

MCQA series

STANDARD CYLINDERS



Features:

- Non-lubrication:**
 Designs of oil-filled alloy, special housing and bushing provide the needed self-lubrication of piston rod.
- High quality-long service life:**
 Hard anodized aluminum cylinder tubes resist corrosion and abrasion.
- Non-standard type:**
 Non-standard type is also available. For example, Stroke out of specification, dust cap, rod front end dimension variation etc.
- Cylinder mountings:**
 Available with a comprehensive selection of mountings for fixed or flexible installation.

Table for standard stroke

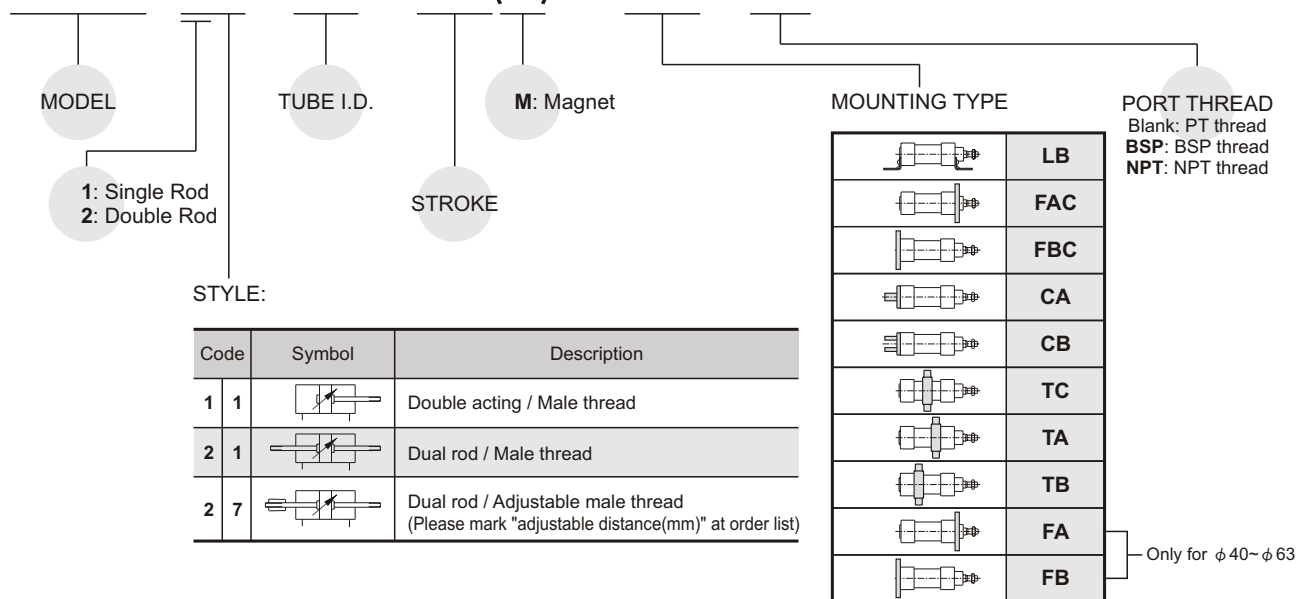
Tube I.D.	Stroke(mm)
φ 40	50,75,100,125,150,175,200,250,300,350,400,450,500
φ 50,63	↑ 600
φ 80,100	↑ 600,700
φ 125,150	↑ 600,700,800,900,1000
φ 200	↑ 600,700,800,900,1000,1500

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

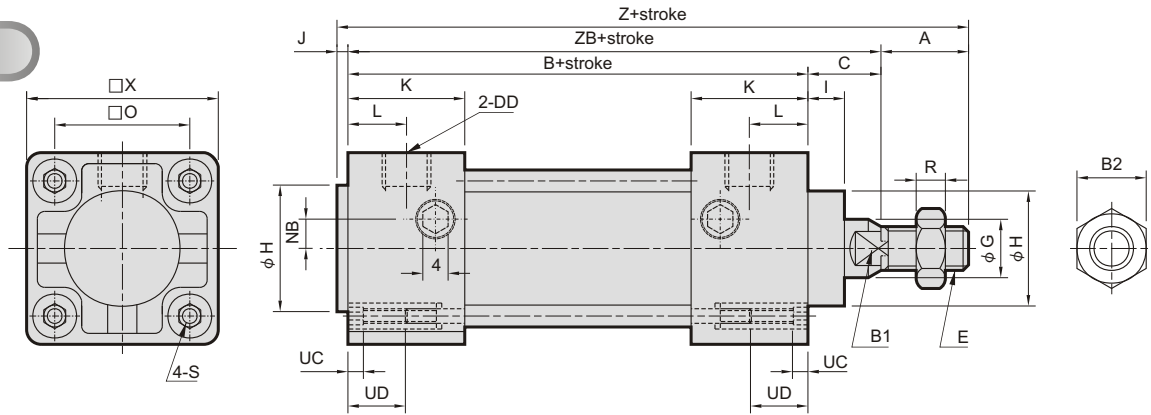
Model	MCQA				
Tube I.D. (mm)	40,50,63	80,100	125	150	200
Medium	Air				
Operating pressure range	0.5~9.9 kgf/cm ²				
Proof pressure	15 kgf/cm ²				
Ambient temperature	-5~+60°C (No freezing)				
Sensor switch	RCA				
Sensor switch holder	HV2	HV4	PM14	PM16	HA5

Order example:

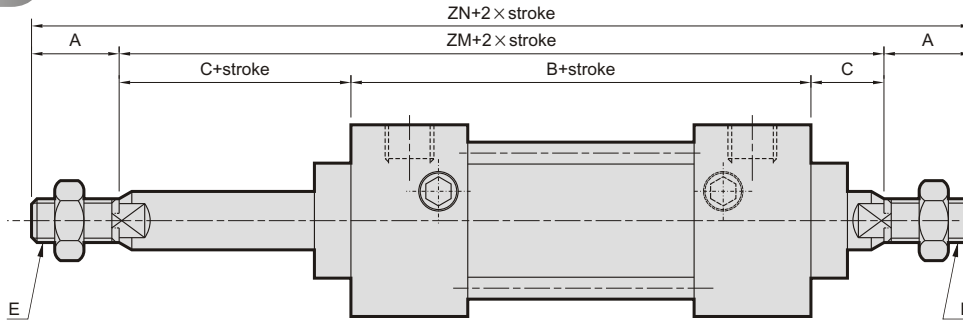
MCQA - 11 - 40 - 100(M) - FAC - BSP



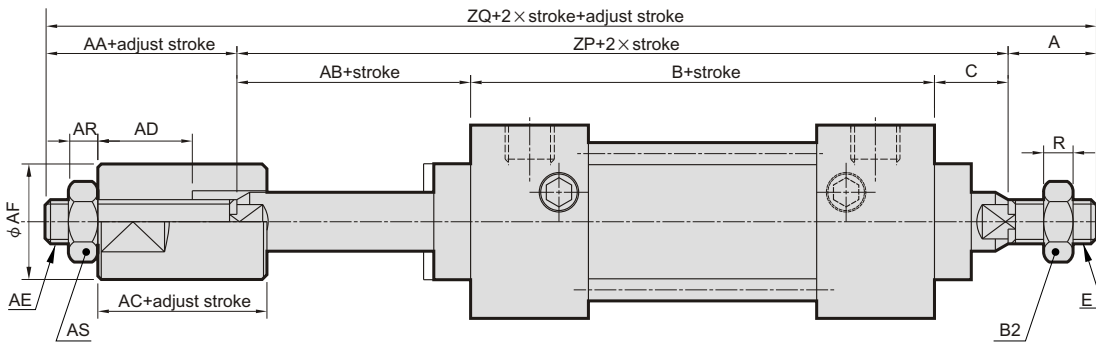
11



21



27



Code Tube I.D.	A	AA	AB	AC	AD	AE	AF	AR	AS	B	B1	B2	C	DD	E	G	H	I	J	K	L	NB	O	R
40	30	21	18	12	7	M12×1.25	30	7	19	84	14	22	21	PT 1/4	M14×1.5	16	32	11	3	26	13	8	40.5	8
50	35	23	18	15	10	M16×1.5	40	8	24	90	17	27	23	PT 3/8	M18×1.5	20	40	11	3	28	14	0	48	11
63	35	23	18	15	10	M16×1.5	40	8	24	98	17	27	23	PT 3/8	M18×1.5	20	40	11	3	30	15	0	59	11
80	40	33	24	20	14	M22×1.5	50	13	32	116	22	32	31	PT 1/2	M22×1.5	25	45	15	4	34	17	0	74	13
100	40	33	24	20	14	M22×1.5	50	13	32	126	27	36	32	PT 1/2	M26×1.5	30	52	15	5	37	18.5	0	90	14

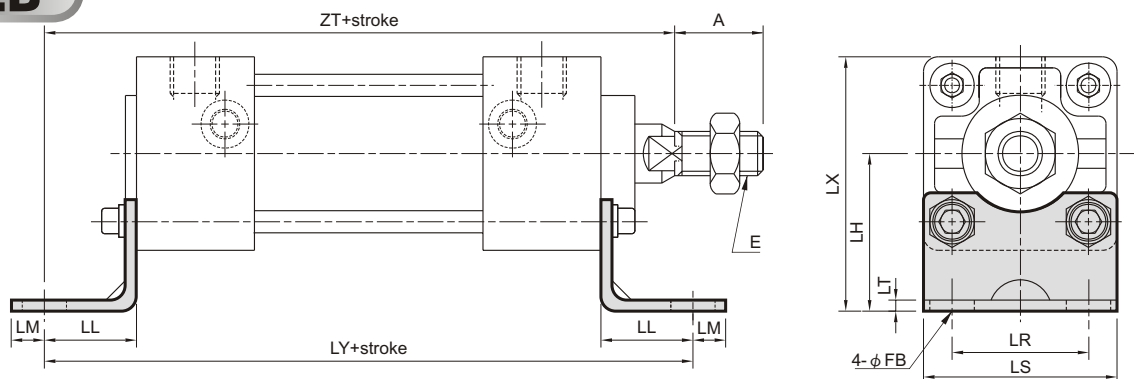
Code Tube I.D.	S	UC	UD	X	Z	ZB	ZM	ZN	ZP	ZQ
40	M8×1.25	4	12	58	138	105	126	186	123	174
50	M8×1.25	4	12	66	151	113	136	206	131	189
63	M8×1.25	4	12	80	159	121	144	214	139	197
80	M12×1.75	4	15	100	191	147	178	258	171	244
100	M12×1.75	4	15	118	203	158	190	270	182	255

MCQA $\phi 40 \sim \phi 100$

STANDARD CYLINDERS

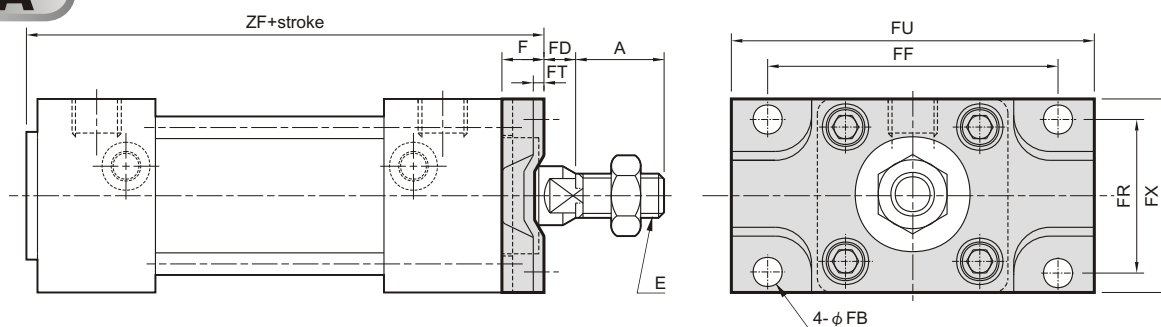


LB



Code Tube I.D.	A	E	FB	LH	LL	LM	LR	LS	LT	LX	LY	ZT
40	30	M14×1.5	9	40	27	13	42	58	3.2	69	138	132
50	35	M18×1.5	9	45	27	13	50	66	3.2	78	144	140
63	35	M18×1.5	11.5	50	34	16	59	80	4.5	90	166	155
80	40	M22×1.5	14	65	44	16	76	100	6	115	204	191
100	40	M26×1.5	14	75	43	17	92	118	6	134	212	201

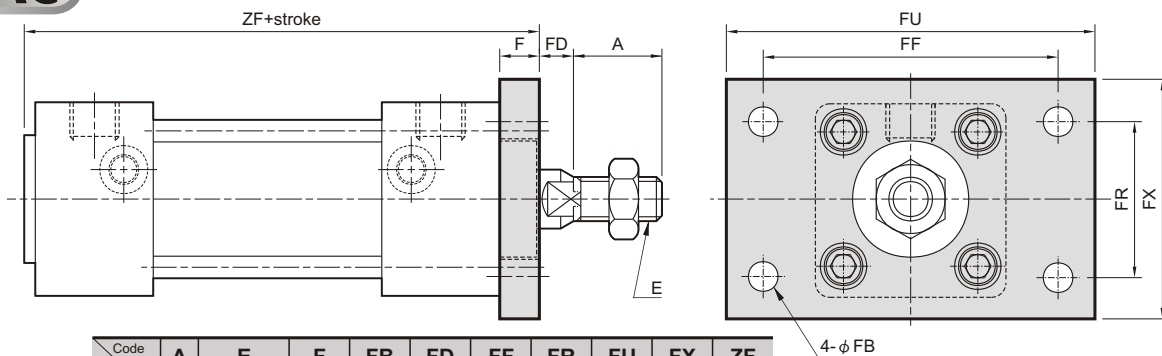
FA



Code Tube I.D.	A	E	F	FB	FD	FF	FR	FT	FU	FX	ZF
40	30	M14×1.5	12	9	9	80	42	3.2	100	58	99
50	35	M18×1.5	12	9	11	90	50	3.2	110	66	105
63	35	M18×1.5	15	11.5	8	105	59	4.5	130	80	116

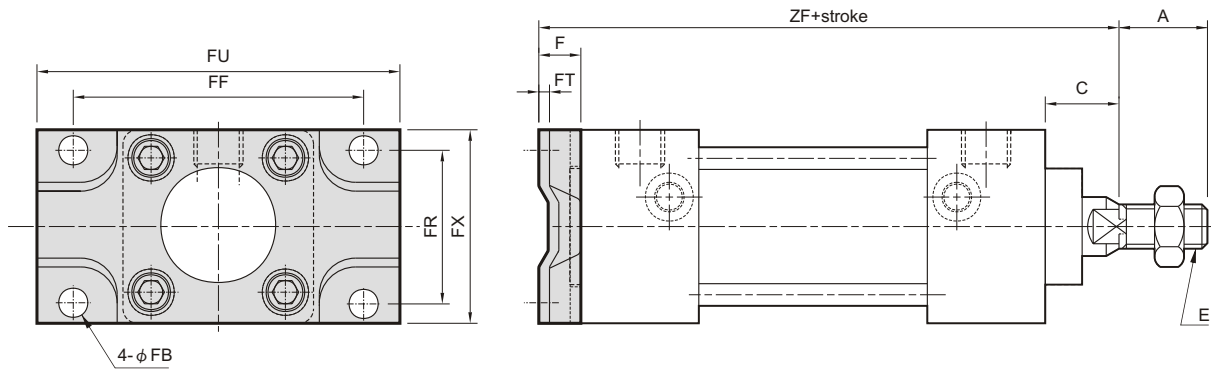
FAC

Note: Applicable to the stroke over 500mm



Code Tube I.D.	A	E	F	FB	FD	FF	FR	FU	FX	ZF
40	30	M14×1.5	12	9	9	80	42	100	65	99
50	35	M18×1.5	12	9	11	90	50	110	73	105
63	35	M18×1.5	15	11.5	8	105	59	130	84	116
80	40	M22×1.5	18	14	13	130	76	160	108	138
100	40	M26×1.5	18	14	14	150	92	180	124	149

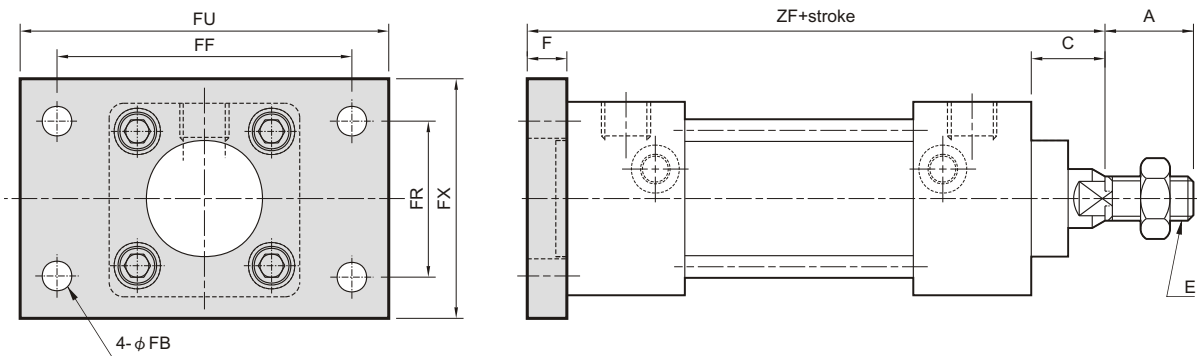
FB



Code Tube I.D.	A	E	C	F	FB	FF	FR	FT	FU	FX	ZF
40	30	M14×1.5	21	12	9	80	42	3.2	100	58	117
50	35	M18×1.5	23	12	9	90	50	3.2	110	66	125
63	35	M18×1.5	23	15	11.5	105	59	4.5	130	80	136

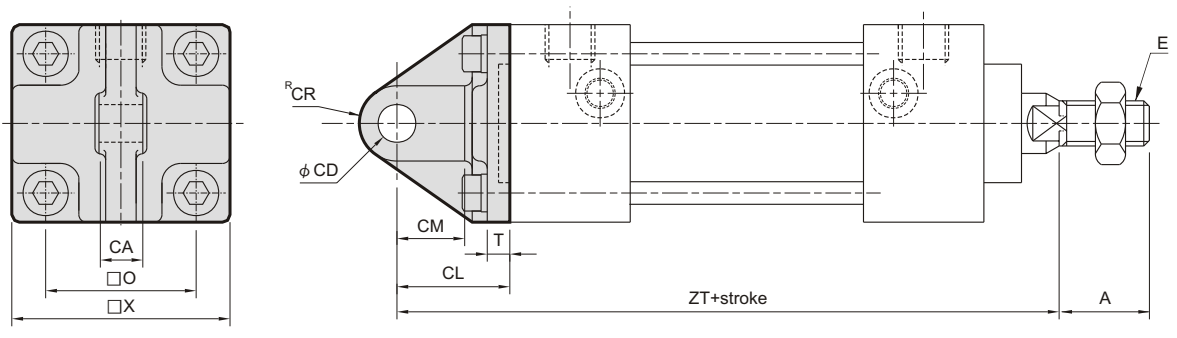
FBC

Note: Applicable to the stroke over 500mm



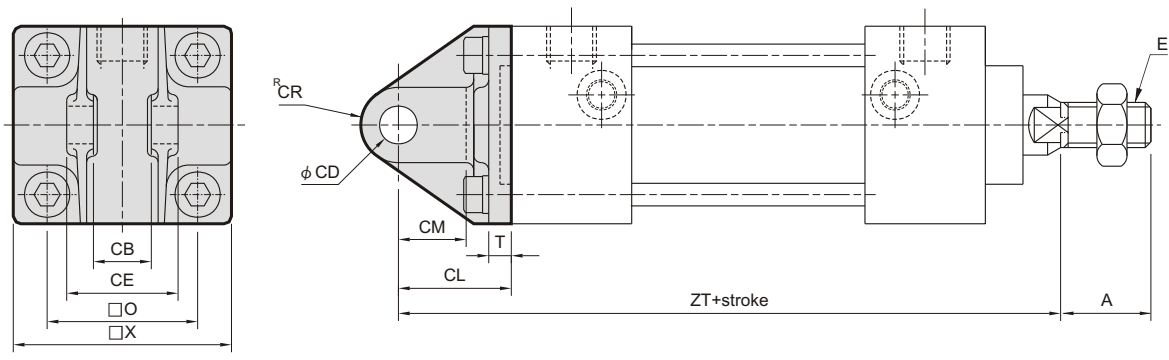
Code Tube I.D.	A	C	E	F	FB	FF	FR	FU	FX	ZF
40	30	21	M14×1.5	12	9	80	42	100	65	117
50	35	23	M18×1.5	12	9	90	50	110	73	125
63	35	23	M18×1.5	15	11.5	105	59	130	84	136
80	40	31	M22×1.5	18	14	130	76	160	108	165
100	40	32	M26×1.5	18	14	150	92	180	124	176

CA



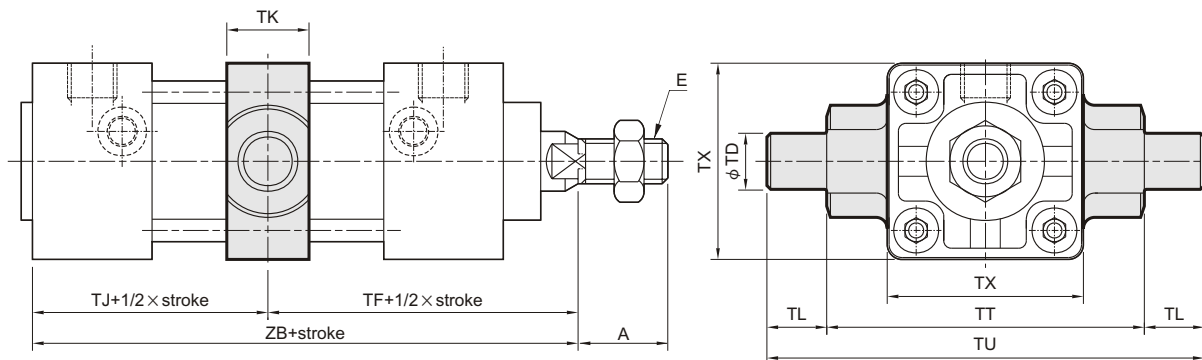
Code Tube I.D.	A	CA	CD	CL	CM	CR	E	O	T	X	ZT
40	30	15 ^{-0.1/-0.3}	10 ^{H10}	30	18	10	M14 × 1.5	40.5	5	58	135
50	35	18 ^{-0.1/-0.3}	12 ^{H10}	35	22	12	M18 × 1.5	48	5	66	148
63	35	25 ^{-0.1/-0.3}	16 ^{H10}	40	27	16	M18 × 1.5	59	5	80	161
80	40	31.5 ^{-0.1/-0.3}	20 ^{H10}	48	30	20	M22 × 1.5	74	7.5	100	195
100	40	35.5 ^{-0.1/-0.3}	25 ^{H10}	58	38	25	M26 × 1.5	90	7.5	118	216

CB



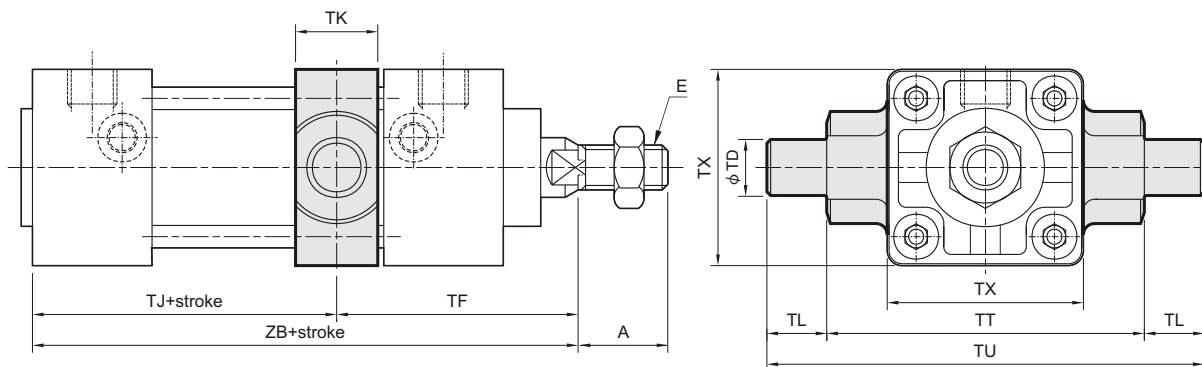
Code Tube I.D.	A	CB	CD	CE	CL	CM	CR	E	O	T	X	ZT
40	30	15 ^{+0.3/+0.1}	10 ^{H10}	29.5	30	18	10	M14 × 1.5	40.5	5	58	135
50	35	18 ^{+0.3/+0.1}	12 ^{H10}	38	35	22	12	M18 × 1.5	48	5	66	148
63	35	25 ^{+0.3/+0.1}	16 ^{H10}	49	40	27	16	M18 × 1.5	59	5	80	161
80	40	31.5 ^{+0.3/+0.1}	20 ^{H10}	59	48	30	20	M22 × 1.5	74	7.5	100	195
100	40	35.5 ^{+0.3/+0.1}	25 ^{H10}	64	58	38	25	M26 × 1.5	90	7.5	118	216

TC



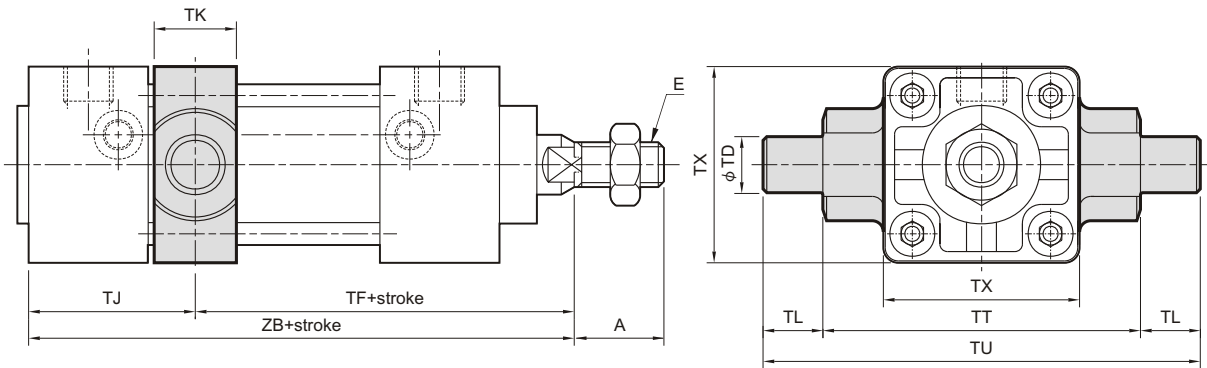
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TT	TU	TX	ZB
40	30	M14 × 1.5	15 ^{øB}	63	42	22	16	85	117	58	105
50	35	M18 × 1.5	15 ^{øB}	68	45	22	16	95	127	67	113
63	35	M18 × 1.5	18 ^{øB}	72	49	28	19	110	148	82	121
80	40	M22 × 1.5	25 ^{øB}	89	58	34	26	140	192	102	147
100	40	M26 × 1.5	25 ^{øB}	95	63	40	26	162	214	122	158

TA



Code Tube I.D.	A	E	TD	TF	without magnet		magnet		TK	TL	TT	TU	TX
					TJ	ZB	TJ	ZB					
40	30	M14 × 1.5	15 ^{øB}	60	45	105	75	135	22	16	85	117	58
50	35	M18 × 1.5	15 ^{øB}	64	49	113	79	143	22	16	95	127	67
63	35	M18 × 1.5	18 ^{øB}	69	52	121	82	151	28	19	110	148	82
80	40	M22 × 1.5	25 ^{øB}	85	62	147	102	187	34	26	140	192	102
100	40	M26 × 1.5	25 ^{øB}	92	66	158	106	198	40	26	162	214	122

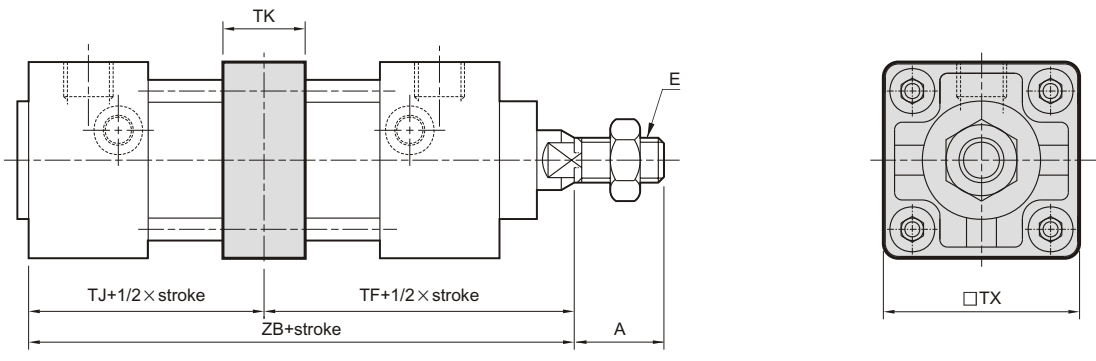
TB



Code Tube I.D.	A	E	TD	without magnet		magnet		TJ	TK	TL	TT	TU	TX
				TF	ZB	TF	ZB						
40	30	M14 × 1.5	15 ^{SB}	66	105	96	135	39	22	16	85	117	58
50	35	M18 × 1.5	15 ^{SB}	72	113	102	143	41	22	16	95	127	67
63	35	M18 × 1.5	18 ^{SB}	75	121	105	151	46	28	19	110	148	82
80	40	M22 × 1.5	25 ^{SB}	93	147	133	187	54	34	26	140	192	102
100	40	M26 × 1.5	25 ^{SB}	98	158	138	198	60	40	26	162	214	122

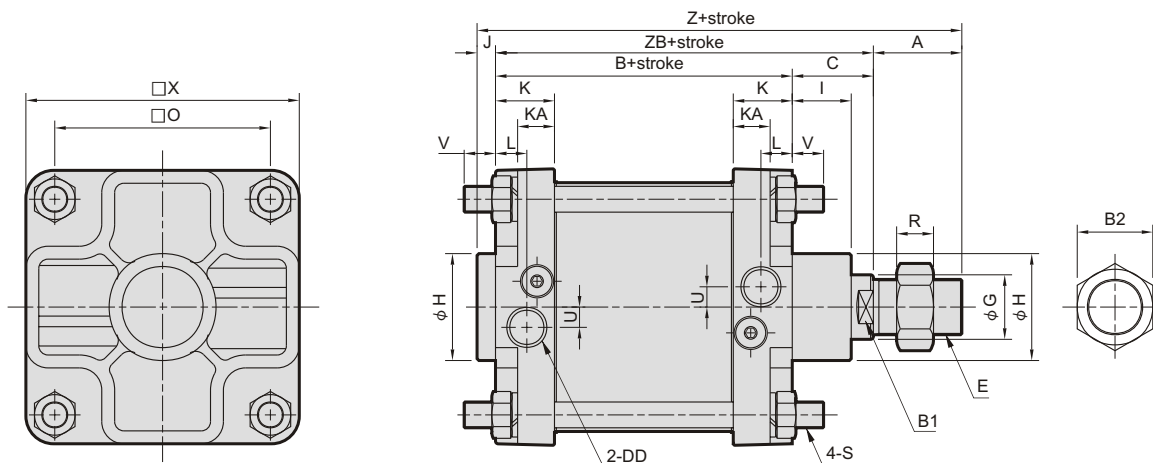
SDS

Stroke over 1000mm



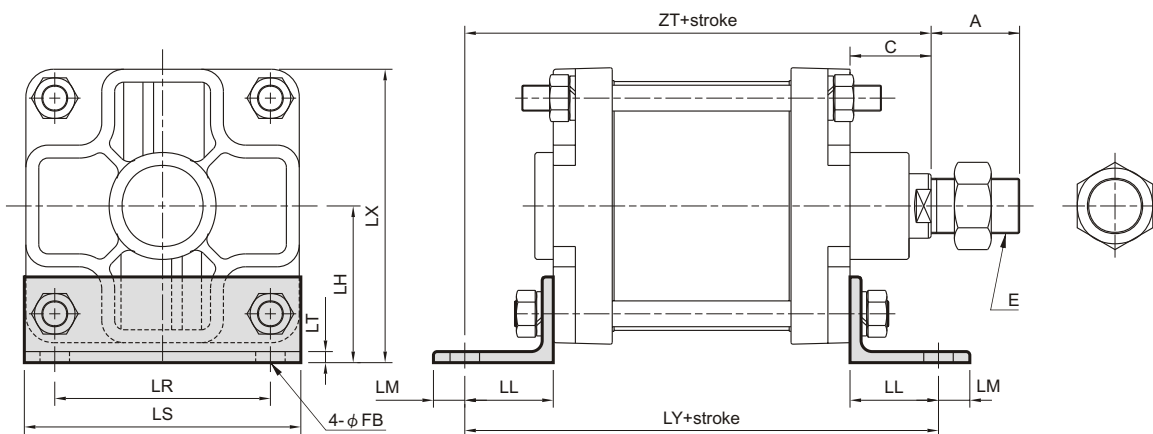
Code Tube I.D.	A	E	TF	TJ	TK	TX	ZB
40	30	M14 × 1.5	63	42	22	58	105
50	35	M18 × 1.5	68	45	22	67	113
63	35	M18 × 1.5	72	49	28	82	121
80	40	M22 × 1.5	89	58	34	102	147
100	40	M26 × 1.5	95	63	40	122	158

11



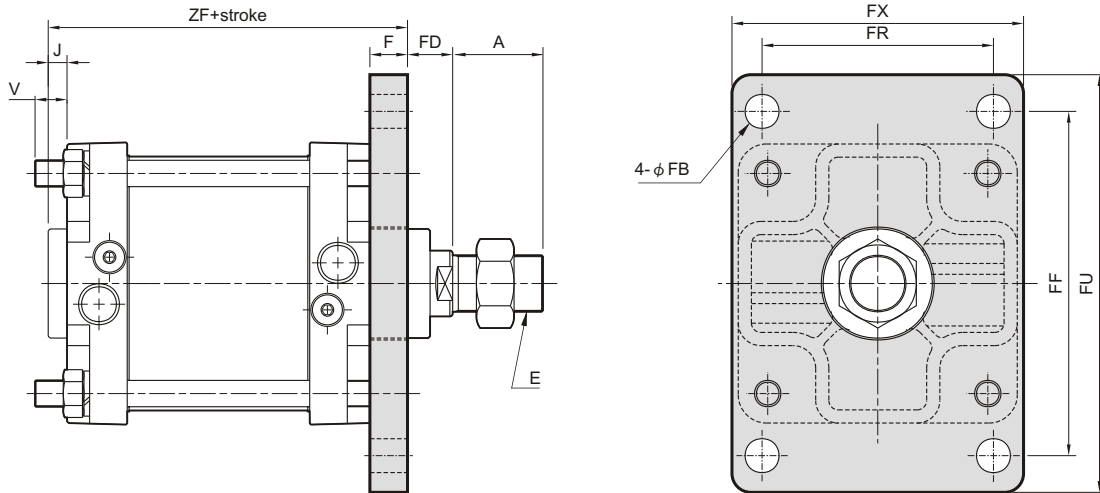
Code Tube I.D.	A	B	B1	B2	C	DD	E		G	H	I	J	K	KA	L	O	R	S		U	V	X	Z	ZB
							Dia	Pitch										Dia	Pitch					
125	45	136	30	41	47	PT 1/2	M30	1.5	35	58	32	10	32	20	17	117	15	M14	1.5	11	20	150	238	183
150	50	153	30	41	47	PT 1/2	M30	1.5	40	60	32	8	40.5	25	24.5	134	15	M16	1.5	12	26	175	258	200
200	63	154	46	70	67	PT 3/4	M45	1.5	50	74	35	8	42	25	24	182	27	M20	1.5	12	18	226	292	221

LB



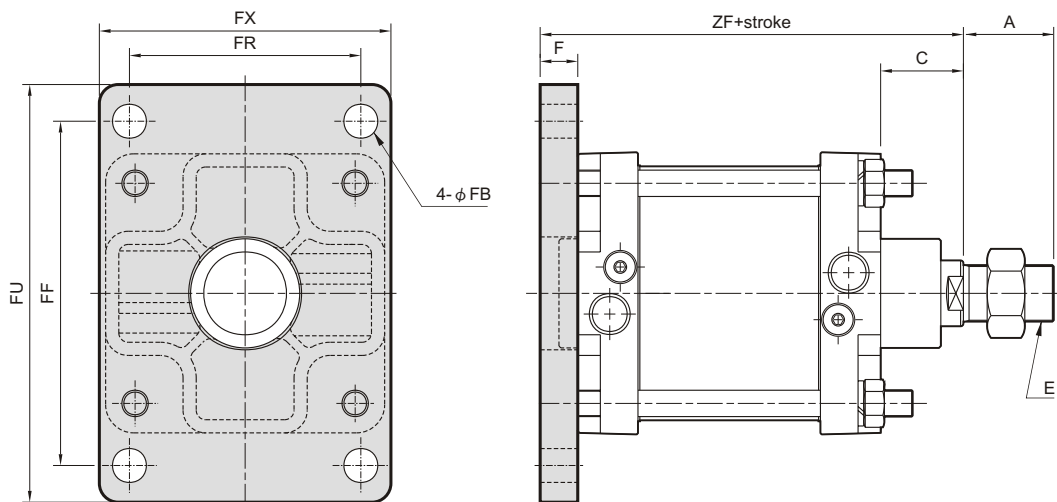
Code Tube I.D.	A	E	FB	LH	LL	LM	LR	LS	LT	LX	LY	ZT	
125	45	M30	1.5	16	85	48	17	117	150	6	162	232	231
150	50	M30	1.5	18	96.5	55	20	134	175	9	184	263	255
200	63	M45	1.5	24	132	60	30	150	226	10	245	274	281

FAC



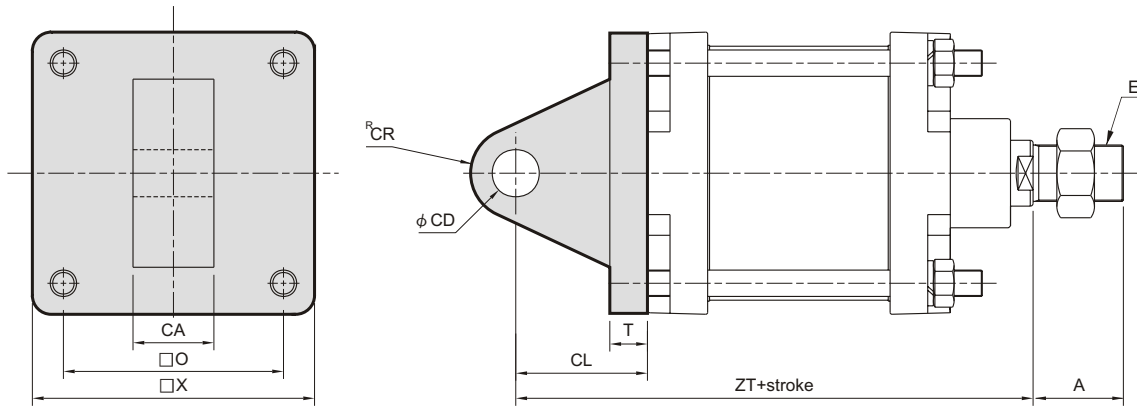
Code Tube I.D.	A	E	F	FB	FD	FF	FR	FU	FX	J	V	ZF
125	45	M30×1.5	20	18	27	183	123	222	155	10	20	166
150	50	M30×1.5	20	18	27	230	134	275	185	8	32	181
200	63	M45×1.5	25	24	42	280	150	335	225	8	11	187

FBC



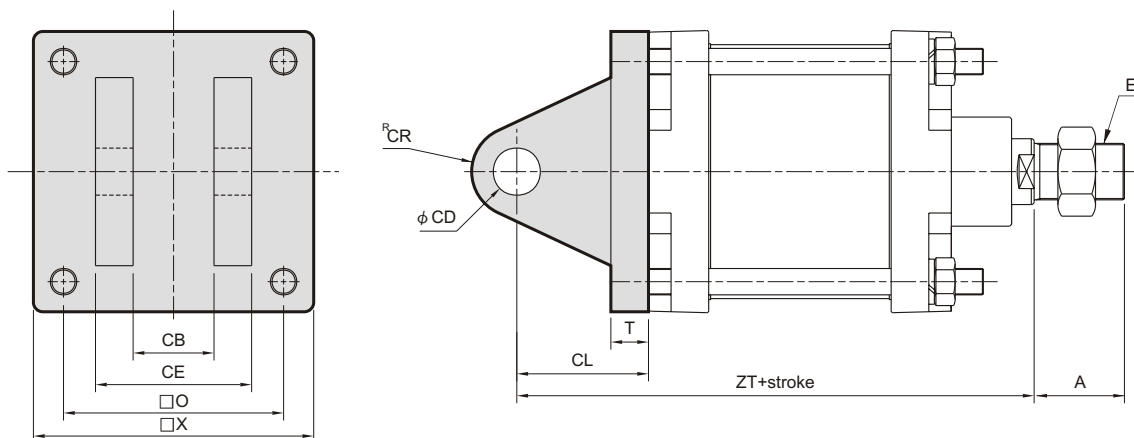
Code Tube I.D.	A	C	E	F	FB	FF	FR	FU	FX	ZF
125	45	47	M30×1.5	20	18	183	123	222	155	203
150	50	47	M30×1.5	20	18	230	134	275	185	220
200	63	67	M45×1.5	25	24	280	150	335	225	246

CA



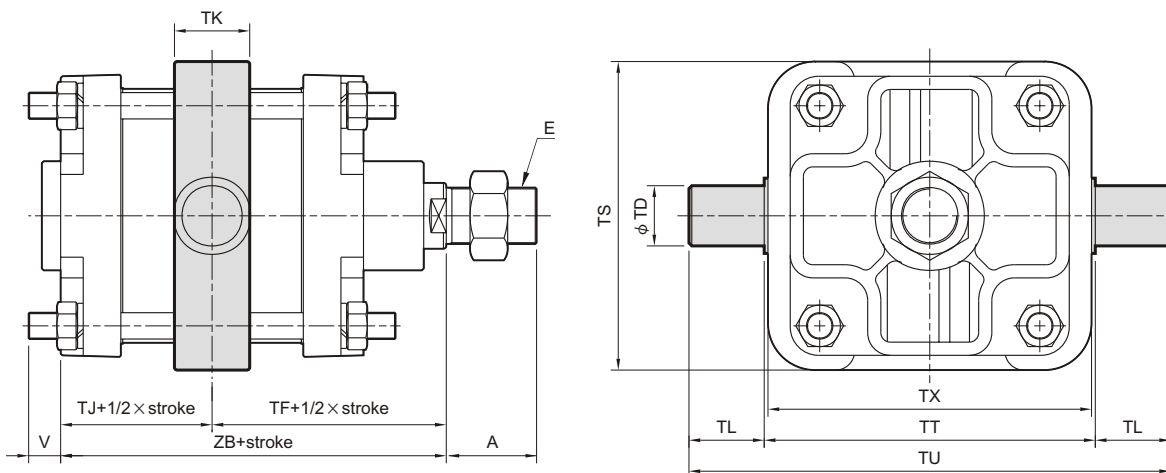
Code Tube I.D.	A	CA	CD	CL	CR	E	O	T	X	ZT
125	45	43 $_{-0.3}^{-0.1}$	25 ^{H10}	65	24	M30 × 1.5	117	15	150	248
150	50	40 $_{-0.3}^{-0.1}$	30 ^{H10}	78	27.5	M30 × 1.5	134	20	175	278
200	63	50 $_{-0.3}^{-0.1}$	40 ^{H10}	85	40	M45 × 1.5	182	25	226	306

CB



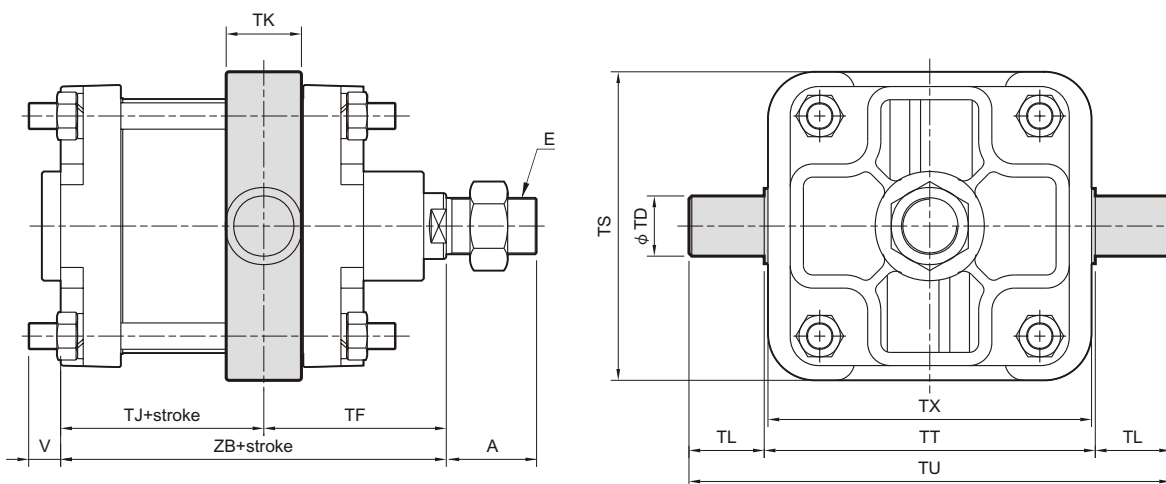
Code Tube I.D.	A	CB	CD	CE	CL	CR	E	O	T	X	ZT
125	45	43 $_{+0.1}^{+0.3}$	25 ^{H10}	83	70	24	M30 × 1.5	117	20	150	253
150	50	40 $_{+0.1}^{+0.3}$	30 ^{H10}	90	78	27.5	M30 × 1.5	134	20	175	278
200	63	50 $_{+0.1}^{+0.3}$	40 ^{H10}	100	85	40	M45 × 1.5	182	25	226	306

TC



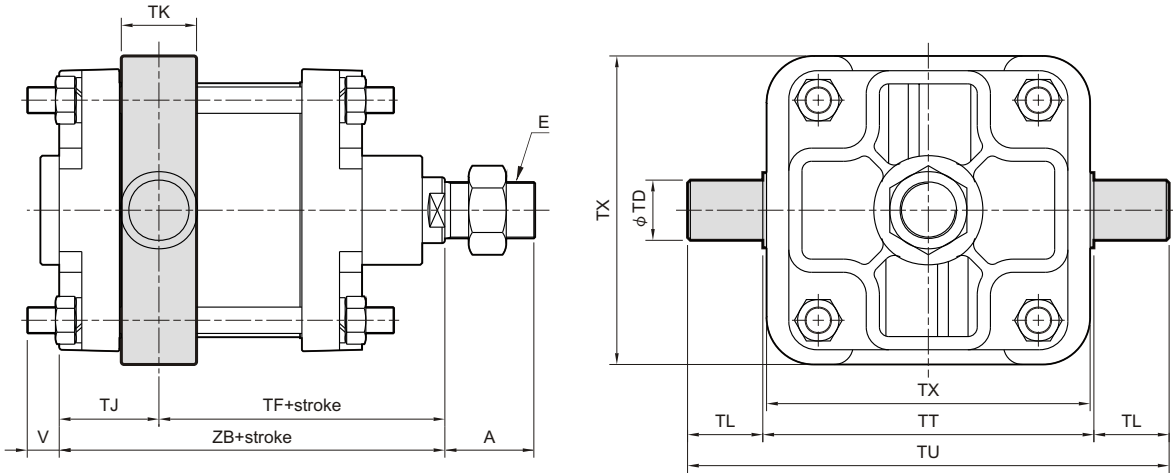
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TS	TT	TU	TX	V	ZB
125	45	M30 x 1.5	32 ^{øB}	115	68	40	40	164	176	256	172	17	183
150	50	M30 x 1.5	35 ^{øB}	123.5	76.5	41	40	194	200	280	198	16	200
200	63	M45 x 1.5	45 ^{øB}	144	77	59	45	255	265	355	255	8.5	221

TA



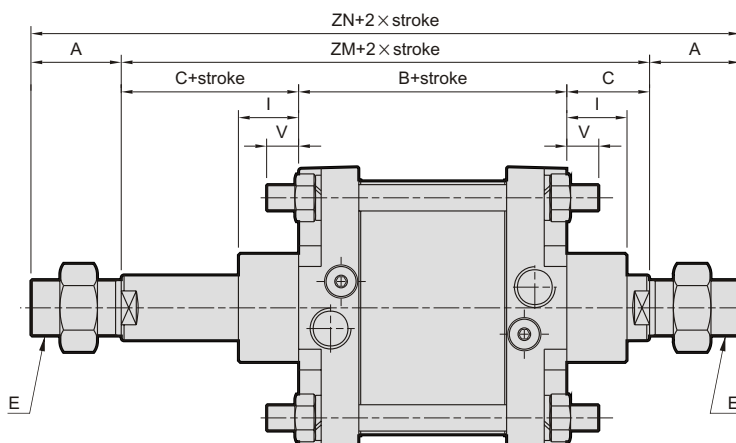
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TS	TT	TU	TX	V	ZB
125	45	M30 x 1.5	32 ^{øB}	100	83	40	40	164	176	256	172	17	183
150	50	M30 x 1.5	35 ^{øB}	109	91	41	40	194	200	280	198	16	200
200	63	M45 x 1.5	45 ^{øB}	139.5	81.5	59	45	255	265	355	255	8.5	221

TB



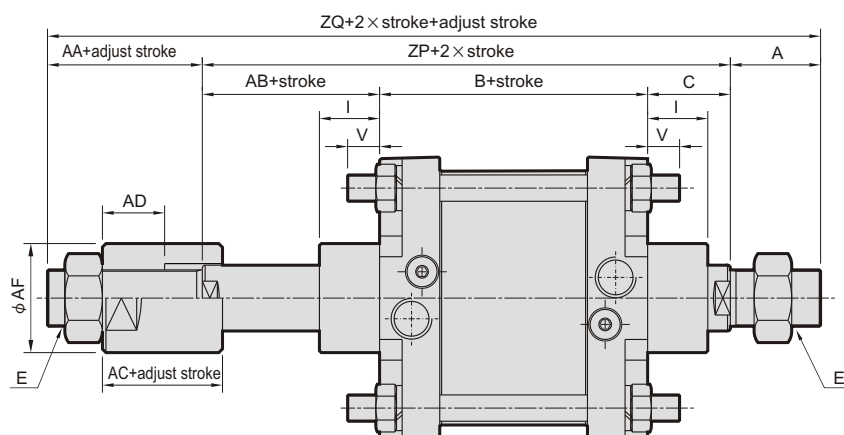
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TS	TT	TU	TX	V	ZB
125	45	M30 × 1.5	32 ^{±0.08}	130	53	40	40	164	176	256	172	17	183
150	50	M30 × 1.5	35 ^{±0.08}	138	62	41	40	194	200	280	198	16	200
200	63	M45 × 1.5	45 ^{±0.08}	148.5	72.5	59	45	255	265	355	255	8.5	221

21



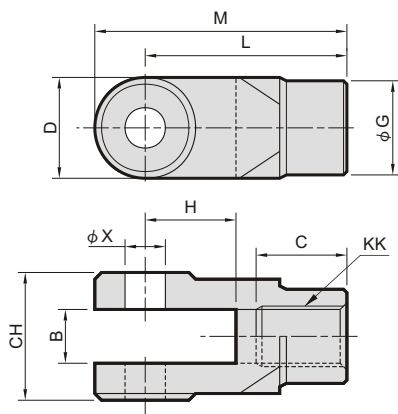
Code Tube I.D.	A	B	C	E	I	V	ZM	ZN
125	45	136	47	M30×1.5	32	20	230	320
150	50	153	47	M30×1.5	32	26	247	347
200	63	154	67	M45×1.5	35	18	288	414

27

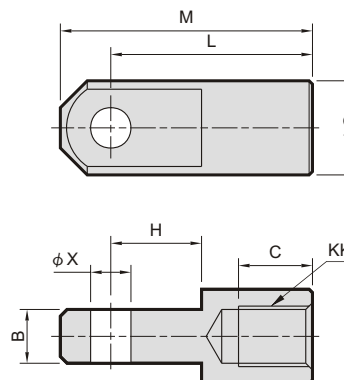


Code Tube I.D.	A	AA	AB	AC	AD	AF	B	C	E	I	V	ZM	ZN	ZP	ZQ
125	45	38	47	30	18	60	136	47	M30×1.5	32	20	230	320	230	313
150	50	38	47	30	18	60	153	47	M30×1.5	32	26	247	347	247	335
200	63	38	50	30	18	70	154	67	M45×1.5	35	18	288	414	271	372

Y connector

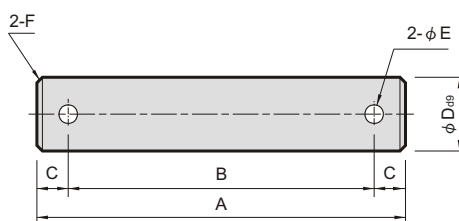


I connector



Code Tube I.D.	B		C		CH		D		G		H		KK		L		M		X ^{H10}
	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	
40	16 ^{+0.3} _{+0.1}	16 ^{-0.1} _{-0.3}	25	20	38	/	26	/	$\phi 24$	$\phi 24$	25	25	M14 \times 1.5	55	55	68	68	$\phi 12$ ^{+0.07} ₀	
50 63	16 ^{+0.3} _{+0.1}	16 ^{-0.1} _{-0.3}	27	22	38	/	30	/	$\phi 28$	$\phi 28$	27	27	M18 \times 1.5	60	60	75	75	$\phi 12$ ^{+0.07} ₀	
80	28 ^{+0.3} _{+0.1}	28 ^{-0.1} _{-0.3}	32	27	55	/	38	/	$\phi 36$	$\phi 36$	32	32	M22 \times 1.5	71	71	90	90	$\phi 18$ ^{+0.07} ₀	
100	30 ^{+0.3} _{+0.1}	30 ^{-0.1} _{-0.3}	35	30	59	/	42	/	$\phi 40$	$\phi 40$	38	38	M26 \times 1.5	83	83	104	104	$\phi 20$ ^{+0.08} ₀	
125	32 ^{+0.3} _{+0.1}	32 ^{-0.1} _{-0.3}	35	40	76	/	58	/	$\phi 45$	$\phi 49$	38	32	M30 \times 1.5	80	80	109	109	$\phi 20$ ^{+0.08} ₀	
150	40 ^{+0.3} _{+0.1}	40 ^{-0.1} _{-0.3}	35	40	84	/	54	/	$\phi 45$	$\phi 62$	39	32	M30 \times 1.5	80	80	107	107	$\phi 25$ ^{+0.08} ₀	
200	50 ^{+0.3} _{+0.1}	50 ^{-0.1} _{-0.3}	67	67	100	/	85	/	$\phi 70$	$\phi 70$	54	44	M45 \times 1.5	125	125	167.5	167.5	$\phi 40$ ^{+0.1} ₀	

Pin



for Y & I connector

Code Tube I.D.	A	B	C	D ^{d9}	E	F	Split pin
40 63	57	46	5.5	$\phi 12$ ^{-0.05} _{-0.09}	3.2	1.0	3.2 \times 20L
80	78	64	7	$\phi 18$ ^{-0.05} _{-0.09}	4	1.2	4 \times 25L
100	87	70	8.5	$\phi 20$ ^{-0.06} _{-0.12}	5	1.5	5 \times 35L
125	100	83	8.5	$\phi 20$ ^{-0.06} _{-0.12}	5	1.5	5 \times 35L
150	112	95	8.5	$\phi 25$ ^{-0.06} _{-0.12}	5	2.0	5 \times 35L
200	115	105	5	$\phi 40$ ^{-0.08} _{-0.14}	5	2.0	5 \times 55L

for CA & CB

Code Tube I.D.	A	B	C	D ^{d9}	E	F	Split pin
40	48	37	5.5	$\phi 10$ ^{-0.05} _{-0.09}	3.2	1.0	3.2 \times 20L
50	57	46	5.5	$\phi 12$ ^{-0.05} _{-0.09}	3.2	1.0	3.2 \times 20L
63	72	58	7	$\phi 16$ ^{-0.05} _{-0.09}	4	1.2	4 \times 25L
80	87	70	8.5	$\phi 20$ ^{-0.06} _{-0.12}	5	1.5	5 \times 35L
100	93	76	8.5	$\phi 25$ ^{-0.06} _{-0.12}	5	1.5	5 \times 35L
125	112	95	8.5	$\phi 25$ ^{-0.06} _{-0.12}	5	1.5	5 \times 35L
150	119	102	8.5	$\phi 30$ ^{-0.06} _{-0.12}	5	2.0	5 \times 40L
200	115	105	5	$\phi 40$ ^{-0.08} _{-0.14}	5	2.0	5 \times 55L