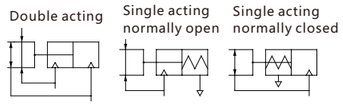
Symbol



■ 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

CHF A 2 – 16 D 1

Figure type

Null	Standard
A	Little type
L	Long stroke

Number of figure

2	2 pcs

Bore

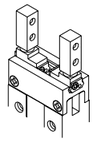
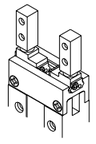
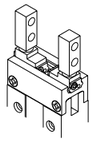
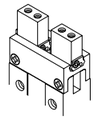
6	Ø6
10	Ø10
16	Ø16
20	Ø20
25	Ø25
32	Ø32
40	Ø40

Action

D	Double acting
S	Normally open
C	Normally closed

Figure option refer to table 1

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

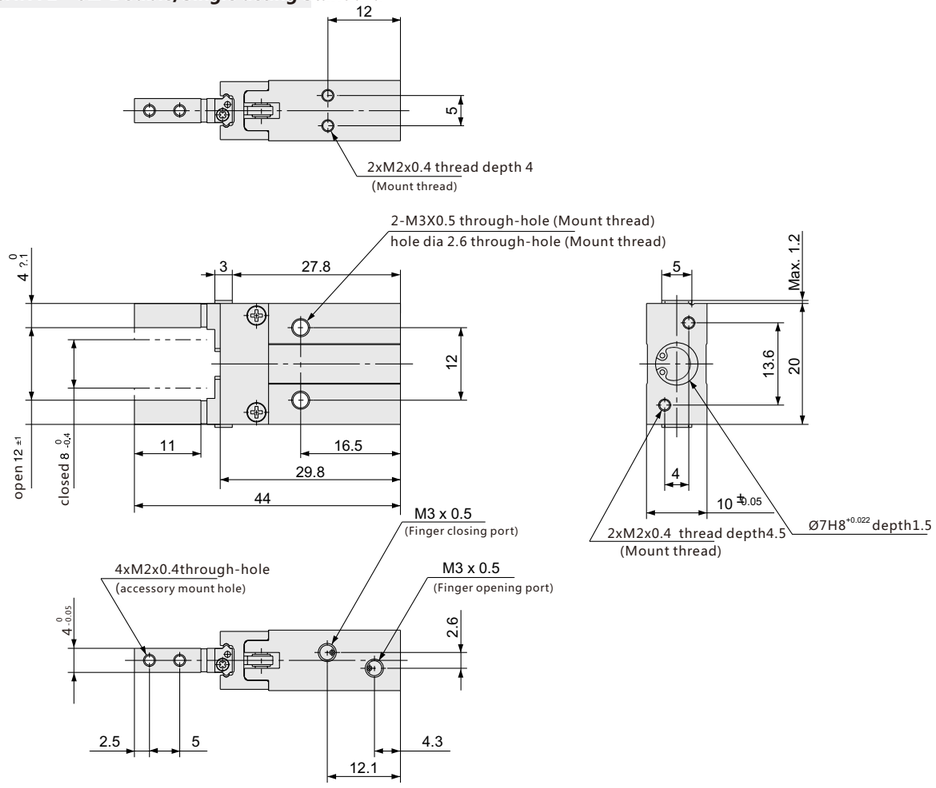
Action		Series	Gripping force per finger Effective value (N)		Opening/Closing (Both sides)mm
			External	Internal	
Double acting		CHF2-6D	3.3	6.1	4
		-10D	11	17	4
		-16D	34	45	6
		-20D	42	66	10
		-25D	65	104	14
		-32D	158	193	22
		-40D	254	318	30
Single acting	Normally open	CHF2-6S	1.9	-	4
		-10S	7.1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

Long stroke type

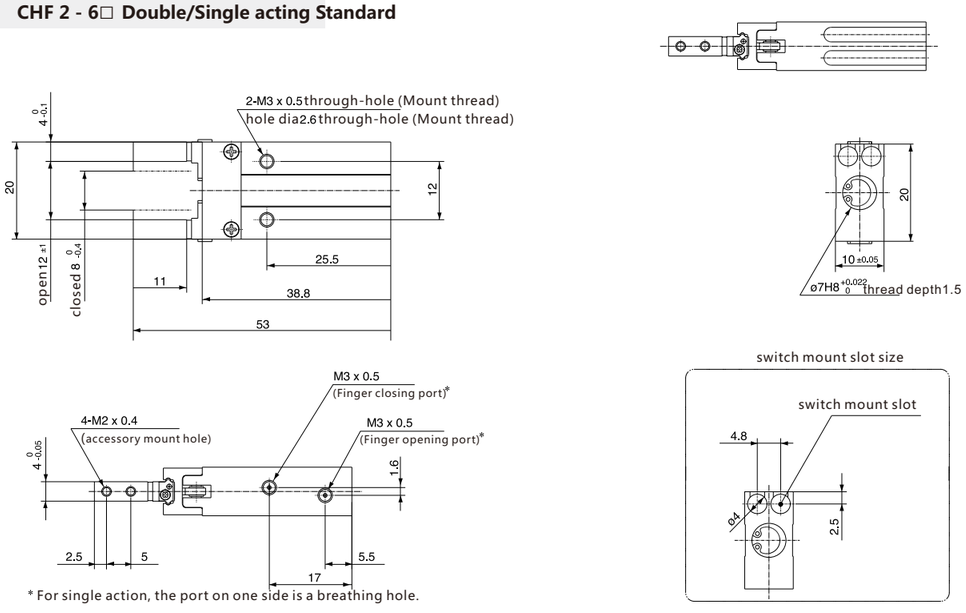
Action		Series	Gripping force per finger Effective value (N)		Opening/Closing (Both sides)mm
			External	Internal	
Double acting		CHFL2-10D	**11**	**17**	**8**
		-16D	**34**	**45**	**12**
		-20D	**42**	**66**	**18**
		-25D	**65**	**104**	**22**
Single acting	Normally open	CHFL2-10S	**7.1**		**8**
		-16S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

■ Dimensions (mm)

CHFA 2 - 6□ Double/Single acting Standard



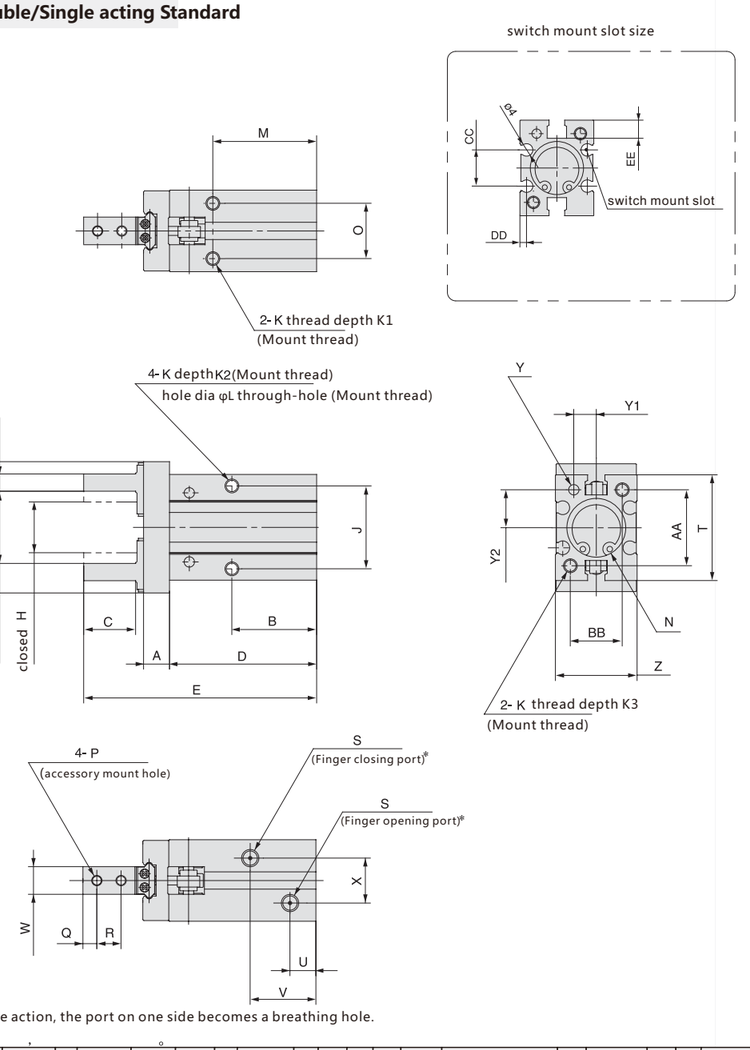
CHF 2 - 6□ Double/Single acting Standard



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

■ Dimensions (mm)

CHF 2 - □ Double/Single acting Standard



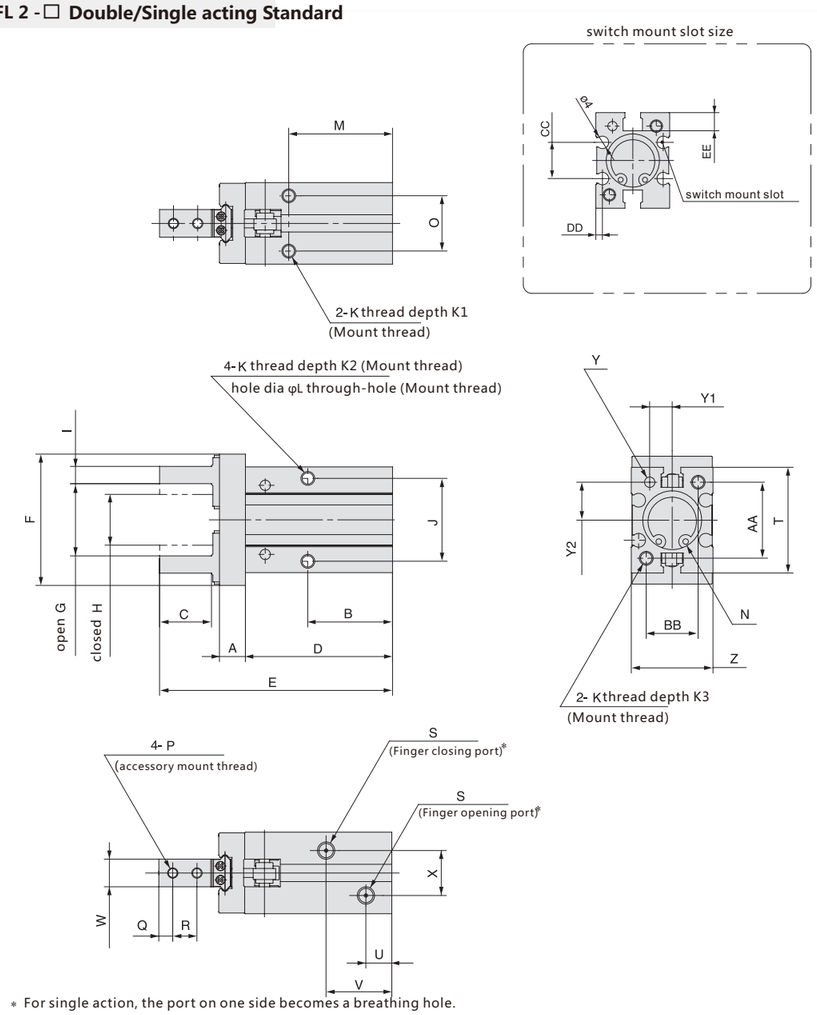
*For single action, the port on one side becomes a breathing hole.

Bore	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	ΦL	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 -0.7	4 0 -0.1	16	M3×0.5	6	5.5	6	2.6	27	φ11H9 +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 -2.2	14.9 0 -0.7	5 0 -0.1	24	M4×0.7	4.5	8	8	3.4	30	φ17H9 +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 -2.2	16.3 0 -0.7	8 0 -0.1	30	M5×0.8	8	10	10	4.3	35	φ21H9 +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 -2.5	19.3 0 -0.8	10 0 -0.1	36	M6×1	10	12	12	5.1	36.5	φ26H9 +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 -0.5	12 0 -0.1	46	M6×1	10	13	13	5.1	48(57)	φ34H9 +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 -0.5	14 0 -0.1	56	M8×1.25	13	16	17	6.6	58(71)	φ42H9 +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 -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	19	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	23	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	23.5	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
32	31(37)	15 0 -0.05	24	φ5H9 +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 -0.05	28	φ5H9 +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	$41.3^{+2.6}_{0}$	$19.3^{0}_{-0.4}$	$10^{0}_{-0.1}$	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