

Parallel Type Air Gripper 3-Finger Type Through-hole Type **MHSH3 Series** ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80

How to Order

MHSH 3 - 32 D - M9BW

Through-hole • Dust cover • Number of fingers • Port thread type • Bore size • Action • Center pusher • Dust cover type (with dust cover only) • Auto switch • Number of auto switches • Made to Order

Nil	None
J	With dust cover

Note) ø16, ø20 and ø25 are not available with dust cover.

3	3 fingers
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Symbol	Type	Cylinder bore
Nil	M thread	ø16 to ø63
	Rc	
TN	NPT	ø80
TF	G	

Nil	Without center pusher
A	Cylinder type
B	Spring type

Note) ø16, ø20 and ø25 are not available with center pusher.

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicone rubber

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Note) Symbol entry examples when mounting auto switches on air gripper with cylinder type center pusher

- Air gripper unit 1 pc.
Center pusher unit 1 pc. } Total of 2 pcs. → Nil
MHSH3-32DA-M9N
- Air gripper unit 2 pcs.
Center pusher unit 2 pcs. } Total of 4 pcs. → Enter "4"
MHSH3-32DA-M9N4

Nil	Without auto switch (Built-in magnet)
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Applicable Auto Switches /Refer to pages 797 to 850 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)*					Pre-wired connector	Applicable load			
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)						
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit			
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○				
				2-wire				M9BV	M9B	●	●	●	○	○				
				3-wire (NPN)				M9NVV	M9NV	●	●	●	○	○		IC circuit		
				3-wire (PNP)				M9PVV	M9PV	●	●	●	○	○				
				2-wire				M9BVV	M9BV	●	●	●	○	○		—		
	Diagnostic (2-color indicator)			Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV**	M9NA**	○	○	●	○	○	IC circuit	
						3-wire (PNP)				M9PAV**	M9PA**	○	○	●	○	○		
						2-wire				M9BAV**	M9BA**	○	○	●	○	○		
						3-wire (NPN)						○	○	○	○	○		—
						3-wire (PNP)						○	○	○	○	○		
						2-wire						○	○	○	○	○		

** Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWX

* Auto switches marked with a "○" symbol are produced upon receipt of order.

Note) When using the 2-color indicator type, please make the setting so that the indicator is lit in red to ensure the detection at the proper position of the air gripper.

Center pusher assembly

MHSH 3 - A 50 A - M9BW

Through-hole • Number of fingers • Bore size • Center pusher assembly • Center pusher • Auto switch (Cylinder type only) • Number of auto switches • Made to Order

3	3 fingers
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32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm

A	Cylinder type
B	Spring type

Nil	2 pcs.
S	1 pc.

Nil	Without auto switch (Built-in magnet)
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* For the applicable auto switch model, refer to the table below.

Applicable Auto Switches /Refer to pages 797 to 850 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)*					Pre-wired connector	Applicable load			
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)						
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit			
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○				
				2-wire				M9BV	M9B	●	●	●	○	○				
				3-wire (NPN)				M9NVV	M9NV	●	●	●	○	○		IC circuit		
				3-wire (PNP)				M9PVV	M9PV	●	●	●	○	○				
				2-wire				M9BVV	M9BV	●	●	●	○	○		—		
	Diagnostic (2-color indicator)			Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV**	M9NA**	○	○	●	○	○	IC circuit	
						3-wire (PNP)				M9PAV**	M9PA**	○	○	●	○	○		
						2-wire				M9BAV**	M9BA**	○	○	●	○	○		
						3-wire (NPN)						○	○	○	○	○		—
						3-wire (PNP)						○	○	○	○	○		
						2-wire						○	○	○	○	○		

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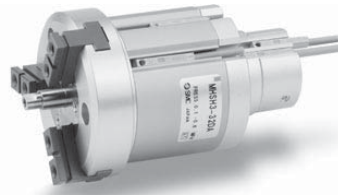
Note) When using the 2-color indicator type, please make the setting so that the indicator is lit in red to ensure the detection at the proper position of the air gripper.

Model/Specifications

Without center pusher

Center pusher/Cylinder type

Center pusher/Spring type



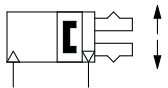
Air Gripper Specifications

Model	MHSH3-16D	MHSH3-20D	MHSH3-25D	MHSH3-32D	MHSH3-40D	MHSH3-50D	MHSH3-63D	MHSH3-80D	
Cylinder bore size (mm)	16	20	25	32	40	50	63	80	
Fluid	Air								
Operating pressure (MPa)	0.2 to 0.6			0.1 to 0.6					
Ambient and fluid temperature (°C)	- 10 to 60								
Repeatability (mm)	±0.01								
Max. operating frequency (c.p.m.)	120			60				30	
Lubrication	Not required								
Action	Double acting								
Effective gripping force (N) (Note 1) at 0.5 MPa	External hold	9	21	36	62	97	155	280	400
	Internal hold	15	26	45	77	118	187	329	490
Through hole diameter (mm)	ø3H10 ^{+0.040} ₀	ø3H10 ^{+0.040} ₀	ø4H10 ^{+0.048} ₀	ø6H10 ^{+0.048} ₀	ø10H10 ^{+0.058} ₀	ø12H10 ^{+0.070} ₀	ø16H10 ^{+0.070} ₀	ø20H10 ^{+0.084} ₀	
Opening/Closing stroke (dia.) (mm)	4	4	6	8	8	12	16	20	
Weight (g)	90	140	220	410	570	970	1,650	2,920	

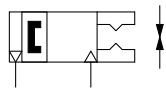
Note 1) Values for ø16 to ø25 are with gripping point L = 20 mm, for ø32 to ø63 with gripping point L = 30 mm, and for ø80 with gripping point L = 50 mm. Refer to "Effective Gripping Force" data on pages 606 to 609 for the gripping force at each gripping position.

Symbol

Double acting:
Internal grip



Double acting:
External grip



Made to Order
[Click here for details](#)

Symbol	Specifications/Description
-X4	Heat resistance (100°C)
-X5	Fluororubber seal
-X50	Without magnet
-X53	EPDM seal/Fluorine grease
-X56	Axial ported
-X63	Fluorine grease
-X77A	Dust cover adhesion
-X77B	Dust cover adhesion (Finger part only)
-X78A	Dust cover caulking
-X78B	Dust cover caulking (Finger part only)
-X79	Grease for food processing machines, Fluorine grease
-X79A	Grease for food processing machines

Refer to pages 636 to 643 for the specifications of products with auto switches.

- Auto switch installation examples and mounting positions
- Auto switch hysteresis
- Auto switch mounting
- Protrusion of auto switch from edge of body

Center Pusher (Cylinder type) Specifications

Model	MHSH3-32DA	MHSH3-40DA	MHSH3-50DA	MHSH3-63DA	MHSH3-80DA	
Pusher cylinder bore size (mm)	12	20	25	32	40	
Fluid	Air					
Operating pressure (MPa)	0.2 to 0.6	0.1 to 0.6				
Ambient and fluid temperature (°C)	- 10 to 60					
Pusher maximum operating frequency (c.p.m.)	60				30	
Lubrication	Not required					
Action	Double acting					
Pusher stroke (mm)	5	5	10	10	15	
Pusher thrust (N) at 0.5 MPa	Extension	45	130	204	335	524
Weight (g)	530	770	1,330	2,300	4,000	

Center Pusher (Spring type) Specifications

Model	MHSH3-32DB	MHSH3-40DB	MHSH3-50DB	MHSH3-63DB	MHSH3-80DB
Pusher stroke (mm)	5	5	10	10	15
Pusher spring force (N)	6 to 10	11 to 15	20 to 25	29 to 34	49 to 59
Weight (g)	500	740	1,290	2,250	4,000

Weight

	ø32	ø40	ø50	ø63	ø80
Through-hole with dust cover MHSHJ3-□D	430	600	1,020	1,710	3,040
Center pusher (cylinder type) with dust cover MHSHJ3-□DA	550	800	1,380	2,360	4,120
Center pusher (spring type) with dust cover MHSHJ3-□DB	520	770	1,340	2,310	4,120

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

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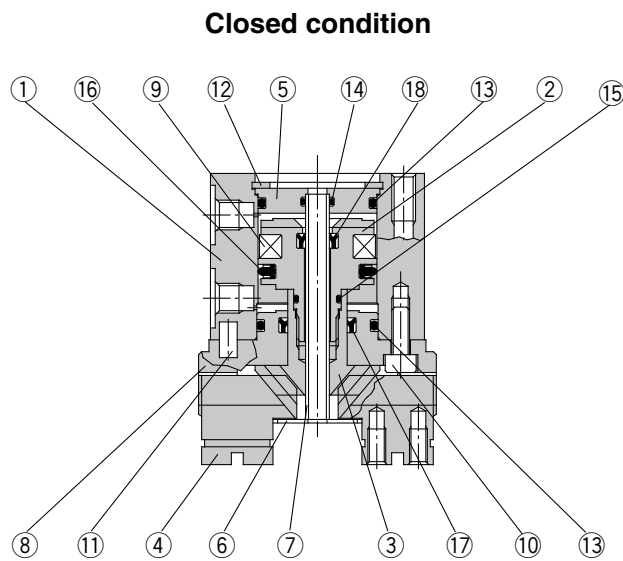
MRHQ

MA

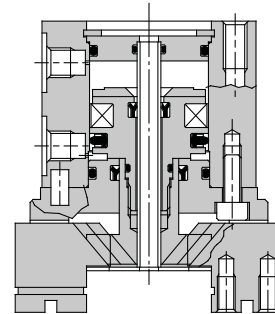
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MHSH3 Series

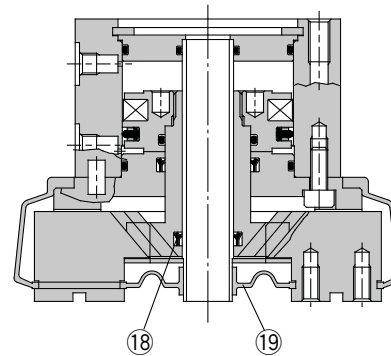
Construction



ø16 to ø25 Open condition



ø32 to ø80 Open condition



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Hard anodized
2	Piston	ø16 to ø25: Stainless steel	Hard anodized
		ø32 to ø80: Aluminum alloy	
3	Cam (A)	Carbon steel	Heat treated, Specially treated
4	Finger	Carbon steel	Heat treated, Specially treated
5	Cap (A)	Aluminum alloy	Hard anodized
6	End plate (A)	Stainless steel	
7	Tubing	Stainless steel	
8	Guide	Aluminum alloy	Hard anodized
9	Magnet	—	
10	Hexagon socket head bolt	Carbon steel	Zinc chromated
11	Parallel pin	Stainless steel	
12	Type C retaining ring	Carbon steel	Nickel plated

No.	Description	Material	Note
13	Gasket	NBR	
14	Gasket	NBR	
15	Gasket	NBR	
16	Piston seal	NBR	
17	Rod seal	NBR	
18	Rod seal	NBR	
19	Dust cover	CR/FKM/SI	

Replacement Parts

Description		MHSH3-16D	MHSH3-20D	MHSH3-25D	MHSH3-32D MHSHJ3-32D	Main parts
Seal kit		MHSH16-PS	MHSH20-PS	MHSH25-PS	MHSH32-PS	13 14 15 16 17 18
Dust cover	Material	—	—	—	MHSHJ3-J32	19
	CR				MHSHJ3-J32F	
	FKM Silicone rubber				MHSHJ3-J32S	
Finger		P3316054	P3316154	P3316254	P3316354	4
Cam (A)		P3316053	P3316153	P3316253	P3316353	3
Piston assembly		MHS-A1603	MHS-A2003	MHS-A2503	MHS-A3203	2 9
Cap		MHSH-A1614	MHSH-A2014	MHSH-A2514	MHSH-A3214	5

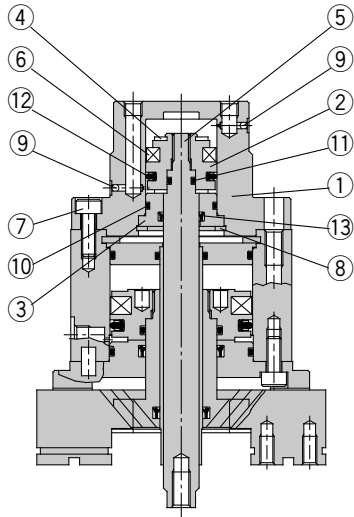
Description		MHSH3-40D MHSHJ3-40D	MHSH3-50D MHSHJ3-50D	MHSH3-63D MHSHJ3-63D	MHSH3-80D MHSHJ3-80D	Main parts
Seal kit		MHSH40-PS	MHSH50-PS	MHSH63-PS	MHSH80-PS	13 14 15 16 17 18
Dust cover	Material	—	—	—	MHSHJ3-J40	19
	CR				MHSHJ3-J40F	
	FKM Silicone rubber				MHSHJ3-J40S	
Finger		P3316454	P3316554	P3316654	P3316754	4
Cam (A)		P3316453	P3316553	P3316653	P3316753	3
Piston assembly		MHS-A4003	MHS-A5003	MHS-A6303	MHS-A8003	2 9
Cap		MHSH-A4014	MHSH-A5014	MHSH-A6314	MHSH-A8014	5

* Order 3 pieces of fingers for one unit.

Replacement part/Grease pack part no.: MH-G01 (30 g)

Construction

Center pusher/Cylinder type



Component Parts

No.	Description	Material	Note
1	Push holder (P)	Aluminum alloy	Hard anodized
2	Piston (P)	Aluminum alloy	Hard anodized
3	Rod holder	Aluminum alloy	Hard anodized
4	Bumper	Urethane rubber	
5	Push rod (P)	Stainless steel	Hard chromed
6	Rubber magnet	Synthetic rubber	
7	Hexagon socket head bolt	Carbon steel	Zinc chromated
8	Type C retaining ring	Carbon steel	Nickel plated
9	Steel balls	Stainless steel	
10	Gasket	NBR	
11	Gasket	NBR	
12	Piston seal	NBR	
13	Rod seal	NBR	

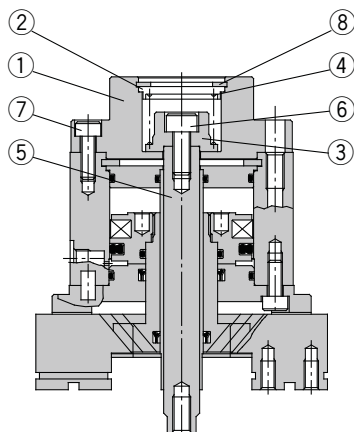
Replacement Parts: Seal Kit (Center pusher/Cylinder type)

Part no.					Description
MHSH3-A32A	MHSH3-A40A	MHSH3-A50A	MHSH3-A63A	MHSH3-A80A	
MHSH32A-PS	MHSH40A-PS	MHSH50A-PS	MHSH63A-PS	MHSH80A-PS	A set of the above nos. ⑩, ⑪, ⑫ & ⑬

* Seal kits are sets consisting of items ⑩, ⑪, ⑫ and ⑬, and can be ordered using the kit number for each cylinder bore size.
Replacement part/Grease pack part no.: MH-G01 (30 g)

Construction

Center pusher/Spring type



Component Parts

No.	Description	Material	Note
1	Push holder (S)	Aluminum alloy	Hard anodized
2	Cap (S)	Stainless steel	
3	Spring holder	Stainless steel	
4	Spring	Stainless steel	
5	Push rod (S)	Stainless steel	Hard chromed
6	Hexagon socket head bolt	Carbon steel	Zinc chromated
7	Hexagon socket head bolt	Carbon steel	Zinc chromated
8	Type C retaining ring	Carbon steel	Nickel plated

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

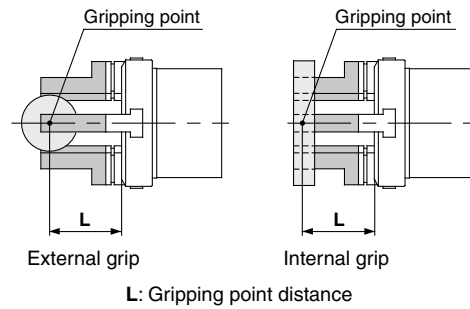
MA

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MHSH3 Series

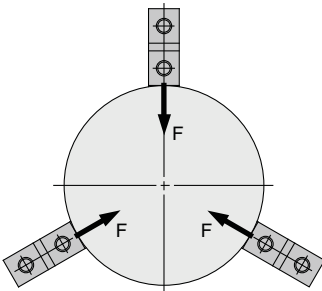
Gripping Point

- The workpiece gripping point distance should be within the gripping force ranges given for each pressure in the effective gripping force graphs below.
- If operated with the workpiece gripping point beyond the indicated ranges, an excessive offset load will be applied to the sliding section of the fingers, which can have an adverse effect on the service life of the product.

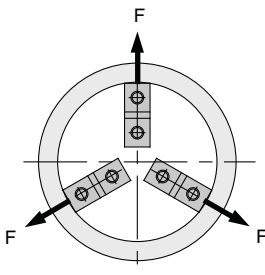


Effective Gripping Force

- Indication of effective gripping force
The effective gripping force shown in the graphs to the right is expressed as F , which is the thrust of one finger when all 3 of the fingers and attachments are in full contact with the workpiece as shown in the figure below.



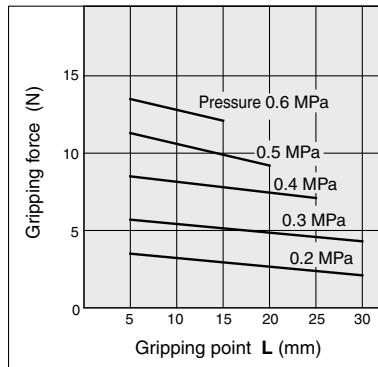
External grip



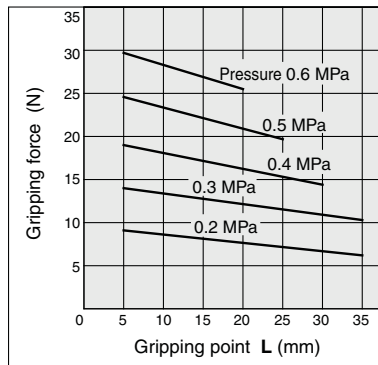
Internal grip

External Gripping Force

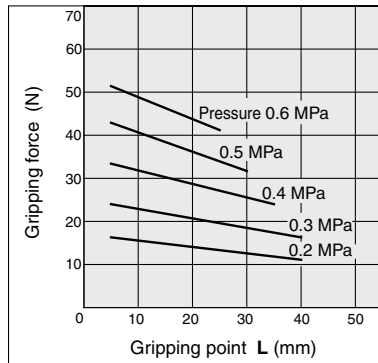
MHSH3-16D



MHSH3-20D

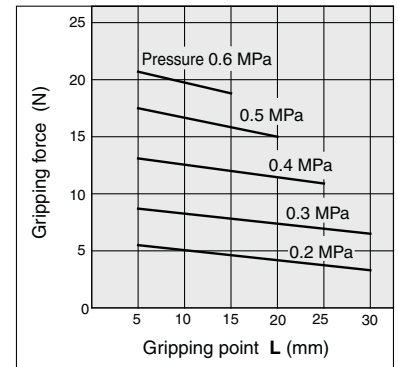


MHSH3-25D

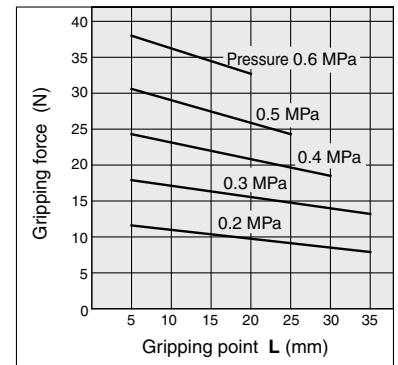


Internal Gripping Force

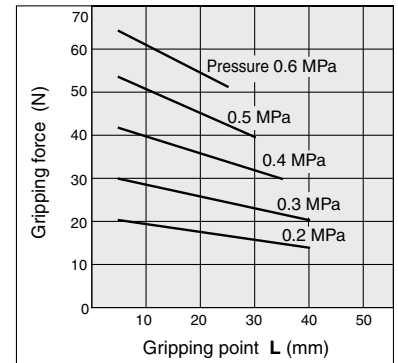
MHSH3-16D



MHSH3-20D

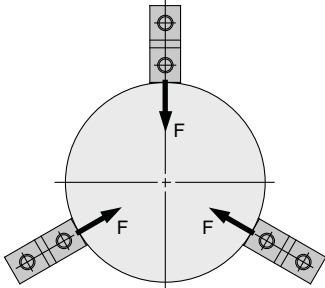


MHSH3-25D

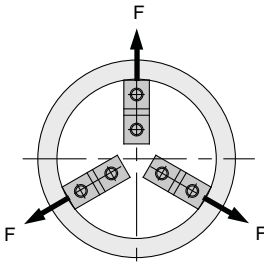


Effective Gripping Force

• Indication of effective gripping force
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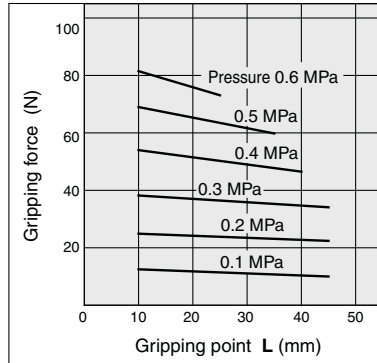
External grip



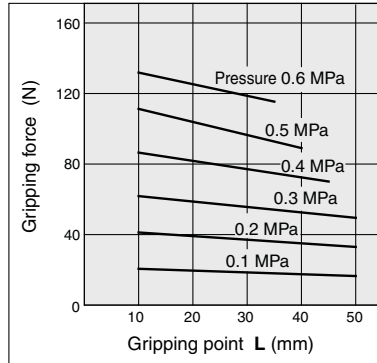
Internal grip

External Gripping Force

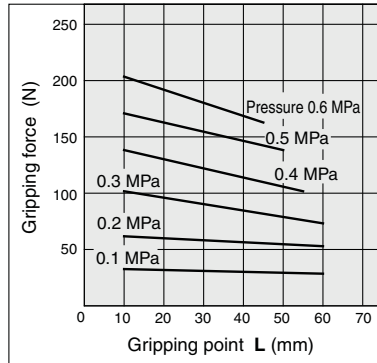
MHSH3-32D



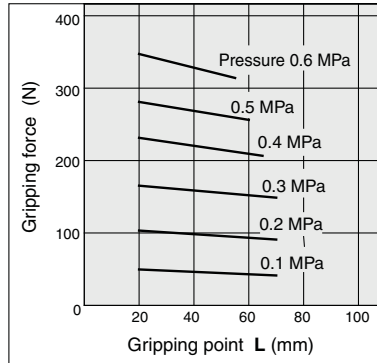
MHSH3-40D



MHSH3-50D

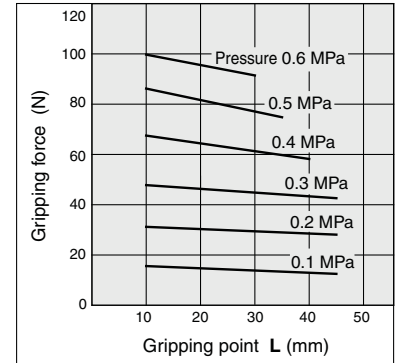


MHSH3-63D

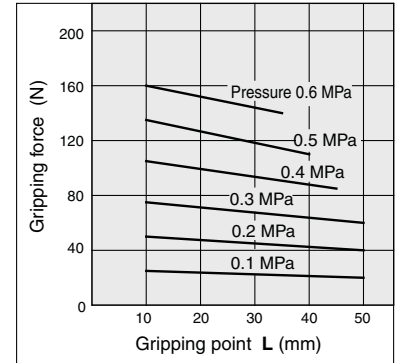


Internal Gripping Force

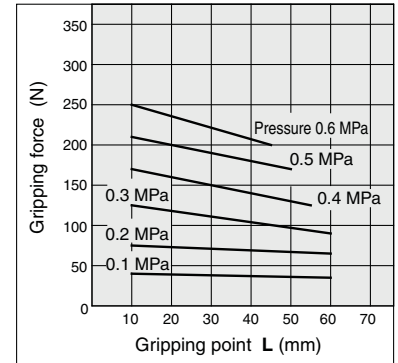
MHSH3-32D



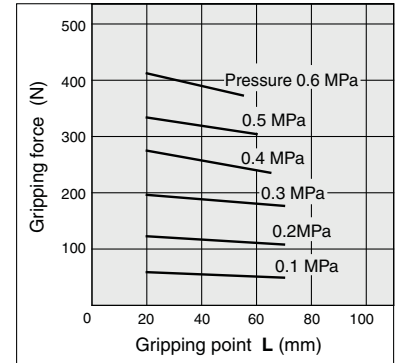
MHSH3-40D



MHSH3-50D



MHSH3-63D



MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

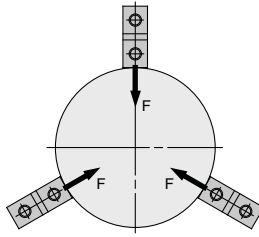
MA

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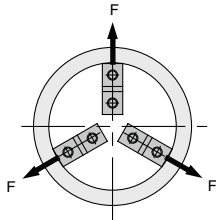
MHSH3 Series

Effective Gripping Force

- Indication of effective gripping force
The effective gripping force shown in the graphs to the right is expressed as F, which is the thrust of one finger when all 3 of the fingers and attachments are in full contact with the workpiece as shown in the figure below.

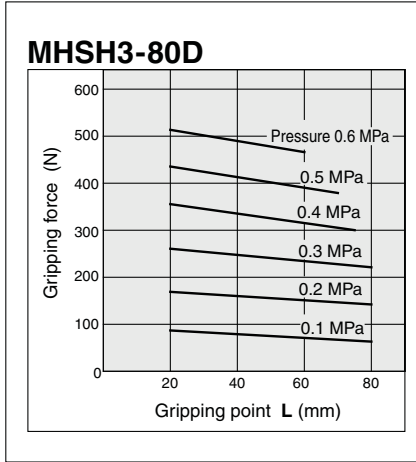


External grip

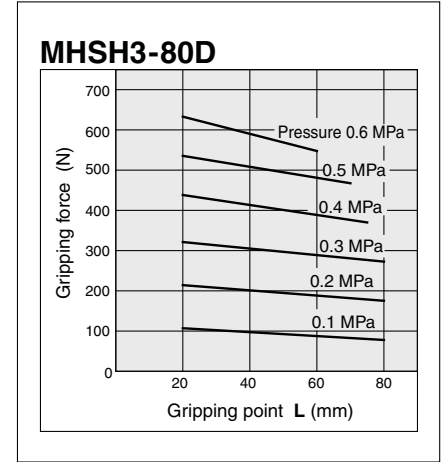


Internal grip

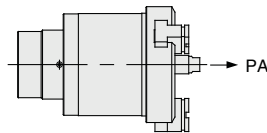
External Gripping Force



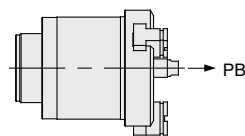
Internal Gripping Force



Effective Thrust of Center Pusher

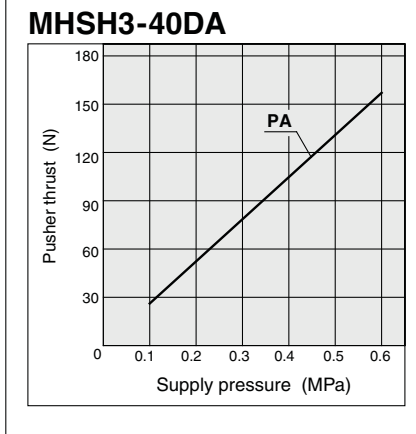
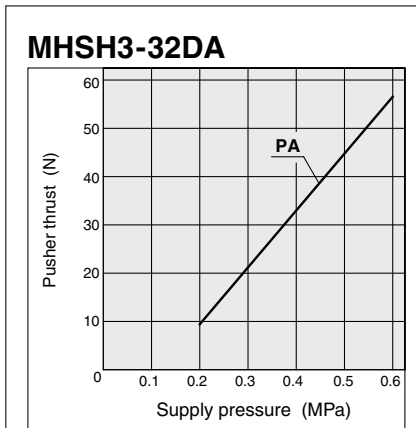


PA: Pusher thrust

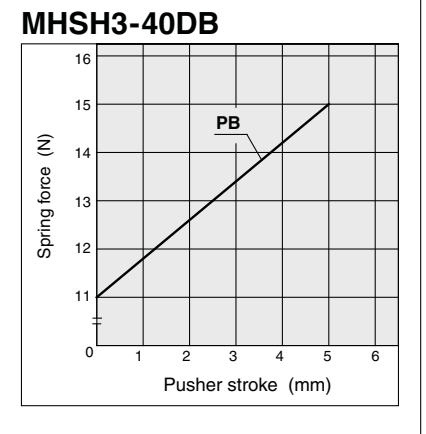
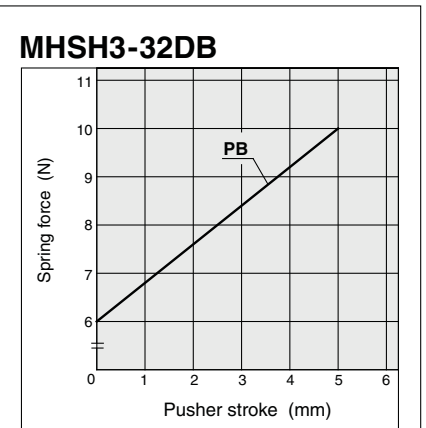


PB: Spring force

Cylinder Type ^{Note)}

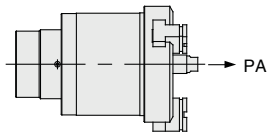


Spring Type

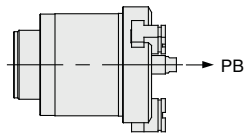


Note) The thrust of the cylinder type is on extension of the push rod.

Effective Thrust of Center Pusher



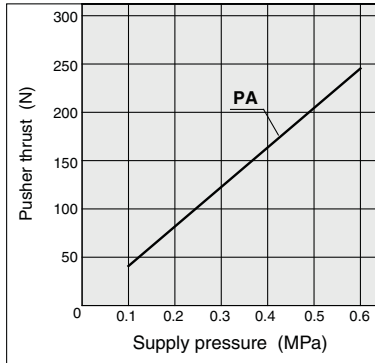
PA: Pusher thrust



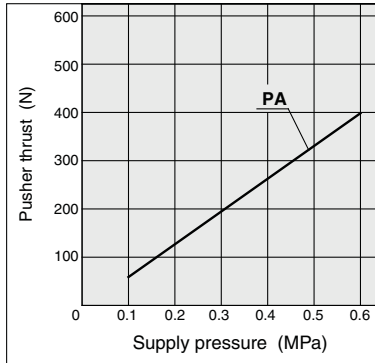
PB: Spring force

Cylinder Type Note)

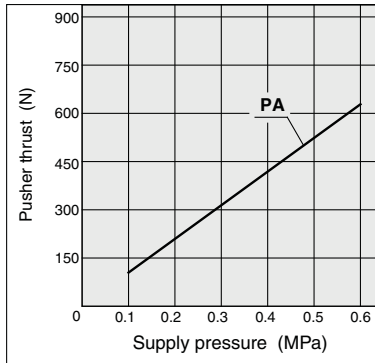
MHSH3-50DA



MHSH3-63DA

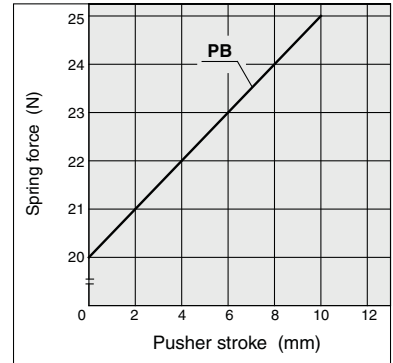


MHSH3-80DA

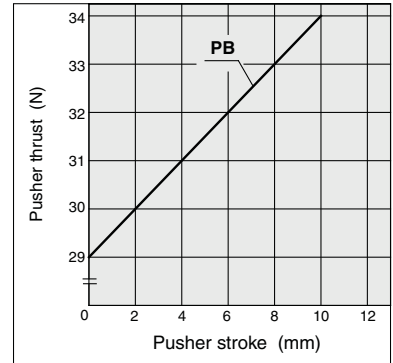


Spring Type

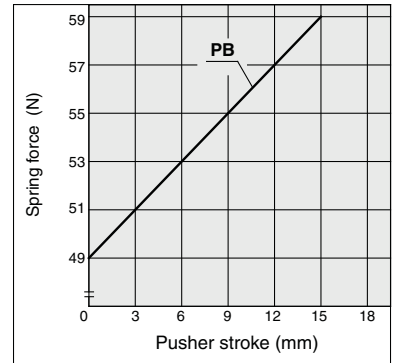
MHSH3-50DB



MHSH3-63DB



MHSH3-80DB



Note) The thrust of the cylinder type is on extension of the push rod.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

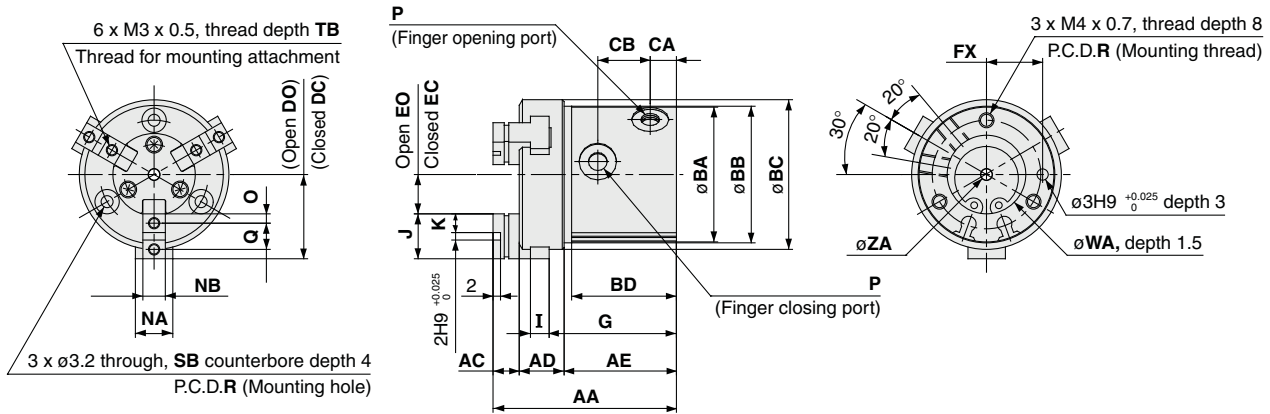
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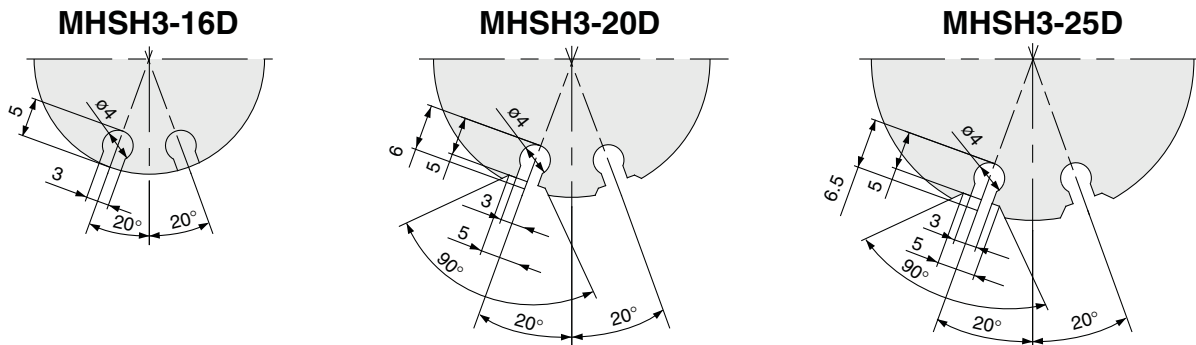
MHSH3 Series

Dimensions

MHSH3-16D to 25D



Auto switch mounting groove dimensions (2 locations)



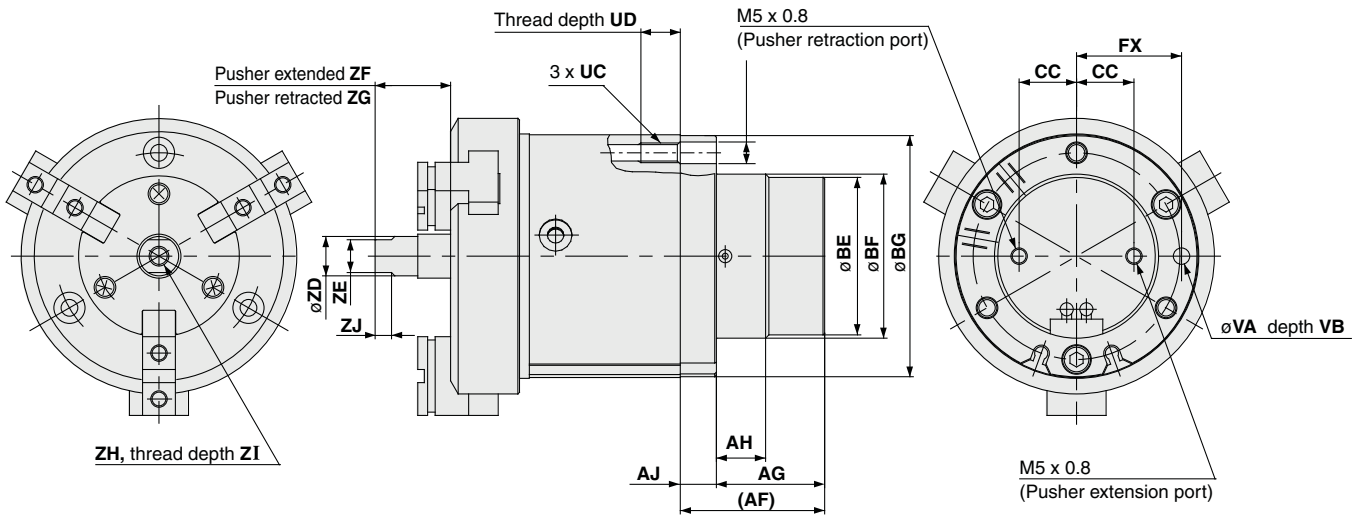
Model	AA	AC	AD	AE	BA	BB	BC	BD	CA	CB	DC	DO	EC	EO	FX	G	I	J	K	NA	NB
MHSH3-16D	46	7	10.5	28.5	30	30.5	34	27	7	14	17.5	19.5	7.5	9.5	12	32	4	10	4	8	5h9 $^{+0.030}_0$
MHSH3-20D	49	7	12	30	36	36.5	40	28	7	14	20	22	8	10	15	34	5	12	5	10	6h9 $^{+0.030}_0$
MHSH3-25D	55	8	13	34	42	42.5	47	32	7.5	17.5	23.5	26.5	9.5	12.5	18	38	5	14	6	12	6h9 $^{+0.030}_0$

Model	O	P	Q	R	SB	TB	WA	ZA
MHSH3-16D	2	M3 x 0.5	6	24	6	5	17H9 $^{+0.043}_0$	3H10 $^{+0.040}_0$
MHSH3-20D	2.5	M5 x 0.8	7	29	6.5	6	21H9 $^{+0.052}_0$	3H10 $^{+0.040}_0$
MHSH3-25D	3	M5 x 0.8	8	34	6.5	6	26H9 $^{+0.052}_0$	4H10 $^{+0.048}_0$

MHSH3 Series

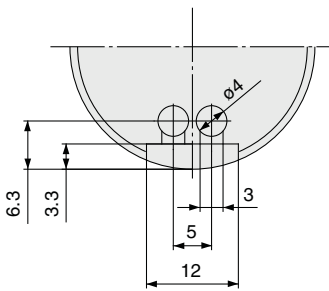
Dimensions: Center Pusher/Cylinder Type

MHSH3-32DA to 80DA

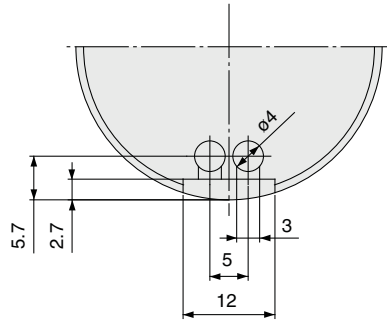


Center pusher auto switch mounting groove dimensions (2 locations)

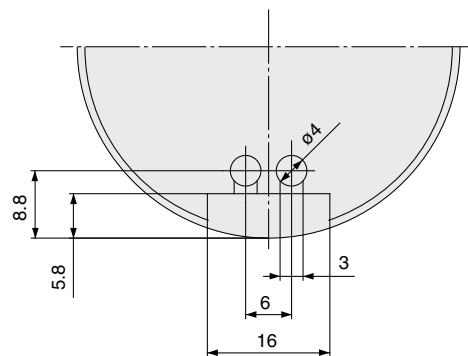
MHSH3-32DA



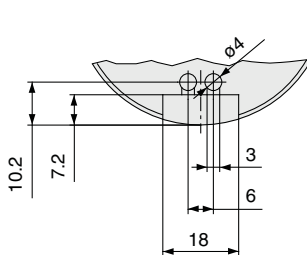
MHSH3-40DA



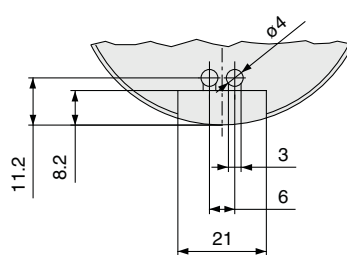
MHSH3-50DA



MHSH3-63DA



MHSH3-80DA

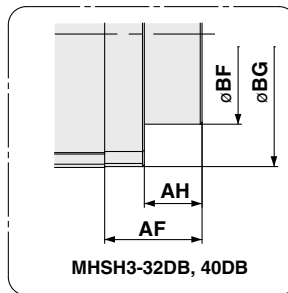
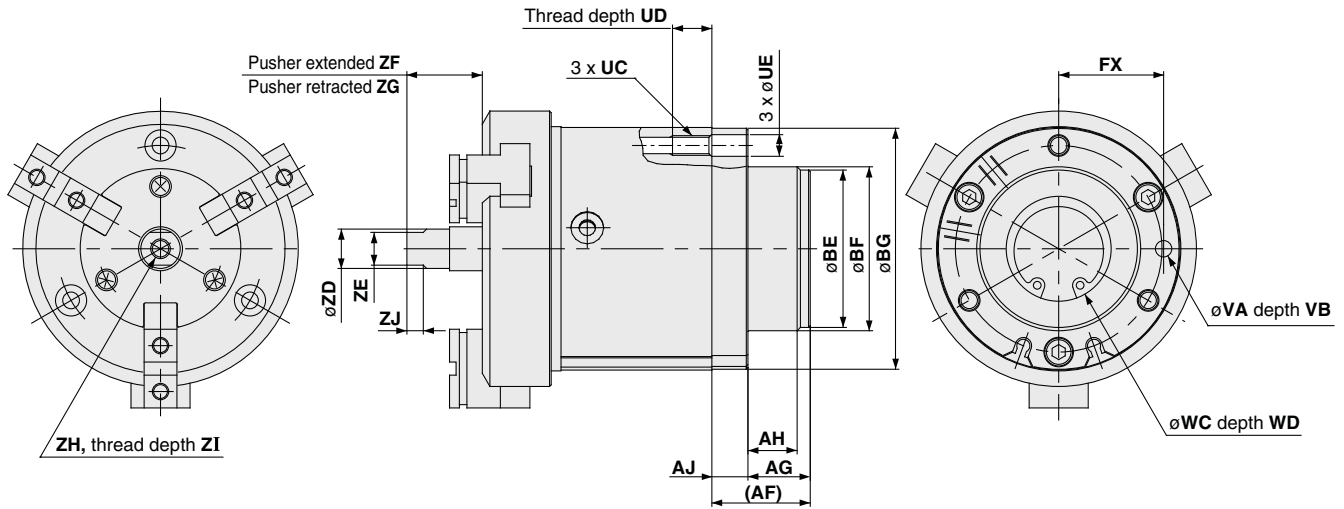


Note) For dimensions, refer to the MHSH3-32 to 80D dimensions on page 611.

Model	AF	AG	AH	AJ	BE	BF	BG	CC	FX	UC	UD	UE	VA	VB	ZD	ZE	ZF	ZG	ZH	ZI	ZJ
MHSH3-32DA	35	26	9	9	30	32h9 _{-0.062}	53.5	9.5	22	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	6	5	20	15	M3 x 0.5	6	3.5
MHSH3-40DA	36	27	12	9	38	40h9 _{-0.062}	61.5	13.5	26	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	10	8	21	16	M5 x 0.8	10	4.5
MHSH3-50DA	44	33	15	11	48	50h9 _{-0.062}	73.5	17.5	32	M6 x 1	12	6.6	5H9 ₀ ^{+0.030}	5	12	10	28	18	M6 x 1	12	5
MHSH3-63DA	48	35	18	13	58	60h9 _{-0.074}	91.5	20	40	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	16	14	32	22	M8 x 1.25	16	7
MHSH3-80DA	58	45	20	13	68	70h9 _{-0.074}	111.5	25	50	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	20	17	41	26	M10 x 1.5	20	8

Dimensions: Center Pusher/Spring Type

MHSH3-32DB to 80DB



Note) For dimensions, refer to the MHSH3-32 to 80D dimensions on page 611.

Model	AF	AG	AH	AJ	BE	BF	BG	FX	UC	UD	UE	VA	VB	WC	WD	ZD	ZE	ZF	ZG
MHSH3-32DB	18	—	9	9	—	32h9 ₀ ^{-0.062}	53.5	22	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	20 ₀ ^{+0.1}	1.5	6	5	20	15
MHSH3-40DB	21	—	12	9	—	40h9 ₀ ^{-0.062}	61.5	26	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	24 ₀ ^{+0.1}	1.5	10	8	21	16
MHSH3-50DB	30	19	15	11	48	50h9 ₀ ^{-0.062}	73.5	32	M6 x 1	12	6.6	5H9 ₀ ^{+0.030}	5	32 ₀ ^{+0.1}	1.5	12	10	28	18
MHSH3-63DB	35	22	18	13	58	60h9 ₀ ^{-0.074}	91.5	40	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	42 ₀ ^{+0.1}	2	16	14	32	22
MHSH3-80DB	48	35	20	13	68	70h9 ₀ ^{-0.074}	111.5	50	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	52 ₀ ^{+0.1}	2	20	17	41	26

Model	ZH	ZI	ZJ
MHSH3-32DB	M3 x 0.5	6	3.5
MHSH3-40DB	M5 x 0.8	10	4.5
MHSH3-50DB	M6 x 1	12	5
MHSH3-63DB	M8 x 1.25	16	7
MHSH3-80DB	M10 x 1.5	20	8

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

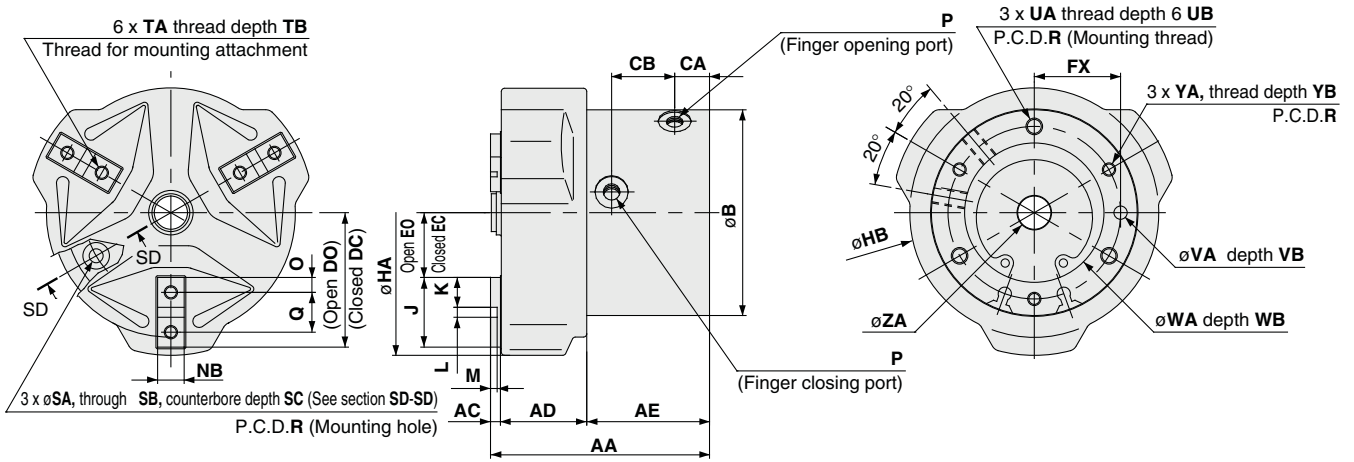
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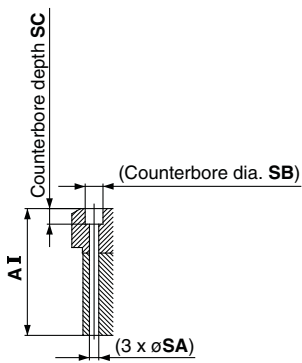
MHSH3 Series

Dimensions: Through-hole with Dust Cover

MHSHJ3-32D to 80D

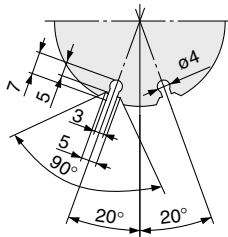


Auto switch mounting groove dimensions (2 locations)

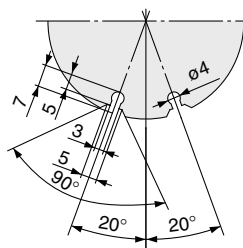


Section SD - SD

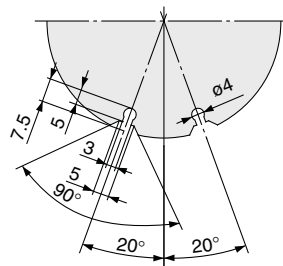
MHSHJ3-32D



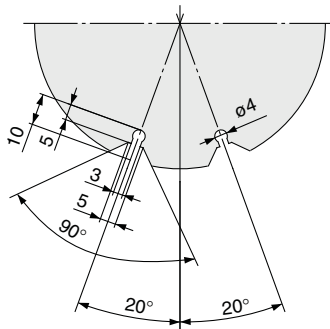
MHSHJ3-40D



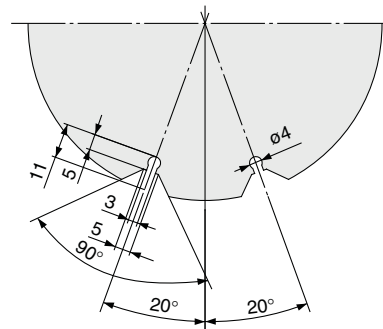
MHSHJ3-50D



MHSHJ3-63D



MHSHJ3-80D

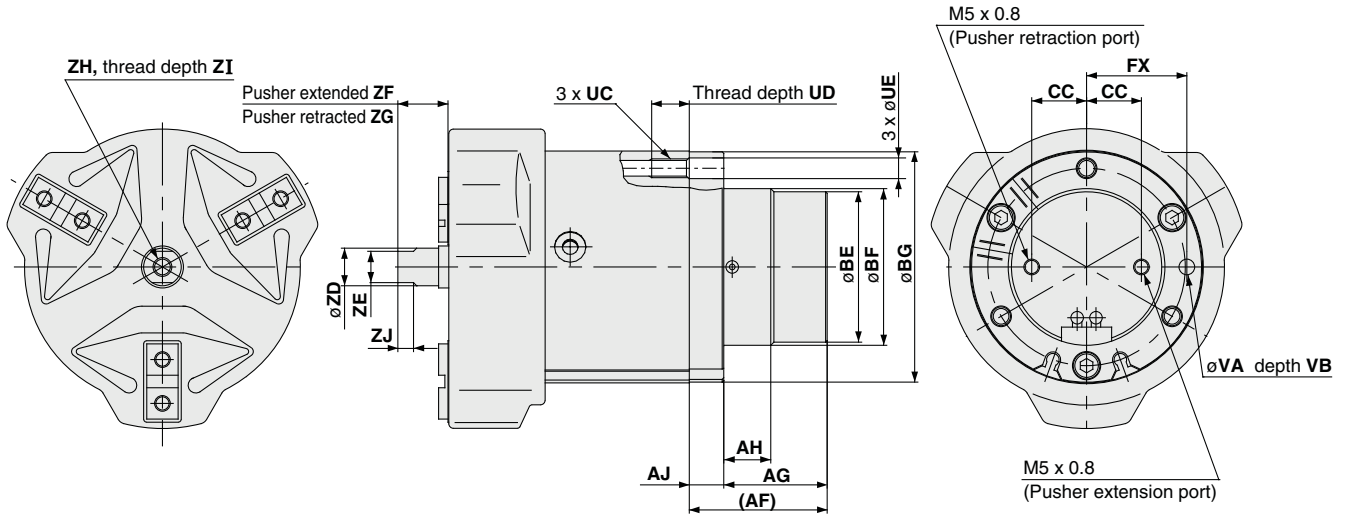


Model	AA	AC	AD	AE	AI	B	CA	CB	DC	DO	EC	EO	FX	HA	HB	J	K	L	M	NB
MHSHJ3-32D	63	3	24	36	54	54	9.5	19	31.5	35.5	11.5	15.5	22	80	65	20	9	2H9 ^{+0.025} ₀	2	8h9 ⁰ _{-0.036}
MHSHJ3-40D	66	3	26	37	57	62	10.5	19	36	40	15	19	26	90	75	21	9	3H9 ^{+0.025} ₀	2	8h9 ⁰ _{-0.036}
MHSHJ3-50D	80	3	31	46	70	74	11.5	26.5	42	48	18	24	32	109	88	24	10	4H9 ^{+0.030} ₀	2	10h9 ⁰ _{-0.036}
MHSHJ3-63D	91	4	37	50	79	92	13	28	51	59	23	31	40	133	106	28	11	6H9 ^{+0.030} ₀	3	12h9 ⁰ _{-0.043}
MHSHJ3-80D	108	5	46	57	93	112	14	31	63	73	31	41	50	168	130	32	12	8H9 ^{+0.036} ₀	4	14h9 ⁰ _{-0.043}

Model	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	YA	YB	ZA
MHSHJ3-32D	4.5	M5 x 0.8	11	44	4.2	8	7	M4 x 0.7	8	M5 x 0.8	10	4H9 ^{+0.030} ₀	4	34H9 ^{+0.062} ₀	2	M4 x 0.7	8	6H10 ^{+0.048} ₀
MHSHJ3-40D	4.5	M5 x 0.8	12	52	4.2	8	7	M4 x 0.7	8	M5 x 0.8	10	4H9 ^{+0.030} ₀	4	42H9 ^{+0.062} ₀	2	M4 x 0.7	8	10H10 ^{+0.058} ₀
MHSHJ3-50D	5	M5 x 0.8	14	63	5.1	9.5	8	M5 x 0.8	10	M6 x 1	12	5H9 ^{+0.030} ₀	5	52H9 ^{+0.074} ₀	2	M5 x 0.8	10	12H10 ^{+0.070} ₀
MHSHJ3-63D	5.5	M5 x 0.8	17	78	6.6	11	8	M5 x 0.8	10	M8 x 1.25	16	6H9 ^{+0.030} ₀	6	65H9 ^{+0.074} ₀	2.5	M6 x 1	12	16H10 ^{+0.070} ₀
MHSHJ3-80D	6	Rc1/8(G1/8, NPT1/8)	20	98	6.6	11	8	M6 x 1	12	M8 x 1.25	16	6H9 ^{+0.030} ₀	6	82H9 ^{+0.087} ₀	3	M6 x 1	12	20H10 ^{+0.084} ₀

Dimensions: Center Pusher with Dust Cover/Cylinder Type

MHSHJ3-32DA to 80DA



Note) For dimensions, refer to the MHSHJ3-32 to 80D dimensions on page 614.
For auto switch mounting groove, refer to MHSH3-32 to 80DA on page 612.

Model	AF	AG	AH	AJ	BE	BF	BG	CC	FX	UC	UD	UE	VA	VB	ZD	ZE	ZF	ZG	ZH	ZI	ZJ
MHSHJ3-32DA	35	26	9	9	30	32h9 _{-0.062}	53.5	9.5	22	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	6	5	14	9	M3 x 0.5	6	3.5
MHSHJ3-40DA	36	27	12	9	38	40h9 _{-0.062}	61.5	13.5	26	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	10	8	15	10	M5 x 0.8	10	4.5
MHSHJ3-50DA	44	33	15	11	48	50h9 _{-0.062}	73.5	17.5	32	M6 x 1	12	6.6	5H9 ₀ ^{+0.030}	5	12	10	21	11	M6 x 1	12	5
MHSHJ3-63DA	48	35	18	13	58	60h9 _{-0.074}	91.5	20	40	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	16	14	24	14	M8 x 1.25	16	7
MHSHJ3-80DA	58	45	20	13	68	70h9 _{-0.074}	111.5	25	50	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	20	17	31	16	M10 x 1.5	20	8

(mm)

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

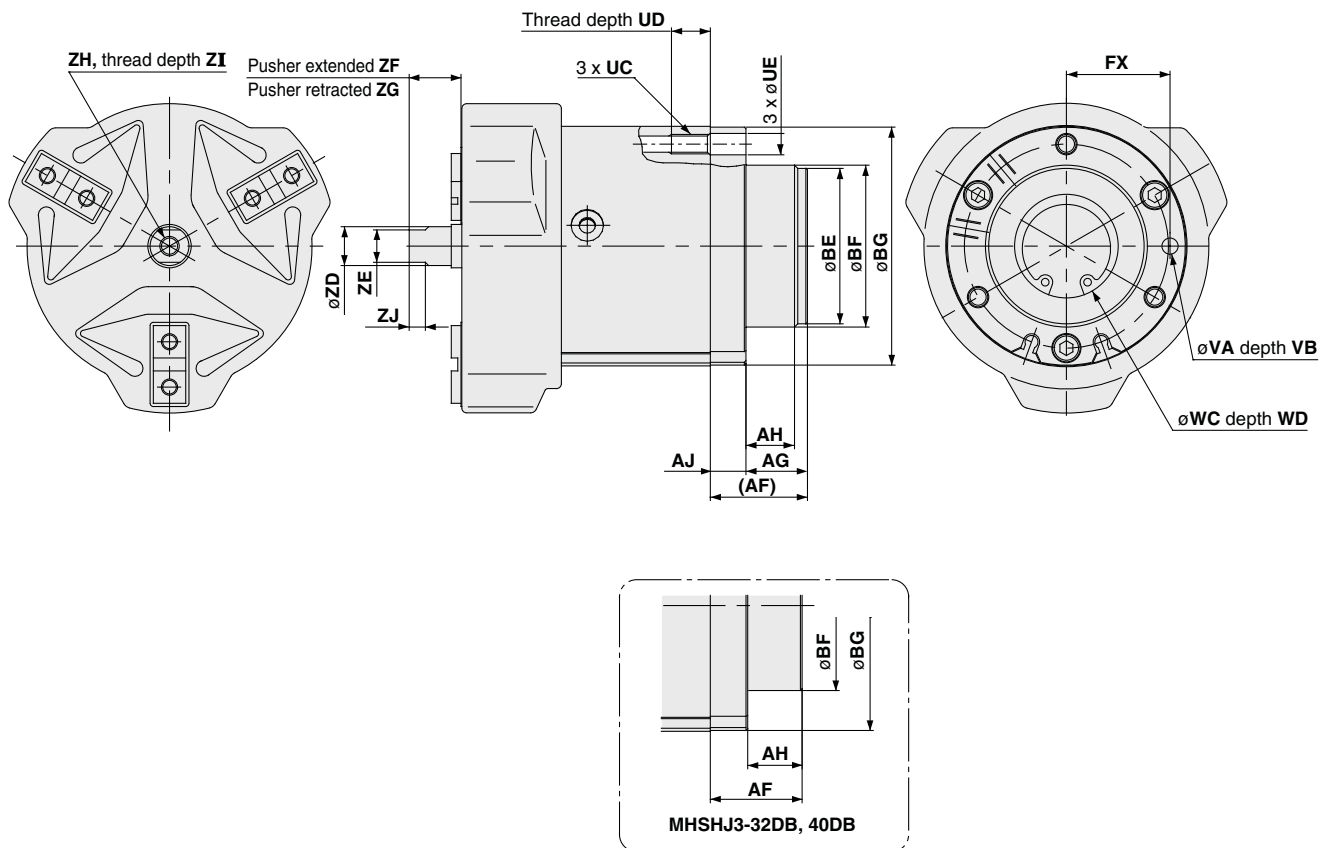
MA

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MHSH3 Series

Dimensions: Center Pusher with Dust Cover/Spring Type

MHSHJ3-32DB to 80DB



Note) For dimensions, refer to the MHSHJ3-32 to 80D dimensions on page 614.

(mm)

Model	AF	AG	AH	AJ	BE	BF	BG	FX	UC	UD	UE	VA	VB	WC	WD	ZD	ZE	ZF
MHSHJ3-32DB	18	—	9	9	—	32h9 _{-0.062}	53.5	22	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	20 ₀ ^{+0.1}	1.5	6	5	14
MHSHJ3-40DB	21	—	12	9	—	40h9 _{-0.062}	61.5	26	M5 x 0.8	10	5.5	4H9 ₀ ^{+0.030}	4	24 ₀ ^{+0.1}	1.5	10	8	15
MHSHJ3-50DB	30	19	15	11	48	50h9 _{-0.062}	73.5	32	M6 x 1	12	6.6	5H9 ₀ ^{+0.030}	5	32 ₀ ^{+0.1}	1.5	12	10	21
MHSHJ3-63DB	35	22	18	13	58	60h9 _{-0.074}	91.5	40	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	42 ₀ ^{+0.1}	2	16	14	24
MHSHJ3-80DB	48	35	20	13	68	70h9 _{-0.074}	111.5	50	M8 x 1.25	16	8.6	6H9 ₀ ^{+0.030}	6	52 ₀ ^{+0.1}	2	20	17	31

Model	ZG	ZH	ZI	ZJ
MHSHJ3-32DB	9	M3 x 0.5	6	3.5
MHSHJ3-40DB	10	M5 x 0.8	10	4.5
MHSHJ3-50DB	11	M6 x 1	12	5
MHSHJ3-63DB	14	M8 x 1.25	16	7
MHSHJ3-80DB	16	M10 x 1.5	20	8