

Heavy duty pneumatic cylinders using rods having large diameters of 50 to 250 mm

- Larger rod dia. and rod end thread than 10A-2 Series.



Cylinder Specifications

Series Variation		10A-3	
Cylinder bore mm		φ50·φ63·φ80·φ100·φ125·φ160·φ180·φ200·φ250	
Working fluid		Air	
Lubrication		Unnecessary	
Working pressure range		0.1 to 1 MPa	
Proof test pressure		1.5 MPa	
Working speed range		50 to 700 mm/s	
Working temperature range		-10 to +70°C (No freezing)	
Structure of cushioning		With cushions on both ends	
Cushion stroke		φ50·φ63 : 14 mm (rod side) 13 mm (cap side) φ80 : 15 mm (rod side/cap side) φ100·φ125 : 17 mm (rod side) 15 mm (cap side) φ160 to φ200: 20 mm (rod side/cap side) φ250 : 22 mm (rod side/cap side)	
Tolerance for thread		JIS6g/6H	
Tolerance of stroke		0 to 250 mm ^{+1.0} ₀ 251 to 1000 ^{+1.5} ₀ 1001 to 2000 ^{+2.0} ₀	
Mounting style		SD · LB · FA · FB · CA CB · CC · CD · TA · TC	
Accessories	Boots	Standard: Nylon tarpaulin Semi-standard: Chloroprene, Conex	
	Rod end attachments	Rod eye (T-end), rod clevis (Y-end) with pin	
	Others	CB/CD bracket, TA/TC bracket	

•Conex is the registered trademark of Teijin Limited.

Standard Stroke Range

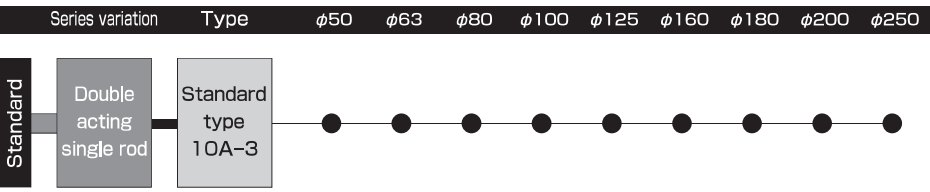
Unit: mm

Bore	φ50 · φ63	φ80 · φ100	φ125 to φ250
Stroke limit	1400	1800	2000

- The above strokes indicate the maximum available strokes for the standard type.
- For the rod buckling, check with the buckling chart in the selection materials.
Contact us or longer strokes.

Product Lineup

Unit: mm



Weight Table

Unit: kg

Bore mm	Basic weight (SD style)	Additional weight per mm of stroke	Mounting accessory weight									Bracket weight		Rod end attachment weight	
			LB	FA	FB	CA	CC	CB	CD	TA	TC	CB	TA/TC	Rod eye (T-end)	Rod clevis (Y-end) with pin
φ50	2.80	0.00779	0.36	0.40	0.50	0.26	—	0.30	—	0.19	0.55	0.66	1.06	0.21	0.41
φ63	4.20	0.00945	0.46	0.55	0.65	0.42	—	0.39	—	0.19	0.70	0.66	1.06	0.21	0.41
φ80	8.14	0.0135	0.86	1.36	1.59	1.08	—	0.80	—	0.19	1.16	1.97	1.47	0.62	1.06
φ100	12.29	0.0178	1.12	1.60	2.20	1.39	—	1.05	—	0.19	1.53	1.97	1.47	0.62	1.06
φ125	17.29	0.0340	2.00	2.39	2.58	0.57	2.59	0.76	2.86	0.19	2.20	2.60	3.05	1.24	1.47
φ160	32.25	0.0421	3.22	4.96	5.48	1.35	6.18	1.82	6.73	0.57	4.95	7.80	8.15	2.40	3.32
φ180	41.59	0.0549	5.69	6.70	7.22	1.25	9.04	1.72	9.73	0.57	6.00	7.80	8.15	2.40	3.32
φ200	47.79	0.0591	6.12	7.78	8.30	1.25	10.18	1.72	10.86	0.57	6.30	7.80	8.15	2.40	3.32
φ250	92.87	0.0755	8.38	14.36	15.70	3.23	20.10	4.22	21.30	1.12	10.50	16.65	15.50	4.62	5.83

Calculation formula Cylinder weight (kg)=basic weight+(additional weight per mm of stroke×cylinder stroke (mm)) +mounting accessory weight

Calculation example 10A-3, bore φ100, cylinder stroke 100 mm, LB 12.29+(0.0178×100)+1.12=15.19kg

● How to order

The item enclosed by broken line needs not to be entered, if unnecessary. ■ Semi-standard specification

● Standard type

10A-3

LB

80

B

100

T

B

J

Mounting style

Cylinder bore (mm)

φ50·φ63·φ80·φ100·φ125·φ160·φ180·φ200·φ250

With cushions on both ends

With cushion on rod side

With cushion on cap side

No cushion

Cylinder stroke (mm)

1

2

3

4

5

6

7

8

Type

Mounting style

Cylinder bore

Cushioning

Stroke

Ret-est. attachment

Bracket

Boots

■ Nylon tarpaulin

■ Chloroprene

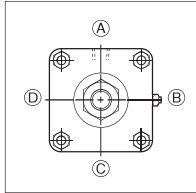
■ Conex

CB, CD, TA, or TC style

T Rod eye (T-end)

Y Rod clevis (Y-end) with pin

★ Standard specifications



- With cushions on both ends
- Port position ①, cushion valve position ②

★ Change of port and cushion valve positions

The standard port position is ①, and the standard cushion valve position is ②.
When modifying the positions, enter the symbol shown in the dimensional drawing.

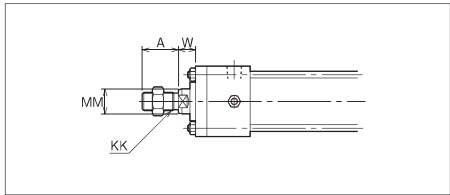
Example) 10A-3 SD63 B200- B C -B-J

Port position (A, B, C, D) Cushion valve position (A, B, C, D, O)

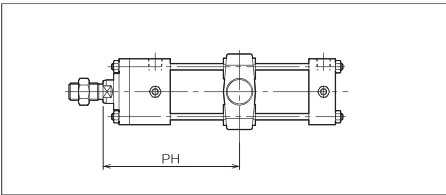
- For the TA style, the standard port position and cushion valve position are ① and ③ on the rod side and ① and ② on the cap side.
- In case that the cushion is not equipped, the cushion valve position is "O".

★ Semi-standard range

- With boots
- Change of piston rod end (W, WF, A, KK)



- Change of TC accessory position (dimensional symbol: PH)



Mounting Style

SD Basic style

CA Cap eye

TA Rod trunnion

LB End angles

CC Cap eye (only φ125 to φ250)

TC Intermediate trunnion

FA Rod flange

CB Cap clevis

FB Cap flange

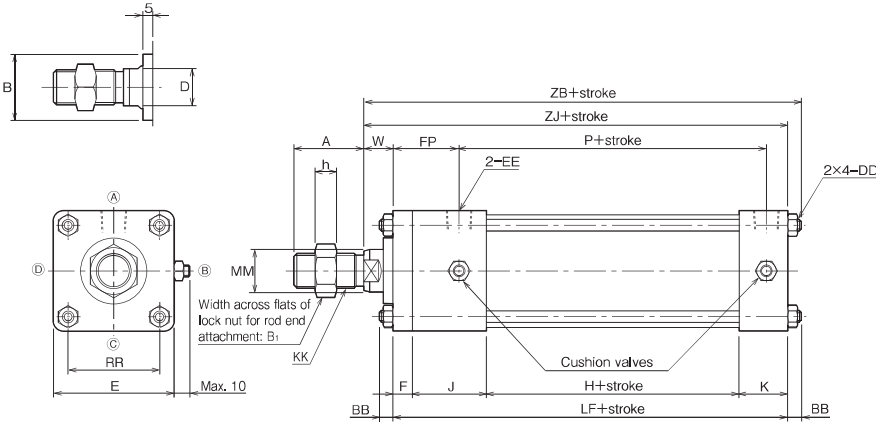
CD Cap clevis (only φ125 to φ250)

CAD/DATA
10A-3/TA3 Bore is available.

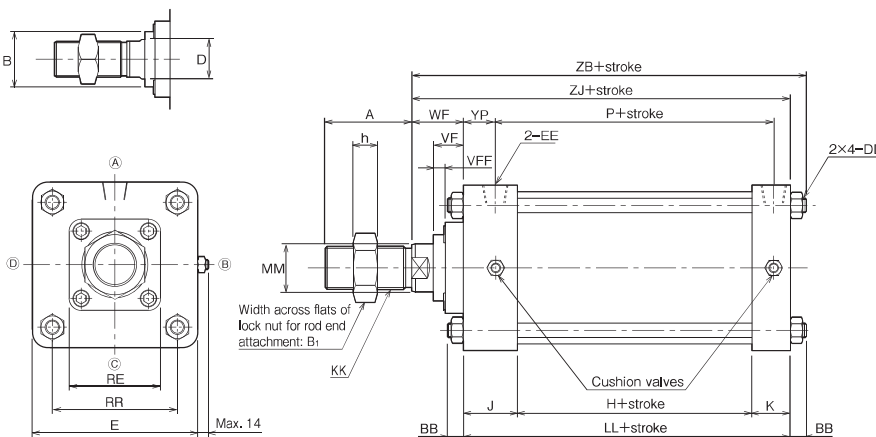
SD

10A-3 SD Bore B Stroke

• $\phi 50$ to $\phi 80$



• $\phi 100$ to $\phi 250$



10A-3 General Pneumatic Cylinders

Dimensional Table

Symbol Bore	A	B	B ₁	BB	D	DD	E	EE	F	FP	H	h	J
$\phi 50$	36(32)	$\phi 34$	24	7	19	M6×1	□62	Rc ¹ / ₄	10	34	30	11	38
$\phi 63$	36(32)	$\phi 34$	24	9	19	M8×1.25	□76	Rc ³ / ₈	10	34	33	11	38
$\phi 80$	44(40)	$\phi 39$	30	10	22	*M10×1.25	□94	Rc ³ / ₈	16	43	31	13	45
$\phi 100$	54(49)	$\phi 46$	36	10	27	*M10×1.25	□114	Rc ¹ / ₂	—	—	31	16	45
$\phi 125$	72(67)	$\phi 55$	50	13	36	*M12×1.5	□138	Rc ¹ / ₂	—	—	37	20	45
$\phi 160$	84(79)	$\phi 65$	60	16	46	*M16×1.5	□178	Rc ³ / ₄	—	—	43	22	50
$\phi 180$	84(79)	$\phi 65$	60	16	46	*M16×1.5	□200	Rc ³ / ₄	—	—	43	22	50
$\phi 200$	84(79)	$\phi 65$	60	16	46	*M16×1.5	□216	Rc ³ / ₄	—	—	43	22	50
$\phi 250$	112(107)	$\phi 85$	80	19	55	*M20×1.5	□270	Rc 1	—	—	55	30	57

Symbol Bore	K	KK	LF	LL	MM	P	RE	RR	VF	VFF	W	WF	YP	ZB	ZJ
$\phi 50$	25	M18×1.5	103	—	$\phi 22$	58	—	□47	—	—	15	—	—	125	118
$\phi 63$	25	M18×1.5	106	—	$\phi 22$	61	—	□56	—	—	15	—	—	130	121
$\phi 80$	32	M22×1.5	124	—	$\phi 25$	67	—	□70	—	—	19	—	—	153	143
$\phi 100$	32	M27×2	—	108	$\phi 32$	67	□65	□84	21	10	—	37	27	155	145
$\phi 125$	32	M36×2	—	114	$\phi 40$	73	□76	□104	25	10	—	43	27	170	157
$\phi 160$	38	M42×2	—	131	$\phi 50$	85	□94	□134	30	11	—	52	29	199	183
$\phi 180$	38	M42×2	—	131	$\phi 50$	85	□94	□156	30	11	—	52	29	199	183
$\phi 200$	38	M42×2	—	131	$\phi 50$	85	□94	□163	30	11	—	52	29	199	183
$\phi 250$	50	M56×2	—	162	$\phi 63$	109	□125	□202	33	10	—	60	30	241	222

* The parenthesized values of dimension A indicate the screw length.

Comparison of Screw Pitches of New and Old Tie Rods

Symbol Bore	Dimension DD	
	Old	New
$\phi 80$	M10×1.5	M10×1.25
$\phi 100$	M10×1.5	M10×1.25
$\phi 125$	M12×1.75	M12×1.5
$\phi 160$	M16×2	M16×1.5
$\phi 180$	M16×2	M16×1.5
$\phi 200$	M16×2	M16×1.5
$\phi 250$	M20×2.5	M20×1.5

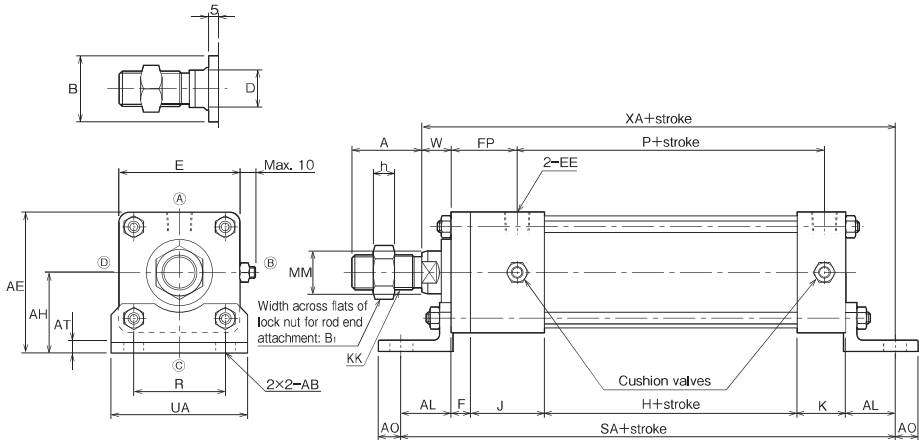
Note) A part of the screw pitches (dimension DD) of the tie rods have been changed from those shown in the 1996 catalog. The changed values are marked with *. If an SD style (basic style) cylinder is purchased and a tie rod is installed with the tie rod screw supplied with the cylinder or only a tie rod is purchased, the tie rod is not applicable to the old screw pitch. Before placing an order, sufficiently check the pitch. Implemented from shipment on Dec. 1, 1995 (From serial No.512)

10A-3 General Pneumatic Cylinders

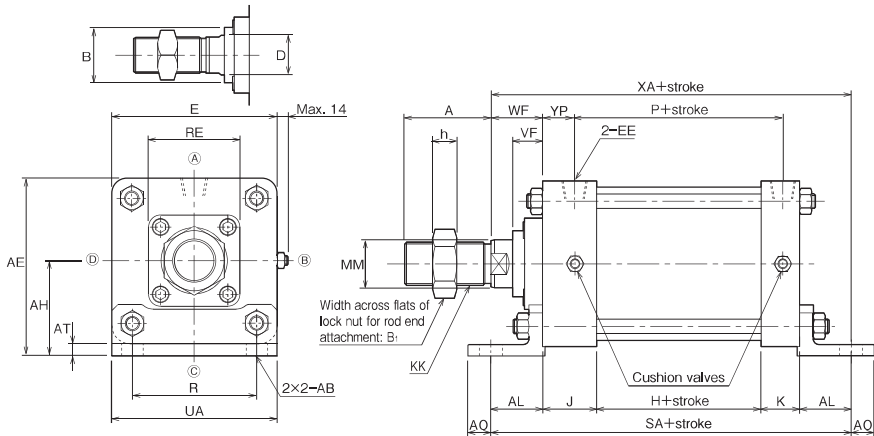
CAD/DATA
10A-3/TA3 □Bore is available. !

LB
10A-3 LB □Bore □B □Stroke

●φ50 to φ80



●φ100 to φ250



Dimensional Table

Symbol Bore	A	AB	AE	AH	AL	AO	AT	B	B ₁	D	E	EE	F	FP	H
φ50	36(32)	φ12	72	41	26	12	6	φ34	24	19	□62	Rc ¹ / ₄	10	34	30
φ63	36(32)	φ12	86	48	28	12	6	φ34	24	19	□76	Rc ³ / ₈	10	34	33
φ80	44(40)	φ14	106	59	34	14	8	φ39	30	22	□94	Rc ³ / ₈	16	43	31
φ100	54(49)	φ14	123	66	34	14	8	φ46	36	27	□114	Rc ¹ / ₂	—	—	31
φ125	72(67)	φ18	148	79	43	18	10	φ55	50	36	□138	Rc ¹ / ₂	—	—	37
φ160	84(79)	φ22	187	98	50	22	10	φ65	60	46	□178	Rc ³ / ₄	—	—	43
φ180	84(79)	φ22	215	115	55	22	15	φ65	60	46	□200	Rc ³ / ₄	—	—	43
φ200	84(79)	φ22	226	118	55	22	15	φ65	60	46	□216	Rc ³ / ₄	—	—	43
φ250	112(107)	φ26	276	141	60	24	15	φ85	80	55	□270	Rc 1	—	—	55

Symbol Bore	h	J	K	KK	MM	P	R	RE	SA	UA	VF	W	WF	XA	YP
φ50	11	38	25	M18×1.5	φ22	58	47	—	155	70	—	15	—	144	—
φ63	11	38	25	M18×1.5	φ22	61	56	—	162	80	—	15	—	149	—
φ80	13	45	32	M22×1.5	φ25	67	70	—	192	97	—	19	—	177	—
φ100	16	45	32	M27×2	φ32	67	84	□65	176	114	21	—	37	179	27
φ125	20	45	32	M36×2	φ40	73	104	□76	200	138	25	—	43	200	27
φ160	22	50	38	M42×2	φ50	85	134	□94	231	178	30	—	52	233	29
φ180	22	50	38	M42×2	φ50	85	156	□94	241	200	30	—	52	238	29
φ200	22	50	38	M42×2	φ50	85	163	□94	241	216	30	—	52	238	29
φ250	30	57	50	M56×2	φ63	109	202	□125	282	270	33	—	60	282	30

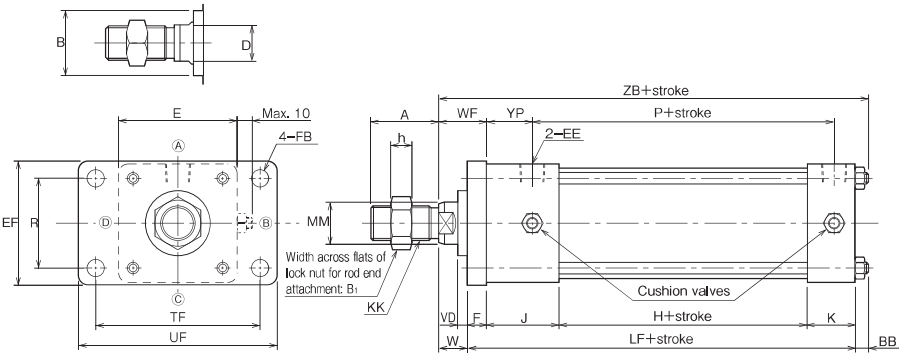
* The parenthesized values of dimension A indicate the screw length.

CAD/DATA
10A-3/TA3 Bore is available. 

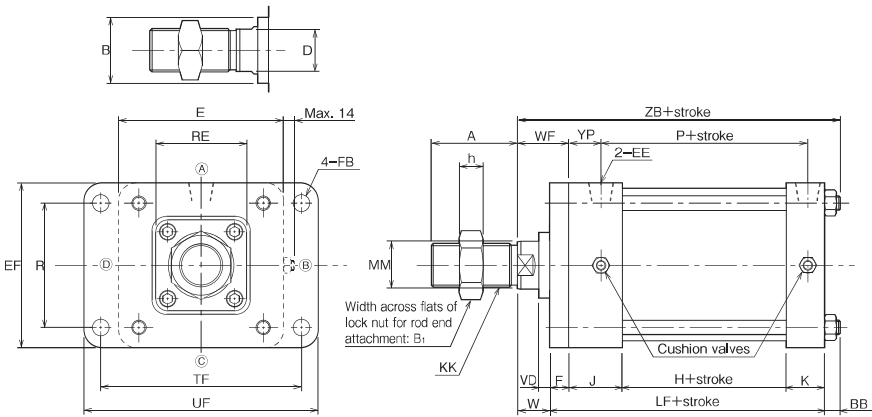
FA

10A-3 FA Bore B Stroke

● $\phi 50$ to $\phi 80$



● $\phi 100$ to $\phi 250$



Dimensional Table

Symbol Bore	A	B	B ₁	BB	D	E	EE	EF	F	FB	H	h	J
$\phi 50$	36(32)	$\phi 34$	24	7	19	$\square 62$	Rc ¹ / ₄	65	10	$\phi 9$	30	11	38
$\phi 63$	36(32)	$\phi 34$	24	9	19	$\square 76$	Rc ³ / ₈	76	10	$\phi 9$	33	11	38
$\phi 80$	44(40)	$\phi 39$	30	10	22	$\square 94$	Rc ³ / ₈	95	16	$\phi 12$	31	13	45
$\phi 100$	54(49)	$\phi 46$	36	10	27	$\square 114$	Rc ¹ / ₂	115	16	$\phi 12$	31	16	45
$\phi 125$	72(67)	$\phi 55$	50	13	36	$\square 138$	Rc ¹ / ₂	138	16	$\phi 14$	37	20	45
$\phi 160$	84(79)	$\phi 65$	60	16	46	$\square 178$	Rc ³ / ₄	178	20	$\phi 18$	43	22	50
$\phi 180$	84(79)	$\phi 65$	60	16	46	$\square 200$	Rc ³ / ₄	200	20	$\phi 18$	43	22	50
$\phi 200$	84(79)	$\phi 65$	60	16	46	$\square 216$	Rc ³ / ₄	216	20	$\phi 18$	43	22	50
$\phi 250$	112(107)	$\phi 85$	80	19	55	$\square 270$	Rc 1	270	25	$\phi 22$	55	30	57

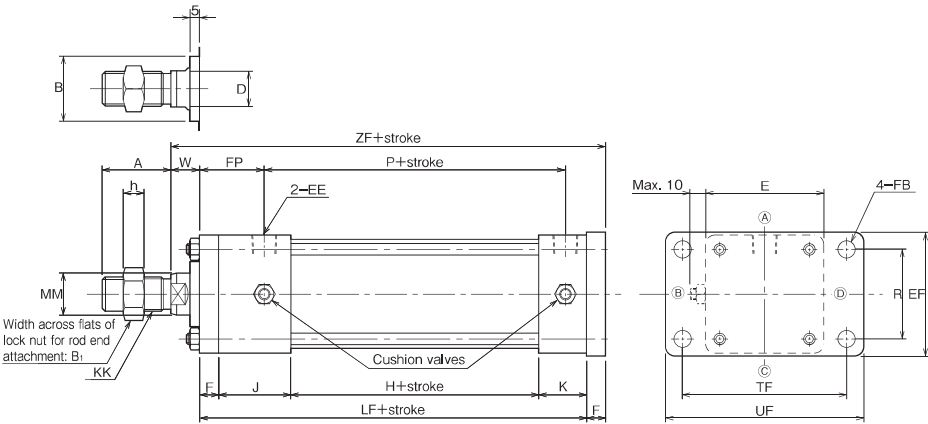
Symbol Bore	K	KK	LF	MM	P	R	RE	TF	UF	VD	W	WF	YP	ZB
$\phi 50$	25	M18×1.5	103	$\phi 22$	58	47	—	86	104	5	15	25	24	125
$\phi 63$	25	M18×1.5	106	$\phi 22$	61	56	—	98	116	5	15	25	24	130
$\phi 80$	32	M22×1.5	124	$\phi 25$	67	70	—	119	143	5	19	35	27	153
$\phi 100$	32	M27×2	124	$\phi 32$	67	84	$\square 65$	138	162	5	21	37	27	155
$\phi 125$	32	M36×2	130	$\phi 40$	73	104	$\square 76$	168	196	9	27	43	27	170
$\phi 160$	38	M42×2	151	$\phi 50$	85	134	$\square 94$	212	248	10	32	52	29	199
$\phi 180$	38	M42×2	151	$\phi 50$	85	156	$\square 94$	234	270	10	32	52	29	199
$\phi 200$	38	M42×2	151	$\phi 50$	85	163	$\square 94$	250	286	10	32	52	29	199
$\phi 250$	50	M56×2	187	$\phi 63$	109	201	$\square 125$	312	356	8	35	60	30	241

* The parenthesized values of dimension A indicate the screw length.

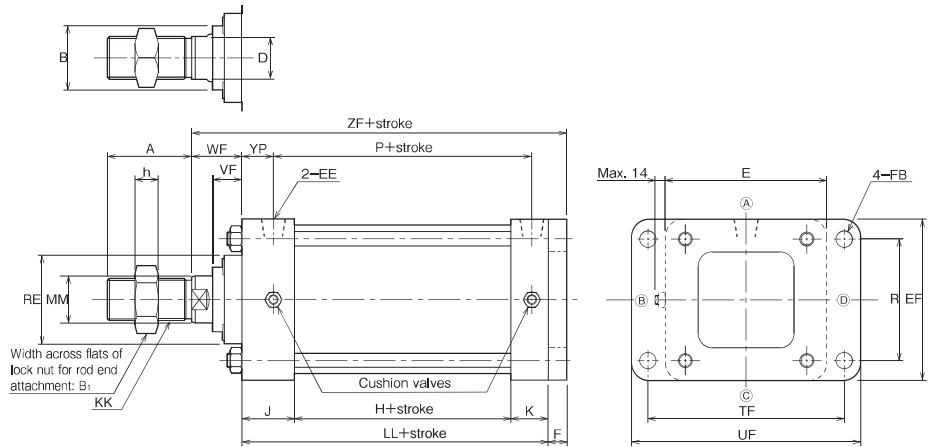
10A-3/TA3 Bore is available. 

FB
10A-3 FB Bore B Stroke

• $\phi 50$ to $\phi 80$



• $\phi 100$ to $\phi 250$



Dimensional Table

Symbol Bore	A	B	B ₁	D	E	EE	EF	F	FB	FP	H	h	J
$\phi 50$	36(32)	$\phi 34$	24	19	$\square 62$	Rc ¹ / ₄	65	10	$\phi 9$	34	30	11	38
$\phi 63$	36(32)	$\phi 34$	24	19	$\square 76$	Rc ³ / ₈	76	10	$\phi 9$	34	33	11	38
$\phi 80$	44(40)	$\phi 39$	30	22	$\square 94$	Rc ³ / ₈	95	16	$\phi 12$	43	31	13	45
$\phi 100$	54(49)	$\phi 46$	36	27	$\square 114$	Rc ¹ / ₂	115	16	$\phi 12$	—	31	16	45
$\phi 125$	72(67)	$\phi 55$	50	36	$\square 138$	Rc ¹ / ₂	138	16	$\phi 14$	—	37	20	45
$\phi 160$	84(79)	$\phi 65$	60	46	$\square 178$	Rc ³ / ₄	178	20	$\phi 18$	—	43	22	50
$\phi 180$	84(79)	$\phi 65$	60	46	$\square 200$	Rc ³ / ₄	200	20	$\phi 18$	—	43	22	50
$\phi 200$	84(79)	$\phi 65$	60	46	$\square 216$	Rc ³ / ₄	216	20	$\phi 18$	—	43	22	50
$\phi 250$	112(107)	$\phi 85$	80	55	$\square 270$	Rc 1	270	25	$\phi 22$	—	55	30	57

Symbol Bore	K	KK	LF	LL	MM	P	R	RE	TF	UF	VF	W	WF	YP	ZF
$\phi 50$	25	M18×1.5	103	—	$\phi 22$	58	47	—	86	104	—	15	—	—	128
$\phi 63$	25	M18×1.5	106	—	$\phi 22$	61	56	—	98	116	—	15	—	—	131
$\phi 80$	32	M22×1.5	124	—	$\phi 25$	67	70	—	119	143	—	19	—	—	159
$\phi 100$	32	M27×2	—	108	$\phi 32$	67	84	$\square 65$	138	162	21	—	37	27	161
$\phi 125$	32	M36×2	—	114	$\phi 40$	73	104	$\square 76$	168	196	25	—	43	27	173
$\phi 160$	38	M42×2	—	131	$\phi 50$	85	134	$\square 94$	212	248	30	—	52	29	203
$\phi 180$	38	M42×2	—	131	$\phi 50$	85	156	$\square 94$	234	270	30	—	52	29	203
$\phi 200$	38	M42×2	—	131	$\phi 50$	85	163	$\square 94$	250	286	30	—	52	29	203
$\phi 250$	50	M56×2	—	162	$\phi 63$	109	201	$\square 125$	312	356	33	—	60	30	247

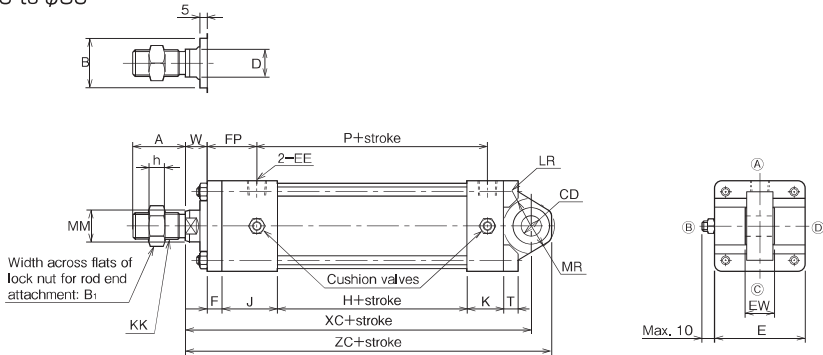
* The parenthesized values of dimension A indicate the screw length.

CAD/DATA
10A-3/TA3 □Bore is available. □

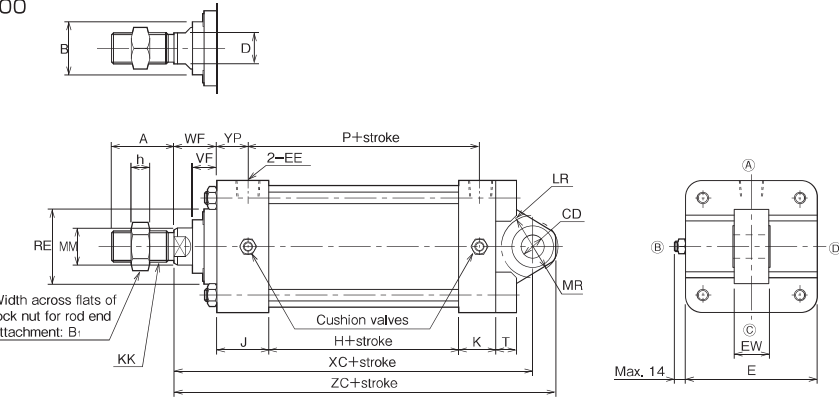
CA

10A-3 CA □Bore □B □Stroke

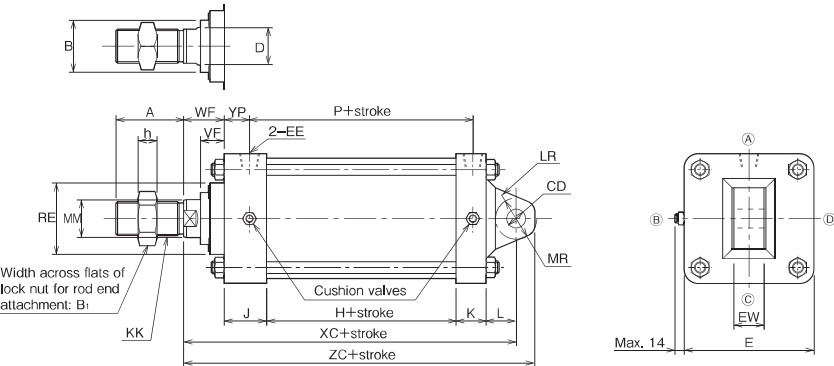
• $\phi 50$ to $\phi 80$



• $\phi 100$



• $\phi 125$ to $\phi 250$



Dimensional Table

Symbol	A	B	B ₁	CD	D	E	EE	EW	F	FP	H	h	J	K	KK
Bore															
$\phi 50$	36(32)	$\phi 34$	24	$\phi 14H9$	19	$\square 62$	Rc ¹ / ₄	20 ⁰ _{-0.084}	10	34	30	11	38	25	M18×1.5
$\phi 63$	36(32)	$\phi 34$	24	$\phi 14H9$	19	$\square 76$	Rc ³ / ₈	20 ⁰ _{-0.084}	10	34	33	11	38	25	M18×1.5
$\phi 80$	44(40)	$\phi 39$	30	$\phi 20H9$	22	$\square 94$	Rc ³ / ₈	32 ⁰ _{-0.100}	16	43	31	13	45	32	M22×1.5
$\phi 100$	54(49)	$\phi 46$	36	$\phi 20H9$	27	$\square 114$	Rc ¹ / ₂	32 ⁰ _{-0.100}	—	—	31	16	45	32	M27×2
$\phi 125$	72(67)	$\phi 55$	50	$\phi 20H9$	36	$\square 138$	Rc ¹ / ₂	32 ⁰ _{-0.100}	—	—	37	20	45	32	M36×2
$\phi 160$	84(79)	$\phi 65$	60	$\phi 28H9$	46	$\square 178$	Rc ³ / ₄	40 ⁰ _{-0.100}	—	—	43	22	50	38	M42×2
$\phi 180$	84(79)	$\phi 65$	60	$\phi 28H9$	46	$\square 200$	Rc ³ / ₄	40 ⁰ _{-0.100}	—	—	43	22	50	38	M42×2
$\phi 200$	84(79)	$\phi 65$	60	$\phi 28H9$	46	$\square 216$	Rc ³ / ₄	40 ⁰ _{-0.100}	—	—	43	22	50	38	M42×2
$\phi 250$	112(107)	$\phi 85$	80	$\phi 36H9$	55	$\square 270$	Rc 1	50 ⁰ _{-0.100}	—	—	55	30	57	50	M56×2

Symbol	L		LR		MM	MR	P	RE	T	VF	W	WF	XC		YP	ZC	
Bore	CA style	CC style	CA style	CC style									CA style	CC style		CA style	CC style
$\phi 50$	—	—	R19	—	$\phi 22$	R17	58	—	10	—	15	—	137	—	—	151	—
$\phi 63$	—	—	R19	—	$\phi 22$	R17	61	—	13	—	15	—	140	—	—	154	—
$\phi 80$	—	—	R26	—	$\phi 25$	R22	67	—	18	—	19	—	175	—	—	195	—
$\phi 100$	—	—	R27	—	$\phi 32$	R22	67	$\square 65$	18	21	—	37	177	—	27	197	—
$\phi 125$	32	36	R22	R26	$\phi 40$	R22	73	$\square 76$	14	25	—	43	189	207	27	209	227
$\phi 160$	38	44	R30	R32	$\phi 50$	R30	85	$\square 94$	20	30	—	52	221	247	29	249	275
$\phi 180$	38	44	R30	R32	$\phi 50$	R30	85	$\square 94$	25	30	—	52	221	252	29	249	280
$\phi 200$	38	44	R30	R32	$\phi 50$	R30	85	$\square 94$	25	30	—	52	221	252	29	249	280
$\phi 250$	54	58	R42	R46	$\phi 63$	R44	109	$\square 125$	30	33	—	60	276	310	30	312	346

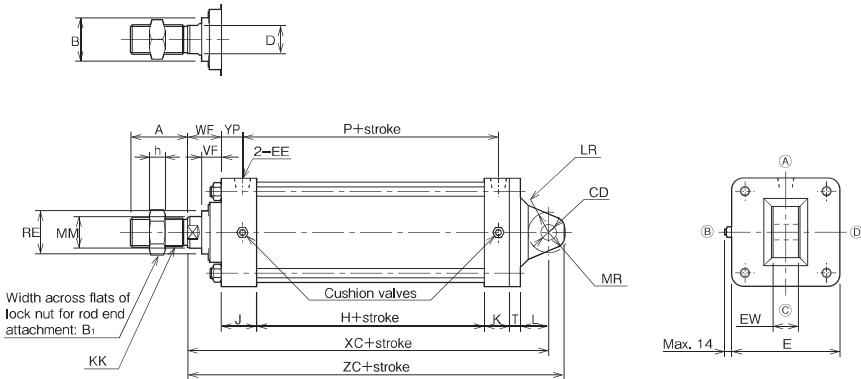
* The parenthesized values of dimension A indicate the screw length.

10A-3/TA3 □Bore □

CC

10A-3 CC □Bore □B □Stroke

• $\phi 125$ to $\phi 250$

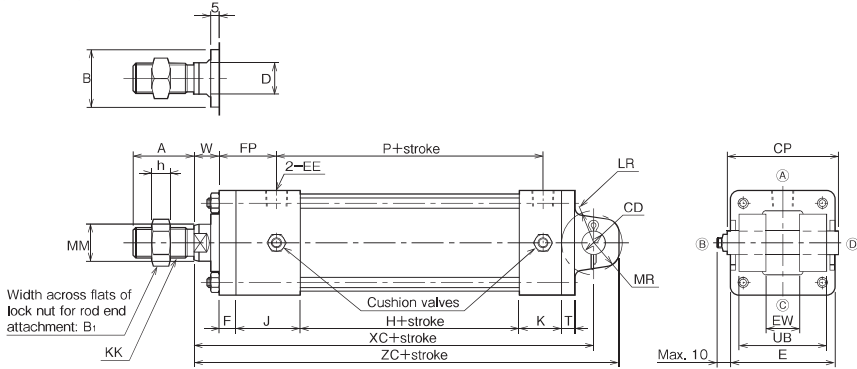


10A-3/TA3 Bore is available. 

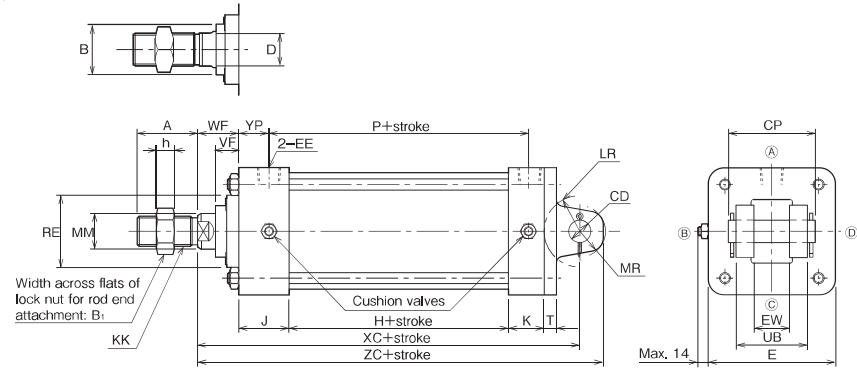
CB

10A-3 CB Bore B Stroke

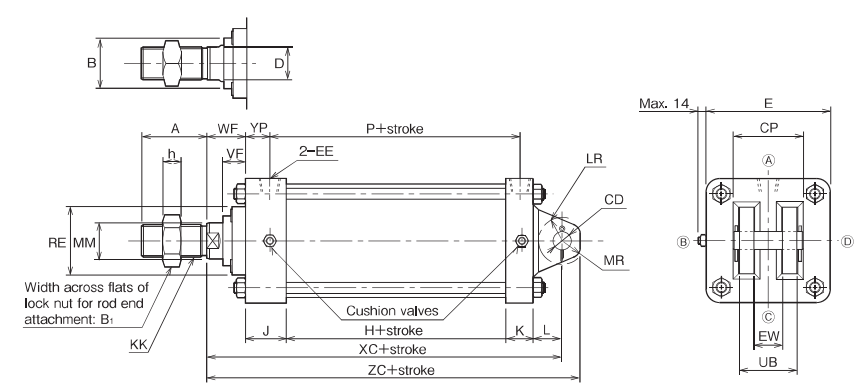
● $\phi 50$ to $\phi 80$



● $\phi 100$



● $\phi 125$ to $\phi 250$



Dimensional Table

Symbol	A	B	B ₁	CD	CP	D	E	EE	EW	F	FP	H	h	J	K	KK
Bore																
$\phi 50$	36(32)	$\phi 34$	24	$\phi 14^{+0.05}_{-0.05}$	66	19	$\square 62$	Rc1/4	$20^{+0.7}_{+0.5}$	10	34	30	11	38	25	M18×1.5
$\phi 63$	36(32)	$\phi 34$	24	$\phi 14^{+0.05}_{-0.05}$	66	19	$\square 76$	Rc3/8	$20^{+0.7}_{+0.5}$	10	34	33	11	38	25	M18×1.5
$\phi 80$	44(40)	$\phi 39$	30	$\phi 20^{+0.05}_{-0.05}$	78	22	$\square 94$	Rc3/8	$32^{+0.7}_{+0.5}$	16	43	31	13	45	32	M22×1.5
$\phi 100$	54(49)	$\phi 46$	36	$\phi 20^{+0.05}_{-0.05}$	78	27	$\square 114$	Rc1/2	$32^{+0.7}_{+0.5}$	—	—	31	16	45	32	M27×2
$\phi 125$	72(67)	$\phi 55$	50	$\phi 20^{+0.05}_{-0.05}$	78	36	$\square 138$	Rc1/2	$32^{+0.7}_{+0.5}$	—	—	37	20	45	32	M36×2
$\phi 160$	84(79)	$\phi 65$	60	$\phi 28^{+0.05}_{-0.05}$	97	46	$\square 178$	Rc3/4	$40^{+0.8}_{+0.5}$	—	—	43	22	50	38	M42×2
$\phi 180$	84(79)	$\phi 65$	60	$\phi 28^{+0.05}_{-0.05}$	97	46	$\square 200$	Rc3/4	$40^{+0.8}_{+0.5}$	—	—	43	22	50	38	M42×2
$\phi 200$	84(79)	$\phi 65$	60	$\phi 28^{+0.05}_{-0.05}$	97	46	$\square 216$	Rc3/4	$40^{+0.8}_{+0.5}$	—	—	43	22	50	38	M42×2
$\phi 250$	112(107)	$\phi 85$	80	$\phi 36^{+0.05}_{-0.05}$	117	55	$\square 270$	Rc 1	$50^{+0.8}_{+0.5}$	—	—	55	30	57	50	M56×2

Symbol	L		LR	MM	MR	P	RE	T	UB	VF	W	WF	XC		YP	ZC	
Bore	CB style	CD style											CB style	CD style		CB style	CD style
$\phi 50$	—	—	R19	$\phi 22$	R18	58	—	8	52	—	15	—	137	—	—	152	—
$\phi 63$	—	—	R19	$\phi 22$	R18	61	—	8	52	—	15	—	140	—	—	155	—
$\phi 80$	—	—	R32	$\phi 25$	R23	67	—	11	64	—	19	—	175	—	—	196	—
$\phi 100$	—	—	R32	$\phi 32$	R23	67	$\square 65$	11	64	21	—	37	177	—	27	198	—
$\phi 125$	32	36	R26	$\phi 40$	R22	73	$\square 76$	14	64	25	—	43	189	207	27	209	227
$\phi 160$	38	44	R32	$\phi 50$	R30	85	$\square 94$	20	80	30	—	52	221	247	29	249	275
$\phi 180$	38	44	R32	$\phi 50$	R30	85	$\square 94$	25	80	30	—	52	221	252	29	249	280
$\phi 200$	38	44	R32	$\phi 50$	R30	85	$\square 94$	25	80	30	—	52	221	252	29	249	280
$\phi 250$	54	58	R46	$\phi 63$	R44	109	$\square 125$	30	100	33	—	60	276	310	30	312	346

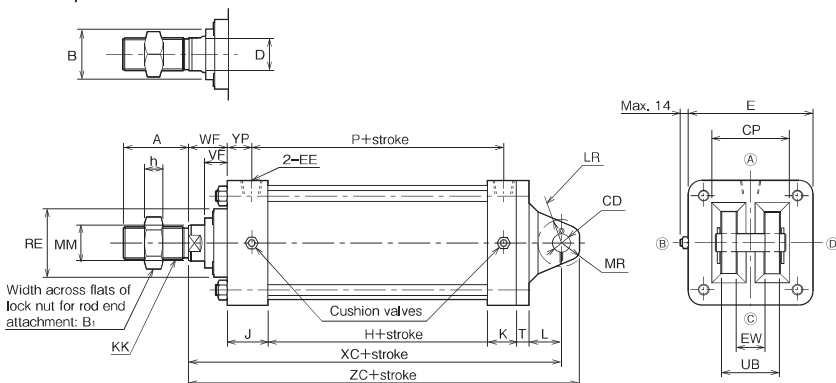
* The parenthesized values of dimension A indicate the screw length.

10A-3/TA3 Bore 

CD

10A-3 CD Bore B Stroke

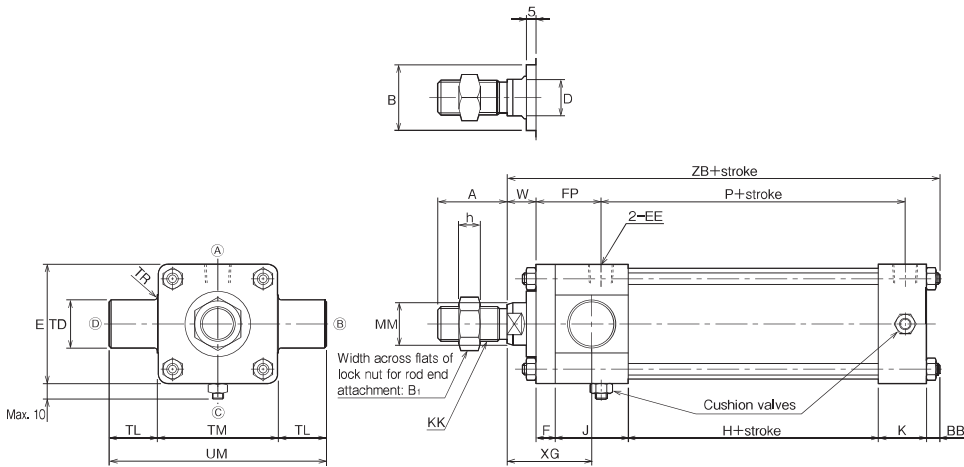
● $\phi 125$ to $\phi 250$



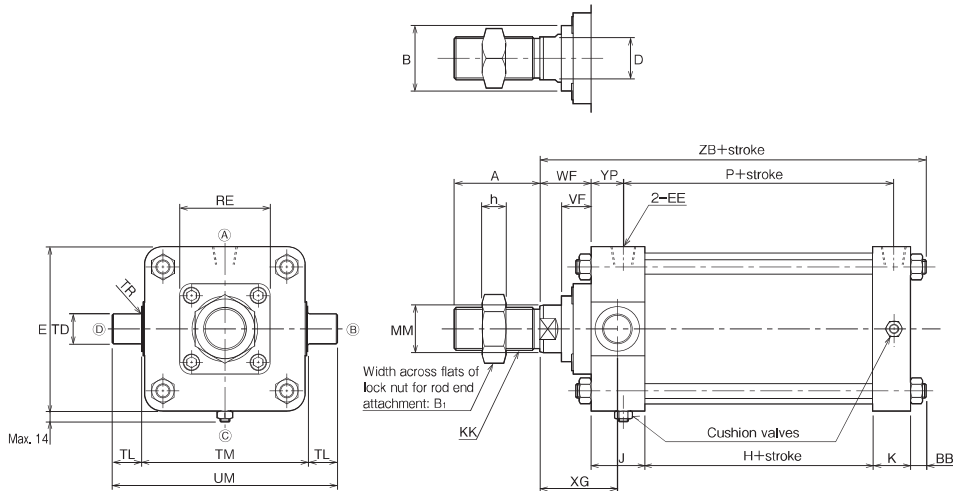
CAD/DATA
10A-3/TA3 □Bore is available. □

TA
10A-3 TA □Bore □B □Stroke

●φ50 to φ80



●φ100 to φ250



Dimensional Table

Symbol Bore	A	B	B ₁	BB	D	E	EE	F	FP	H	h	J	K
φ50	36(32)	φ34	24	7	19	□62	Rc ¹ / ₄	10	34	30	11	38	25
φ63	36(32)	φ34	24	9	19	□76	Rc ³ / ₈	10	34	33	11	38	25
φ80	44(40)	φ39	30	10	22	□94	Rc ³ / ₈	16	43	31	13	45	32
φ100	54(49)	φ46	36	10	27	□114	Rc ¹ / ₂	—	—	31	16	45	32
φ125	72(67)	φ55	50	13	36	□138	Rc ¹ / ₂	—	—	37	20	45	32
φ160	84(79)	φ65	60	16	46	□178	Rc ³ / ₄	—	—	43	22	50	38
φ180	84(79)	φ65	60	16	46	□200	Rc ³ / ₄	—	—	43	22	50	38
φ200	84(79)	φ65	60	16	46	□216	Rc ³ / ₄	—	—	43	22	50	38
φ250	112(107)	φ85	80	19	55	□270	Rc 1	—	—	55	30	57	50

Symbol Bore	KK	MM	P	RE	TD	TL	TM	TR	UM	VF	W	WF	XG	YP	ZB
φ50	M18×1.5	φ22	58	—	φ25e9	25	63	R1.6	113	—	15	—	44	—	125
φ63	M18×1.5	φ22	61	—	φ25e9	25	76	R1.6	126	—	15	—	44	—	130
φ80	M22×1.5	φ25	67	—	φ25e9	25	95	R1.6	145	—	19	—	57	—	153
φ100	M27×2	φ32	67	□65	φ25e9	25	114	R2	164	21	—	37	59	27	155
φ125	M36×2	φ40	73	□76	φ25e9	25	139	R2	189	25	—	43	65	27	170
φ160	M42×2	φ50	85	□94	φ36e9	36	178	R2.5	250	30	—	52	77	29	199
φ180	M42×2	φ50	85	□94	φ36e9	36	200	R2.5	272	30	—	52	77	29	199
φ200	M42×2	φ50	85	□94	φ36e9	36	216	R2.5	288	30	—	52	77	29	199
φ250	M56×2	φ63	109	□125	φ45e9	45	270	R3	360	33	—	60	88	30	241

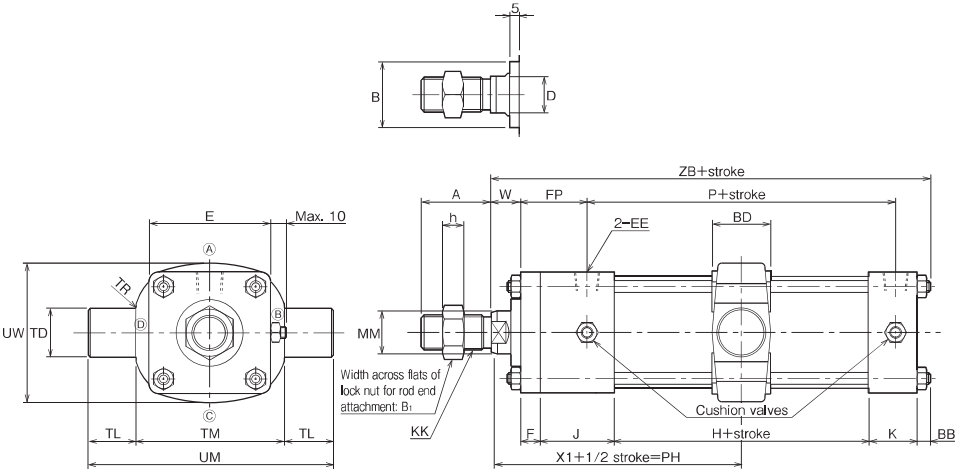
* The parenthesized values of dimension A indicate the screw length.

CAD/DATA
10A-3/TA3  is available. 

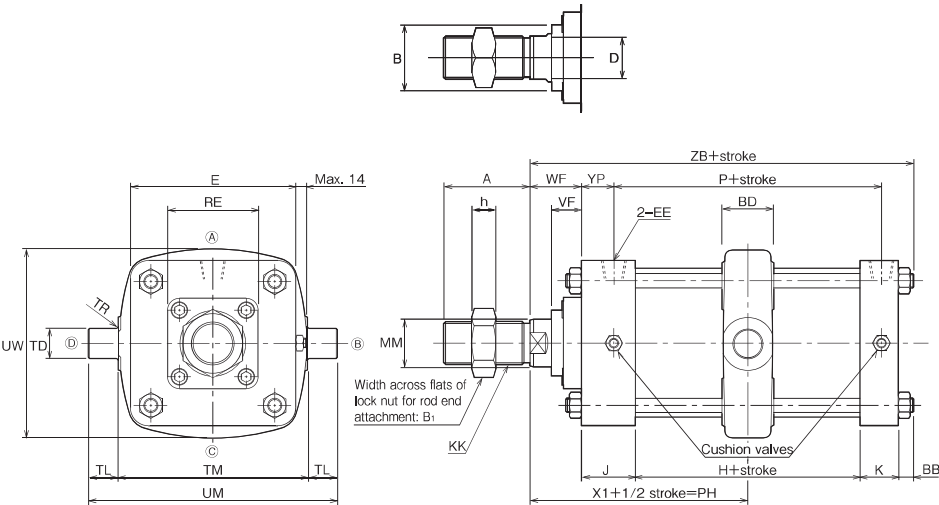
TC

10A-3 TC  

● $\phi 50$ to $\phi 80$



● $\phi 100$ to $\phi 250$



Dimensional Table

Symbol Bore	A	B	B ₁	BB	BD	D	E	EE	F	FP	H	h	J	K	KK	MM
$\phi 50$	36(32)	$\phi 34$	24	7	30	19	$\square 62$	Rc 1/4	10	34	30	11	38	25	M18×1.5	$\phi 22$
$\phi 63$	36(32)	$\phi 34$	24	9	30	19	$\square 76$	Rc 3/8	10	34	33	11	38	25	M18×1.5	$\phi 22$
$\phi 80$	44(40)	$\phi 39$	30	10	35	22	$\square 94$	Rc 3/8	16	43	31	13	45	32	M22×1.5	$\phi 25$
$\phi 100$	54(49)	$\phi 46$	36	10	40	27	$\square 114$	Rc 1/2	—	—	31	16	45	32	M27×2	$\phi 32$
$\phi 125$	72(67)	$\phi 55$	50	13	43	36	$\square 138$	Rc 1/2	—	—	37	20	45	32	M36×2	$\phi 40$
$\phi 160$	84(79)	$\phi 65$	60	16	53	46	$\square 178$	Rc 3/4	—	—	43	22	50	38	M42×2	$\phi 50$
$\phi 180$	84(79)	$\phi 65$	60	16	53	46	$\square 200$	Rc 3/4	—	—	43	22	50	38	M42×2	$\phi 50$
$\phi 200$	84(79)	$\phi 65$	60	16	53	46	$\square 216$	Rc 3/4	—	—	43	22	50	38	M42×2	$\phi 50$
$\phi 250$	112(107)	$\phi 85$	80	19	58	55	$\square 270$	Rc 1	—	—	55	30	57	50	M56×2	$\phi 63$

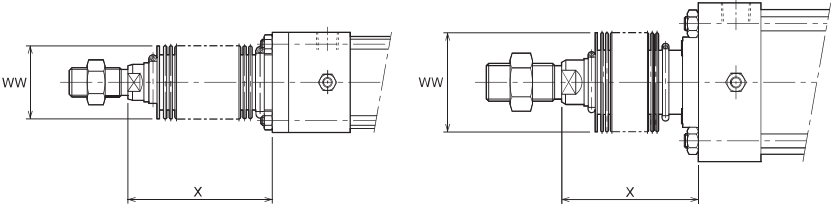
Symbol Bore	P	Min. PH	TC style min. stroke	RE	TD	TL	TM	TR	UM	UW	VF	W	WF	XI	YP	ZB
$\phi 50$	58	78	3	—	$\phi 25e9$	25	76	R1.6	126	71	—	15	—	78	—	125
$\phi 63$	61	78	0	—	$\phi 25e9$	25	88	R1.6	138	86	—	15	—	79.5	—	130
$\phi 80$	67	98	7	—	$\phi 25e9$	25	114	R1.6	164	104	—	19	—	95.5	—	153
$\phi 100$	67	102	12	$\square 65$	$\phi 25e9$	25	132	R2	182	128	21	—	37	97.5	27	155
$\phi 125$	73	110	9	$\square 76$	$\phi 25e9$	25	158	R2	208	158	25	—	43	106.5	27	170
$\phi 160$	85	129	13	$\square 94$	$\phi 36e9$	36	200	R2.5	272	200	30	—	52	123.5	29	199
$\phi 180$	85	129	13	$\square 94$	$\phi 36e9$	36	228	R2.5	300	228	30	—	52	123.5	29	199
$\phi 200$	85	129	13	$\square 94$	$\phi 36e9$	36	246	R2.5	318	246	30	—	52	123.5	29	199
$\phi 250$	109	146	6	$\square 125$	$\phi 45e9$	45	304	R3	394	304	33	—	60	144.5	30	241

* The parenthesized values of dimension A indicate the screw length.

With Boots

●φ50 to φ80

●φ100 to φ250



	Standard	Semi-standard	
Material	Nylon tarpaulin	Chloroprene	Conex
Heat proof	80℃	100℃	200℃

- Notes) ●Remember that the heat proof field in the table above shows the allowable temperatures for the boots, not for the cylinder.
- Conex is the registered trademark of Teijin Limited.
 - If the calculated value has a fractional part, round it up.
 - The boots have been mounted at our factory prior to delivery.
 - Dimension X is the distance from the cover end. When using the FA accessory, check dimension carefully. (On 50 to 80 mm bore cylinders, the distance is measured from the retainer end face.)
 - Note that the seal housings of 32 to 80 mm bore cylinders with boots differ from those of standard type cylinders.

Dimensional Table/With boots (nylon tarpaulin/chloroprene)

Symbol Bore	WW	X (standard strokes)												X (other than standard strokes)
		50	75	100	125	150	200	250	300	350	400	450	500	Nylon tarpaulin/chloroprene
φ50	φ45	72	80	89	97	105	122	139	155	172	189	205	222	1/3 stroke+55
φ63	φ45	72	80	89	97	105	122	139	155	172	189	205	222	
φ80	φ60	78	84	90	97	103	115	128	140	153	165	178	190	1/4 stroke+65
φ100	φ71	86	92	98	105	111	123	136	148	161	173	186	198	1/4 stroke+73
φ125	φ80	88	94	100	107	113	125	138	150	163	175	188	200	1/4 stroke+75
φ160	φ100	98	104	110	117	123	135	148	160	173	185	198	210	1/4 stroke+85
φ180	φ100	98	104	110	117	123	135	148	160	173	185	198	210	
φ200	φ100	98	104	110	117	123	135	148	160	173	185	198	210	
φ250	φ125	103	109	115	122	128	140	153	165	178	190	203	215	1/4 stroke+90

Dimensional Table/With boots (Conex)

Symbol Bore	WW	X (standard strokes)												X (other than standard strokes)
		50	75	100	125	150	200	250	300	350	400	450	500	Conex
φ50	φ61	75	85	95	105	115	135	155	175	195	215	235	255	1/2.5 stroke+55
φ63	φ61	75	85	95	105	115	135	155	175	195	215	235	255	
φ80	φ61	82	90	99	107	115	132	149	165	182	199	215	232	1/3 stroke+65
φ100	φ71	90	98	107	115	123	140	157	173	190	207	223	240	1/3 stroke+73
φ125	φ80	92	100	109	117	125	142	159	175	192	209	225	242	1/3 stroke+75
φ160	φ100	102	110	119	127	135	152	169	185	202	219	235	252	1/3 stroke+85
φ180	φ100	102	110	119	127	135	152	169	185	202	219	235	252	
φ200	φ100	102	110	119	127	135	152	169	185	202	219	235	252	
φ250	φ125	107	115	124	132	140	157	174	190	207	224	240	257	1/3 stroke+90

10A-3/TA3[Bore]K CAD/DATA is available.



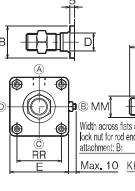
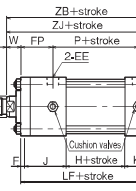
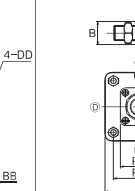
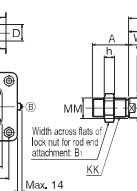
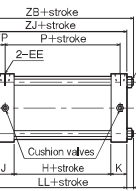
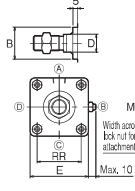
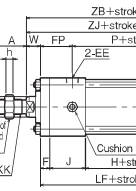
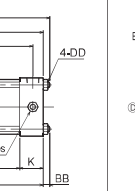
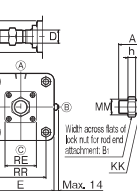
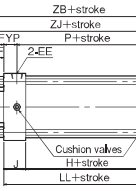
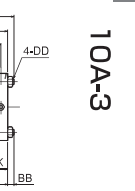
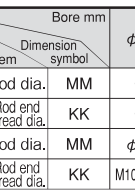
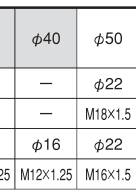
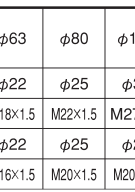
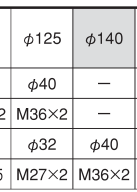
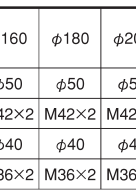
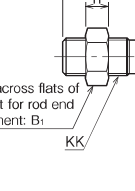
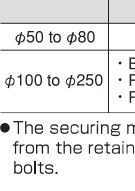
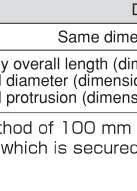
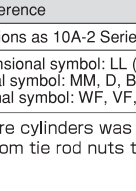
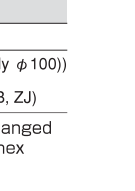
Information

Differences between 10A-3 and 10A-2

- 10A-3 cylinders are more heavy duty type cylinders having thicker piston rods than those of 10A-2.

Appearance

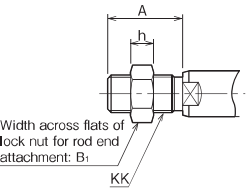
●10A-3 Series cylinders marked with  are not available.

Bore mm	φ32	φ40	φ50	φ63	φ80	φ100	φ125	φ140	φ160	φ180	φ200	φ250
Series												
10A-3												
10A-2												

Differences in Rod Diameter and Rod End Screw Diameter

Series	Item	Dimension symbol	Bore mm											
			φ32	φ40	φ50	φ63	φ80	φ100	φ125	φ140	φ160	φ180	φ200	φ250
10A-3	Rod dia.	MM	—	—	φ22	φ22	φ25	φ32	φ40	—	φ50	φ50	φ50	φ63
	Rod end thread dia.	KK	—	—	M18×1.5	M18×1.5	M22×1.5	M27×2	M36×2	—	M42×2	M42×2	M42×2	M56×2
10A-2	Rod dia.	MM	φ12	φ16	φ22	φ22	φ25	φ25	φ32	φ40	φ40	φ40	φ40	φ45
	Rod end thread dia.	KK	M10×1.25	M12×1.25	M16×1.5	M16×1.5	M20×1.5	M20×1.5	M27×2	M36×2	M36×2	M36×2	M36×2	M42×2

The following dimensions vary depending on the bore.



Other Differences

	Difference
φ50 to φ80	Same dimensions as 10A-2 Series
φ100 to φ250	• Body overall length (dimensional symbol: LL (only φ100)) • Rod diameter (dimensional symbol: MM, D, B) • Rod protrusion (dimensional symbol: WF, VF, ZB, ZJ)

- The securing method of 100 mm bore cylinders was changed from the retainer which is secured from tie rod nuts to hex bolts.

The mounting accessories for 10A-3 and 10A-2 are interchangeable.