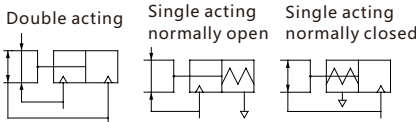




Symbol



Specification

Bore(mm)		6	10	16	20	25	32	40
Fluid		Compressed air						
Pressure range (MPa)	Double acting	0.15~0.7	0.2~0.7	0.1~0.7				
	Single acting	0.3~0.7	0.35~0.7	0.25~0.7				
Ambient and fluid temp.		-10~60℃						
Repeatability(mm)		±0.01					±0.02	
Max. operating frequency(c.p.m)		180(CHFL2 series 120)					60	
Fluid		Non-lube						
Action		Double acting, Single acting						
Port size		M3x0.5			M5x0.8			

Ordering code

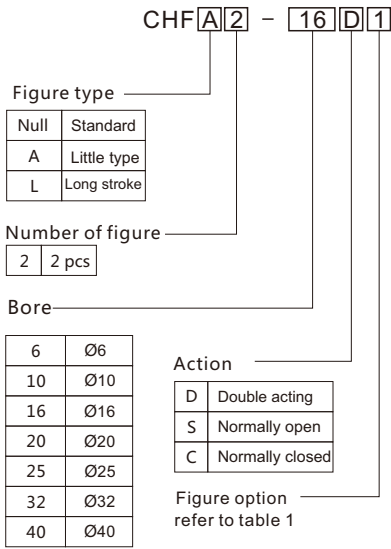


Table 1

Null: standard	1: side tapped mount	2: through-holes in closing/opening direction	3: flat type

Gripping force

Little type

Action	Series	Gripping force per finger Effective value (N)		Opening/Closing (Both sides)mm
		External	Internal	
Double acting	CHFA2-6D	3.3	6.1	4
Single acting	Normally open CHFA2-6S	1.9	-	4
	Normally closed CHFA2-6C	-	3.7	4

Standard type

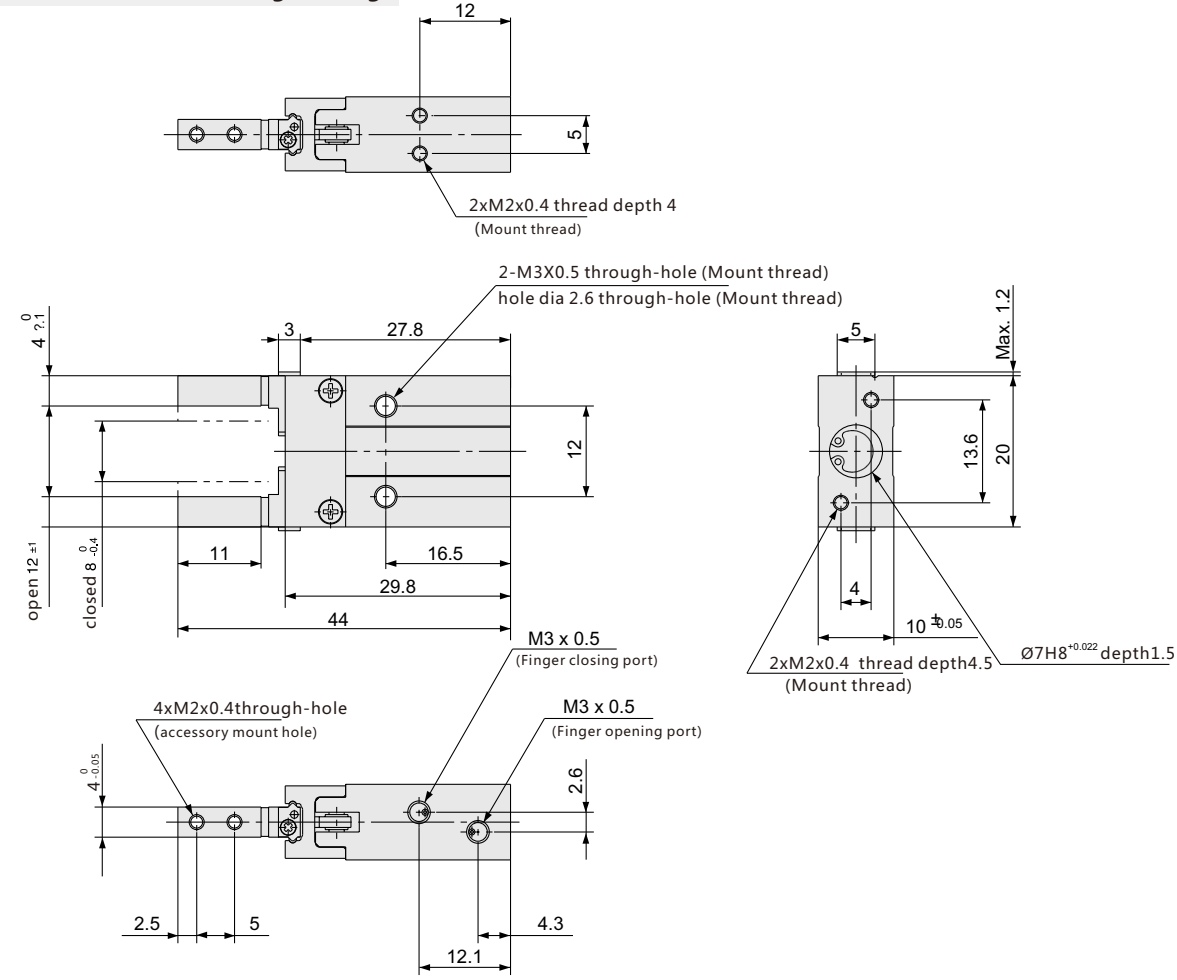
Action	Series	Gripping force per finger Effective value (N)		Opening/Closing (Both sides)mm
		External	Internal	
Double acting	CHF2-6D	3.3	6.1	4
	-10D	11	17	4
	-16D	34	45	6
	-20D	42	66	10
	-25D	65	104	14
	-32D	158	193	22
	-40D	254	318	30
Single acting	Normally open CHF2-6S -10S -16S -20S -25S -32S -40S	1.9	-	4
		7.1		4
		27		6
		33		10
		45		14
		131		22
		217		30
	Normally closed CHF2-6C -10C -16C -20C -25C -32C -40C	-	3.7	4
			13	4
			38	6
			57	10
			83	14
			161	22
			267	30

Long stroke type

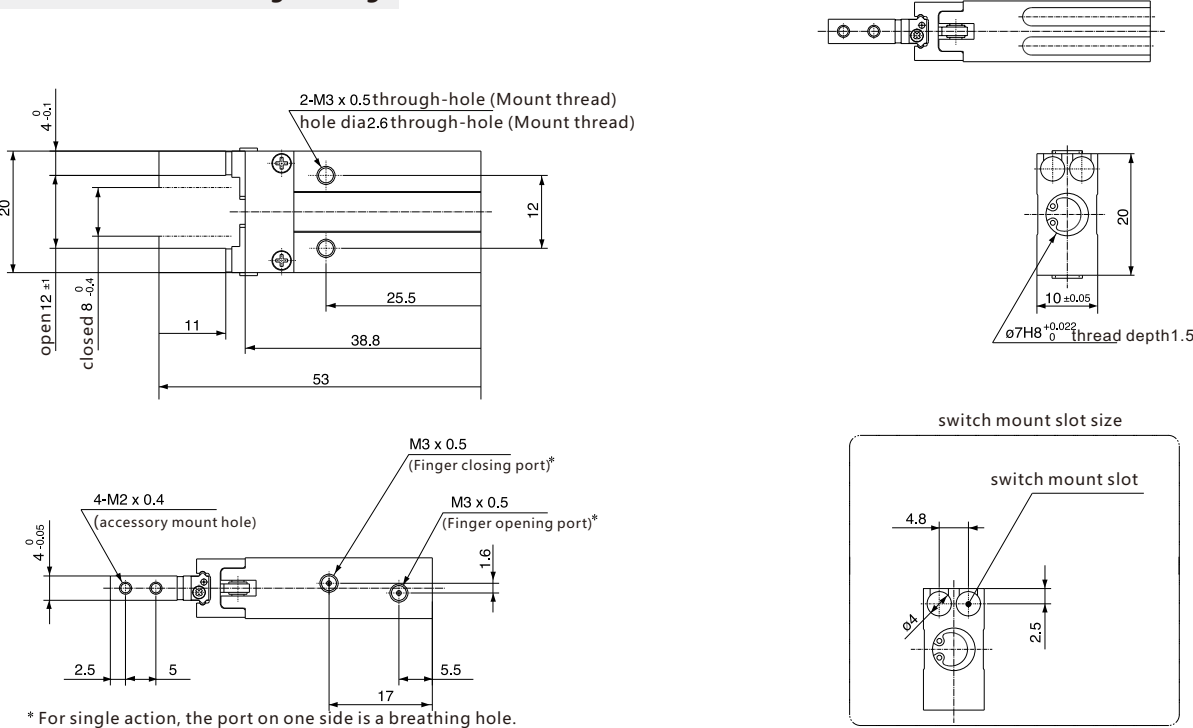
Action	Series	Gripping force per finger Effective value (N)		Opening/Closing (Both sides)mm
		External	Internal	
Double acting	CHFL2-10D	11	17	8
	-16D	34	45	12
	-20D	42	66	18
	-25D	65	104	22
Single acting	Normally open CHFL2-10S -16S -20S -25S	7.1	-	8
		27		12
		33		18
		50		22
	Normally closed CHFL2-10C -16C -20C -25C	-	13	8
			38	12
			57	18
			85	22

■ Dimensions (mm)

CHFA 2 - 6 □ Double/Single acting Standard

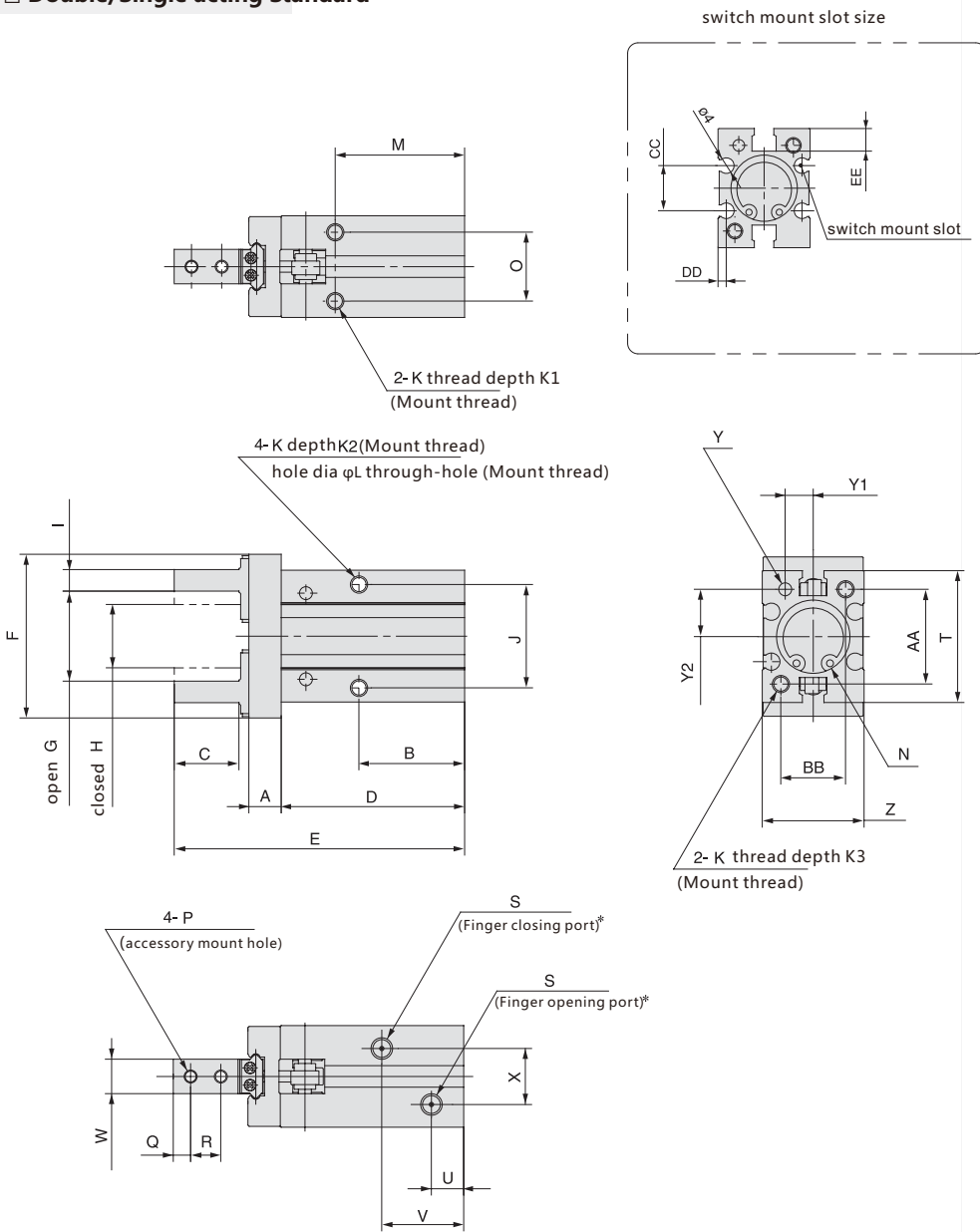


CHF 2 - 6 □ Double/Single acting Standard



■ Dimensions (mm)

CHF 2 - □ Double/Single acting Standard



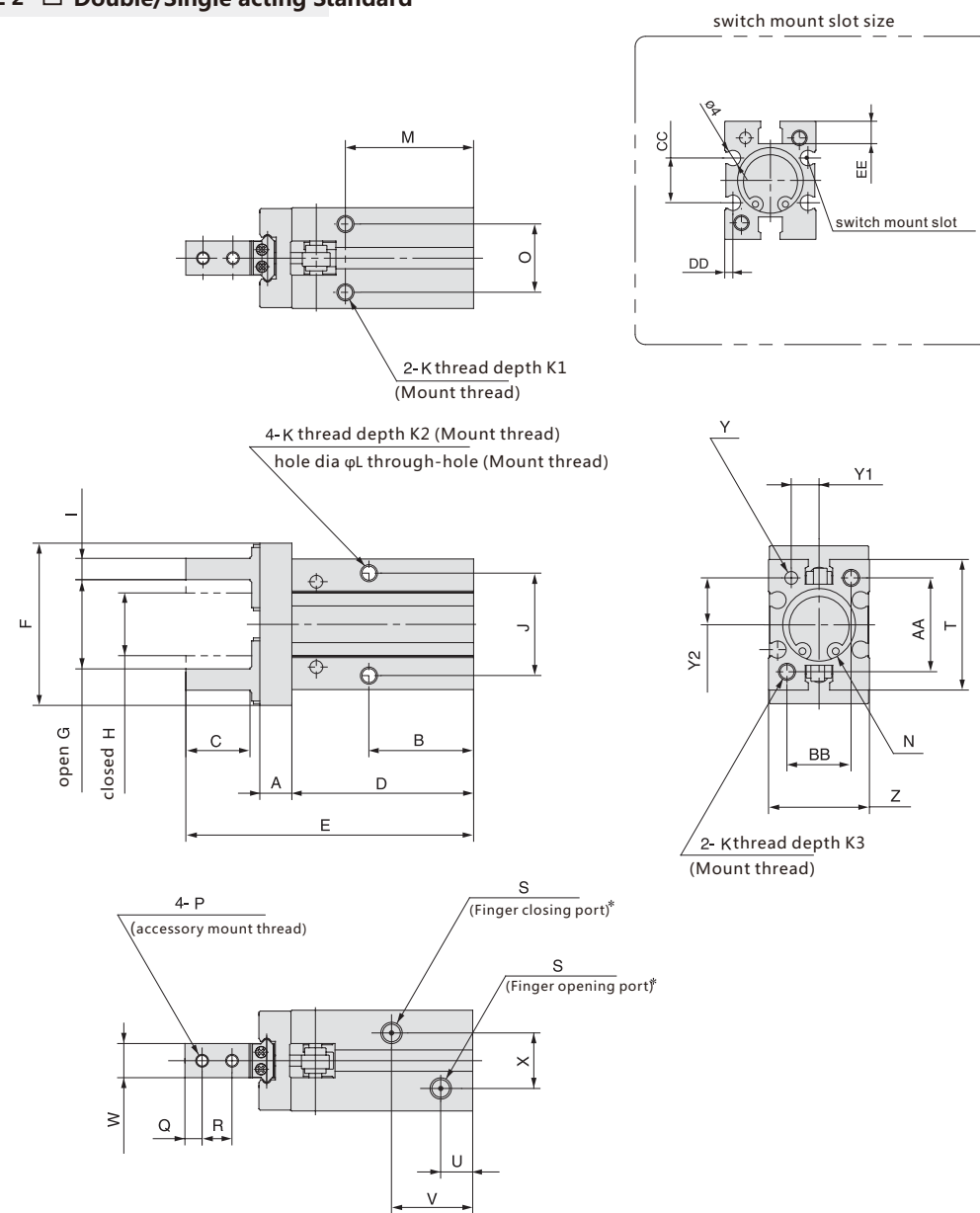
*For single action, the port on one side becomes a breathing hole.

Bore	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	ϕ L	M	N	O	P	Q	R	S	T	U
10	6	23	12	37.8	57	29	15.2 ^{+2.2} ₀	11.2 ^{+0.7} ₀	4 ^{+0.1} ₀	16	M3×0.5	6	5.5	6	2.6	27	ϕ 11H9 ^{+0.043} ₀ depth2	11.4	M2.5×0.45	3	5.7	M3×0.5	23	9
16	7.5	24.5	15	42.5	67.3	38	20.9 ^{+2.2} ₀	14.9 ^{+0.7} ₀	5 ^{+0.1} ₀	24	M4×0.7	4.5	8	8	3.4	30	ϕ 17H9 ^{+0.043} ₀ depth2	16	M3×0.5	4	7	M5×0.8	30.6	7.5
20	9.5	29	20	52.8	84.8	50	26.3 ^{+2.2} ₀	16.3 ^{+0.7} ₀	8 ^{+0.1} ₀	30	M5×0.8	8	10	10	4.3	35	ϕ 21H9 ^{+0.052} ₀ depth3	18.6	M4×0.7	5	9	M5×0.8	42	10
25	11	30	25	63.6	102.7	63	33.3 ^{+2.5} ₀	19.3 ^{+0.8} ₀	10 ^{+0.1} ₀	36	M6×1	10	12	12	5.1	36.5	ϕ 26H9 ^{+0.053} ₀ depth3.5	22	M5×0.8	6	12	M5×0.8	52	10.7
32	12	40(49)	29	67(76)	113(122)	97	48 ^{+2.5} ₀	26 ^{+0.5} ₀	12 ^{+0.1} ₀	46	M6×1	10	13	13	5.1	48(57)	ϕ 34H9 ^{+0.062} ₀ depth4	26	M6×1	7	14	M5×0.8	60	11
40	15	49(62)	36	83(96)	139(152)	119	60 ^{+2.7} ₀	30 ^{+0.5} ₀	14 ^{+0.1} ₀	56	M8×1.25	13	16	17	6.6	58(71)	ϕ 42H9 ^{+0.063} ₀ depth4	32	M8×1.25	9	17	M5×0.8	72	12

Bore	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	19	5 ^{+0.05} ₀	11	ϕ 2H9 ^{+0.025} ₀ depth3	16.4±0.05	5.2±0.02	7.6±0.02	18	12			5.4
16	19	8 ^{+0.05} ₀	13	ϕ 3H9 ^{+0.025} ₀ depth3	23.6±0.05	6.5±0.02	11±0.02	22	15	11.6	2.1	5.8
20	23	10 ^{+0.05} ₀	15	ϕ 4H9 ^{+0.03} ₀ depth4	27.6±0.05	7.5±0.02	16.8±0.02	32	18	14	2.1	9
25	23.5	12 ^{+0.05} ₀	20	ϕ 4H9 ^{+0.03} ₀ depth4	33.6±0.05	10±0.02	21.8±0.02	40	22	19	3.5	11.5
32	31(37)	15 ^{+0.05} ₀	24	ϕ 5H9 ^{+0.03} ₀ depth5	40±0.1	12±0.02	23±0.02	46	26	24	3.3	11.5
40	38(45)	18 ^{+0.05} ₀	28	ϕ 5H9 ^{+0.03} ₀ depth5	48±0.1	14±0.02	29±0.02	56	32	29.4	3.7	13

■ Dimensions (mm)

CHFL 2 - □ Double/Single acting Standard

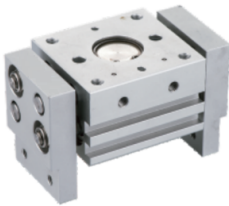


- * For single action, the port on one side becomes a breathing hole.
- * the value in () suit for single action

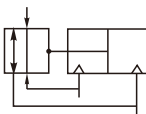
Bore	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	ΦL	M	N	O	P	Q	R	S	T	U
10	6	25(35)	12	37.8(47.8)	57(67)	35	19.2 ^{+2.2} ₀	11.2 ⁰ _{-0.4}	4 ⁰ _{-0.1}	16	M3×0.5	6	5.5	6	2.6	29(39)	φ11H9 ^{+0.043} ₀ depth2	11.4	M2.5×0.45	3	5.7	M3×0.5	23	8
16	7.5	31(36)	15	45.2(50.2)	70(75)	47	26.9 ^{+2.2} ₀	14.9 ⁰ _{-0.4}	5 ⁰ _{-0.1}	24	M4×0.7	4.5	8	8	3.4	36(41)	φ17H9 ^{+0.043} ₀ depth2	16	M3×0.5	4	7	M5×0.8	30.6	8
20	9.5	36(42)	20	58(64)	90(96)	62	34.3 ^{+2.4} ₀	16.3 ⁰ _{-0.4}	8 ⁰ _{-0.1}	30	M5×0.8	8	10	10	4.3	43(49)	φ21H9 ^{+0.052} ₀ depth3	18.6	M4×0.7	5	9	M5×0.8	42	10
25	11	40(50)	25	66.9(76.9)	106(116)	75	41.3 ^{+2.8} ₀	19.3 ⁰ _{-0.4}	10 ⁰ _{-0.1}	36	M6×1	10	12	12	5.1	48(58)	φ26H9 ^{+0.052} ₀ depth3.5	22	M5×0.8	6	12	M5×0.8	52	10

Bore	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	21(31)	5 ⁰ _{-0.05}	11	φ2H9 ^{+0.025} ₀ depth3	16.4±0.05	5.2±0.02	7.6±0.02	18	12			5.4
16	25(30)	8 ⁰ _{-0.05}	13	φ3H9 ^{+0.025} ₀ depth3	23.6±0.05	6.5±0.02	11±0.02	22	15	11.6	2.1	5.8
20	30(36)	10 ⁰ _{-0.05}	15	φ4H9 ^{+0.03} ₀ depth4	27.6±0.05	7.5±0.02	16.8±0.02	32	18	14	2.1	9
25	33(43)	12 ⁰ _{-0.05}	20	φ4H9 ^{+0.03} ₀ depth4	33.6±0.05	10±0.02	21.8±0.02	40	22	19	3.5	11.5

CHL Series Wide Type Air Gripper



Symbol



Product feature

- Long fingers extended travel, suitable for holding bulky items
- Double piston design, can increase retention
- Adopt gear rack operation, can make finger synchronous open and close
- Dust proof design, by using special seal

Specification

Bore(mm)	10	16	20	25	32	40
Fluid	Compressed air(non-lube)					
Action	Double acting					
Max. pressure MPa	0.6					
Min. pressure MPa	0.15	0.1				
Ambient and fluid temperature	-10~60℃					
Repeatability	±0.1mm					
Effective gripping force(0.5MPa)	14	45	74	131	228	396
Port size	M5x0.8				Rc1/8	

Ordering type

CHL2 - 16 D 2

Wide type gripper (2 figures)

Bore

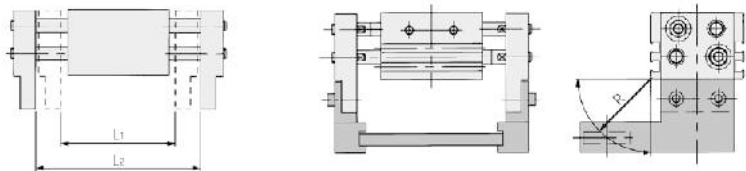
10	Ø10
16	Ø16
20	Ø20
25	Ø25
32	Ø32
40	Ø40

Double acting

Stroke

Bore	Φ10	Φ16	Φ20	Φ25	Φ32	Φ40
Null	20	30	40	50	70	100
1	40	60	80	100	120	160
2	60	80	100	120	160	200

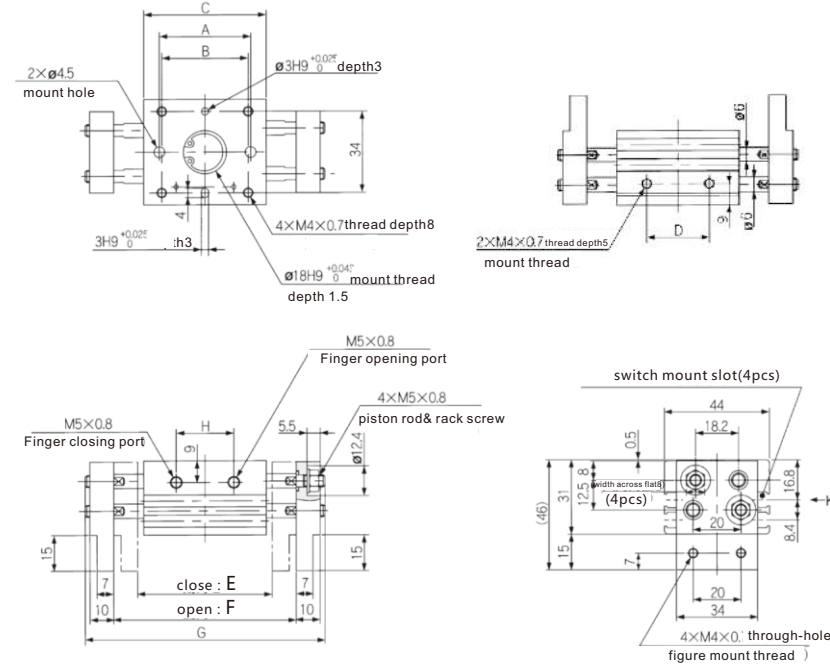
Stroke table



R : clamp distance(mm)

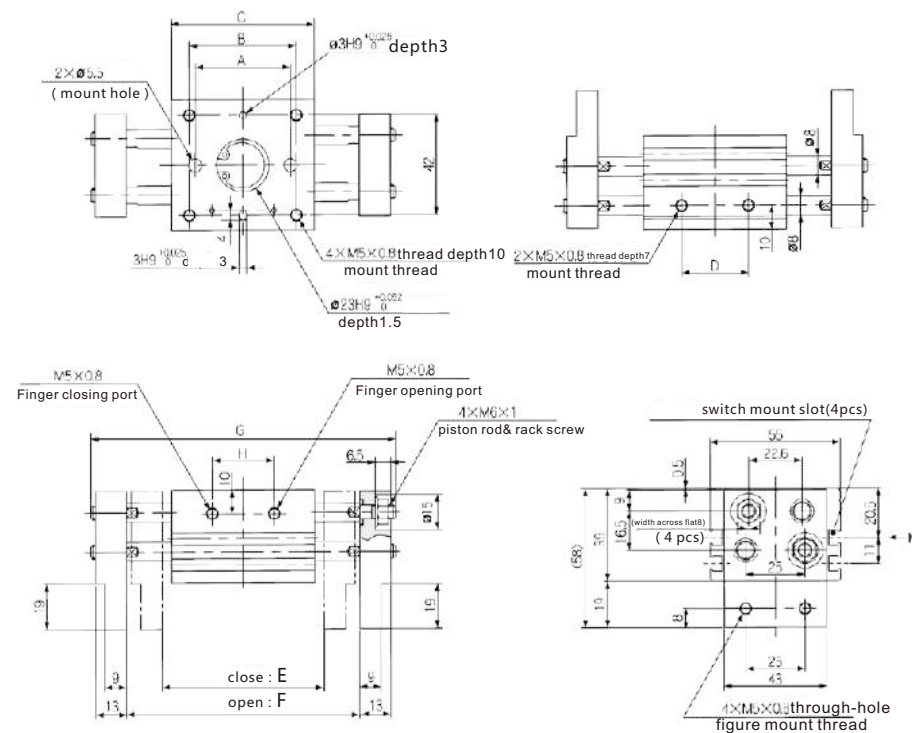
Series	Bore (mm)	Max. operating frequency c.p.m	Stroke open&closed mm (L2-L1)	Width open mm (L1)	Width closed mm (L1)
CHL2-10D	10	60	20	56	76
CHL2-10D1		40	40	78	118
CHL2-10D2			60	96	156
CHL2-16D	16	60	30	68	98
CHL2-16D1		40	60	110	170
CHL2-16D2			80	130	210
CHL2-20D	20	60	40	82	122
CHL2-20D1		40	80	142	222
CHL2-20D2			100	162	262
CHL2-25D	25	60	50	100	150
CHL2-25D1		40	100	182	282
CHL2-25D2			120	200	320
CHL2-32D	32	30	70	150	220
CHL2-32D1		20	120	198	318
CHL2-32D2			160	242	402
CHL2-40D	40	30	100	188	288
CHL2-40D1		20	160	246	406
CHL2-40D2			200	286	486

■ Dimensions (mm)

CHL2-10D ☐

Series	A	B	C	D	E	F	G	H
CHL2-10D	38	36	51	26	56	76	100	24
CHL2-10D1	54	52	67	42	78	118	142	39
CHL2-10D2	72	70	85	60	96	156	180	57

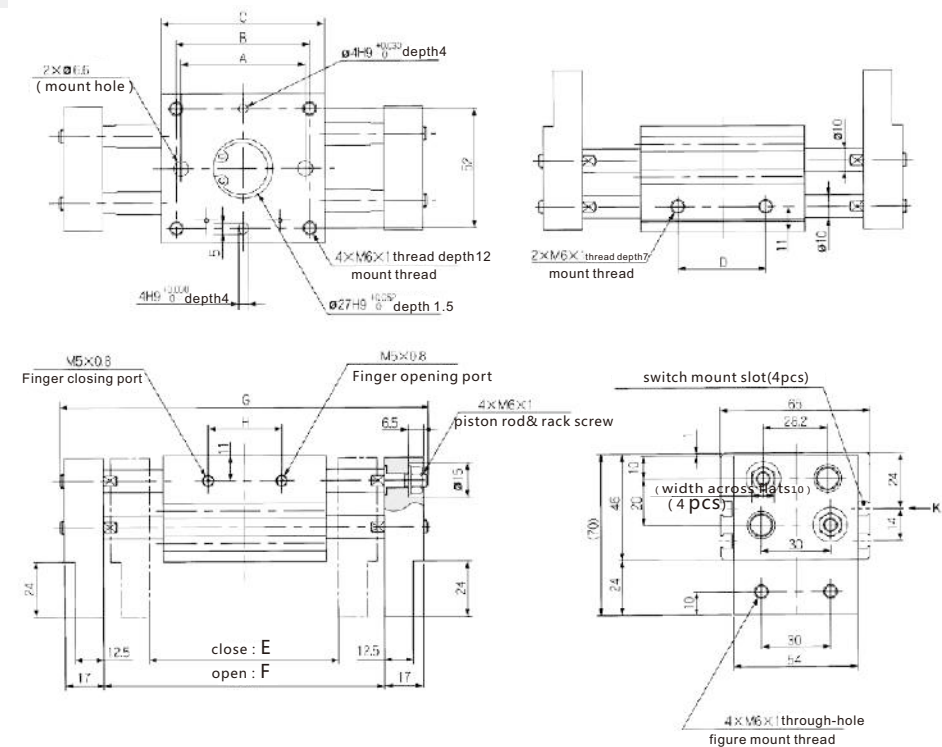
CHL2-16D□



Series	A	B	C	D	E	F	G	H
CHL2-16D	40	45	60	28	68	98	128	26
CHL2-16D1	70	75	90	58	110	170	200	50
CHL2-16D2	90	95	110	78	130	210	240	70

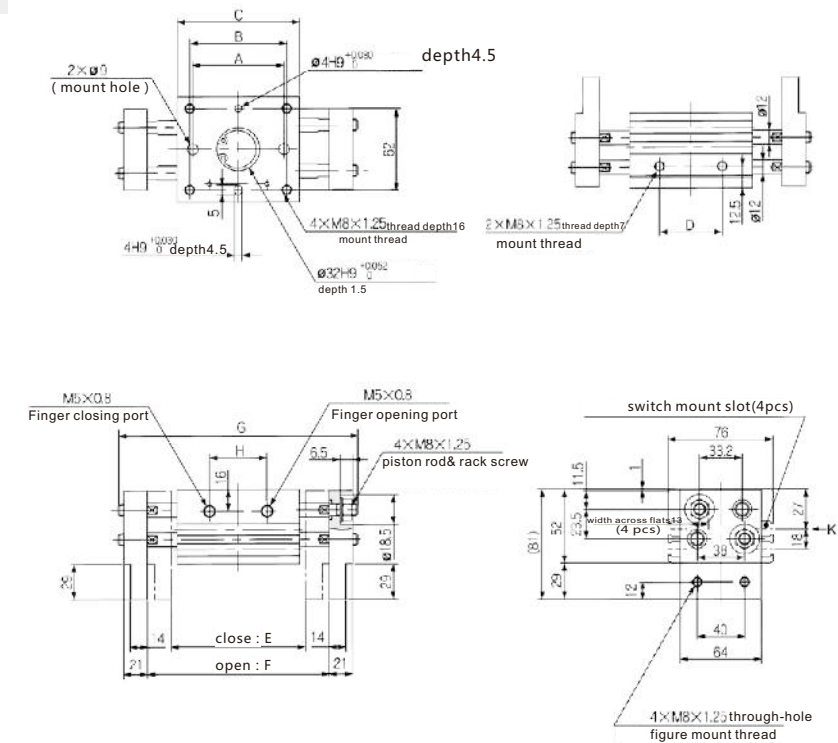
■ Dimensions (mm)

CHL2-20D□



Series	A	B	C	D	E	F	G	H
CHL2-20D	54	58	71	38	82	122	160	32
CHL2-20D1	96	100	113	80	142	222	260	68
CHL2-20D2	116	120	133	100	162	262	300	88

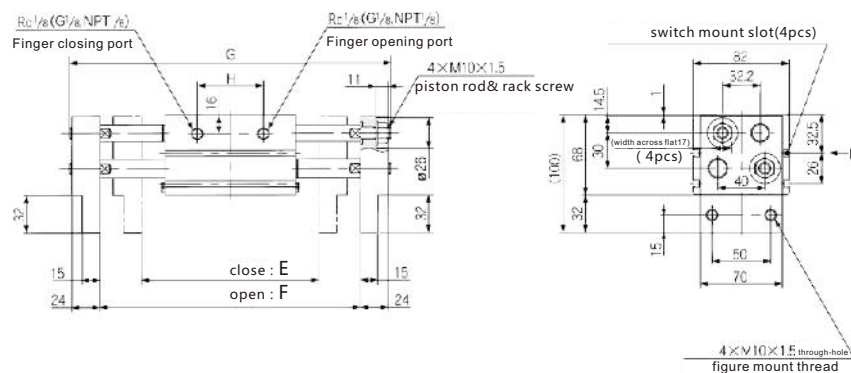
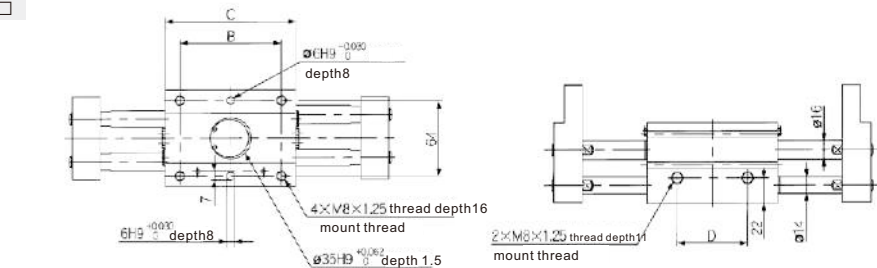
CHL2-25D□



Series	A	B	C	D	E	F	G	H
CHL2-25D	66	70	88	48	100	150	196	38
CHL2-25D1	120	124	142	102	182	282	328	86
CHL2-25D2	138	142	160	120	200	320	366	104

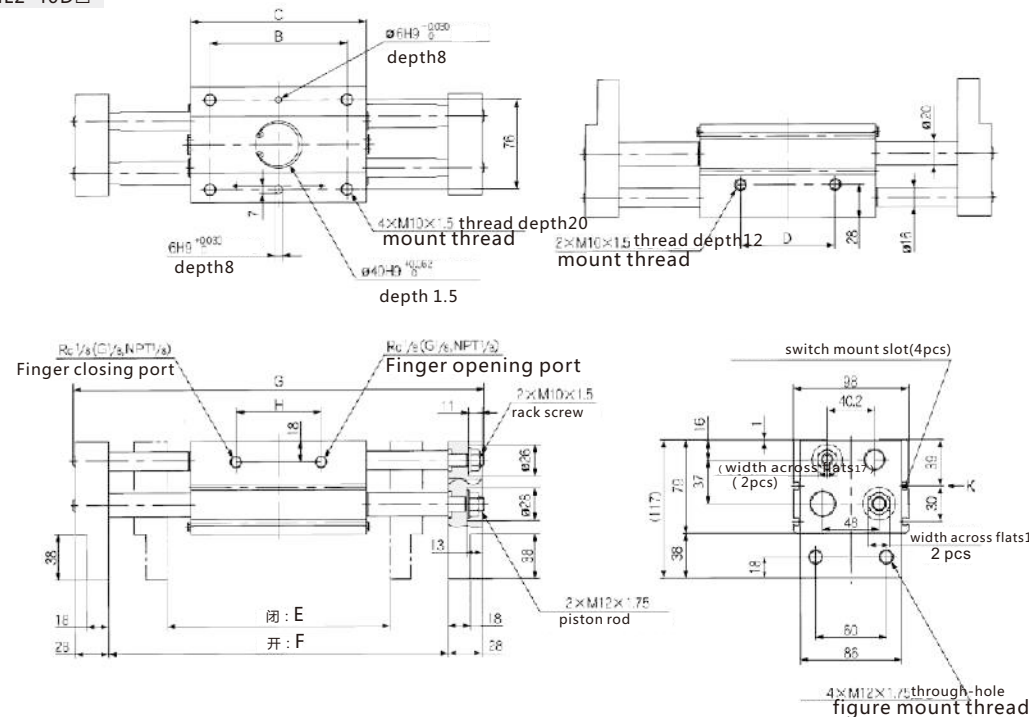
■ Dimensions (mm)

CHL2-32D□



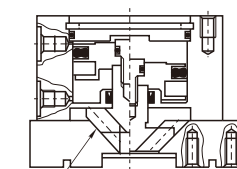
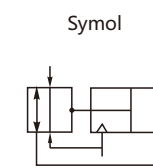
Series	B	C	D	E	F	G	H
CHL2-32D	86	110	60	150	220	272	56
CHL2-32D1	134	158	108	198	318	370	104
CHL2-32D2	178	202	152	242	402	454	148

CHL2-40D□



Series	B	C	D	E	F	G	H
CHL2-40D	116	148	80	188	288	348	721
CHL2-40D1	174	206	138	246	406	466	130
CHL2-40D2	214	246	178	286	486	546	170

QQ3 Series Air Gripper



Wedge CAM structure can increase the clamping force

■ Specification

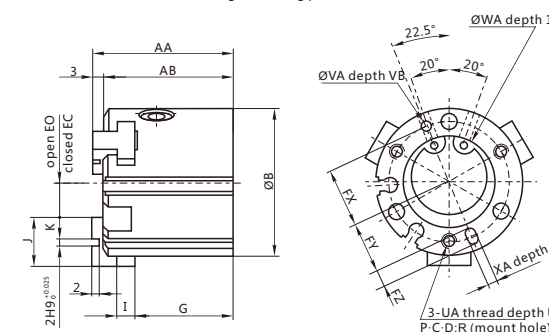
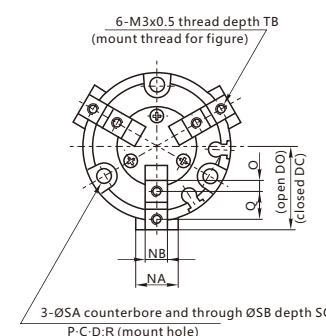
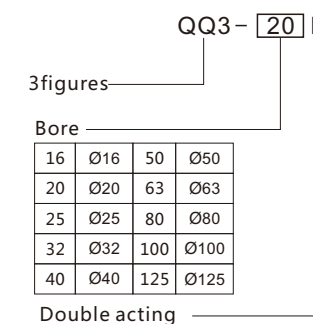
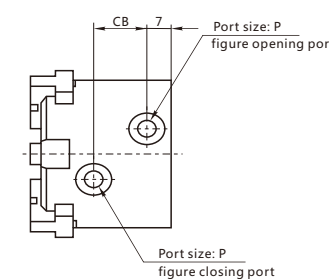
Bore		QQ3-16D	QQ3-20D	QQ3-25D	QQ3-32D	QQ3-40D	QQ3-50D	QQ3-63D	QQ3-80D	QQ3-100D	QQ3-125D
Stroke mm		Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125
Fluid		Compressed air									
Pressure range		0.2~0.6MPa			0.1~0.6MPa						
Ambient and fluid temperature		-10~+60℃									
Repeatability		±0.01mm									
Max. operating frequency		120c.p.m			60c.p.m				30c.p.m		
Lubrication		Non-lube									
Action		Double acting									
Gripping force N(0.5MPa)	External	14	25	42	74	118	187	335	500	750	1270
	Internal	16	28	47	82	130	204	359	525	780	1320
Figure stroke mm		4	4	6	8	8	12	16	20	24	32
Port size		M3x0.5	M5x0.8						1/8	1/4	3/8
Auto switch		Internal auto switch									

Note: Values for $\varnothing 16$ to $\varnothing 25$ are with gripping point $L = 20$ mm, and for $\varnothing 32$ to $\varnothing 63$ with gripping point $L = 30$ mm.
for $\varnothing 80$ to $\varnothing 125$ with gripping point $L = 50$ mm.

■ Ordering code

■ Dimensions (mm)

QQ3 -16D~25D

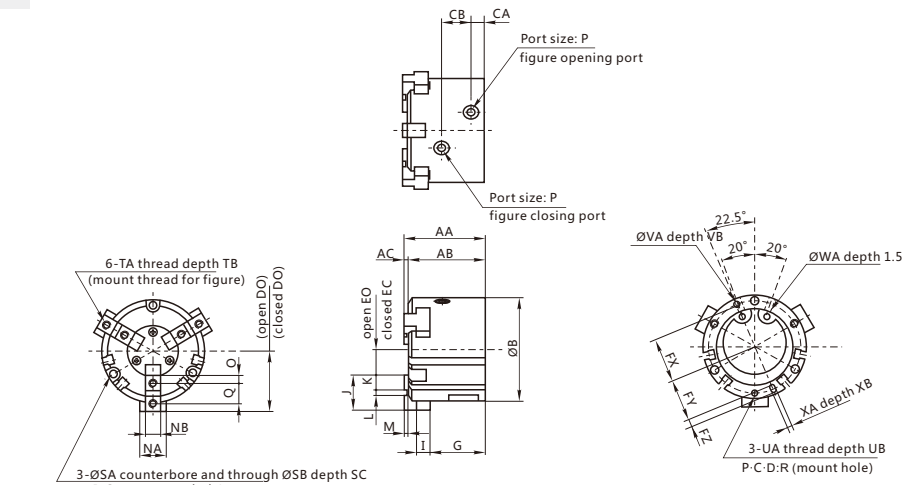


Series	A	AB	B	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	NA	NB	O	P	Q	R
QQ3-16D	35	32	30	11	15	17	5	7	12.5	11	3	25	4	10	4	8	5h9 _{0.030}	2	M3x0.5	6	25
QQ3-20D	38	35	36	13	18	20	6	8	14.5	13	3	27	5	12	5	10	6h9 _{0.030}	2.5	M5x0.8	7	25
QQ3-25D	40	37	42	15	21	24	7	10	17	14.5	5	28	5	14	6	12	6h9 _{0.030}	3	M5x0.8	8	34

Series	SA	SB	SC	TB	UA	UB	VA	VB	WA	XA	XB
QQ3-16D	3.4	6.5	8	5	M3x0.5	4.5	2H9 ^{+0.025} ₀	2	17H9 ^{+0.043} ₀	2H9 ^{+0.025} ₀	2H9 ^{+0.025} ₀
QQ3-20D	3.4	6.5	9.5	6	M3x0.5	6	2H9 ^{+0.025} ₀	2	21H9 ^{+0.052} ₀	2H9 ^{+0.025} ₀	2H9 ^{+0.025} ₀
QQ3-25D	4.5	8	10	6	M4x0.7	6	3H9 ^{+0.025} ₀	3	26H9 ^{+0.052} ₀	3H9 ^{+0.025} ₀	3H9 ^{+0.025} ₀

■ Dimensions (mm)

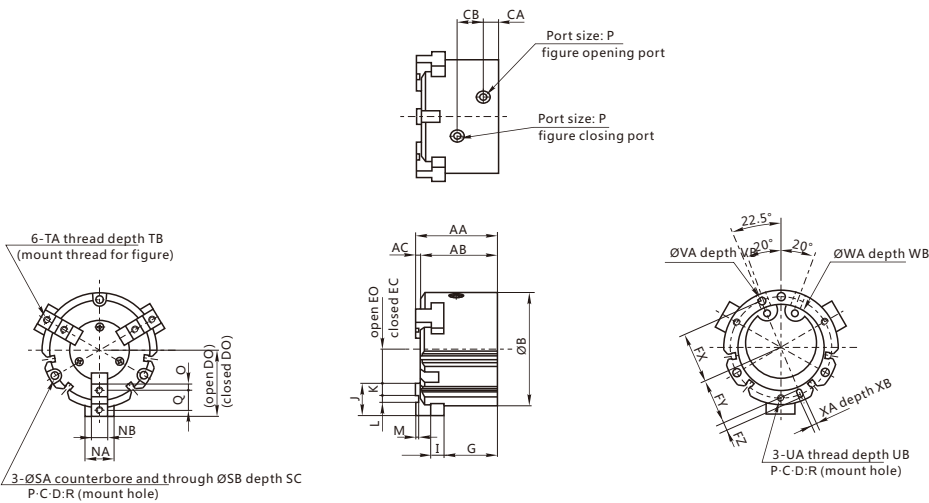
QQ3 -32D~80D



	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	L	M	NA	NB
QQ3-40D	41	3	52	8	16	28	32	8	12	22	19.5	5	30.5	6	20	9	2H9 ^{+0.025} ₀	2	14	8h9 ⁰ _{-0.036}
QQ3-50D	44	3	62	9	17	31	35	10	14	26.5	23.5	6	32	7	21	9	3H9 ^{+0.025} ₀	2	16	8h9 ⁰ _{-0.036}
QQ3-63D	55	52	3	70	9	20	35	41	11	17	31	28	6	37.5	9	24	4H9 ^{+0.030} ₀	2	18	10h9 ⁰ _{-0.036}
QQ3-80D	66	62	4	86	12	22	43	51	15	23	38	34.5	7	44	11	28	6H9 ^{+0.030} ₀	3	24	12h9 ⁰ _{-0.043}
QQ3-80D	82	77	5	106	13.5	27	53.5	63.5	21.5	31.5	47.5	43.5	8	56	12	32	8H9 ^{+0.036} ₀	4	28	14h9 ⁰ _{-0.043}

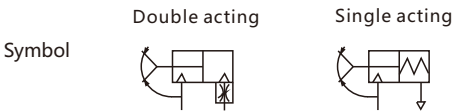
Series	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	XA	XB	YC
QQ3-32D	4.5	M5x0.8	11	44	4.5	8	9	M4x0.7	8	M4x0.7	6	3H9 ^{+0.025} ₀	3	34H9 ^{+0.062} ₀	2	3H9 ^{+0.025} ₀	3	6
QQ3-40D	4.5	M5x0.8	12	53	5.5	9.5	9	M4x0.7	8	M5x0.8	7.5	4H9 ^{+0.030} ₀	4	42H9 ^{+0.062} ₀	2	4H9 ^{+0.030} ₀	4	8
QQ3-50D	5	M5x0.8	14	62	5.5	9.5	12	M5x0.8	10	M5x0.8	10	4H9 ^{+0.030} ₀	4	52H9 ^{+0.074} ₀	2	4H9 ^{+0.030} ₀	4	7
QQ3-63D	5.5	M5x0.8	17	76	6.6	11	14	M5x0.8	10	M6x1	9	5H9 ^{+0.030} ₀	5	65H9 ^{+0.074} ₀	2.5	5H9 ^{+0.030} ₀	5	7.5
QQ3-80D	6	Rc1/8	20	95	6.6	11	19	M6x1	12	M6x1	12	6H9 ^{+0.030} ₀	6	82H9 ^{+0.087} ₀	3	6H9 ^{+0.030} ₀	6	8

QQ3 -100D-125D



Series	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	L	M	NA	NB
QQ3-100D	96	90	6	134	18	30.6	66	78	28	40	59	54	10	63	15	38	15	8H9 ^{+0.036} ₀	4	34	18h9 ⁰ _{-0.043}
QQ3-125D	122	114	8	166	23.5	38	82	98	30	46	74	68	12	84	18	52	21	10H9 ^{+0.036} ₀	6	40	22h9 ⁰ _{-0.052}

Series	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	XA	XB
QQ3-100D	7.5	Rc1/4	23	118	9	14	21	M8x1.25	16	M8x1.25	16	8H9 ^{+0.036} ₀	6	102H9 ^{+0.087} ₀	4	8H9 ^{+0.036} ₀	6
QQ3-125D	10.5	Rc3/8	31	148	11	17.5	34	M10x1.5	20	M10x1.5	20	10H9 ^{+0.036} ₀	8	130H9 ^{+0.100} ₀	6	10H9 ^{+0.036} ₀	8



■ Specification

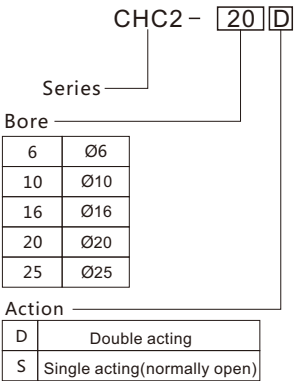
Bore		6	10	16	20	25
Fluid		Compressed air				
Pressure range MPa	Double acting	0.3~0.6	0.25~0.6			
	Single acting	0.15~0.6	0.1~0.6			
Ambient and fluid temperature		-10~60℃				
Max. operating frequency		180c.p.m				
Repeatability (mm)		±0.02	±0.01			
Lubrication		Non-lube				

Please use ISOVG32 oil if needed.

■ Gripping force

Action	Series	Bore mm	Gripping force (N. m)	Angle of open to close (both side)
Double acting	CHC2-10D	10	0.1	30°~-10°
	-16D	16	0.39	
	-20D	20	0.7	
	-25D	25	1.36	
Single acting	CHC2-10S	10	0.07	30°~-10°
	-16S	16	0.31	
	-20S	20	0.54	
	-25S	25	1.08	

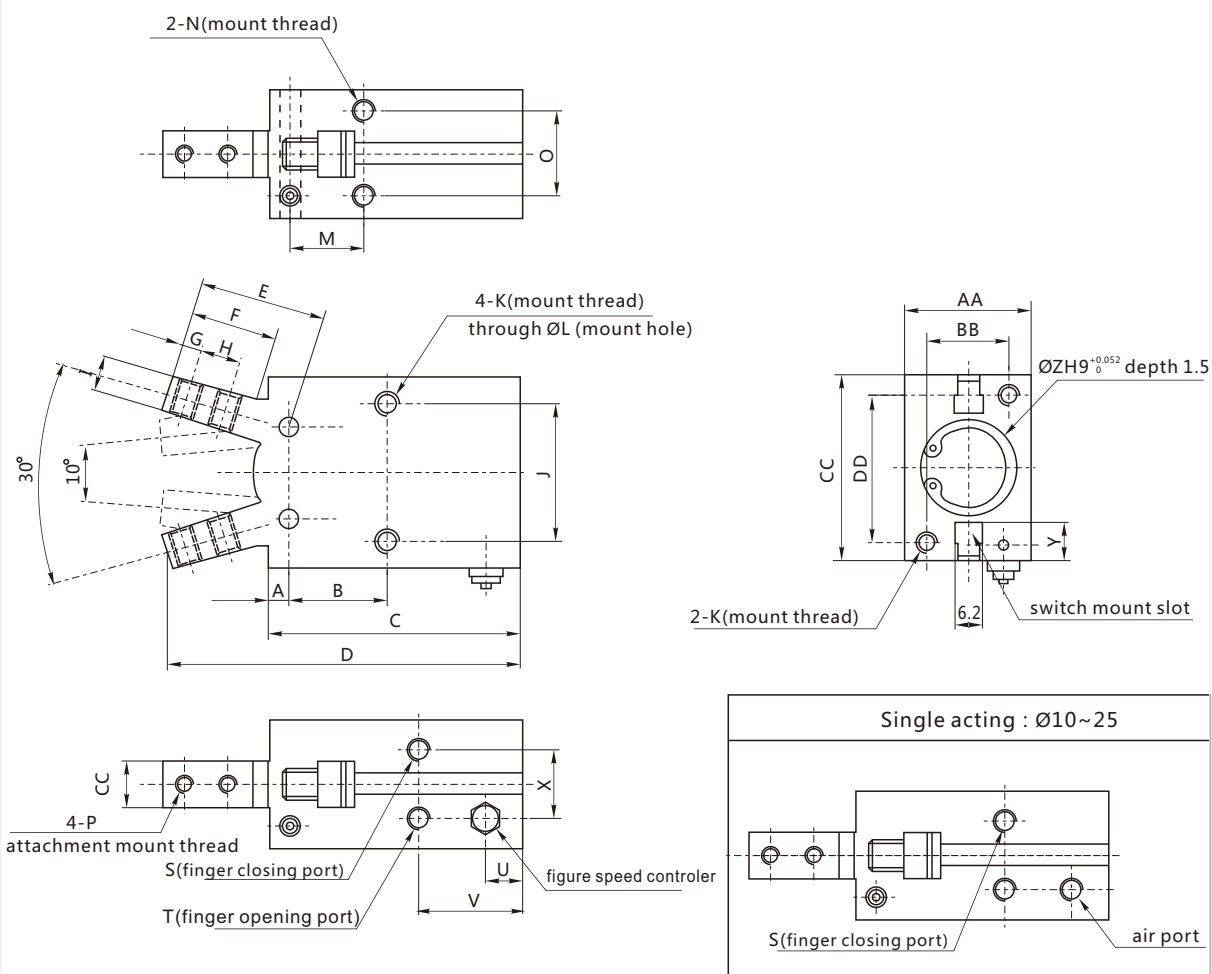
■ Ordering code



CHC Series Air Gripper

■ Dimensions (mm)

Double acting $\Phi 6 \sim \Phi 25$

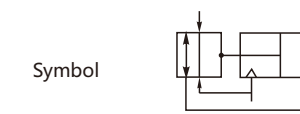


Note: For single action, the port on one side is a breathing hole.

Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	port size		U	V	W	X	Y	Z	AA	BB	CC	DD	EE
																	S	T											
6	4	6	29	41	16	11	2.5	5	2	12	M3X0.5 through depth 4	2.6	-	M2X0.4 depth 4	5	M2X0.4	M3X0.5	-	-	4	2.1	-	7	10	4	20	13.6	14	
10	2.8	12.8	38.6	52.4	17.2	12	3	5.7	4	16	M3X0.5 depth 5	2.6	8.8	M3X0.5 depth 6	11.4	M2.5X0.45	M3X0.5	7.2	18.8	6.4	10.4	5.4	11	16.4	12	23	18	10	
16	3.9	16.2	44.6	62.5	22.6	16	4	7	7	24	M4X0.7 depth 8	3.4	10.7	M4X0.7 depth 8	16	M3X0.5	M5X0.8	7	18.3	8	13	5.8	17	23.6	15	30.6	22	16	
20	4.5	21.7	55.2	78.7	28	20	5.2	9	8	30	M5X0.8 depth 10	4.3	15.7	M5X0.8 depth 8	18.6	M4X0.7	M5X0.8	7.5	22.2	10	15	9	21	27.6	18	42	32	20	
25	4.6	25.8	60.4	92	37.5	27	8	12	10	36	M6 depth 12	5.1	19.3	M6 depth 10	22	M5X0.8	M5X0.8	7.7	23.5	12	20	11.5	26	33.6	22	52	40	25	

- Product feature

The built-in type magnetic ring, can be installed magnetic switch. Can be suitable for use under special circumstances, the fingers open and close part of the special design, can prevent the small foreign body entering. Easy installation, with positioning hole.

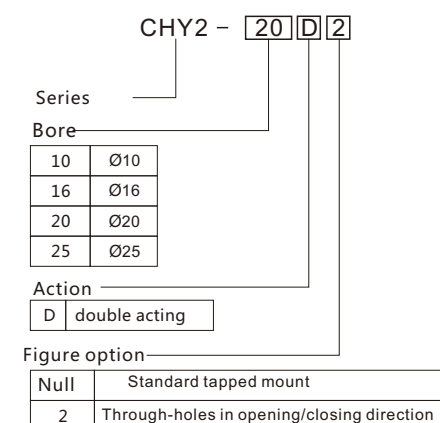


- Product feature

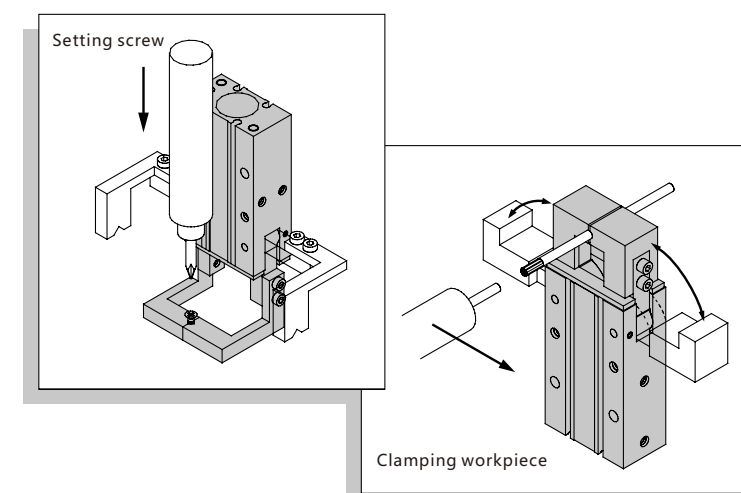
Series	CHY2-10D	CHY2-16D	CHY2-20D	CHY2-25
Fluid	Compressed air			
Action	Double acting			
Max. pressure MPa	0.6			
Min. pressure MPa	0.1			
Ambient and fluid temperature	-10 ~ +60℃			
Max. operating frequency	60C.P.M			
Repeatability	±0.2mm			
Gripping force N.M	0.16	0.54	1.10	2.18
Lubrication	Non-lube			
Port size	M5x0.8			

Please use ISOVG32 oil if needed.

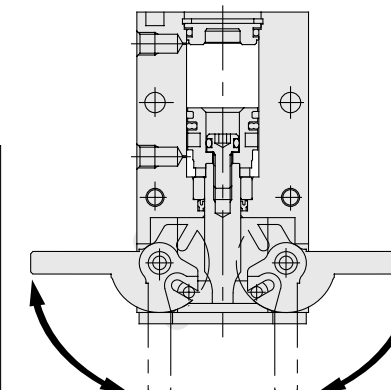
■ Ordering code



■ Samples

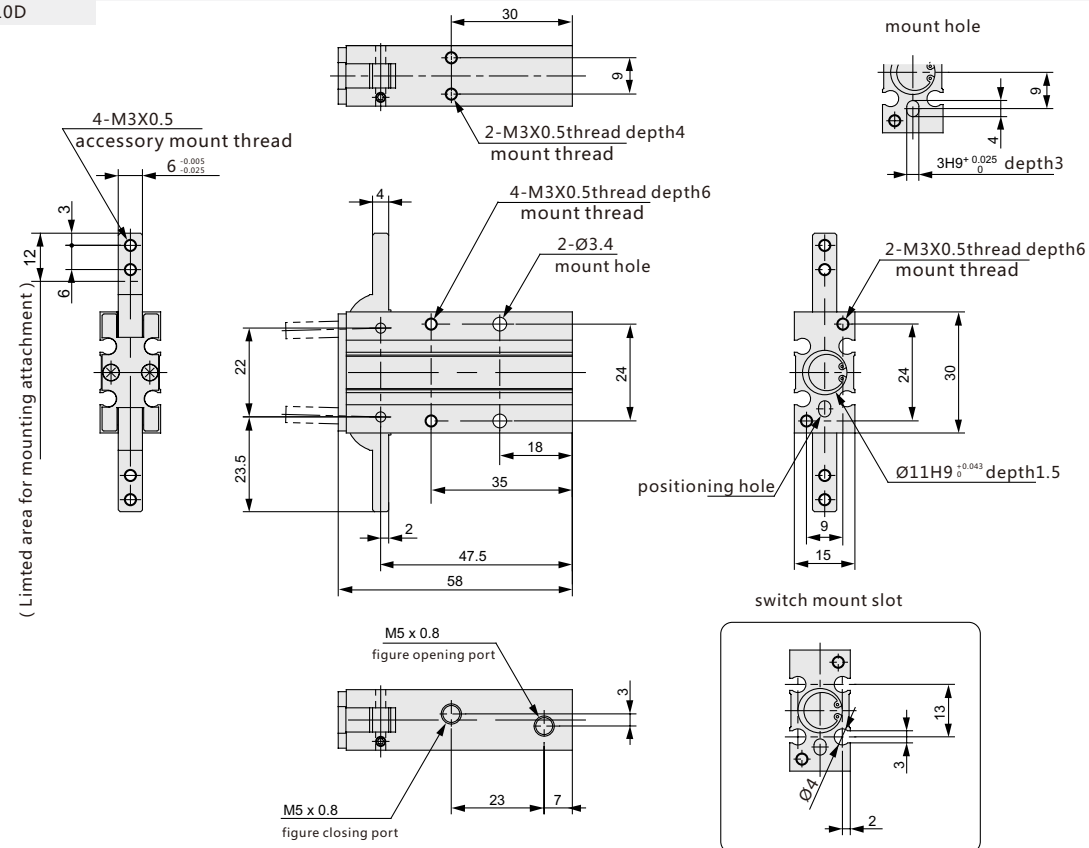


■ Structure

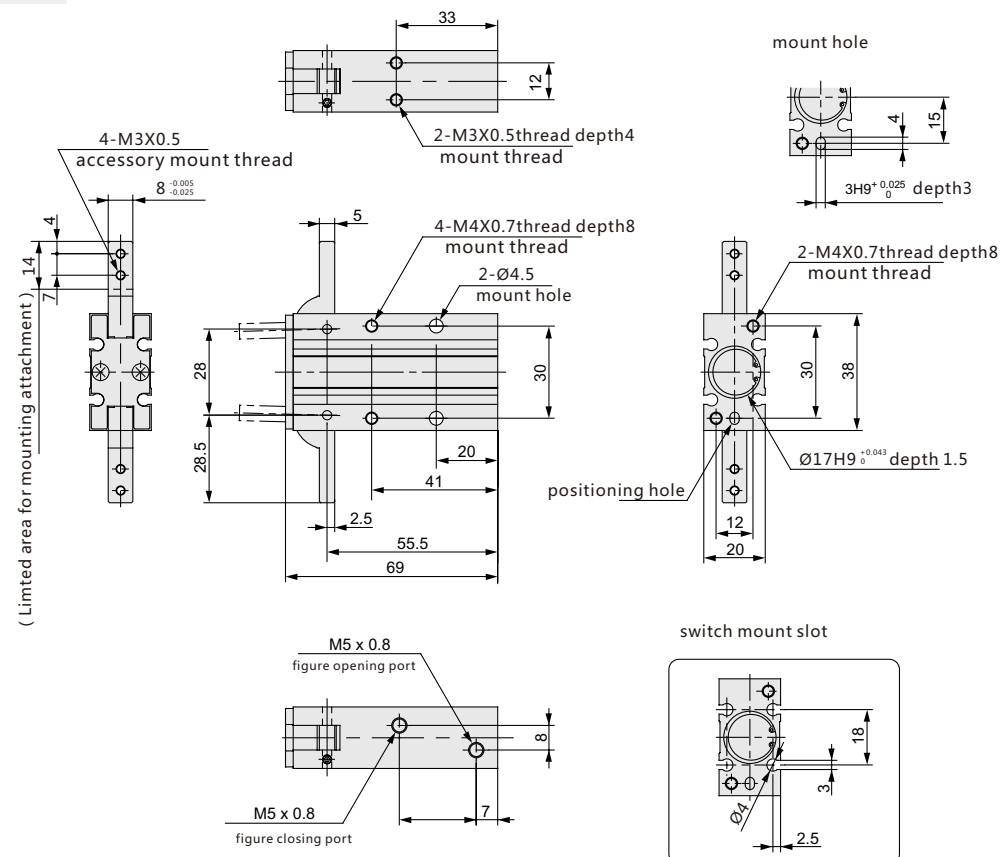


■ Dimensions (mm)

CHY2-10D

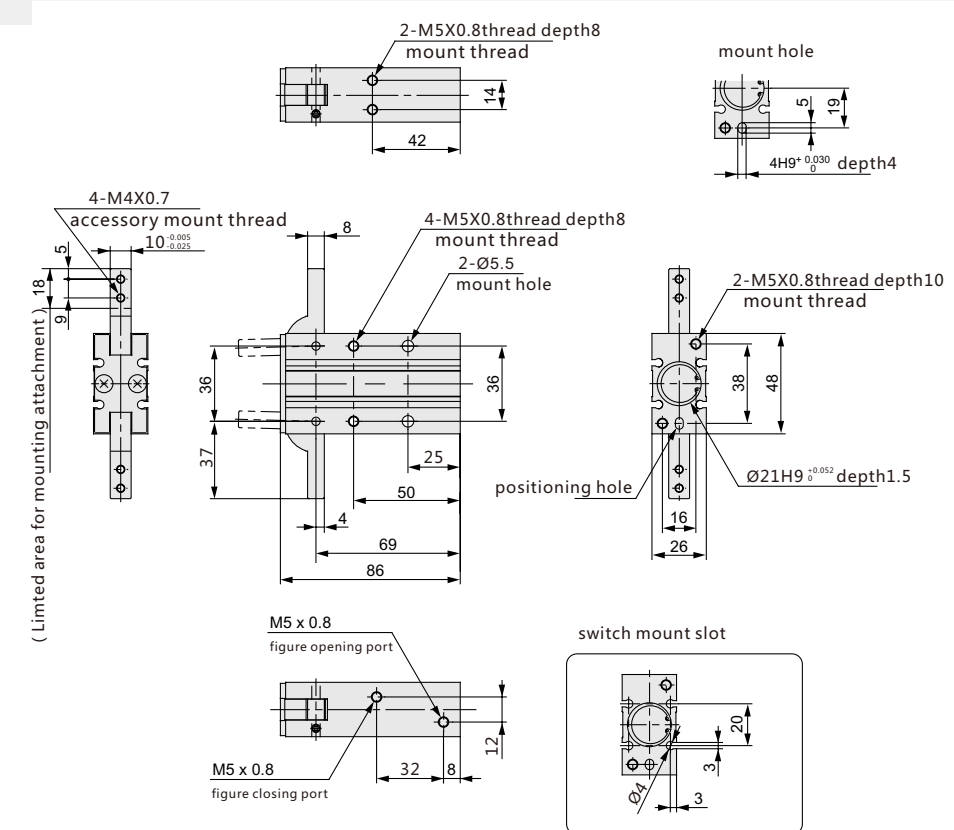


CHY2-16D



■ Dimensions (mm)

CHY2-20D



CHY2-25D

