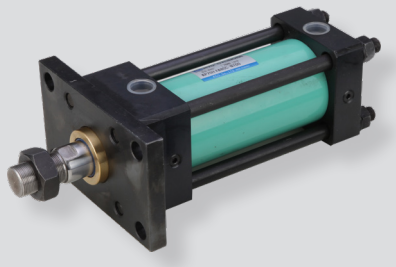
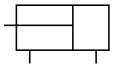
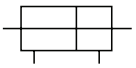
KP210H series



KP210HC-FA80B-N100

Features

- High-pressure tie rod type cylinder
- Double acting hydraulic cylinder for 210kgf/cm^2 with bore from Ø40 to Ø160
- High performance cushion to reduce shock when stopping
- Various mounting styles (SD, LA, FA, FB, CA, CB, TC, TA)

Symbol
 Double Acting / Single Rod
 Double Acting / Double Rod

How to Order

KP210H [C] - [ ] [SD] [40] B - [B] [300] [ ] [ ] [ ] [ ]

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Series

KP210H	Single rod	210kgf/cm^2
KP210H W	Double rod	

② Compact seal

C	Compact seal(Standard)
Nil	General seal

③ Seal Material

Nil	Nitrile rubber (Standard)
1	Nitrile rubber
2	Fluoric rubber

④ Mounting style

SD	Standard	CA	Single clevis
LA	Axial angle of foot	CB	Double clevis
FA	Rod side flange	TC	Center trunnion
FB	Head side flange	TA	Rod side trunnion

⑤ Bore size

40	Ø40
50	Ø50
63	Ø63
80	Ø80
100	Ø100
125	Ø125
140	Ø140
160	Ø160

⑥ Cushion

N	Without cushion
B	With cushions on both ends
R	With cushion on the rod side
H	With cushion on the head side

⑦ Cylinder stroke

Bore size	Stroke
Ø40, Ø50	1200
Ø63, Ø80	1600
Ø100~Ø160	2000

※ Check buckling, as it varies depending on the mounting style.
※ Contact us for longer stroke.
※ Mounting style for stroke over 801mm at tube sizeØ140~Ø160 is flange mounting.

⑧ Port position

Nil	A(Standard)
B,C,D	Refer to figure right

⑨ Cushion valve position

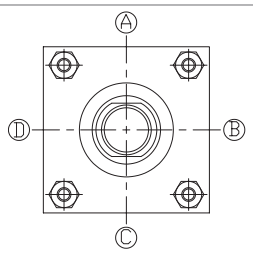
Nil	B(Standard)
A,C,D	Refer to figure right

⑩ Bellows

	Material	Max. ambient temperature
Nil	Without bellows	
J	Nylon Tarpaulin	60℃
K	Neoprene Cloth	110℃

⑪ Rod end attachment

Nil	Rod end nut (Standard)
I	Single knuckle joint
Y	Double knuckle joint



※ If you need to change the position, mark A, B, C, or D.

Specifications

Type		Standard					
		KP210H					
Bore size		Ø40, Ø50, Ø63, Ø80, Ø100, Ø125, Ø140, Ø160					
Operating pressure		210kgf/cm² (21.4MPa)					
Max. operating pressure		Head side 245kgf/cm² (25.0MPa) Rod side 265kgf/cm² (27.0MPa)					
Proof pressure		315kgf/cm² (32.1MPa)					
Min. operating pressure		Head side ≤3.0kgf/cm² (0.31MPa), Rod side ≤ 4.5kgf/cm² (0.46MPa)					
Operating piston speed		8~300mm/sec					
Ambient & fluid temperature		-10 ~ 80℃ (Ambient temperature)					
Cushion		Metal fitting type					
Working oil		Petroleum-based fluid					
Tolerance of thread		KS class 2					
Tolerance of stroke	ST	≤100mm	101~250mm	251~630mm	631~1000mm	1001~1600mm	1601~2000mm
	Limit	+0.8 0	+1.0 0	+1.25 0	+1.4 0	+1.6 0	+1.8 0
Tube material		Carbon steel for machine structural use					
Mounting style		SD, LA, FA, FB, CA, CB, TA, TC					

Cushion Length

Unit:mm

Bore size	Ø40 ~ Ø63	Ø80 ~ Ø100
Cushion length	22	25

Bore size	Ø125 ~ Ø150	Ø160
Cushion length	30	35

※ Operating pressure: Max. allowable setting pressure for a relief valve while cylinder is operating
※ Max. operating pressure: Maximum allowable pressure generated in a cylinder (surge pressure, etc.)
※ Proof pressure: Test pressure for a cylinder can withstand without unreliable performance when returning to operating pressure
※ Min. operating pressure: Minimum pressure for cylinder installed horizontally and operating without load
※ A longer thread length (A) is required when lock nut is applied on the end of the piston rod

Mounting Style

Bore size / Mounting	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø160
Axial angle of foot	KP210H LA(Hdy.)40	KP210H LA(Hdy.)50	KP210H LA(Hdy.)63	KP210H LA(Hdy.)80	KP210H LA(Hdy.)100	KP210H LA(Hdy.)125	KP210H LA(Hdy.)140	KP210H LA(Hdy.)160
Flange	KP210H FA/FB(Hdy.)40	KP210H FA/FB(Hdy.)50	KP210H FA/FB(Hdy.)63	KP210H FA/FB(Hdy.)80	KP210H FA/FB(Hdy.)100	KP210H FA/FB(Hdy.)125	KP210H FA/FB(Hdy.)140	KP210H FA/FB(Hdy.)160
Single clevis	KP210H CA(Hdy.)40	KP210H CA(Hdy.)50	KP210H CA(Hdy.)63	KP210H CA(Hdy.)80	KP210H CA(Hdy.)100	KP210H CA(Hdy.)125	KP210H CA(Hdy.)140	KP210H CA(Hdy.)160
Double clevis	KP210H CB(Hdy.)40	KP210H CB(Hdy.)50	KP210H CB(Hdy.)63	KP210H CB(Hdy.)80	KP210H CB(Hdy.)100	KP210H CB(Hdy.125	KP210H CB(Hdy.)140	KP210H CB(Hdy.)160
Trunnion	KP210H CB(Hdy.)40	KP210H TA/TC(Hdy.)50	KP210H TA/TC(Hdy.)63	KP210H CB(Hdy.)80	KP210H TA/TC(Hdy.)100	KP210H TA/TC(Hdy.)125	KP210H TA/TC(Hdy.)140	KP210H TA/TC(Hdy.)160
Pin of double clevis	KP210H CB PIN(Hdy.)40	KP210H CB PIN(Hdy.)50	KP210H CB PIN(Hdy.)63	KP210H CB PIN(Hdy.)80	KP210H CB PIN(Hdy.)100	KP210H CB PIN(Hdy.)125	KP210H CB PIN(Hdy.)140	KP210H CB PIN(Hdy.)160

Accessory

Bore size / Accessory	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø160
Single knuckle joint	KP210H I(Hdy.)40	KP210H I(Hdy.)50	KP210H I(Hdy.)63	KP210H I(Hdy.)80	KP210H I(Hdy.)100	KP210H I(Hdy.)125	KP210H I(Hdy.)140	KP210H I(Hdy.)160
Double knuckle joint	KP210H Y(Hdy.)40	KP210H Y(Hdy.)50	KP210H Y(Hdy.)63	KP210H Y(Hdy.)80	KP210H Y(Hdy.)100	KP210H Y(Hdy.)125	KP210H Y(Hdy.)140	KP210H Y(Hdy.)160
Pin of double knuckle joint	KP210H Y PIN(Hdy.)40	KP210H Y PIN(Hdy.)50	KP210H Y PIN(Hdy.)63	KP210H Y PIN(Hdy.)80	KP210H Y PIN(Hdy.)100	KP210H Y PIN(Hdy.)125	KP210H Y PIN(Hdy.)140	KP210H Y PIN(Hdy.)160
Rod end nut	KP210H RN(Hdy.)40	KP210H RN(Hdy.)50	KP210H RN(Hdy.)63	KP210H RN(Hdy.)80	KP210H RN(Hdy.)100	KP210H RN(Hdy.)125	KP210H RN(Hdy.)140	KP210H RN(Hdy.)160

Mass

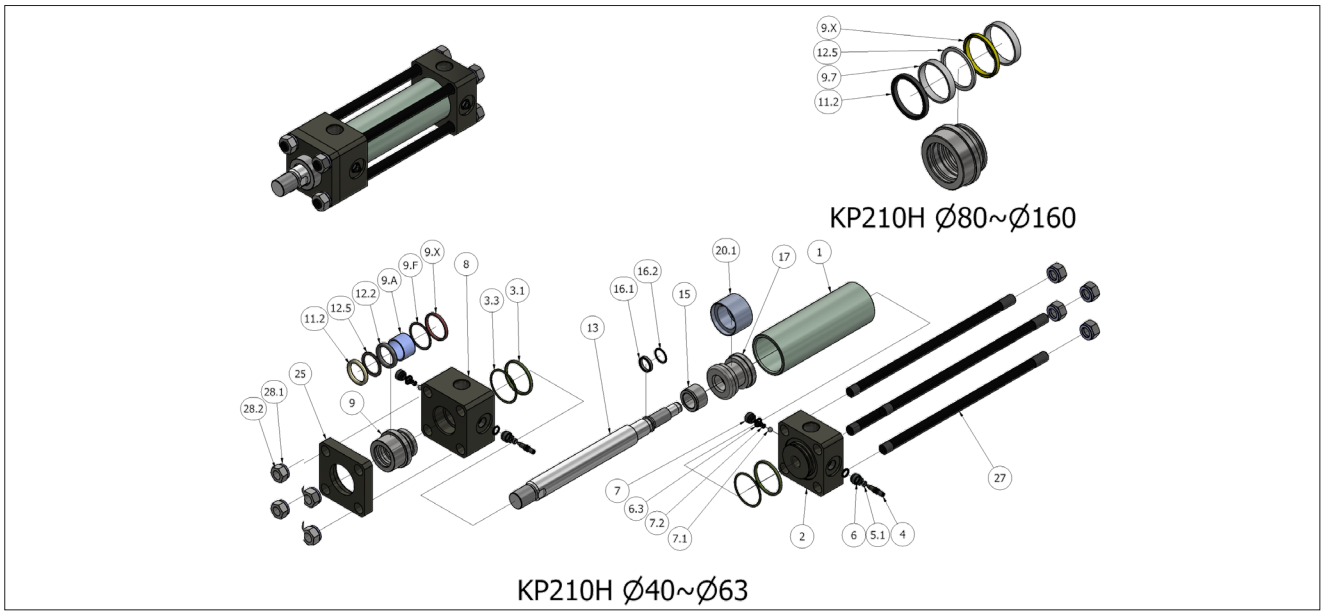
Unit : kg

Bore size	Basis mass (SD)	Mounting mass							Accessory			Additional mass per each 1mm of stroke
		LA	FA	FB	CA	CB	TA	TC	Single knuckle Joint	Double knuckle Joint	Rod end nut	
Ø40	4.44	0.964	0.7	1.0	0.7	0.7	0.4	0.969	1.0	1.2	0.03	0.0122
Ø50	8.06	1.11	1.2	1.9	1.3	1.3	0.4	1.49	1.4	2.2	0.05	0.0202
Ø63	13.2	1.27	1.9	3.7	2.0	2.0	0.6	2.03	2.2	3.7	0.11	0.0293
Ø80	23.6	1.91	2.0	4.7	3.4	3.4	1.0	2.91	4.2	7.7	0.24	0.0451
Ø100	39.6	5.11	4.4	9.7	6.4	6.4	2.1	7.61	8.0	14.6	0.52	0.0738
Ø125	68.5	8.5	10.0	18.6	13.2	13.2	4.0	13.0	31.1	20.5	1.10	0.121
Ø140	92.4	5.2	8.6	21.8	16.5	16.5	5.2	15.1	36.7	24.4	1.44	0.164
Ø160	126	4.7	13.7	30.0	25.6	25.6	7.1	23.7	58.8	41.1	1.93	0.192

Calculation:

Ex.) KP210H-LA100B-N500 A B
Basis mass: 39.6
Additional mass: 0.0738
Stroke: 500mm / LA type: 5.11
39.6+(0.0738 X 500) + 5.11 = 81.61kg

Structure



Part List

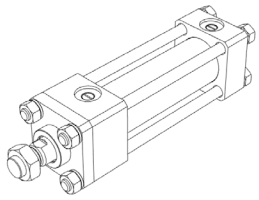
Part no.	Parts	Material
1	TUBE	STM13C
2	HEAD COVER	SS400
4	CUSHION NEEDLE	SUM24L
6	CUSHION BODY	SUM24L
7	CHECK BODY	SUM24L
7.1	STEEL BALL	SUJ2
7.2	COIL SPRING	SUM24L
8	ROD COVER	SS400

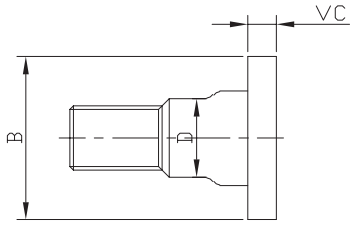
Part no.	Parts	Material
9	BUSH	SM45C
13	ROD(B)	SM45C
15	CUSHION RING	SM45C
17	PISTION	SM45C
25	RETAINER	SS400
27	TIE ROD	SM45C
28.1	S/WASHER	SWRH
28.2	HEX NUT	SM45C

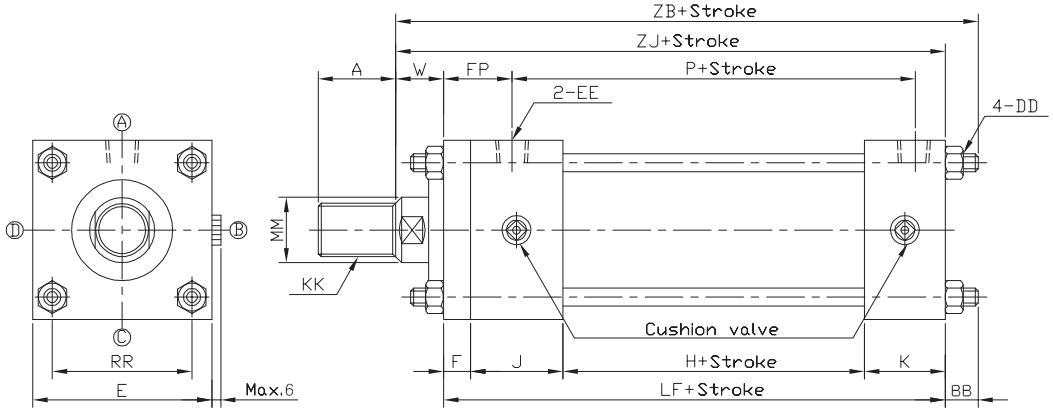
Packing List

Part no.	Part	Material	Bore size (mm)							
			40	50	63	80	100	125	140	160
31	TUBE O-RING	NBR	1B-G35	1B-G45	1B-G58	1B-G75	1B-G95	1B-G120	1B-G135	1B-G150
33	TUBE O-RING(BUR)	NBR	-	-	-	-	-	-	-	-
51	NEEDLE O-RING	NBR	1B-P5	1B-P5	1B-P6	1B-P6	1B-P9	1B-P9	1B-P9	1B-P9
63	CB O-RING	NBR	1B-P10	1B-P10	1B-P10	1B-P11	1B-P11	1B-P15	1B-P15	1B-P15
97	WEARING	PHENOL				45x50x10	55x60x10	70x75x10	80x85x10	90x95x10
9A	DU BUSH	SPCC	DUB2220	DUB2820	DUB3520	-	-	-	-	-
9F	BUSH O-RING(BUR)	PTFE	-	-	-	-	-	-	-	-
9X	BUSH O-RING	NBR	1B-G30	1B-G35	1B-G45	1B-G55	1B-G65	1B-G80	1B-G80	1B-G100
112	DUST SEAL	URETHANE	LBI-22	LBI-28	LBI-35	LBI-45	LBI-55	LBI-70	LBI-80	LBI-90
122	ROD PACKING	NBR	USI-22	UHR-28	UHS-35	UHR-45A	UHS-55	UHS-70	UHR-80	UHR-90
125	ROD PACKING(BUR)	PTFE	-	-	-	-	-	-	-	-
161	ROD O-RING	NBR	1B-P14	1B-P18	1B-P22A	1B-P29	1B-G40	1B-G50	1B-G60	1B-G65
162	ROD O-RING(BUR)	PTFE	-	-	-	-	-	Z	-	-
201	PISTON PACKING	NBR	C/P-40x30x164	C/P-50x34x184	C/P-63x47x184	C/P-80x60x224	C/P-100x75x224	C/P-125x115x254x95	C/P-140x115x254x95	C/P-160x135x254

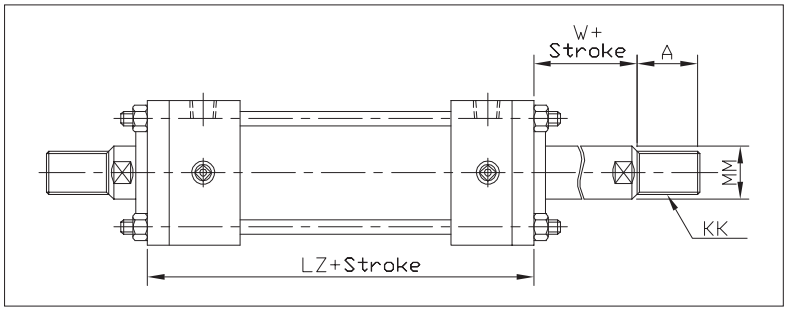
Dimensions-Standard (SD)







Double Rod Type

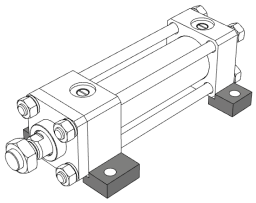


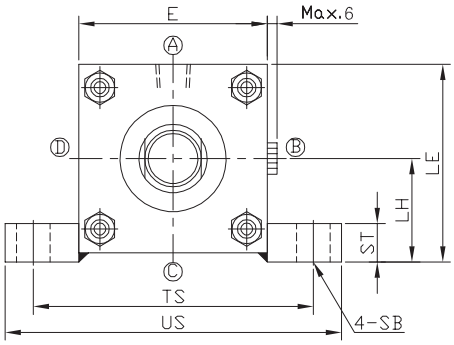
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

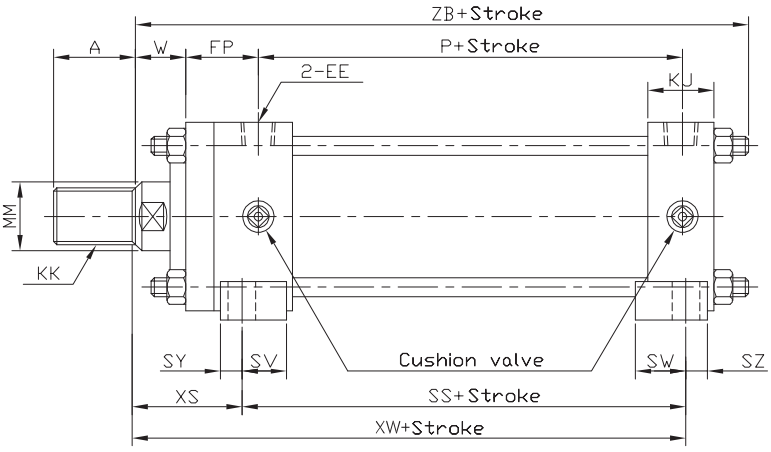
Unit : mm

Bore size	A	B	BB	D	DD	E	EE	F	FP	H	J	K	KK	LF	LZ	MM	P	RR	VC	W	ZB	ZJ
Ø40	25	Ø40	17	20	M12×1.5	□70	Rc(PT)3/8	13	43	64	47	32	M20×1.5	156	184	Ø22	98	□50	11	30	203	186
Ø50	30	Ø46	18	25	M14×1.5	□85	Rc(PT)1/2	15	48	68	52	37	M24×1.5	172	202	Ø28	106	□62	14	30	220	202
Ø63	35	Ø55	21	30	M16×1.5	□100	Rc(PT)1/2	18	56	75	57	37	M30×1.5	187	225	Ø35	113	□74	15	35	243	222
Ø80	45	Ø65	23	41	M18×1.5	□125	Rc(PT)3/4	24	69	85	67	42	M39×1.5	218	267	Ø45	129	□92	9	35	276	253
Ø100	55	Ø80	30	50	M22×1.5	□160	Rc(PT)3/4	26	71	95	67	42	M48×1.5	230	281	Ø55	139	□120	14	40	300	270
Ø125	75	Ø95	35	65	M27×1.5	□190	Rc(PT)1	33	83	105	77	52	M64×2	267	325	Ø70	159	□145	13	45	347	312
Ø140	80	Ø105	39	75	M30×1.5	□215	Rc(PT)1	36	86	110	77	52	M72×2	275	336	Ø80	164	□165	14	50	364	325
Ø160	90	Ø120	40	85	M33×1.5	□240	Rc(PT)1	41	94	124	80	59	M80×2	304	366	Ø90	186	□185	14	55	399	359

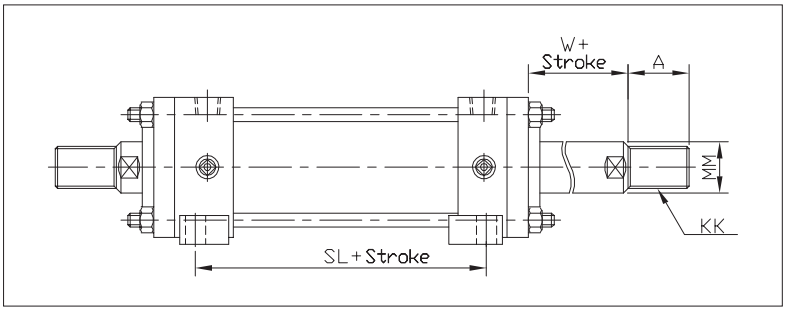
Dimensions-Axial Angle of Foot (LA)







Double Rod Type

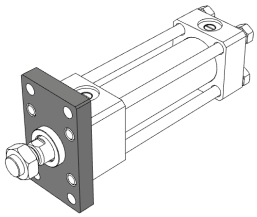


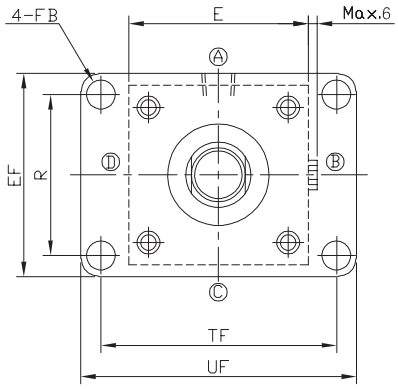
※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

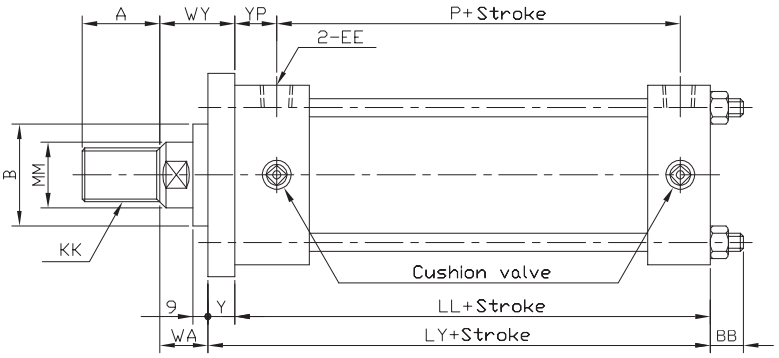
Unit : mm

Bore size	A	E	EE	FP	KK	K	LE	LH	MM	P	SB	SL	SS	ST	SV	SW	SY	SZ	TS	US	W	XS	XW	ZB
Ø40	25	□70	Rc(PT)3/8	43	M20×1.5	32	77	42±0.15	Ø22	98	Ø11	126	111	15	31	16	16	16	98	122	30	59	170	203
Ø50	30	□85	Rc(PT)1/2	48	M24×1.5	37	97.5	55±0.15	Ø28	106	Ø14	136	120	20	34	18	18	19	118	145	30	63	183	220
Ø63	35	□100	Rc(PT)1/2	56	M30×1.5	37	113	63±0.15	Ø35	113	Ø18	153	132	25	39	18	18	19	140	175	35	71	203	243
Ø80	45	□125	Rc(PT)3/4	69	M39×1.5	42	137.5	75±0.25	Ø45	129	Ø22	177	152	30	46	21	21	21	175	210	35	80	232	276
Ø100	55	□160	Rc(PT)3/4	71	M48×1.5	42	165	85±0.25	Ø55	139	Ø26	183	162	35	44	23	23	24	215	260	40	89	251	300
Ø125	75	□190	Rc(PT)1	83	M64×2	52	200	105± 0.25	Ø70	159	Ø33	203	182	45	49	28	28	29	270	330	45	106	288	347
Ø140	80	□215	Rc(PT)1	86	M72×2	52	219.5	112± 0.25	Ø80	164	Ø33	208	187	45	49	28	28	29	280	335	50	114	301	364
Ø160	90	□240	Rc(PT)1	94	M80×2	59	245	125± 0.25	Ø90	186	Ø36	222	212	50	49	31	31	31	315	375	55	127	339	399

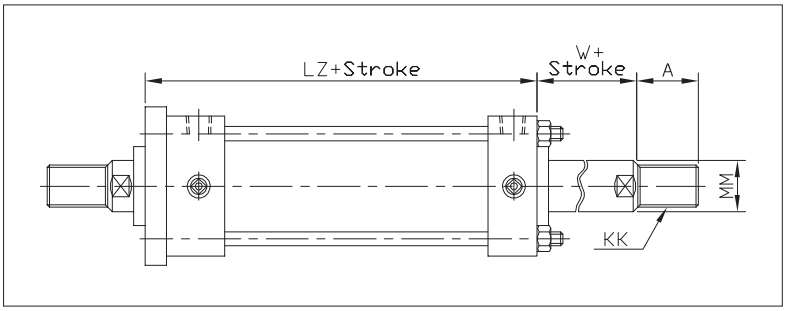
Dimensions-Rod Side Flange (FA)







Double Rod Type

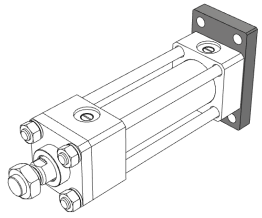


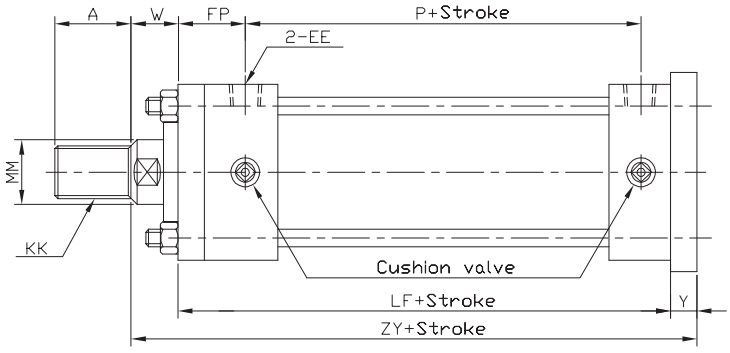
※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

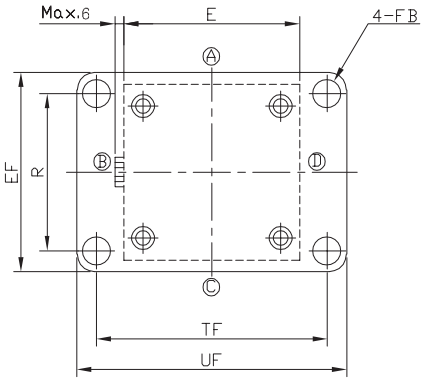
Unit : mm

Bore size	A	B	BB	E	EE	EF	FB	KK	LL	LY	LZ	MM	P	R	TF	UF	W	WA	WY	Y	YP
Ø40	25	Ø40	17	□70	Rc(PT)3/8	73	Ø11	M20×1.5	143	158	186	Ø22	98	50	98	122	30	28	43	15	30
Ø50	30	Ø46	18	□85	Rc(PT)1/2	88	Ø14	M24×1.5	157	177	207	Ø28	106	60	118	145	30	25	45	20	33
Ø63	35	Ø55	21	□100	Rc(PT)1/2	106	Ø18	M30×1.5	169	193	231	Ø35	113	73	140	175	35	29	53	24	38
Ø80	45	Ø65	23	□125	Rc(PT)3/4	130	Ø22	M39×1.5	194	218	267	Ø45	129	90	175	210	35	35	59	24	45
Ø100	55	Ø80	30	□160	Rc(PT)3/4	165	Ø26	M48×1.5	204	235	286	Ø55	139	115	215	260	40	35	66	31	45
Ø125	75	Ø95	35	□190	Rc(PT)1	205	Ø33	M64×2	234	271	329	Ø70	159	145	270	330	45	41	78	37	50
Ø140	80	Ø105	39	□215	Rc(PT)1	218	Ø33	M72×2	239	280	341	Ø80	164	160	280	335	50	45	86	41	50
Ø160	90	Ø120	40	□240	Rc(PT)1	243	Ø36	M80×2	263	309	371	Ø90	186	180	315	375	55	50	96	46	53

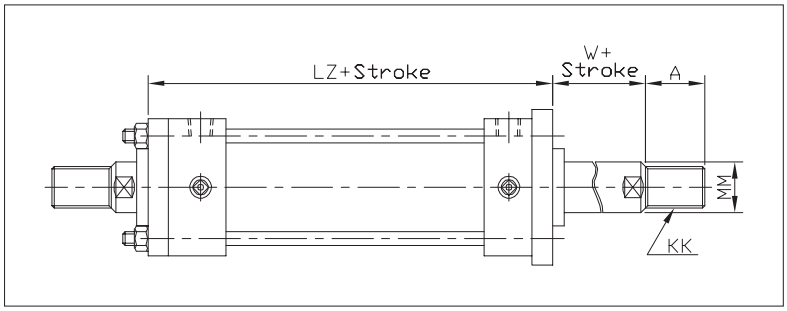
Dimensions-Head Side Flange (FB)







Double Rod Type

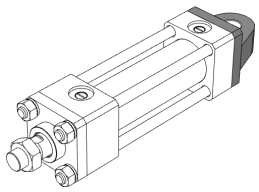


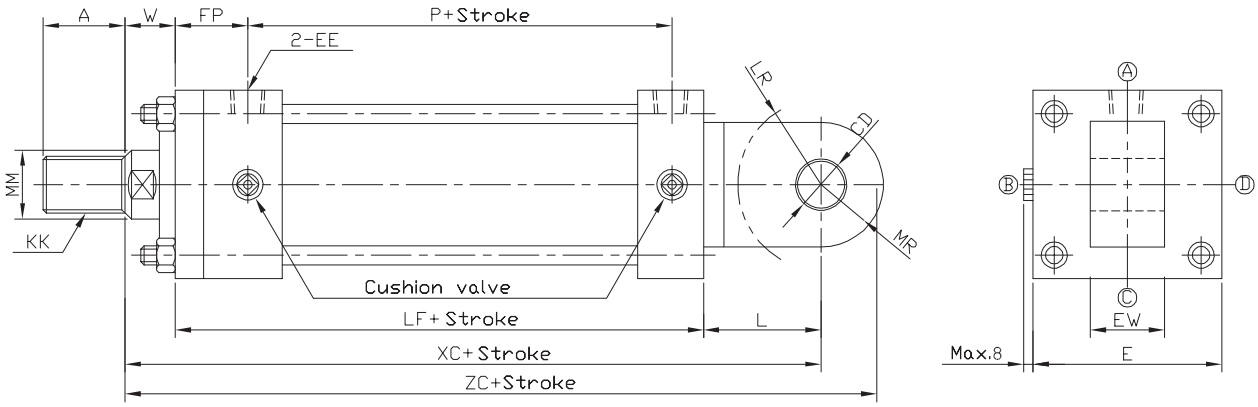
※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

Unit : mm

Bore size	A	E	EE	EF	FB	FP	KK	LF	LZ	MM	P	R	TF	UF	W	Y	ZY
Ø40	25	□70	Rc(PT)3/8	73	Ø11	43	M20×1.5	156	186	Ø22	98	50	98	122	30	15	201
Ø50	30	□85	Rc(PT)1/2	88	Ø14	48	M24×1.5	172	207	Ø28	106	60	118	145	30	20	222
Ø63	35	□100	Rc(PT)1/2	106	Ø18	56	M30×1.5	187	231	Ø35	113	73	140	175	35	24	246
Ø80	45	□125	Rc(PT)3/4	130	Ø22	69	M39×1.5	218	267	Ø45	129	90	175	210	35	24	277
Ø100	55	□160	Rc(PT)3/4	165	Ø26	71	M48×1.5	230	286	Ø55	139	115	215	260	40	31	301
Ø125	75	□190	Rc(PT)1	205	Ø33	83	M64×2	267	329	Ø70	159	145	270	330	45	37	349
Ø140	80	□215	Rc(PT)1	218	Ø33	86	M72×2	275	341	Ø80	164	160	280	335	50	41	366
Ø160	90	□240	Rc(PT)1	243	Ø36	94	M80×2	304	371	Ø90	186	180	315	375	55	46	405

Dimensions-Single Clevis (CA)



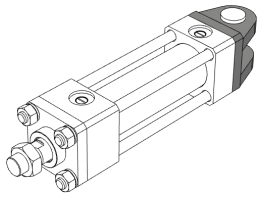


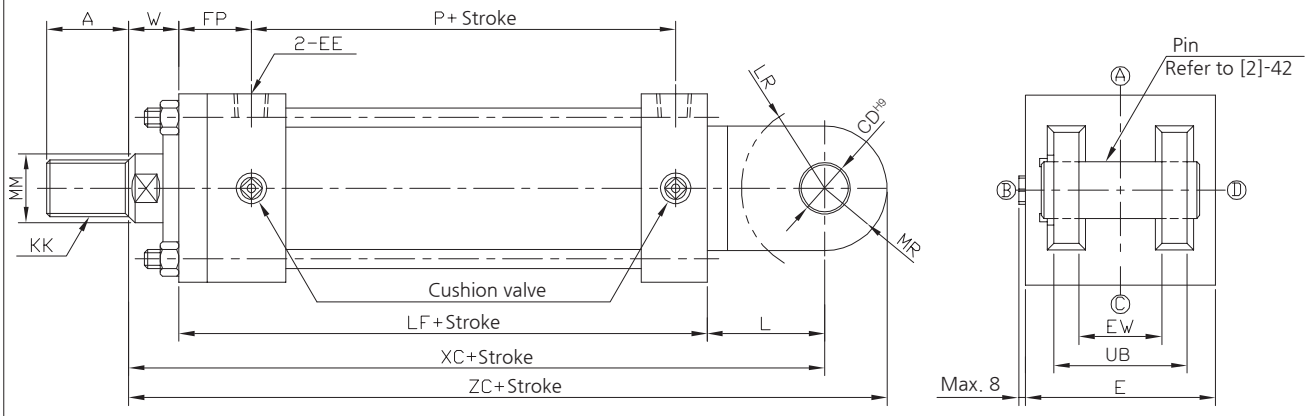
※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

Unit : mm

Bore size	A	CD	E	EE	EW	FP	KK	L	LF	LR	MM	MR	P	W	XC	ZC
Ø40	25	Ø20	□70	Rc(PT)3/8	32 $^{-0.1}_{-0.4}$	43	M20×1.5	35	156	R25	Ø22	R25	98	30	221	246
Ø50	30	Ø25	□85	Rc(PT)1/2	36 $^{-0.1}_{-0.4}$	48	M24×1.5	45	172	R32	Ø28	R30	106	30	247	277
Ø63	35	Ø31.5	□100	Rc(PT)1/2	40 $^{-0.1}_{-0.4}$	56	M30×1.5	55	187	R40	Ø35	R35	113	35	277	312
Ø80	45	Ø40	□125	Rc(PT)3/4	50 $^{-0.1}_{-0.4}$	69	M39×1.5	70	218	R50	Ø45	R40	129	35	323	363
Ø100	55	Ø50	□160	Rc(PT)3/4	63 $^{-0.1}_{-0.4}$	71	M48×1.5	80	230	R63	Ø55	R50	139	40	350	400
Ø125	75	Ø63	□190	Rc(PT)1	80 $^{-0.1}_{-0.6}$	83	M64×2	105	267	R79	Ø70	R63	159	45	417	480
Ø140	80	Ø71	□215	Rc(PT)1	80 $^{-0.1}_{-0.6}$	86	M72×2	115	275	R89	Ø80	R71	164	50	440	511
Ø160	90	Ø80	□240	Rc(PT)1	100 $^{-0.1}_{-0.6}$	94	M80×2	125	304	R100	Ø90	R80	186	55	484	564

Dimensions-Double Clevis (CB)



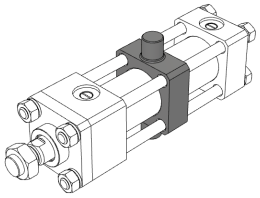


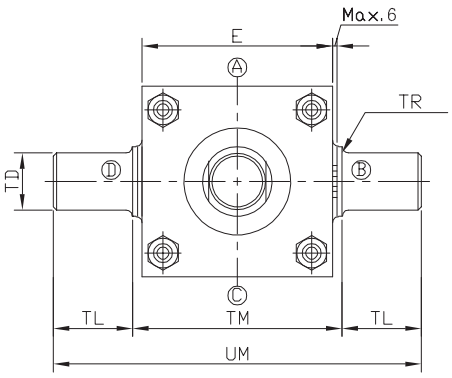
※ For not shown dimensions, refer to SD type(standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

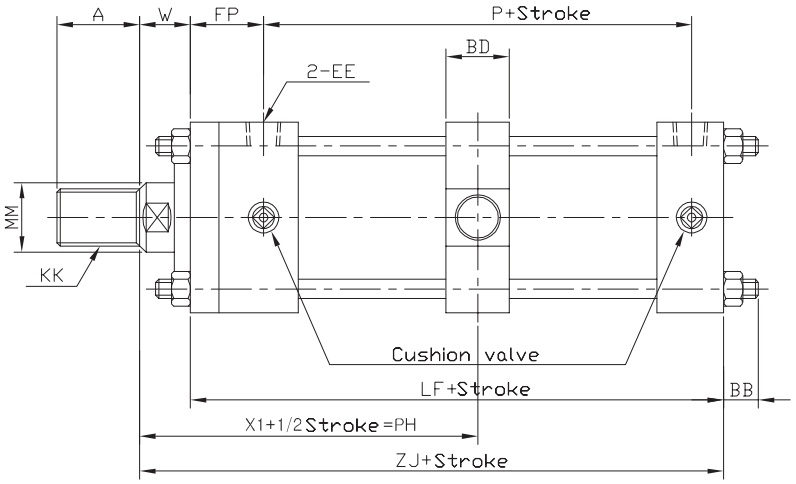
Unit : mm

Bore size	A	CD	E	EE	EW	FP	KK	L	LF	LR	MM	MR	P	UB	W	XC	ZC
Ø40	25	Ø20	□70	Rc(PT)3/8	32 $^{+0.4}_{+0.1}$	43	M20×1.5	35	156	R25	Ø22	R25	98	64	30	221	246
Ø50	30	Ø25	□85	Rc(PT)1/2	36 $^{+0.4}_{+0.1}$	48	M24×1.5	45	172	R32	Ø28	R30	106	72	30	247	277
Ø63	35	Ø31.5	□100	Rc(PT)1/2	40 $^{+0.4}_{+0.1}$	56	M30×1.5	55	187	R40	Ø35	R35	113	80	35	277	312
Ø80	45	Ø40	□125	Rc(PT)3/4	50 $^{+0.4}_{+0.1}$	69	M39×1.5	70	218	R50	Ø45	R40	129	100	35	323	363
Ø100	55	Ø50	□160	Rc(PT)3/4	63 $^{+0.4}_{+0.1}$	71	M48×1.5	80	230	R63	Ø55	R50	139	126	40	350	400
Ø125	75	Ø63	□190	Rc(PT)1	80 $^{+0.6}_{+0.1}$	83	M64×2	105	267	R79	Ø70	R63	159	160	45	417	480
Ø140	80	Ø71	□215	Rc(PT)1	80 $^{+0.6}_{+0.1}$	86	M72×2	115	275	R89	Ø80	R71	164	160	50	440	511
Ø160	90	Ø80	□240	Rc(PT)1	100 $^{+0.6}_{+0.1}$	94	M80×2	125	304	R100	Ø90	R80	186	200	55	484	564

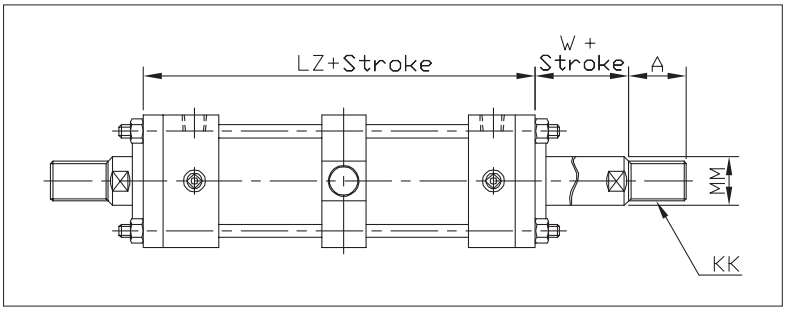
Dimensions-Center Trunnion (TC)







Double Rod Type

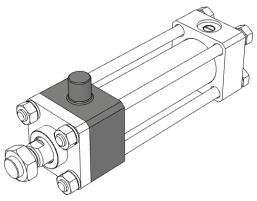


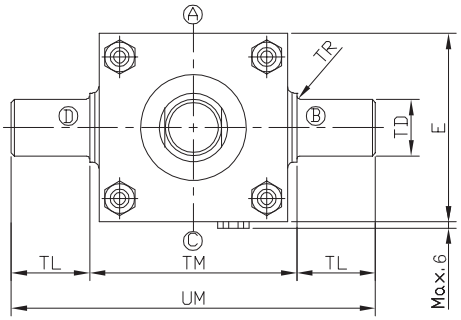
※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.

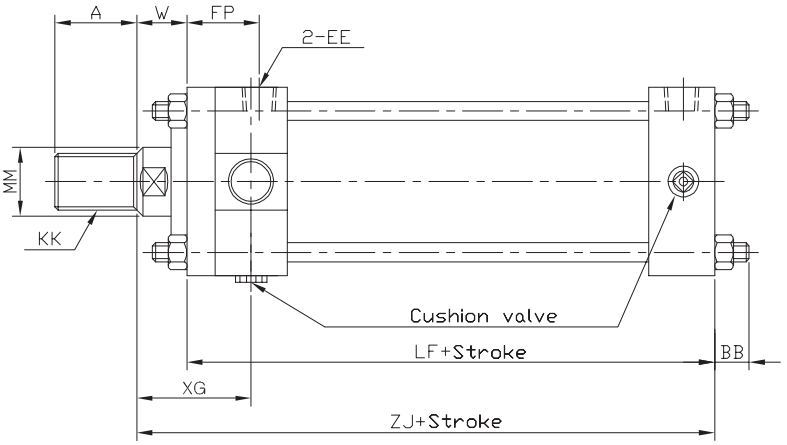
Unit : mm

Bore size	A	BB	BD	E	EE	FP	KK	LF	LZ	MM	P	최소PH	TL	TM	TD	TR	UM	W	X1	ZJ
Ø40	25	17	33	□70	Rc(PT)3/8	43	M20×1.5	156	184	Ø22	98	107	25	73 $^{0}_{-0.3}$	Ø25^{e9}	2.5	123	30	122	186
Ø50	30	18	33	□85	Rc(PT)1/2	48	M24×1.5	172	202	Ø28	106	114	25	88 $^{0}_{-0.35}$	Ø25^{e9}	2.5	138	30	131	202
Ø63	35	21	43	□100	Rc(PT)1/2	56	M30×1.5	187	225	Ø35	113	132	31.5	106 $^{0}_{-0.35}$	Ø31.5^{e9}	2.5	169	35	148	222
Ø80	45	23	53	□125	Rc(PT)3/4	69	M39×1.5	218	267	Ø45	129	153	40	128 $^{0}_{-0.4}$	Ø40^{e9}	3	208	35	169	253
Ø100	55	30	63	□160	Rc(PT)3/4	71	M48×1.5	230	281	Ø55	139	165	50	170 $^{0}_{-0.4}$	Ø50^{e9}	3	270	40	181	270
Ø125	75	35	78	□190	Rc(PT)1	83	M64×2	267	325	Ø70	159	209	63	205 $^{0}_{-0.46}$	Ø63^{e9}	4	331	45	208	312
Ø140	80	39	88	□215	Rc(PT)1	86	M72×2	275	336	Ø80	164	222	71	225 $^{0}_{-0.46}$	Ø71^{e9}	4	367	50	218	325
Ø160	90	40	98	□240	Rc(PT)1	94	M80×2	304	366	Ø90	186	243	80	255 $^{0}_{-0.52}$	Ø80^{e9}	4	415	55	242	359

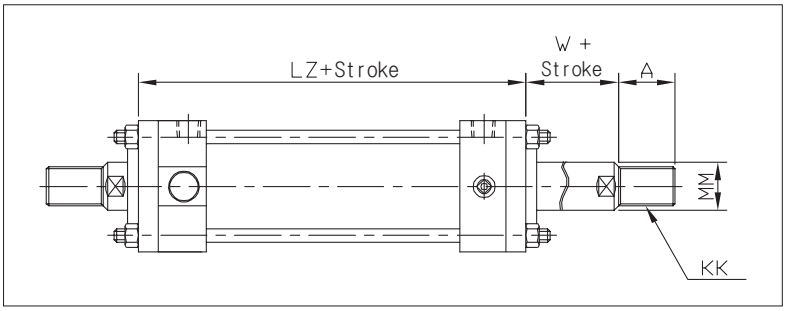
Dimensions-Rod Side Trunnion (TA)







Double Rod Type

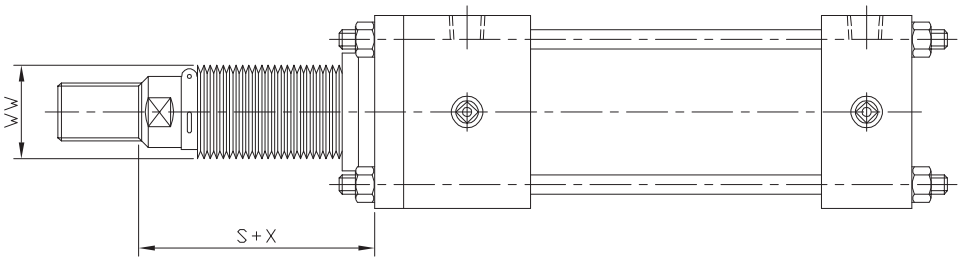


※ For not shown dimensions, refer to SD type (standard type).
※ Flange type tube is applied for stroke over 801mm at Ø140 ~ Ø160.
※ Cushion valve and bleeding air are located C due to TA type construction.

Unit : mm

Bore size	A	BB	E	EE	FP	KK	LF	LZ	MM	TD	TL	TM	TR	UM	W	XG	ZJ
Ø40	25	17	□70	Rc(PT)3/8	43	M20×1.5	156	183	Ø22	Ø25	25	73 $^{0}_{-0.3}$	2.5	123	30	66	186
Ø50	30	18	□85	Rc(PT)1/2	48	M24×1.5	172	202	Ø28	Ø25	25	88 $^{0}_{-0.35}$	2.5	138	30	71	202
Ø63	35	21	□100	Rc(PT)1/2	56	M30×1.5	187	225	Ø35	Ø31.5	31.5	106 $^{0}_{-0.35}$	2.5	169	35	81	222
Ø80	45	23	□125	Rc(PT)3/4	69	M39×1.5	218	267	Ø45	Ø40	40	128 $^{0}_{-0.4}$	3	208	35	92	253
Ø100	55	30	□160	Rc(PT)3/4	71	M48×1.5	230	281	Ø55	Ø50	50	170 $^{0}_{-0.4}$	3	270	40	99	270
Ø125	75	35	□190	Rc(PT)1	83	M64×2	267	325	Ø70	Ø63	63	205 $^{0}_{-0.46}$	4	331	45	116	312
Ø140	80	39	□215	Rc(PT)1	86	M72×2	288	349	Ø80	Ø71	71	225 $^{0}_{-0.46}$	4	367	50	131	338
Ø160	90	40	□240	Rc(PT)1	94	M80×2	324	386	Ø90	Ø80	80	255 $^{0}_{-0.52}$	4	415	55	146	379

Dimensions- Bellows Attached Type (J, K)



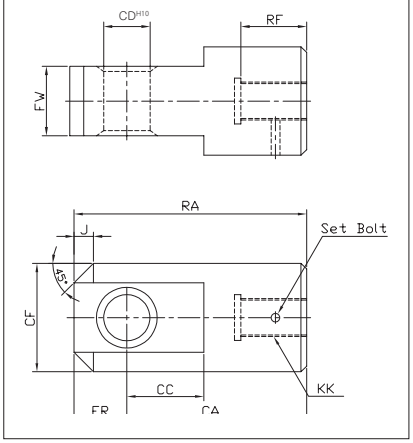
Type	J	K
Material	Nylon Tarpaulin	Neoprene Cloth
Temperature	60℃	110℃

Bore size		Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø160
WW		Ø50	Ø63	Ø71	Ø80	Ø100	Ø125	Ø125	Ø140
X	FA type	45	45	55	55	55	65	65	65
	All types accept FA	47	50	61	55	60	69	70	70
S		1/3.5 × Stroke		1/4 × Stroke			1/5 × Stroke		

※ For dimensions other than this figure, refer to SD Type (Standard Type).
※ The mounting dimensions do not change even when the tube is flanged.
※ If the decimal point comes out by calculation, round up.
※ The SUS band is attached to the bellows.

Dimensions-Accessory

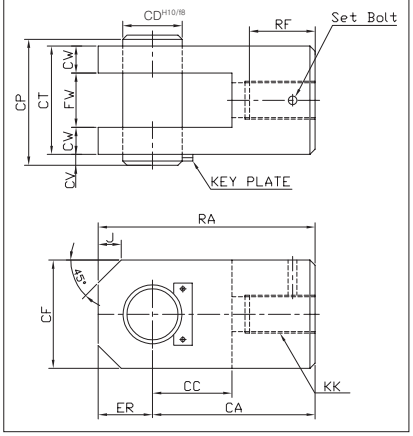
Single Knuckle Joint



Unit : mm

Part no.	CA	CC	CD	CF	ER	FW	KK	RA	RF	J
KP210H I(Hdy.)40	70	28	Ø20	Ø49	25	31.5 $^{-0.1}_{-0.4}$	M20×1.5	95	32	10
KP210H I(Hdy.)50	85	35	Ø25	Ø55	30	35.5 $^{-0.1}_{-0.4}$	M24×1.5	115	35	12
KP210H I(Hdy.)63	115	43	Ø31.5	Ø62	35	40 $^{-0.1}_{-0.4}$	M30×1.5	150	47	15
KP210H I(Hdy.)80	145	55	Ø40	Ø79	40	50 $^{-0.1}_{-0.4}$	M39×1.5	185	62	20
KP210H I(Hdy.)100	180	65	Ø50	Ø100	50	63 $^{-0.1}_{-0.4}$	M48×1.5	230	77	30
KP210H I(Hdy.)125	225	85	Ø63	Ø130	65	80 $^{-0.1}_{-0.6}$	M64×2.0	290	82	30
KP210H I(Hdy.)140	225	85	Ø71	Ø130	65	80 $^{-0.1}_{-0.6}$	M72×2.0	290	87	30
KP210H I(Hdy.)160	270	100	Ø80	Ø160	80	100 $^{-0.1}_{-0.6}$	M80×2.0	350	112	50

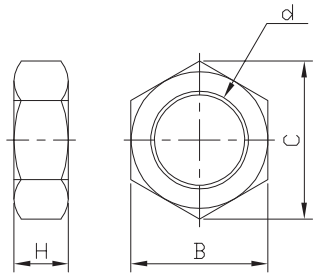
Double Knuckle Joint



Unit : mm

Part no.	CA	CC	CD	CF	CP	CT	CW	CV	ER	FW	KK	RA	RF	J
KP210H Y(Hdy.)40	70	32	Ø20	40	76.5	63.5	16	8	20	31.5 $^{+0.4}_{+0.1}$	M20×1.5	90	32	10
KP210H Y(Hdy.)50	85	45	Ø25	50	85	71.5	18	8	25	35.5 $^{+0.4}_{+0.1}$	M24×1.5	110	35	12
KP210H Y(Hdy.)63	115	50	Ø31.5	60	93	80	20	8	30	40 $^{+0.4}_{+0.1}$	M30×1.5	145	47	15
KP210H Y(Hdy.)80	145	60	Ø40	80	117	100	25	12	40	50 $^{+0.4}_{+0.1}$	M39×1.5	185	62	20
KP210H Y(Hdy.)100	180	70	Ø50	100	143	126	31.5	12	50	63 $^{+0.4}_{+0.1}$	M48×1.5	230	77	30
KP210H Y(Hdy.)125	225	90	Ø63	120	183	160	40	18	65	80 $^{+0.6}_{+0.1}$	M64×2	290	82	30
KP210H Y(Hdy.)140	240	100	Ø71	140	183	160	40	18	70	80 $^{+0.6}_{+0.1}$	M72×2	310	97	40
KP210H Y(Hdy.)160	270	110	Ø80	160	225	200	50	20	80	100 $^{+0.6}_{+0.1}$	M80×2	350	112	40

Rod End Nut Ø40~Ø63

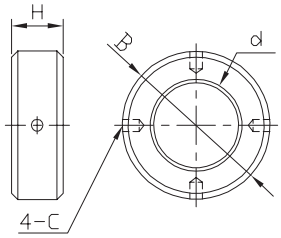


Unit : mm

Part no.	d	B	C	H
KP210H RN(Hdy.)40	M20×P1.5	30	34.6	12
KP210H RN(Hdy.)50	M24×P1.5	36	41.6	14
KP210H RN(Hdy.)63	M30×P1.5	46	53.1	18

※ For rod end nut attached type, longer thread length (dimension A) is required.

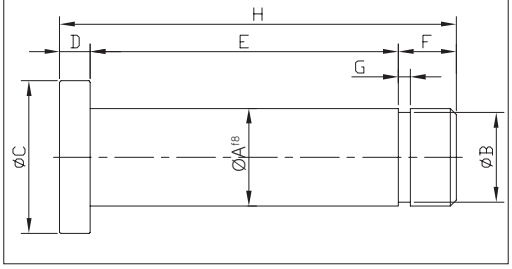
Rod End Nut Ø80~Ø160



Unit : mm

Part no.	d	B	C	H
KP210H RN(Hdy.)80	M39×P1.5	Ø58	Ø8	20
KP210H RN(Hdy.)100	M48×P1.5	Ø70	Ø8	26
KP210H RN(Hdy.)125	M64×P2	Ø84	Ø8	35
KP210H RN(Hdy.)140	M72×P2	Ø108	Ø10	38
KP210H RN(Hdy.)160	M80×P2	Ø115	Ø10	43

Knuckle Joint / Clevis Pin



Unit : mm

Part no.		A	B	C	D	E	F	G	H
Clevis Pin	Knuckle Joint Pin								
KP210H CB PIN(Hdy.)40	KP210H Y PIN(Hdy.)40	20	19 $^{0}_{-0.21}$	30	5	64	10	2	79
KP210H CB PIN(Hdy.)50	KP210H Y PIN(Hdy.)50	25	23.9 $^{0}_{-0.21}$	32	5	72	10	1.5	87
KP210H CB PIN(Hdy.)63	KP210H Y PIN(Hdy.)63	31.5	30 $^{0}_{-0.25}$	40	5	80.5	9.5	2.5	95
KP210H CB PIN(Hdy.)80	KP210H Y PIN(Hdy.)80	40	38 $^{0}_{-0.25}$	50	5	100.5	9.5	2.5	115
KP210H CB PIN(Hdy.)100	KP210H Y PIN(Hdy.)100	50	47 $^{0}_{-0.25}$	60	5	126.5	9.5	3	141
KP210H CB PIN(Hdy.)125	KP210H Y PIN(Hdy.)125	63	60 $^{0}_{-0.3}$	70	10	161	9	3	180
KP210H CB PIN(Hdy.)140	KP210H Y PIN(Hdy.)140	71	68 $^{0}_{-0.3}$	70	10	161	9	3	180
KP210H CB PIN(Hdy.)160	KP210H Y PIN(Hdy.)160	80	76.5 $^{0}_{-0.3}$	90	10	201	9	3	220