MHS ₃ ³ -16D-X56 | 23 |
| MHS ₃ ³ -20D-X56 | 28 |
| MHS ₃ ³ -25D-X56 | 34 |

ø32 to ø50



| (mm) | |
|--|----|
| Model | A |
| MHS ₃ ³ -32D-X56 | 44 |
| MHS ₃ ³ -40D-X56 | 53 |
| MHS ₃ ³ -50D-X56 | 62 |

ø63

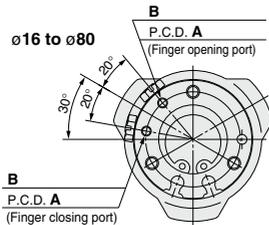


| (mm) | |
|--|----|
| Model | A |
| MHS ₃ ³ -63D-X56 | 75 |

Series MHSH3

Series MHS₃³_{HJ3}

ø16 to ø80



| (mm) | | |
|-------------------------------|----|----------|
| Model | A | B |
| MHSH3-16D-X56 | 23 | M3 x 0.5 |
| MHSH3-16D□-X56 | | |
| MHSH3-20D-X56 | 27 | |
| MHSH3-20D□-X56 | | |
| MHSH3-25D-X56 | 32 | M5 x 0.8 |
| MHSH3-25D□-X56 | | |
| MHSH3-32D-X56 | 44 | |
| MHSH _{HJ3} -32D□-X56 | | |
| MHSH3-40D-X56 | 52 | |
| MHSH _{HJ3} -40D□-X56 | | |
| MHSH3-50D-X56 | 63 | |
| MHSH _{HJ3} -50D□-X56 | | |
| MHSH3-63D-X56 | 78 | |
| MHSH _{HJ3} -63D□-X56 | | |
| MHSH3-80D-X56 | 94 | |
| MHSH _{HJ3} -80D□-X56 | | |

Note 1) Standard side piping ports are blocked with the following plugs.
ø16: M-3P plug
ø20 to ø63: M-5P plug

Note 2) For Series MHS3 and MHSL3, a piping port cannot be used depending on the port size since the port is located close to a positioning pin hole or long hole, or just above the pin hole.

Note 3) Please contact SMC separately for bore sizes ø80, ø100 and ø125 of Series MHS3 and MHSL3.

Made to Order Common Specifications: Air Gripper -X63: Fluorine Grease



8 Fluoro Grease

Symbol
-X63

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|--------------------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| | | MHCM2 | Single acting (Normally open) | | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| MHR | Rotary actuator | MHR2 | Double acting | | P.535 |
| | | MDHR2 | Double acting | | |
| | | MHR3 | Double acting | | |
| | | MDHR3 | Double acting | | |
| MHS | 2-finger type | MHS2 | Double acting | | P.588 |
| | 3-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 |
| | With through hole | MHSH3 | Double acting | | P.614 |
| | With through hole and dust cover | MHSHJ3 | Double acting | | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 |
| | 4-finger type | MHS4 | Double acting | | P.640 |
| MHT | Toggle type | MHT2 | Double acting | Including MHT2-□DZ | P.688 |
| MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | | | | | P.458 |
| | | | | | P.468 |

How to Order

Standard part number for each series **-X63**

Fluorine Grease •

Note) For lubrication, specialized grease GR-F is recommended.

Specifications

| | |
|--|---|
| Grease | Fluorine grease (GR-F) |
| Specifications/dimensions other than the above | Same as the standard type for each series |

⚠ Warning

Handling Precautions

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

- MHZ
- MHF
- MHL
- MHR
- MHK
- MHS
- MHC
- MHT-Z
- MHY
- MHW
- X□
- MRHQ
- MA
- D-□

Made to Order Common Specifications: Air Gripper -X64: Finger: Side Tapped



9 Finger: Side Tapped

Symbol
-X64

Attachments can be mounted even on models without a finger option (side tapped mounting) using a tap on the side.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|-------------------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | Refer to Note 5). | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHZ | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

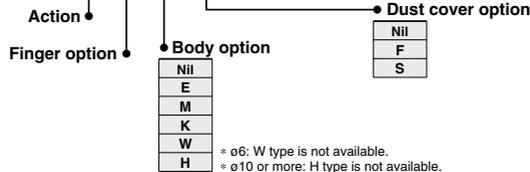
MHCA2 - 6 [] 1 [] -X64

MHC2 - Bore size [] 1 [] -X64

MHZAJ2 - 6 [] 1 [] [] -X64

MHZJ2 - 6 [] 1 [] -X64

MHZJ2 - Bore size [] 1 [] [] -X64



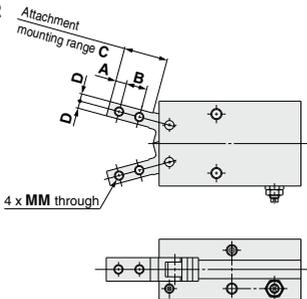
Note 1) Refer to the standard type for the details of body option and dust cover option.

Note 2) Finger option: "1" fixed

Note 3) Since Series MHC2 is a modified version of the standard type and not retreated, modified parts may rust.

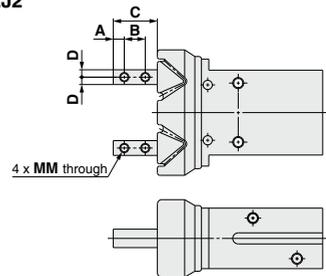
Dimensions (Dimensions other than specified below are the same as the standard type.)

Series MHCA2 Series MHC2



| Model | A | B | C | D | MM |
|----------------|-----|-----|----|-----|-------------|
| MHCA2-6□1□-X64 | 2.5 | 5 | 11 | 2 | M2 x 0.4 |
| MHC2-6□1-X64 | 2.5 | 5 | 11 | 2 | M2 x 0.4 |
| MHC2-10□1-X64 | 3 | 5.7 | 12 | 2 | M2.5 x 0.45 |
| MHC2-16□1-X64 | 4 | 7 | 16 | 3.5 | M3 x 0.5 |
| MHC2-20□1-X64 | 5.2 | 9 | 20 | 4 | M4 x 0.7 |
| MHC2-25□1-X64 | 8 | 12 | 27 | 5 | M5 x 0.8 |

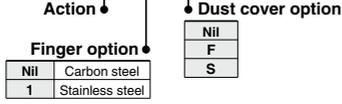
Series MHZAJ2 Series MHZJ2



| Model | A | B | C | D | MM |
|-----------------|-----|-----|----|-----|-------------|
| MHZAJ2-6□1□-X64 | 2.5 | 5 | 11 | 2 | M2 x 0.4 |
| MHZJ2-6□1□-X64 | 2.5 | 5 | 11 | 2 | M2 x 0.4 |
| MHZJ2-10□1□-X64 | 3 | 5.7 | 12 | 2 | M2.5 x 0.45 |
| MHZJ2-16□1□-X64 | 4 | 7 | 15 | 2.5 | M3 x 0.5 |
| MHZJ2-20□1□-X64 | 5 | 9 | 20 | 4 | M4 x 0.7 |
| MHZJ2-25□1□-X64 | 6 | 12 | 25 | 5 | M5 x 0.8 |

How to Order

MHK2
MHKL2 - - **X64**



* When 1 is entered for finger option, it means that finger is made of stainless steel.

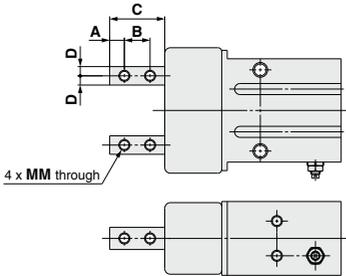
Note 4) Refer to the standard type for the details of the dust cover option.

Note 5) For only Series MHK2 and MHKL2, finger option "1" means a stainless steel finger.

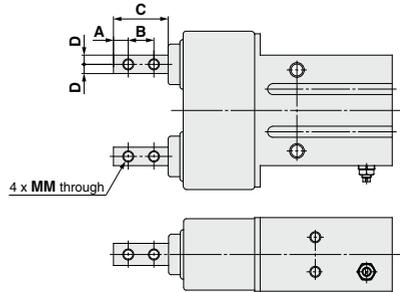
Note 6) Since Series MHK(L)2 is additionally modified as a side tapped and not treated, it may rust when the standard finger is used.

Dimensions (Dimensions other than specified below are the same as the standard type.)

Series MHK2



Series MHKL2



| Model | A | B | C | D | MM |
|---|---|----|----|-----|----------|
| MHK2-12 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | 4 | 7 | 15 | 2.5 | M3 x 0.5 |
| MHKL2-12 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | | | | | |
| MHK2-16 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | 4 | 7 | 15 | 2.5 | M3 x 0.5 |
| MHKL2-16 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | | | | | |
| MHK2-20 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | 5 | 9 | 21 | 4 | M4 x 0.7 |
| MHKL2-20 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | | | 20 | | |
| MHK2-25 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | | | 26 | | |
| MHKL2-25 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X64 | 6 | 12 | 25 | 5 | M5 x 0.8 |
| | | | | | |

* For $\phi 12$, the standard screw is not threaded.

- MHZ
- MHF
- MHL
- MHR
- MHK
- MHS
- MHC
- MHT-Z
- MHY
- MHW
- X
- MRHQ
- MA
- D-



Made to Order Common Specifications: Air Gripper -X65: Finger: Through-holes in Opening/Closing Direction

10 Finger: Through-holes in Opening/Closing Direction Symbol **-X65**

Even for models without a finger option (through-holes in opening/closing directions) setting, attachments are mountable using through-holes in opening and closing directions.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|-------------------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | Refer to Note 5). | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHZ | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

MHCA2 - 6 2 - X65

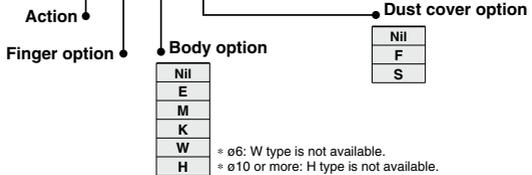
MHC2 - Bore size 2 - X65

MHZAJ2 - 6 2 - X65

MHZJ2 - 6 2 - X65

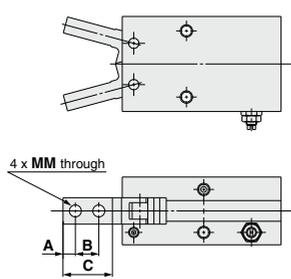
MHZJ2 - Bore size 2 - X65

- Note 1) Refer to the standard type for the details of body option and dust cover option.
- Note 2) Finger option: "2" fixed
- Note 3) Since Series MHC2 is a modified version of the standard type and not retreated, modified parts may rust.



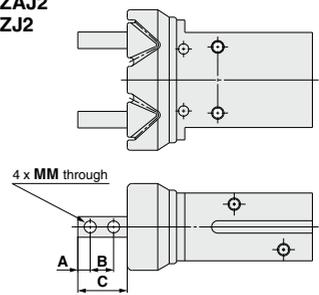
Dimensions (Dimensions other than specified below are the same as the standard type.)

Series MHCA2 Series MHC2



| Model | A | B | C | MM |
|----------------|-----|-----|----|------|
| MHCA2-6□2□-X65 | 2.5 | 5 | 11 | ø2.4 |
| MHC2-6□2-X65 | 2.5 | 5 | 11 | ø2.4 |
| MHC2-10□2-X65 | 3 | 5.7 | 12 | ø2.9 |
| MHC2-16□2-X65 | 4 | 7 | 16 | ø3.4 |
| MHC2-20□2-X65 | 5.2 | 9 | 20 | ø4.5 |
| MHC2-25□2-X65 | 8 | 12 | 27 | ø5.5 |

Series MHZAJ2 Series MHZJ2

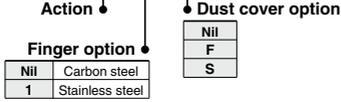


| Model | A | B | C | MM |
|-----------------|-----|-----|----|------|
| MHZAJ2-6□2□-X65 | 2.5 | 5 | 11 | ø2.4 |
| MHZJ2-6□2-X65 | 2.5 | 5 | 11 | ø2.4 |
| MHZJ2-10□2□-X65 | 3 | 5.7 | 12 | ø2.9 |
| MHZJ2-16□2□-X65 | 4 | 7 | 15 | ø3.4 |
| MHZJ2-20□2□-X65 | 5 | 9 | 20 | ø4.5 |
| MHZJ2-25□2□-X65 | 6 | 12 | 25 | ø5.5 |



How to Order

MHK2
MHKL2 - - **X65**



* When 1 is entered for finger option, it means that finger is made of stainless steel.

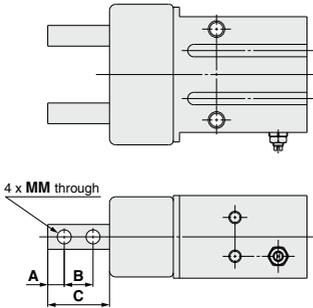
Note 4) Refer to the standard type for the details of the dust cover option.

Note 5) For only Series MHK2 and MHKL2, finger option "2" means a stainless steel finger. For other models, finger option "2" is not applicable.

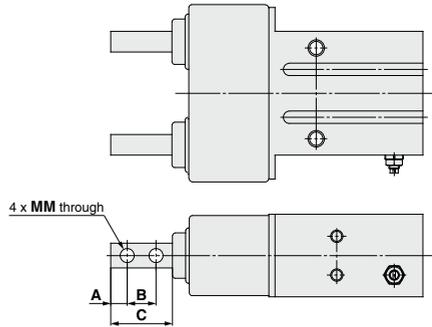
Note 6) Since Series MHK(L)2 is additionally modified with through-holes in opening/closing directions and is not treated, it may rust when the standard finger is used.

Dimensions (Dimensions other than specified below are the same as the standard type.)

Series MHK2



Series MHKL2



| Model | A | B | C | MM |
|---|---|----|----|------|
| MHK2-12 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 4 | 7 | 15 | ø3.4 |
| MHKL2-12 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 4 | 7 | 15 | ø3.4 |
| MHK2-16 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 5 | 9 | 21 | ø4.5 |
| MHKL2-16 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 5 | 9 | 20 | |
| MHK2-20 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 6 | 12 | 26 | ø5.5 |
| MHKL2-20 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> -X65 | 6 | 12 | 25 | |

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X

MRHQ

MA

D-

Made to Order Common Specifications: Air Gripper -X77^A: Dust Cover Adhesion



11 Dust Cover Adhesion (Powerful adhesive used)

Symbol
-X77

Dustproof and dripproof

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|----------------------------------|-------|---|----------------------|---------------------|
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHS | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 |
| | With through hole and dust cover | MHSJ3 | Double acting | | P.614 |
| MHZ | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | ø10, 16, 20, 25 only | P.468 |

How to Order

Standard part number for each series **-X77A**

Dust Cover Adhesion

How to Order

Standard part number for each series **-X77B**

Dust Cover Adhesion/Finger part only

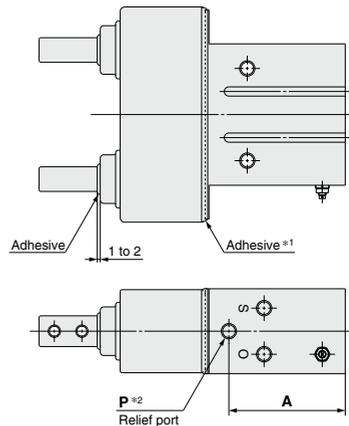
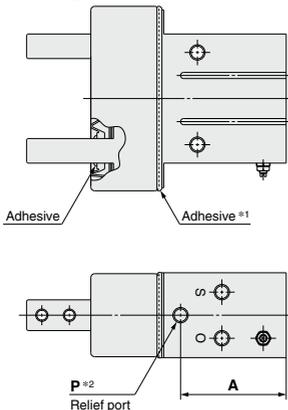
- Note 1) For -X77B, only the finger part is bonded.
 Note 2) The relief port can be attached to both -X77A and -X77B.
 Note 3) The dust cover cannot be removed and replaced.
 Note 4) Be sure to connect the dust cover to the relief port used for dust cover breathing before operating.
 Note 5) For the single acting type, be sure to perform the piping to the breathing port.
 Note 6) For the body option applicable part number of the MHZJ2, only the E type can be applicable.

Specifications

| | |
|----------|-----------------|
| Adhesive | Cyano superglue |
|----------|-----------------|

Dimensions (Dimensions other than specified below are the same as the standard type.)

MHK²-□□□□-X77^A

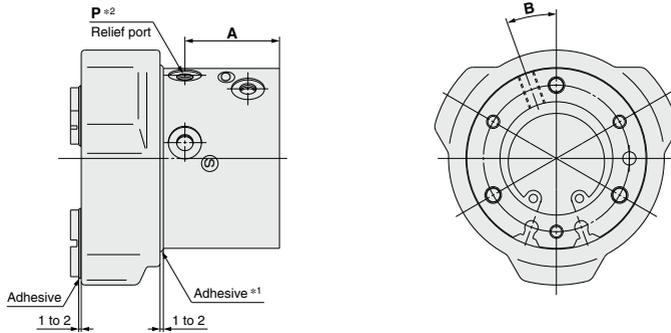


| Model | A | P |
|-------------------------------|------|----------|
| MHK2-12□□□□-X77 ^A | 26.5 | M3 x 0.5 |
| MHK2-16□□□□-X77 ^A | 28.5 | |
| MHK2-20□□□□-X77 ^A | 34.5 | |
| MHK2-25□□□□-X77 ^A | 37 | M5 x 0.8 |
| MHKL2-12□□□□-X77 ^A | 31 | M3 x 0.5 |
| MHKL2-16□□□□-X77 ^A | 33 | |
| MHKL2-20□□□□-X77 ^A | 38 | M5 x 0.8 |
| MHKL2-25□□□□-X77 ^A | 44 | |

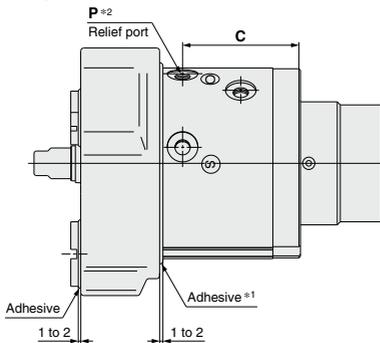
- *1) For -X77B, the body part is not bonded, but only the finger part.
 *2) Use the relief port after being piped.
 *3) For the single acting type, be sure to perform the piping to the breathing port. For the single acting type, the port on one side becomes the breathing port.

Dimensions (Dimensions other than specified below are the same as the standard type.)

MHSJ3-□□D□-X77^A_B
MHSHJ3-□□□□-X77^A_B



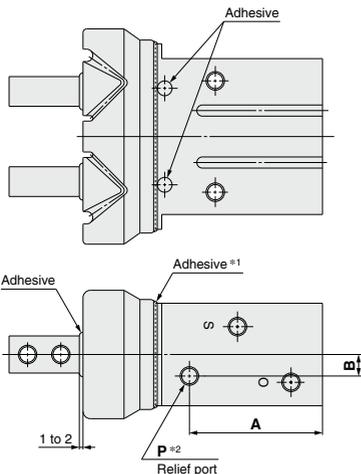
With center pusher



| Model | A | B | C | P |
|---|------|-----|------|----------|
| MHSJ3-16D□-X77 ^A _B | 21 | 25° | — | M3 x 0.5 |
| MHSJ3-20D□-X77 ^A _B | 21 | | — | |
| MHSJ3-25D□-X77 ^A _B | 25 | 20° | — | M5 x 0.8 |
| MHS ₃ -3-32D□□-X77 ^A _B | 28.5 | | 37.5 | |
| MHS ₃ -3-40D□□-X77 ^A _B | 29 | | 38.5 | |
| MHS ₃ -3-50D□□-X77 ^A _B | 38 | | 49 | |
| MHS ₃ -3-63D□□-X77 ^A _B | 41 | | 54 | |
| MHS ₃ -3-80D□□-X77 ^A _B | 45 | 58 | | |

- *1) For -X77B, the body part is not bonded, but only the finger part.
- *2) Use the relief port after being piped.
- *3) Body through-hole mounting is not possible.

MHZJ2-□□□□-X77^A_B



Series MHZJ2

| Model | A | B | P |
|--|----|-----|----------|
| MHZJ2-10□□□□-X77 ^A _B | 27 | 4.2 | M3 x 0.5 |
| MHZJ2-16□□□□-X77 ^A _B | 29 | 4.8 | |
| MHZJ2-20□□□□-X77 ^A _B | 36 | 5.8 | M5 x 0.8 |
| MHZJ2-25□□□□-X77 ^A _B | 43 | 6.8 | |

- *1) For -X77B, the body part is not bonded, but only the finger part.
- *2) Use the relief port after being piped.
- *3) For the single acting type, be sure to perform the piping to the breathing port.

Made to Order Common Specifications: Air Gripper -X78_B: Dust Cover Caulking



12 Dust Cover Caulking (Silicone Caulking Agent Used)

Symbol
-X78

Dustproof and dripproof

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|----------------------------------|-------|---|-------------------------|---------------------|
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHS | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 |
| | With through hole and dust cover | MHSJ3 | Double acting | | P.614 |
| MHZ | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | ø10, ø16, ø20, ø25 only | P.468 |

How to Order

Standard part number for each series **-X78A**

Dust Cover Caulking

How to Order

Standard part number for each series **-X78B**

Dust Cover Caulking/Finger part only

Note 1) For -X78B, caulking is applied to only the finger part.

Note 2) Relief port can be mounted on both -X78A and -X78B.

Note 3) Use the dust cover after being piped to the relief port for dust cover breathing.

Note 4) For the single acting type, be sure to perform the piping to the breathing port.

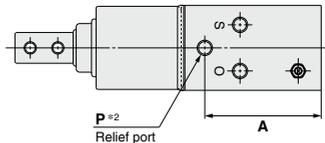
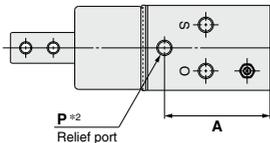
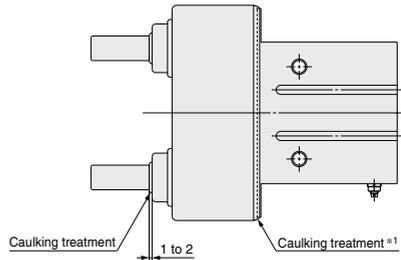
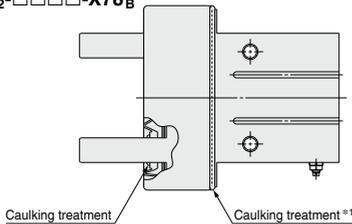
Note 5) For the body option applicable part number of the MHZJ2, only the E type can be applicable.

Specifications

| | |
|----------------|------------------------------------|
| Caulking agent | Silicone adhesive, sealant (white) |
|----------------|------------------------------------|

Dimensions (Dimensions other than specified below are the same as the standard type.)

MHK₁₋₂-□□□□-X78_B^A



| Model | A | P |
|--|------|----------|
| MHK2-12□□□□-X78 _B ^A | 26.5 | M3 x 0.5 |
| MHK2-16□□□□-X78 _B ^A | 28.5 | |
| MHK2-20□□□□-X78 _B ^A | 34.5 | |
| MHK2-25□□□□-X78 _B ^A | 37 | M5 x 0.8 |
| MHKL2-12□□□□-X78 _B ^A | 31 | M3 x 0.5 |
| MHKL2-16□□□□-X78 _B ^A | 33 | |
| MHKL2-20□□□□-X78 _B ^A | 38 | |
| MHKL2-25□□□□-X78 _B ^A | 44 | M5 x 0.8 |

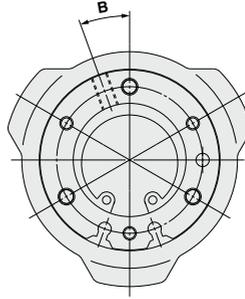
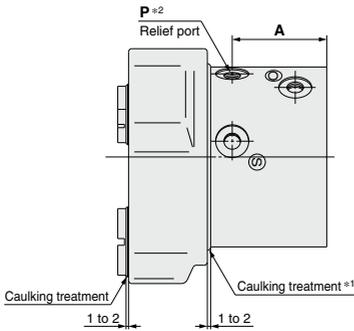
*1) Caulking treatment is not applied to the body of -X78B, but only to the finger part.

*2) Use the relief port after being piped.

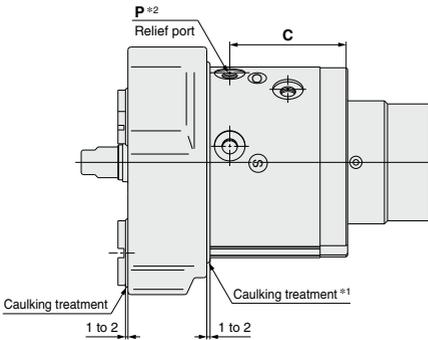
*3) For the single acting type, be sure to perform the piping to the breathing port.

Dimensions (Dimensions other than specified below are the same as the standard type.)

MHSJ3-□□D□-X78[Ⓐ]
MHSJ3-□□□□-X78[Ⓐ]



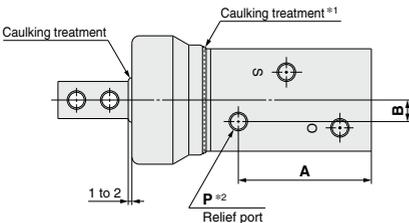
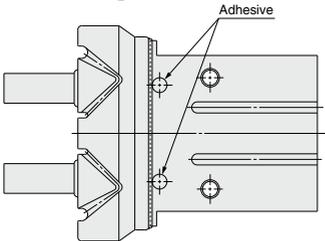
With center pusher



| Model | A | B | C | P |
|--|------|-----|------|----------|
| MHSJ3-16D□-X78 [Ⓐ] | 21 | 25° | — | M3 x 0.5 |
| MHSJ3-20D□-X78 [Ⓐ] | 21 | | — | |
| MHSJ3-25D□-X78 [Ⓐ] | 25 | 20° | — | M5 x 0.8 |
| MHS ₃ -3-32D□□-X78 [Ⓐ] | 28.5 | | 37.5 | |
| MHS ₃ -3-40D□□-X78 [Ⓐ] | 29 | | 38.5 | |
| MHS ₃ -3-50D□□-X78 [Ⓐ] | 38 | | 49 | |
| MHS ₃ -3-63D□□-X78 [Ⓐ] | 41 | | 54 | |
| MHS ₃ -3-80D□□-X78 [Ⓐ] | 45 | | 58 | |

- *1) Caulking treatment is not applied to the body of -X78B, but only to the finger part.
*2) Use the relief port after being piped.
*3) Body through-hole mounting is not possible.

MHZJ2-□□□□-X78[Ⓐ]



Series MHZJ2

| Model | A | B | P |
|------------------------------|----|-----|----------|
| MHZJ2-10□□□-X78 [Ⓐ] | 27 | 4.2 | M3 x 0.5 |
| MHZJ2-16□□□-X78 [Ⓐ] | 29 | 4.8 | |
| MHZJ2-20□□□-X78 [Ⓐ] | 36 | 5.8 | M5 x 0.8 |
| MHZJ2-25□□□-X78 [Ⓐ] | 43 | 6.8 | |

- *1) Caulking treatment is not applied to the body of -X78B, but only to the finger part.
*2) Use the relief port after being piped.
*3) For the single acting type, be sure to perform the piping to the breathing port.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

-Z

MHY

MHW

-X□

MRHQ

MA

D-□

Made to Order Common Specifications: Air Gripper -X79: Grease for Food Processing Machines/Fluorine Grease



13 Grease for Food Processing Machines

Symbol
-X79

Use grease for food processing machines (NSF-H1 certified/fluorine grease).

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| | | MHCM2 | Single acting (Normally open) | | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| | | MHS2 | Double acting | | P.588 |
| MHS | 2-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type | MHSJ3 | Double acting | | P.606 |
| | 3-finger type with dust cover | MHS3 | Double acting | | P.614 |
| | With through hole | MHSH3 | Double acting | | |
| | With through hole and dust cover | MHSHJ3 | Double acting | | P.630 |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.640 |
| | 4-finger type | MHS4 | Double acting | | P.713 |
| MHW | 180° angular style | MHW2 | Double acting | | P.706 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.432 |
| | | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

Standard part number for each series **-X79**

Note) For lubrication, specialized grease GR-H is recommended.

Grease for Food Processing Machines

Specifications

| | |
|--|--|
| Grease | Grease for Food Processing Machines (NSF-H1 certified)/Fluorine Grease |
| Specifications/dimensions other than the above | Same as the standard type for each series |

* If the fluorine grease is not applicable to the working environment, please use "-X79A."

Warning

Handling Precautions

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

Caution

Do not use air grippers in a food-related environment.

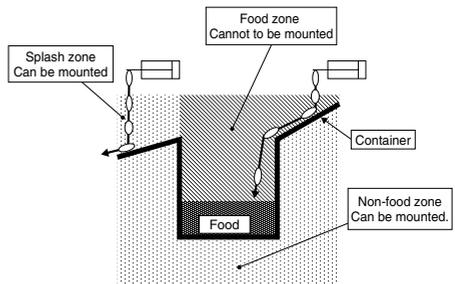
<Cannot be mounted>

Food zone.....Food may directly contact with air grippers, and is treated as food products.

<Can be mounted>

Splash zone.....Food may directly contact with air grippers, but is not treated as food products.

Non-food zone.....Air grippers do not directly contact food.



Made to Order Common Specifications: Air Gripper -X79A: Grease for Food Processing Machines



14 Grease for Food Processing Machines

Symbol
-X79A

Use grease for food processing machines (NSF-H1 certified).

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|--------|--|--------|---|------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| | | MHCM2 | Single acting (Normally open) | | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHK | Wedge cam operation slide guide | MHK2 | Double acting, Single acting (Normally open, Normally closed) | | P.566 |
| | | MHKL2 | Double acting, Single acting (Normally open, Normally closed) | | |
| MHL | Wide opening | MHL2 | Double acting | | P.518 |
| MHS | 2-finger type | MHS2 | Double acting | | P.588 |
| | 3-finger type | MHS3 | Double acting | | P.596 |
| | 3-finger type with dust cover | MHSJ3 | Double acting | | P.606 |
| | With through hole | MHSH3 | Double acting | | P.614 |
| | With through hole and dust cover | MHSHJ3 | Double acting | | |
| | Long stroke 3-finger type | MHSL3 | Double acting | | P.630 |
| | 4-finger type | MHS4 | Double acting | | P.640 |
| MHW | 180° angular style | MHW2 | Double acting | | P.713 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| MHZ | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| | Parallel style with dust cover (compact) | MHZAJ2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

Standard part number for each series – **X79A**

Grease for Food Processing Machines

(Note) For lubrication, specialized grease GR-R is recommended.

Specifications

| | |
|--|--|
| Grease | Grease for Food Processing Machines (NSF-H1 certified)/Aluminum Complex Soap Base Grease |
| Specifications/dimensions other than the above | Same as the standard type for each series |

⚠ Caution

Do not use air grippers in a food-related environment.

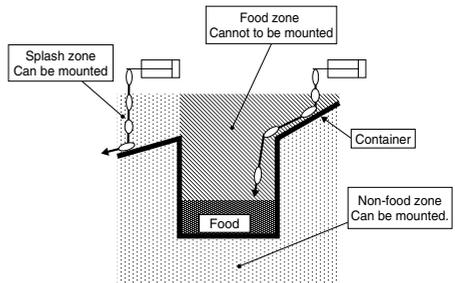
<Cannot be mounted>

Food zone.....Food may directly contact with air grippers, and is treated as food products.

<Can be mounted>

Splash zone.....Food may directly contact with air grippers, but is not treated as food products.

Non-food zone.....Air grippers do not directly contact food.



- MHZ
- MHF
- MHL
- MHR
- MHK
- MHS
- MHC
- MHT-Z
- MHY
- MHW
- X
- MRHQ
- MA
- D-

Made to Order Common Specifications: Air Gripper -X81_A: Anti-corrosive Treatment of Finger



15 Anti-corrosive Treatment of Finger

Symbol
-X81

- Special black chromium treatment
- The finger and guide use the martensitic stainless steel. When anti-corrosive measures better than the martensitic stainless steel level are required, use these series.

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|------------|--|--------------|---|------|---------------------|
| MHC | Angular style | MHC2 | Double acting, Single acting (Normally open) | | P.677 |
| | | MHCA2 | Double acting, Single acting (Normally open) | | P.666 |
| | | MHCM2 | Single acting (Normally open) | | P.675 |
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| MHY | 180° angular style cam style | MHY2 | Double acting | | P.706 |
| | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| MHZ | Parallel style with dust cover (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | |
| | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |
| | Parallel style with dust cover | MHZJ2 | Double acting, Single acting (Normally open, Normally closed) | | P.468 |

How to Order

Standard part number for each series **-X81A**

Anti-corrosive Treatment of Finger •

Applicable Series

| Series | Description | Model | Action | Note | Standard model page |
|------------|------------------------------|--------------|---|------|---------------------|
| MHF | Low profile | MHF2 | Double acting | | P.496 |
| | Parallel style (compact) | MHZA2 | Double acting, Single acting (Normally open, Normally closed) | | P.432 |
| MHZ | Parallel style | MHZ2 | Double acting, Single acting (Normally open, Normally closed) | | P.441 to 443 |
| | Parallel style (long stroke) | MHZL2 | Double acting, Single acting (Normally open, Normally closed) | | P.458 |

How to Order

Standard part number for each series **-X81B**

Anti-corrosive Treatment of Finger and Guide •

Specifications

| | |
|--|---|
| Treatment | Special black chromium treatment |
| Specifications/dimensions other than the above | Same as the standard type for each series |