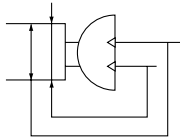


Rotary Actuated Air Gripper 3-Finger Type *Series MHR3/MDHR3*



JIS Symbol



Made to Order

Refer to page 683 to 713 for details.

Symbol	Specifications/Description
-X32	Countermeasure for condensation
-X63	Fluorine grease

Model/Specifications

Nominal size		10	15
Action		Double acting	
Holding force (N) (Effective value) ⁽¹⁾ at 0.5 MPa	External grip	7	13
	Internal grip	6.5	12
Opening/Closing stroke (Diameter)	Finger closing width (mm)	16	19
	Finger opening width (mm)	22	27
	Stroke (mm)	6	8
Mass (g) ⁽²⁾		120 (125)	225 (230)
Connection port		M3 x 0.5	
Repeatability		± 0.01 mm	
Fluid		Air	
Operating pressure		0.2 to 0.6 MPa	0.15 to 0.6 MPa
Ambient and fluid temperature		0 to 60 °C	
Max. operating frequency		180 c.p.m	
Lubrication		Non-lube	



Note 1) Refer to page 506 "Effective Gripping Force" for details of gripping force at each gripping point.

Valve of effective gripping force is measured at the middle of opening/closing stroke.

Note 2) () Value shows MDHR mass, but it does not include auto switch mass.

When the finger opening/closing speed is set as the total stroke of 0.2 seconds or more, it may cause the product to stick or completely stop its movement.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

MA

D-□



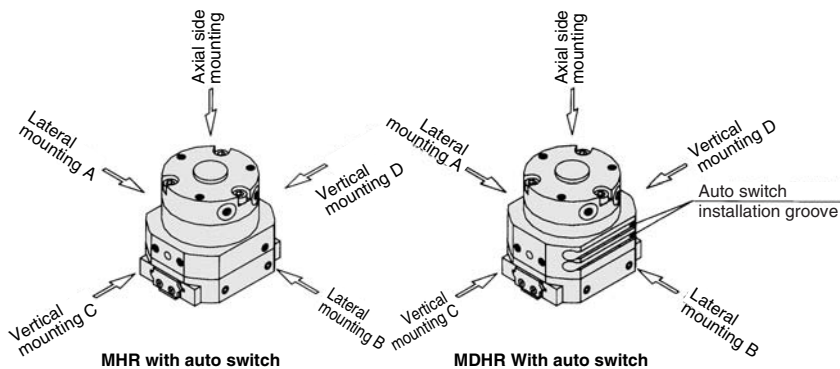
Series MHR2, MDHR2/MHR3, MDHR3

Specific Product Precautions

Be sure to read before handling.

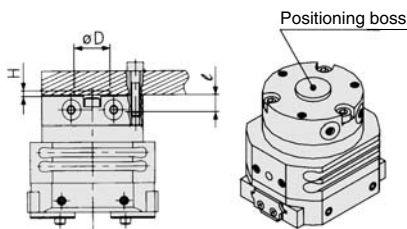
Mounting Air Grippers/MHR2/MHR3

Mounting direction of each model is different. Refer to the table at right.



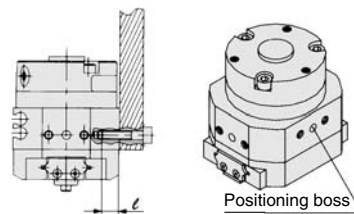
Model	Axial side mounting	Lateral mounting		Vertical mounting	
		A	B	C	D
MHR2-□	●	●	—	●	●
MHR3-□	●	—	—	—	—
MDHR2-□	●	●	—	●	●
MDHR3-□	●	●	●	—	●

Axial side mounting



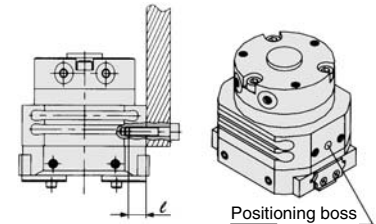
Model		Applicable bolt	Max. tightening torque N·m	Max. screw-in depth ℓmm	Positioning boss		
					Dmm	Hmm	
MHR	2	-10	M3 x 0.5	0.88	6	9h9 ⁰ _{-0.036}	1
		-15				12h9 ⁰ _{-0.043}	1.5
		MDHR	3	-20	M4 x 0.7	2.1	8
-30	M5 x 0.8			4.3	10	16h9 ⁰ _{-0.043}	1
-10	M3 x 0.5			0.88	6	9h9 ⁰ _{-0.036}	1
-15		12h9 ⁰ _{-0.043}	1.5				

Lateral mounting



Model		Applicable bolt	Max. tightening torque N·m	Max. screw-in depth ℓmm	Positioning boss		
					Bore Depth dmm	Bore Depth hmm	
MHR	2	-10	M3 x 0.5	0.88	6	3 ^{+0.02} ₀	6
		-15					
		-20	M4 x 0.7	2.1	8	4 ^{+0.02} ₀	8
MDHR	3	-30	M5 x 0.8	4.3	10	5 ^{+0.02} ₀	10
		-10					
		-15	M3 x 0.5	0.88	6	3 ^{+0.02} ₀	6

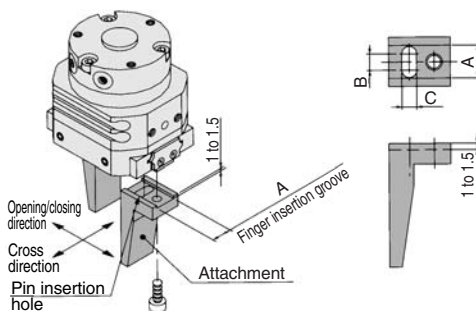
Vertical mounting



Model		Applicable bolt	Max. tightening torque N·m	Max. screw-in depth ℓmm	Positioning boss		
					Bore Depth dmm	Bore Depth hmm	
MHR	2	-10	M3 x 0.5	0.88	6	3 ^{+0.02} ₀	6
		-15					
		-20	M4 x 0.7	2.1	8	4 ^{+0.02} ₀	8
MDHR	3	-10	M5 x 0.8	4.3	10	5 ^{+0.02} ₀	10
		-30					
		-15	M3 x 0.5	0.88	6	3 ^{+0.02} ₀	6

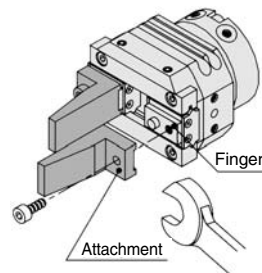
How to Locate Finger and Attachment

- **Positioning in the finger's open/close direction**
Position the finger and the attachment by inserting the finger's pin into the attachment's pin insertion hole. Provide the following pin insertion hole dimensions: shaft-basis fitting dimension C for the open/close direction; slotted hole with relief B for the cross direction.
- **Positioning in the finger's cross direction**
Position the finger and the attachment by placing the finger's width into the attachment's finger insertion groove A.



How to Mount the Attachment to the Finger

- To mount the attachment to the finger, make sure to use a wrench to support the attachment so as not to apply undue strain on the finger.
- Refer to the table below for the proper tightening torque on the bolt used for securing the attachment to the finger.



Model			Applicable bolt	Max. tightening torque N·m
MHR	2	-10	M3 x 0.5	0.59
		-15		
		-20	M4 x 0.7	1.4
MDHR	3	-30	M5 x 0.8	2.8
		-10		
		-15	M3 x 0.5	0.59

Finger opening/closing speed: MHR2/MHR3

When the finger opening/closing speed is set as the total stroke of 0.2 seconds or more, it may cause the product to stick or completely stop its movement.