

Table for standard stroke

	Tube I.D.	Stroke (mm)
Single acting	ø16	15,25,50,75,100
	ø20,25	15,25,50,75,100,125,150
Double acting	ø8,10	10,25,40,50,80,100
	ø12	10,25,40,50,80,100,125,160,200
	ø16,20,25	15,25,50,75,100,125,150,200,250,
	ø32,40	300,350,400,450,500

* Please contact us if the stroke is out of specification.

Features

■ Non lubrication

Special housing and bushing enables self lubrication of piston rod.

■ High quality long service life

Hard anodised stainless steel cylinder tubes offer a high resistance to corrosion and low internal friction.

■ Cylinder mountings

Available with a comprehensive range of accessories for rigid or flexible mounting.

■ ISO 6432 standard (ø8~ø25)

Enables world-wide inter-changeability.

■ Port thread Rc. NPT. are also available

■ Magnetic as standard

Specification

Model		MCMI							
Tube I.D. (mm)		8	10	12	16	20	25	32	40
Port size		M5×0.8				G1/8			G1/4
Medium		Air							
Max. operating pressure		0.7 MPa							
Min. operating pressure (MPa)	Double acting	0.1	0.08		0.06				
	Single acting	Extended		0.23			—		
	Returned	—		0.18			—		
Proof pressure		1 MPa							
Lubricator		Not required							
Ambient temperature		-5~+60°C (No freezing)							
Available speed range		50~750 mm/sec							
Max. allowable kinetic energy (J)	Cushion pad	0.02	0.03	0.04	0.09	0.27	0.4	0.65	1.2
	Cushion air	—	—	—	0.4	0.66	0.97	1.27	2.35
Sensor switch (*)		RCM (Please refer to page 8-16)							
Sensor switch (band)		BM8	BM10	BM12	BM16	BM20	BM25	BM32	BM40

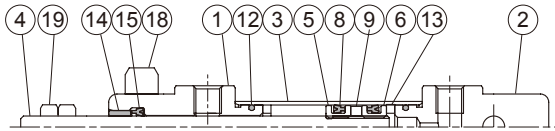
* For precautions, please refer to page 3-2.

Tightening torque

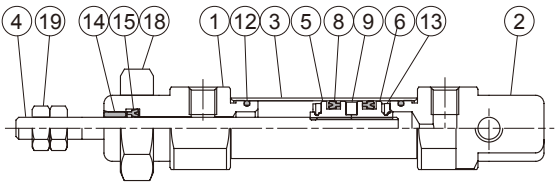
Tube I.D.	Rod thread	Tightening torque (kgf-cm)
ø8	M4×0.7	11.8
ø10	M4×0.7	11.8
ø12	M6×1.0	41
ø16	M6×1.0	41
ø20	M8×1.25	170
ø25	M10×1.25	340
ø32	M10×1.5	340
ø40	M12×1.75	590

* Make sure the tightening torque of rod thread does not exceed the value above. The tolerance of tightening torque is ±5%.

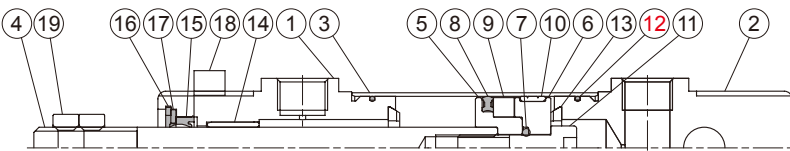
ø8, ø12



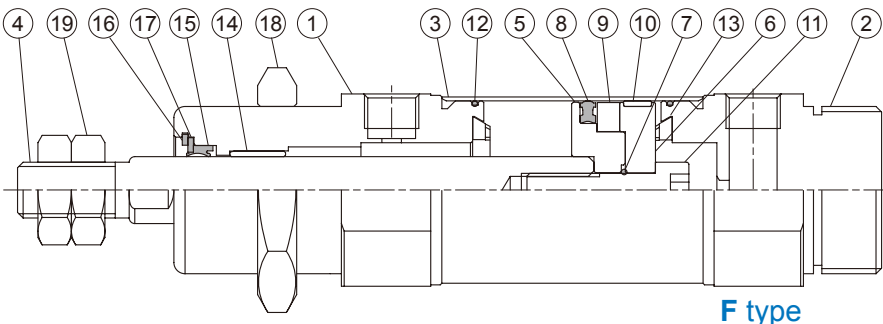
ø10



ø16~ø25

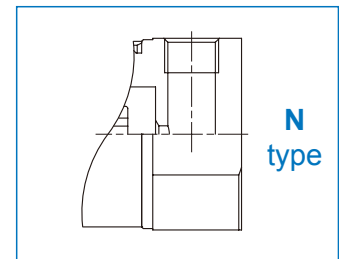


ø32, ø40



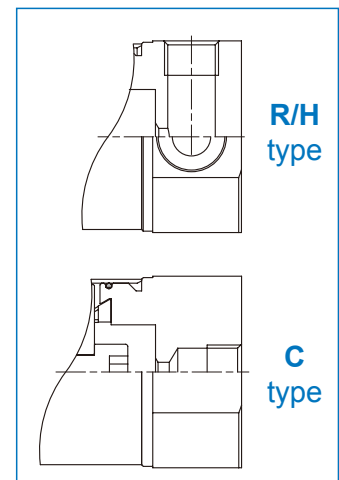
F type

ø8~ø40



N type

ø32, ø40



R/H type

C type

Material

* Style 21 is not applicable in cylinder bore ø8~ø12.

No.	Tube I.D. Part name	8	10	12	16	20	25	32	40	Q'y		Component parts (inclusion)	
										11 type	21 type	11 type	21 type
1	Rod cover	Aluminum alloy								1	2	●	●
2	Head cover	Aluminum alloy								1	—	●	—
3	Tube	Stainless steel								1	1	—	—
4	Piston rod	Stainless steel				Carbon steel				1	1	—	—
5	Piston-R	Aluminum alloy								1	1	●	●
6	Piston-H	Aluminum alloy								1	1	●	●
7	Piston gasket	—		NBR						1	1	●	●
8	Piston packing	NBR								1*1	1*1	●	●
9	Magnet ring	Magnet material								1	1	●	●
10	Wear ring	—		Resin						1	1	●	●
11	Piston bolt	—		SCM						1	—	●	—
12	Cover ring	NBR			—		NBR			2	2	●	●
13	Cushion gasket	NBR								2	2	●	●
14	Rod bush	Bearing alloy								1	2	●	●
15	Rod packing *2	NBR								1	2	●	●
16	Snap ring	—		Spring steel						1	2	●	●
17	Washer	—		Carbon steel						1	2	●	●
18	Tie nut	Carbon steel								1	2	●	●
19	Rod front nut	Carbon steel								2	2	●	●

*1. ø8~ø12 (Q'y: 2 pcs)

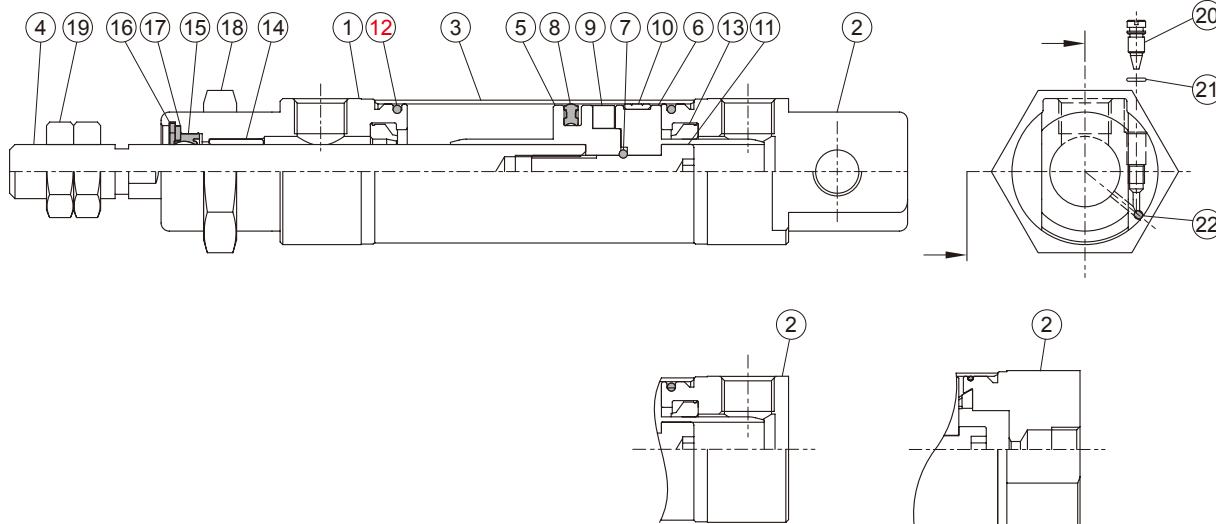
*2. Only the rod packing is repairable, please contact our sales if needed.

Order example of Component parts

Tube I.D.	Component parts
ø8	CP-MCFI-8
ø10	CP-MCFI-10
ø12	CP-MCFI-12
ø16	CP-MCFI-16
ø20	CP-MCFI-20
ø25	CP-MCFI-25

End cover type

Tube I.D.	Component parts	N	R	H	F
ø8	CP-MCFI-8	-N			
ø10	CP-MCFI-10	-N			
ø12	CP-MCFI-12	-N			
ø16	CP-MCFI-16	-N			
ø20	CP-MCFI-20	-N			
ø25	CP-MCFI-25	-N			
ø32	CP-MCFI-32	-N	-R	-H	-F
ø40	CP-MCFI-40	-N	-R	-H	-F



N type: $\varnothing 16 \sim \varnothing 40$

C type: $\varnothing 32 \sim \varnothing 40$

Material

* Cylinder bore $\varnothing 8 \sim 12$ is not applicable.

No.	Tube I.D. Part name	16	20	25	32	40	Q'y		Component parts (inclusion)		
							11 type	21 type	11 type	21 type	
1	Rod cover	Aluminum alloy					1	2	●	●	
2	Head cover	Aluminum alloy					1	—	●		
3	Tube	Stainless steel					1	1			
4	Piston rod	*1	Carbon steel					1	1		
5	Piston-R	Aluminum alloy					1	1	●	●	
6	Piston-H	Aluminum alloy					1	1	●	●	
7	Piston gasket	NBR					1	1	●	●	
8	Piston packing	NBR					1*2	1*2	●	●	
9	Magnet ring	Magnet material					1	1	●	●	
10	Wear ring	Resin					1	1	●	●	
11	Piston bolt	SCM					1	—	●		
12	Cover ring	NBR	—	NBR		2	2	●	●		
13	Cushion packing	NBR					2	2	●	●	
14	Rod bush	Bearing alloy					1	2	●	●	
15	Rod packing *3	NBR					1	2	●	●	
16	Snap ring	Spring steel					1	2	●	●	
17	Washer	Carbon steel					1	2	●	●	
18	Tie nut	Carbon steel					1	2	●	●	
19	Rod front nut	Carbon steel					2	2	●	●	
20	Needle valve	Stainless steel					2	2	●	●	
21	Needle valve packing	NBR					2	2	●	●	
22	Steel ball	Stainless steel					2	2	●	●	

*1. Stainless steel

*2. $\varnothing 8 \sim \varnothing 12$ (Q'y: 2 pcs)

*3. Only the rod packing is repairable, please contact our sales if needed.

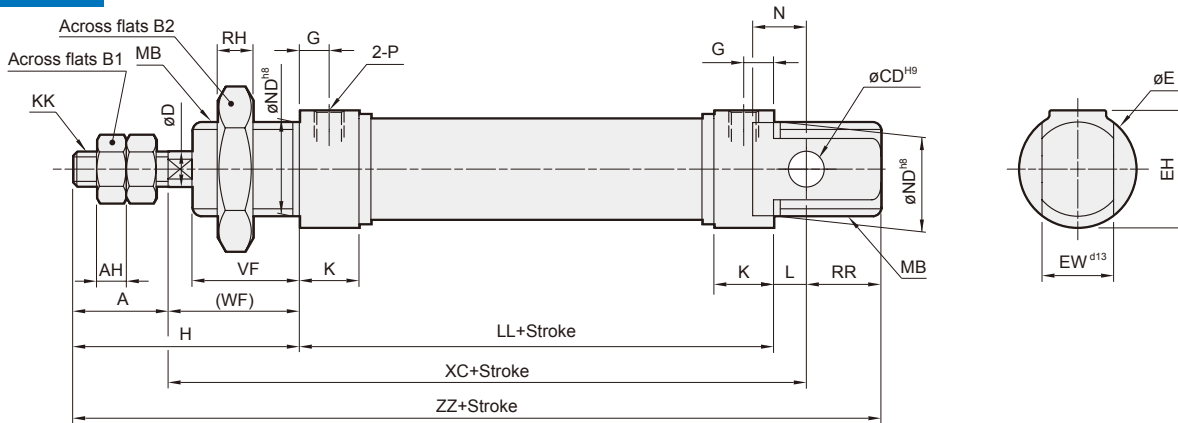
Order example of Component parts

Tube I.D.	Component parts
$\varnothing 16$	CP-MCFI-16A
$\varnothing 20$	CP-MCFI-20A
$\varnothing 25$	CP-MCFI-25A
$\varnothing 32$	—
$\varnothing 40$	—

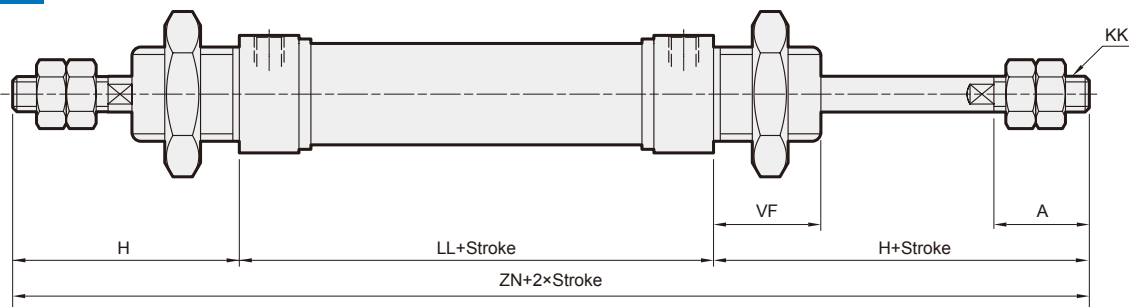
End cover type

Tube I.D.	Component parts	N	R	H	F
$\varnothing 16$	CP-MCFI-16A	-N			
$\varnothing 20$	CP-MCFI-20A	-N			
$\varnothing 25$	CP-MCFI-25A	-N			
$\varnothing 32$	CP-MCFI-32A	-N	-R	-H	-F
$\varnothing 40$	CP-MCFI-40A	-N	-R	-H	-F

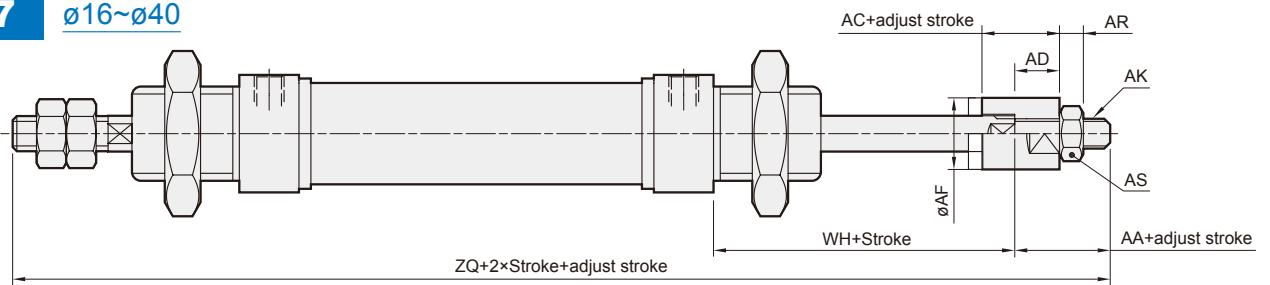
11 $\phi 8\sim\phi 25$ * Please refer to page 3-50 for dimensions of $\phi 32\sim\phi 40$.



21 $\phi 16\sim\phi 40$



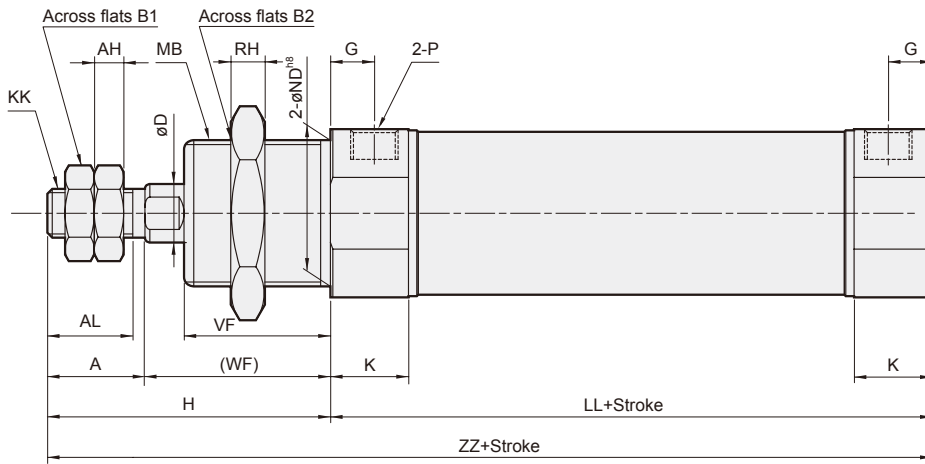
27 $\phi 16\sim\phi 40$



Code Tube I.D.	A	AA	AC	AD	AF	AH	AK	AR	AS	B1	B2	CD	D	E	EH	EW	G	H	K	KK	L	LL	MB
8,10	12	—	—	—	—	3.2	—	—	—	7	19	4	4	15	15	8	6	28	11	M4×0.7	2	46	M12×1.25
12	16	—	—	—	—	5	—	—	—	10	24	6	6	20	20	12	6	38	11	M6×1.0	3	50	M16×1.5
16	16	16	13	7.5	12	5	M5×0.8	4	8	10	22	6	6	20	20	12	5	38	10	M6×1.0	5.5	54.5	M16×1.5
20	20	19	15	9.5	16	5	M8×1.25	5	13	13	30	8	8	27	27	16	8	44	15	M8×1.25	3	68	M22×1.5
25	22	19	15	9.5	16	6	M8×1.25	5	13	17	30	8	10	27	27	16	7.5	50	15	M10×1.25	9	67	M22×1.5
32	20	16	12	7	20	6	M10×1.25	6	17	17	38	—	12	37.5	—	—	9	58	16	M10×1.5	—	68	M30×1.5
40	24	17	12	7	30	7	M12×1.25	7	19	19	46	—	14	46.5	—	—	12	69	22	M12×1.75	—	89	M38×1.5

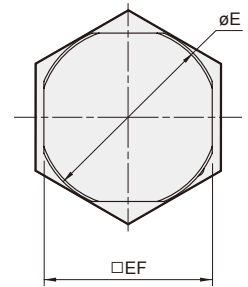
Code Tube I.D.	N	ND	P	RH	RR	VF	WF	WH	XC	ZN	ZP	ZQ	ZZ
8,10	6	12	M5×0.8	6	10	12	16	—	64	—	—	—	86
12	9	16	M5×0.8	8	14	17	22	—	75	—	—	—	105
16	9	16	M5×0.8	6	12.5	18	22	25.5	82	130.5	102	134	110.5
20	12	22	G1/8	6	17	20	24	27	95	156	119	158	132
25	12	22	G1/8	6	13	22	28	29.5	104	167	124.5	165.5	139
32	—	30	G1/8	7	—	30	38	37	—	184	145.5	179	—
40	—	38	G1/8	8	—	35	45	42	—	227	179	217	—

11



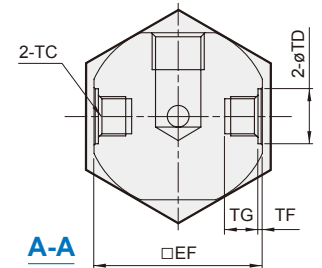
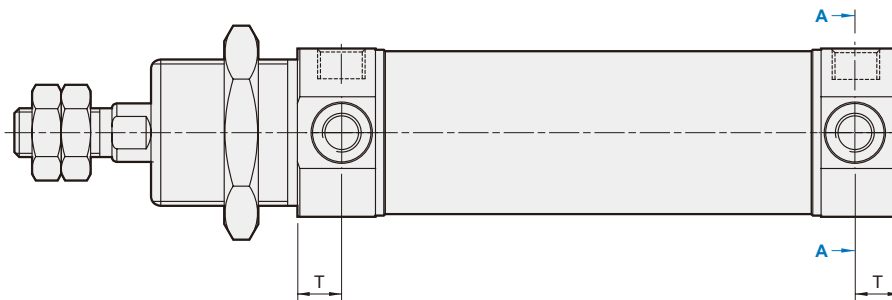
N

Non-pivot type



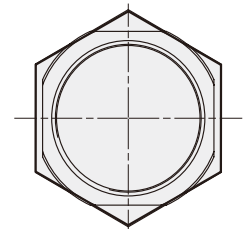
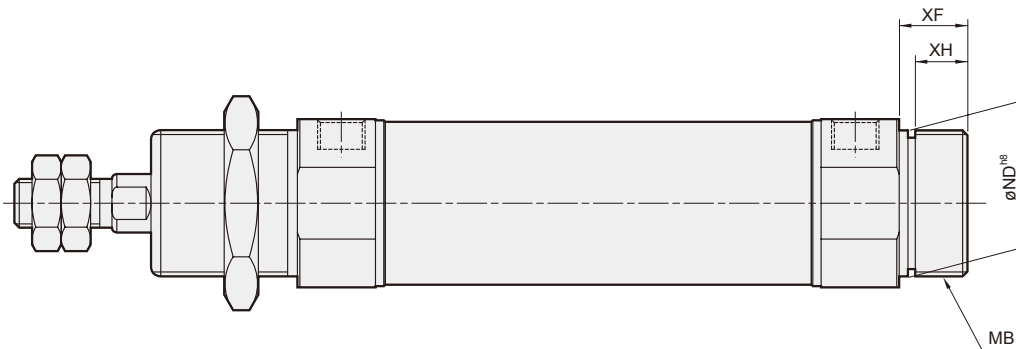
R H

Rod / Head clevis type



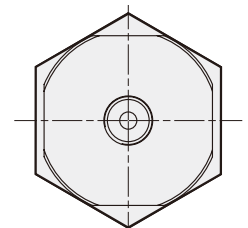
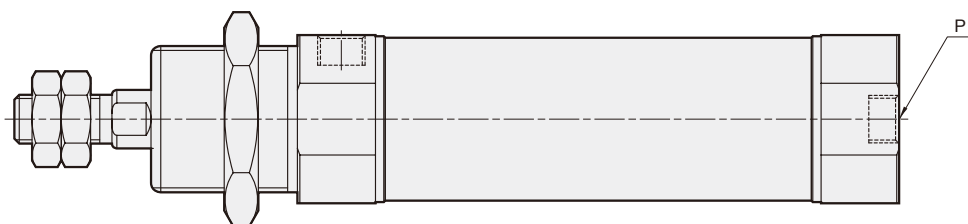
F

Head foot type



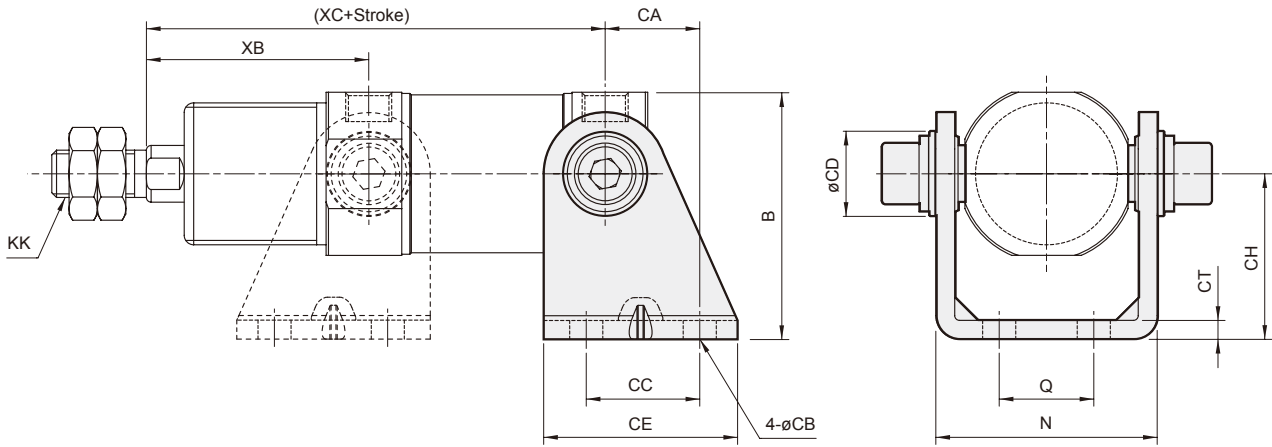
C

Axis port



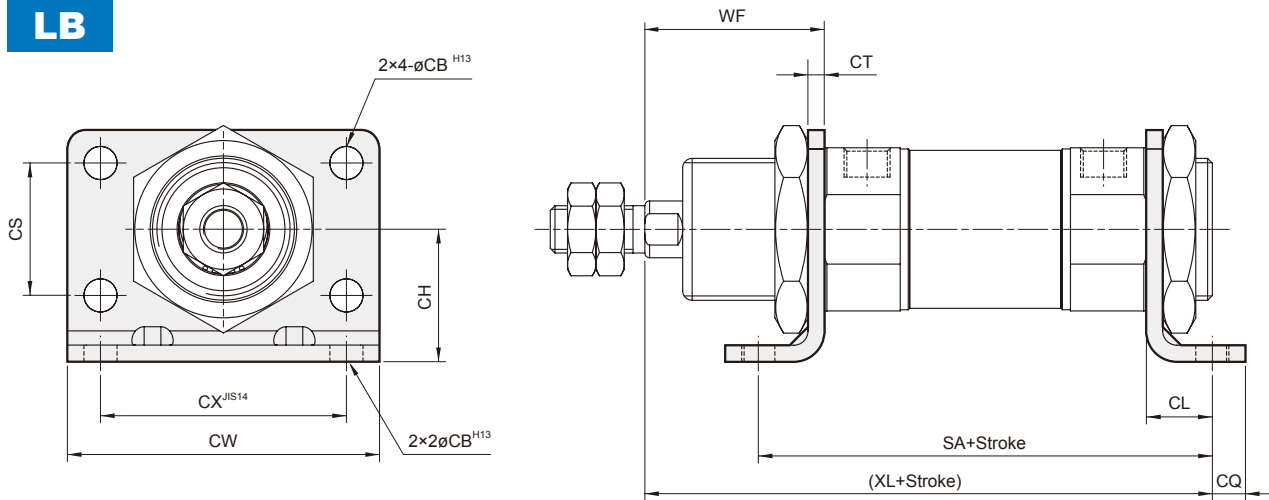
Code Tube I.D.	A	AH	AL	B1	B2	D	E	EF	G	H	KK	K	LL	MB	ND	P	RH	T	TC	TD	VF	WF	XF	XH	ZZ
32	20	6	17	17	38	12	37.5	34.5	9	58	M10×1.5	16	68	M30×1.5	30	G1/8	7	9	M8×1.0×6.5 dp	12	30	38	14	10.7	126
40	24	7	21	19	46	14	46.5	42.5	12	69	M12×1.75	22	89	M38×1.5	38	G1/4	8	12	M10×1.0×8 dp	14	35	45	16	12.2	158

SDB



Code Tube I.D.	B	CA	CB	CC	CD	CE	CH	CT	KK	N	Q	XC	XB
32	52.3	20	7	24	18	41	35	4	M10×1.5	46.8	20	97	49.5
40	61.3	27	9	30	22	52	40	4	M12×1.75	58.2	28	122	60

LB



Code Tube I.D.	CB	CH	CL	CQ	CT	CW	CX	CS	KK	SA	SC	SX	WF	XL
32	7	28	14	7	3.5	66	52	28	M10×1.5	96	47	48.5	38	120
40	9	33	20	10	3.5	80	60	30	M12×1.75	129	56	62.5	45	154