

KP210H series

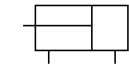


KP210H FA80B-N100

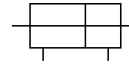
Features

- High-pressure tie rod type cylinder.
- Double acting hydraulic cylinder for 2100kgf/cm² with a bore from Ø40 to Ø160.
- High performance cushion to reduce shock when stopping
- Various mounting styles available. (SD, LA, FA, FB, CA, CB, TC, TA)

Symbol



Double Acting / Single Rod



Double Acting / Double Rod

Hydraulic Cylinder

Reference Data

KP70/140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

KP35R

KH

How to Order

KP210H - SD 40 **B** - B 300

① Series

KP210H	Single rod	210kgf/cm ²
KP210H W	Double rod	
KP210HL	With auto switch (Single rod)	210kgf/cm ²
KP210HL W	With auto switch (Double rod)	

② Seal material

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

③ 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

④ Bore size

40	Ø40
50	Ø50
63	Ø63
80	Ø80
100	Ø100
125	Ø125
140	Ø140
150	Ø150
160	Ø160

⑤ Cushion

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

⑥ Cylinder stroke

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

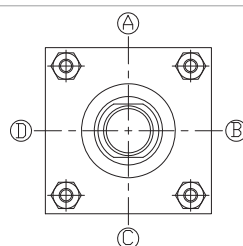
- ※ Check buckling, as it varies depending on the mounting style.
- ※ Contact us for longer stroke.
- ※ Mounting style for stroke over 801mm at tube size Ø140~Ø160 is flange mounting.

⑦ Port position

A	Standard
B,C,D	Refer to figure below

⑧ Cushion valve position

B	Standard
A,C,D	Refer to figure below



※ Flange type tube is applied for stroke over 800mm at Ø140 ~ Ø160.

⑨ Bellows

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

⑩ Rod end attachment

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

⑪ Auto switch

Contact	Model	No contact	Model
A54	D-A54K	F59	D-F59K
A56	D-A56K	F5P	D-F5PK
A64	D-A64K	J59	D-J59K
A90(V)	D-A90(V)K	J51	D-J51K
A93(V)	D-A93(V)K	F9N	D-F9N(V)K
A96(V)	D-A96(V)K	F9P	D-F9P(V)K
		F9B	D-F9B(V)K

- ※ Only for auto switch attached type.
- ※ For more information, refer to Auto Switch Catalogue.

⑫ Number of auto switches

Nil	2pcs
S	1pc
N	Npcs (N:3,4,5...)

- ※ Only for auto switch attached type.



Specifications

Type	Standard	Auto switch attached type
	KP210H	KP210HL
Bore size	Ø40, Ø50, Ø63, Ø80, Ø100, Ø125, Ø140, Ø160	
Operating pressure	214.3kgf/cm ² (21.0MPa)	
Max. Operating pressure	Head side 250kgf/cm ² (24.5MPa) Rod side 270kgf/cm ² (26.5MPa)	
Proof pressure	321.4kgf/cm ² (31.5MPa)	
Min. Operating pressure	Head side ≤4.59kgf/cm ² (0.45MPa), Rod side ≤ 3.06kgf/cm ² (0.3MPa)	
Operating piston speed	8~300mm/sec	
Ambient & fluid temperature	-10 ~ 80 °C	-10 ~ 70 °C
Cushion	Metal fitting type	
Working oil	Petroleum-based fluid	
Tolerance of thread	KS class 2	
Tolerance of stroke	0~100mm $\begin{matrix} +0.8 \\ 0 \end{matrix}$, 101~250mm $\begin{matrix} +1.0 \\ 0 \end{matrix}$, 251~630mm $\begin{matrix} +1.25 \\ 0 \end{matrix}$ 631~1000mm $\begin{matrix} +1.4 \\ 0 \end{matrix}$, 1001~1600mm $\begin{matrix} +1.6 \\ 0 \end{matrix}$, 1601~2000mm $\begin{matrix} +1.8 \\ 0 \end{matrix}$	
Tube material	Carbon steel for machine structural use	Stainless steel
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

Mounting Style

Bore size	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø150	Ø160
Mounting	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.)150	KP210H LA(Hdy.)160
Axia 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.)150	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.)150	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.)150	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.)150	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.)150	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.)150	KP210H CB PIN(Hdy.)160

Accessory

Bore size	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø150	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.)150	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.)150	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.)150	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.)150	KP210H RN(Hdy.)160

Mass

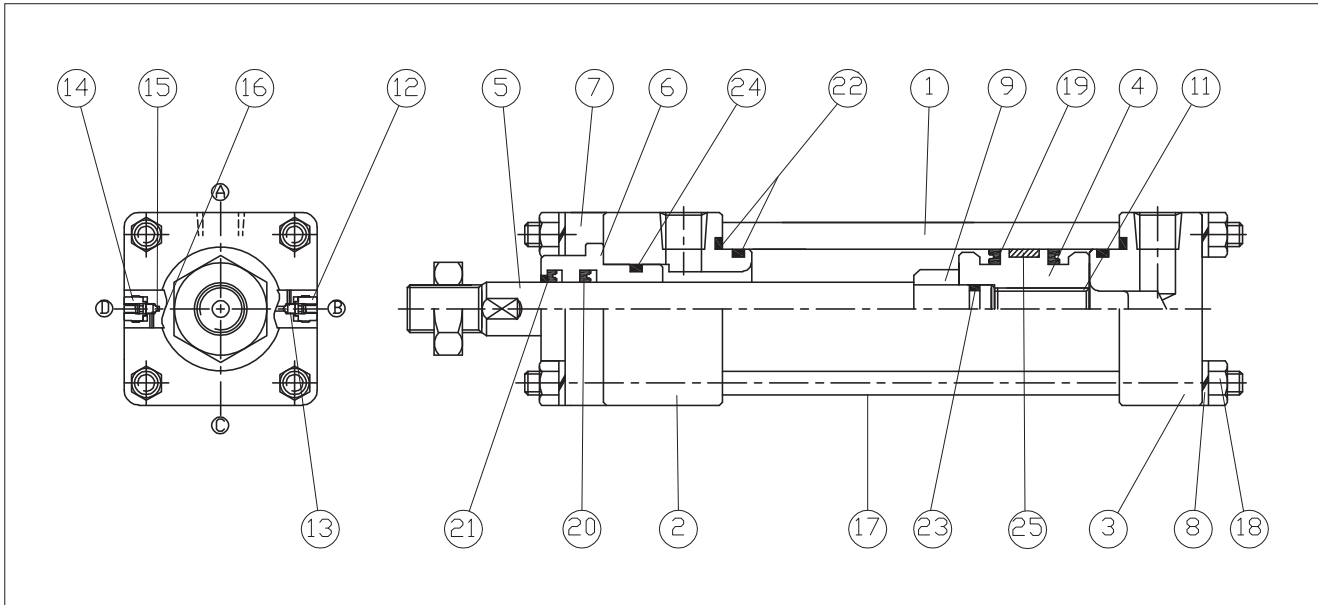
Unit : kg

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
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



Hydraulic Cylinder

Reference Data

KP70/140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

Part List

Part no.	Parts	Material	Quantity
1	Cylinder Tube	STKM13C	1
2	Rod Cover	SS41	1
3	Head Cover	SS41	1
4	Piston	S45C	1
5	Piston Rod	S45C	1
6	Bush	BC3	1
7	Retainer (Bush Cover)	SS41	1
8	Spring Washer	SWRH57B	8
9	Cushion Ring	S45C	1

Part no.	Parts	Material	Quantity
11	Set Screw	SCM3	1
12	Cushion Body	SS41	1
13	Cushion Valve	S45C	1
14	Check Body	SS41	1
15	Coil Spring	SWPB	1
16	Steel Ball	SCM	1
17	Tie Rod	S45C	4
18	Hex Nut (2 Kinds)	SNC	8

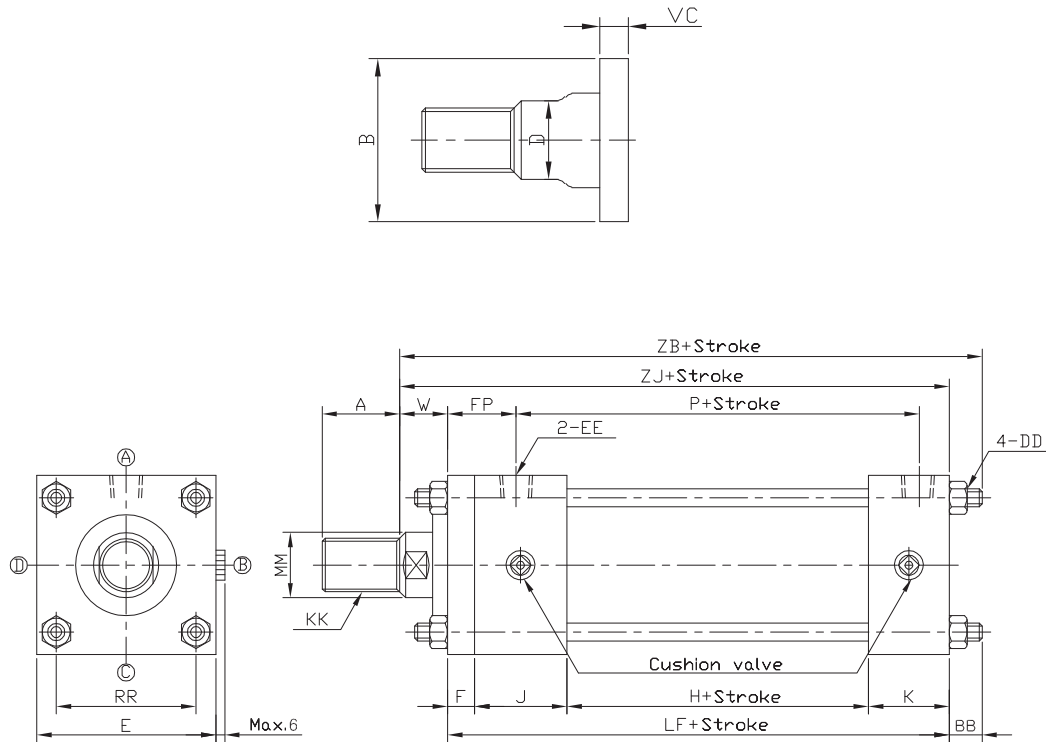
KP35R

KH

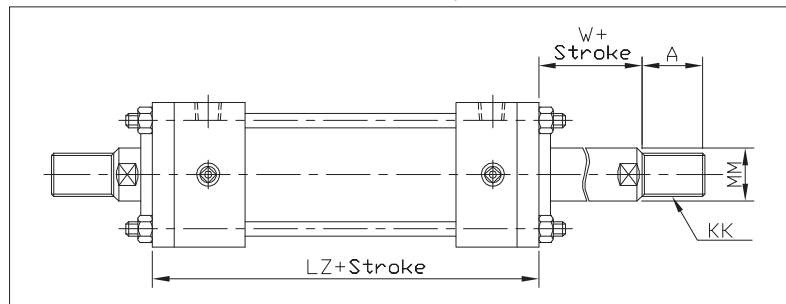
Packing List

Part no.	10		20		21	22		23	24	25
Part	Piston Packing	B.U.R	Rod Packing	B.U.R	Dust Seal	T/O-Ring	B.U.R	Rod O-Ring	Bush O-Ring	Wear Ring
Quantity	2	2	1	1	1	2	2	1	1	1
Material	Urethane	Teflon	Urethane	Teflon	Urethane	NBR	Teflon	NBR	NBR	Fenol
Bore size	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
∅40	40x30x6	-	22x30x5	-	22x30x4.5	G40	-	AN111	G30	40x35x10
∅50	50x40x6	-	28x35.5x5	-	28x36x4.5	G50	-	AN114	G35	50x45x15
∅63	63x53x6	65x53x3	35x45x10	-	35x43.6x6.5	G58/G63	-	AN117	G45	63x58x20
∅80	80x65x9	80x65x3	45x55x10	-	45x55.6x6.5	G75/G80	For G75	G25	G55	80x75x20
∅100	100x85x9	100x85x3	55x65x10	-	55x65.6x6.5	G95/G100	For G95	G35	G65	100x94x25
∅125	125x110x9	125x110x3	70x80x11.4	-	70x80.6x7	G120/G125	For G120	G45	G80	125x119x25
∅140	140x125x9	140x125x3	80x90x12	80x90x3	80x92.2x12	G135/G140	For G135	G50	G85/G80	140x133x20
∅160	160x140x12	160x140x3	90x105x12	90x105x3	90x102.2x12	153x3.5/G160	153x160x1.25	G55	G95/G85	160x153x20

Dimensions-Standard (SD)



Double Rod Type

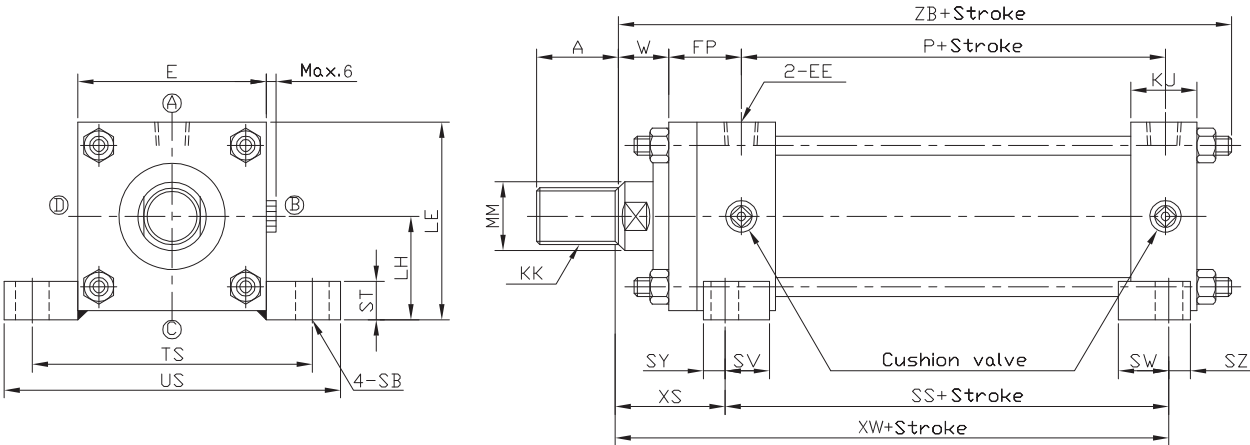


※ Flange type tube is applied for stroke over 800mm at Ø140 ~ Ø160.

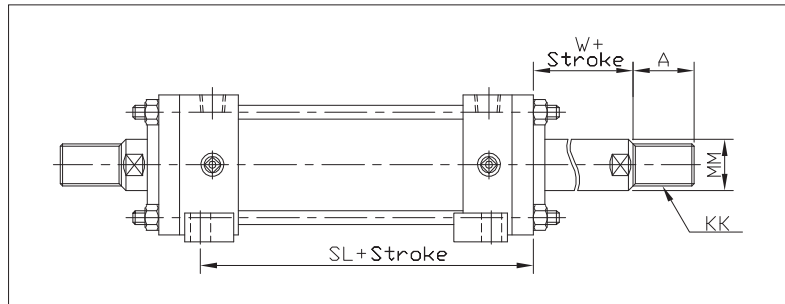
Unit : mm

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	19	M12×1.5	□70	Rα(PT)3/8	13	43	64	47	32	M20×1.5	156	183	Ø22	98	□50	11	30	203	186
Ø50	30	Ø46	18	24	M14×1.5	□85	Rα(PT)1/2	15	48	68	52	37	M24×1.5	172	202	Ø28	106	□62	14	30	220	202
Ø63	35	Ø55	20	30	M16×1.5	□100	Rα(PT)1/2	18	56	75	57	37	M30×1.5	187	225	Ø35	113	□74	15	35	242	222
Ø80	45	Ø65	23	41	M18×1.5	□125	Rα(PT)3/4	24	69	85	67	42	M39×1.5	218	267	Ø45	129	□92	9	35	276	253
Ø100	55	Ø80	26	50	M22×1.5	□160	Rα(PT)3/4	26	71	95	67	42	M48×1.5	230	281	Ø55	139	□120	14	40	296	270
Ø125	75	Ø95	30	65	M27×1.5	□190	Rα(PT)1	33	83	105	77	52	M64×2	267	325	Ø71	159	□145	13	45	342	312
Ø140	80	Ø105	33	75	M30×1.5	□215	Rα(PT)1	36	86	110	77	52	M72×2	275	336	Ø80	164	□165	14	50	358	325
Ø160	90	Ø120	35	85	M33×1.5	□240	Rα(PT)1	41	94	124	80	59	M80×2	304	366	Ø90	186	□185	14	55	394	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 800mm at $\varnothing 140 \sim \varnothing 160$.

Hydraulic Cylinder

Reference Data

KP70/140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

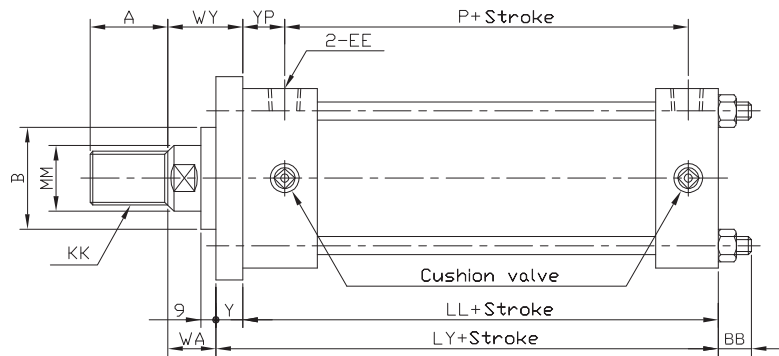
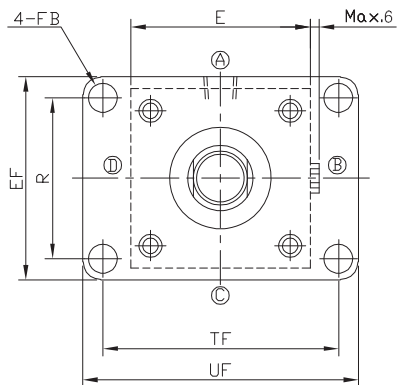
KP35R

KH

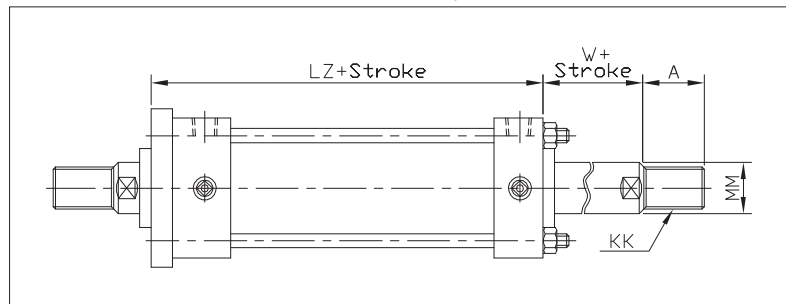
Unit : mm

Bore size	A	E	EE	FP	KK	KJ	LE	LH	MM	P	SB	SL	SS	ST	SV	SW	SY	SZ	TS	US	W	XS	XW	ZB
$\varnothing 40$	25	□70	Rc(PT)3/8	43	M20×1.5	32	77	42±0.15	∅22	98	∅11	125	111	15	31	16	16	16	98	122	30	59	170	203
$\varnothing 50$	30	□85	Rc(PT)1/2	48	M24×1.5	37	97.5	55±0.15	∅28	106	∅14	136	120	20	34	18	18	19	118	145	30	63	183	220
$\varnothing 63$	35	□100	Rc(PT)1/2	56	M30×1.5	37	113	63±0.15	∅35	113	∅18	153	132	25	39	18	18	19	140	175	35	71	203	242
$\varnothing 80$	45	□125	Rc(PT)3/4	69	M39×1.5	42	137.5	75±0.25	∅45	129	∅22	177	152	30	46	21	21	21	175	210	35	80	232	276
$\varnothing 100$	55	□160	Rc(PT)3/4	71	M48×1.5	47	165	85±0.25	∅55	139	∅26	183	162	35	44	23	23	24	215	260	40	89	251	301
$\varnothing 125$	75	□190	Rc(PT)1	83	M64×2	57	200	105±0.25	∅71	159	∅33	203	182	45	49	28	28	29	270	330	45	106	288	347
$\varnothing 140$	80	□215	Rc(PT)1	86	M72×2	57	219.5	112±0.25	∅80	164	∅33	208	187	45	49	28	28	29	280	335	50	114	301	363
$\varnothing 160$	90	□240	Rc(PT)1	94	M80×2	62	245	125±0.25	∅90	186	∅36	222	212	50	49	31	31	31	315	375	55	127	339	405

Dimensions-Rod Side Flange (FA)



Double Rod Type

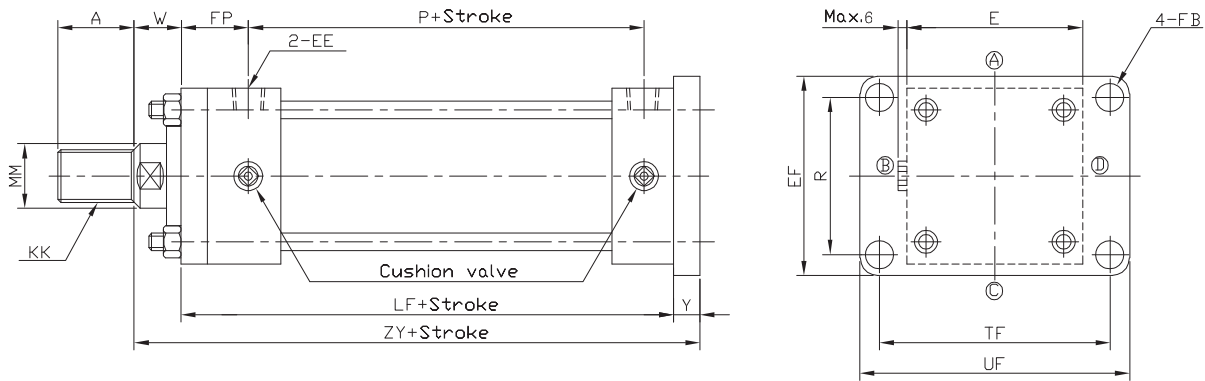


※ For not shown dimensions, refer to SD type (standard type).
 ※ Flange type tube is applied for stroke over 800mm at $\varnothing 140 \sim \varnothing 160$.

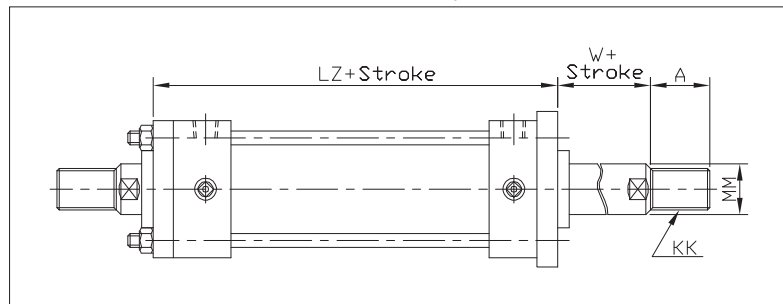
Unit : mm

Bore size	A	B	BB	E	EE	EF	FB	KK	LL	LY	LZ	MM	P	R	TF	UF	W	WA	WY	Y	YP
$\varnothing 40$	25	$\varnothing 40$	17	$\square 70$	Rc(PT)3/8	73	$\varnothing 11$	M20×1.5	143	158	185	$\varnothing 22$	98	50	98	122	30	28	43	15	30
$\varnothing 50$	30	$\varnothing 46$	18	$\square 85$	Rc(PT)1/2	88	$\varnothing 14$	M24×1.5	157	177	207	$\varnothing 28$	106	60	118	145	30	25	45	20	33
$\varnothing 63$	35	$\varnothing 55$	20	$\square 100$	Rc(PT)1/2	106	$\varnothing 18$	M30×1.5	169	193	231	$\varnothing 35$	113	73	140	175	35	29	53	24	38
$\varnothing 80$	45	$\varnothing 65$	23	$\square 125$	Rc(PT)3/4	130	$\varnothing 22$	M39×1.5	194	218	267	$\varnothing 45$	129	90	175	210	35	35	59	24	45
$\varnothing 100$	55	$\varnothing 80$	26	$\square 160$	Rc(PT)3/4	165	$\varnothing 26$	M48×1.5	204	235	286	$\varnothing 55$	139	115	215	260	40	35	66	31	45
$\varnothing 125$	75	$\varnothing 95$	30	$\square 190$	Rc(PT)1	205	$\varnothing 33$	M64×2	234	271	329	$\varnothing 71$	159	145	270	330	45	41	78	37	50
$\varnothing 140$	80	$\varnothing 105$	33	$\square 215$	Rc(PT)1	218	$\varnothing 33$	M72×2	239	280	341	$\varnothing 80$	164	160	280	335	50	45	86	41	50
$\varnothing 160$	90	$\varnothing 120$	35	$\square 240$	Rc(PT)1	243	$\varnothing 36$	M80×2	263	309	371	$\varnothing 90$	186	180	315	375	55	50	96	46	53

Dimensions-Head Side Flange (FB)



Double Rod Type



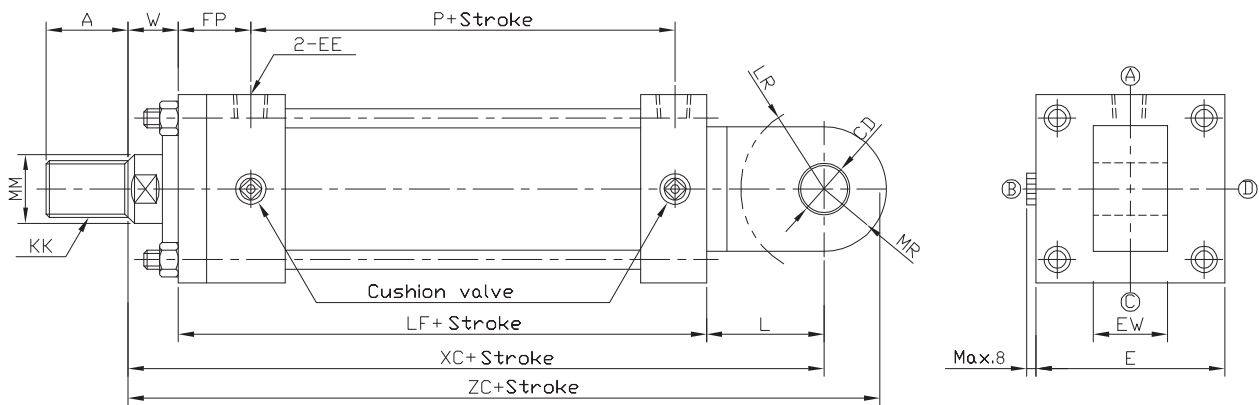
※ For not shown dimensions, refer to SD type (standard type).
 ※ Flange type tube is applied for stroke over 800mm at $\varnothing 140 \sim \varnothing 160$.

Hydraulic Cylinder
Reference Data
KP70/140H
KP210H
KPC70/140H
KPC210H
KTC70HP
KP140HS
KP125/160A
KP35R
KH

Unit : mm

Bore size	A	E	EE	EF	FB	FP	KK	LF	LZ	MM	P	R	TF	UF	W	Y	ZY
$\varnothing 40$	25	□70	Rc(PT)3/8	73	$\varnothing 11$	43	M20×1.5	156	185	$\varnothing 22$	98	50	98	122	30	15	201
$\varnothing 50$	30	□85	Rc(PT)1/2	88	$\varnothing 14$	48	M24×1.5	172	207	$\varnothing 28$	106	60	118	145	30	20	222
$\varnothing 63$	35	□100	Rc(PT)1/2	106	$\varnothing 18$	56	M30×1.5	187	231	$\varnothing 35$	113	73	140	175	35	24	246
$\varnothing 80$	45	□125	Rc(PT)3/4	130	$\varnothing 22$	69	M39×1.5	218	267	$\varnothing 45$	129	90	175	210	35	24	277
$\varnothing 100$	55	□160	Rc(PT)3/4	165	$\varnothing 26$	71	M48×1.5	230	286	$\varnothing 55$	139	115	215	260	40	31	301
$\varnothing 125$	75	□190	Rc(PT)1	205	$\varnothing 33$	83	M64×2	267	329	$\varnothing 71$	159	145	270	330	45	37	349
$\varnothing 140$	80	□215	Rc(PT)1	218	$\varnothing 33$	86	M72×2	275	341	$\varnothing 80$	164	160	280	335	50	41	366
$\varnothing 160$	90	□240	Rc(PT)1	243	$\varnothing 36$	94	M80×2	304	371	$\varnothing 90$	186	180	315	375	55	46	405

Dimensions-Single Clevis (CA)

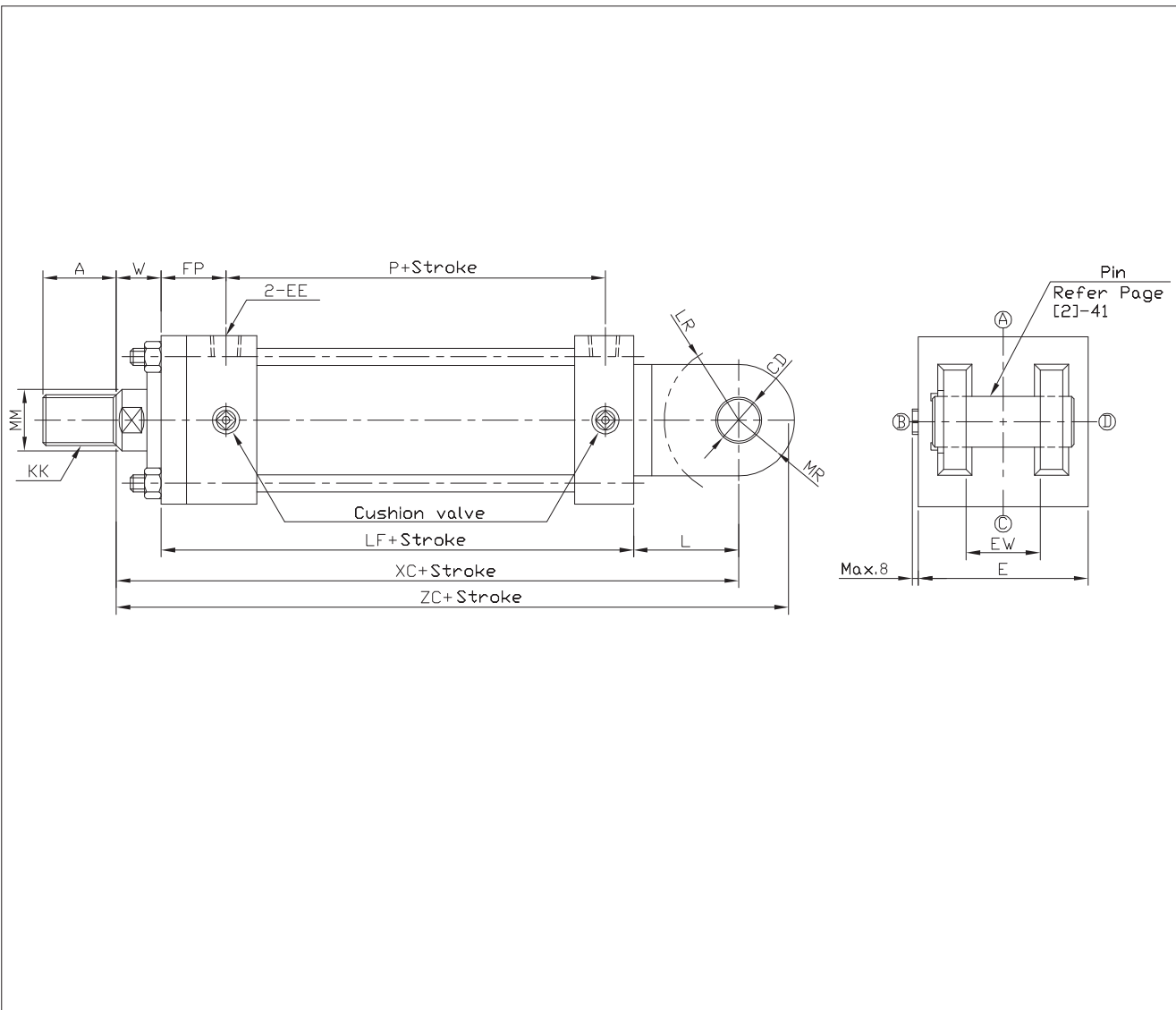


※ For not shown dimensions, refer to SD type (standard type).
 ※ Flange type tube is applied for stroke over 800mm at $\varnothing 140 \sim \varnothing 160$.

Unit : mm

Bore size	A	CD	E	EE	EW	FP	KK	L	LF	LR	MM	MR	P	W	XC	ZC
$\varnothing 40$	25	$\varnothing 20^{H9}$	$\square 70$	R α (PT)3/8	32 ^{-0.1} _{-0.4}	43	M20×1.5	35	156	R25	$\varnothing 22$	R25	98	30	221	246
$\varnothing 50$	30	$\varnothing 25^{H9}$	$\square 85$	R α (PT)1/2	36 ^{-0.1} _{-0.4}	48	M24×1.5	45	172	R32	$\varnothing 28$	R30	106	30	247	277
$\varnothing 63$	35	$\varnothing 31.5^{H9}$	$\square 100$	R α (PT)1/2	40 ^{-0.1} _{-0.4}	56	M30×1.5	55	187	R40	$\varnothing 35$	R35	113	35	277	312
$\varnothing 80$	45	$\varnothing 40^{H9}$	$\square 125$	R α (PT)3/4	50 ^{-0.1} _{-0.4}	69	M39×1.5	70	218	R50	$\varnothing 45$	R40	129	35	323	363
$\varnothing 100$	55	$\varnothing 50^{H9}$	$\square 160$	R α (PT)3/4	63 ^{-0.1} _{-0.4}	71	M48×1.5	80	230	R63	$\varnothing 55$	R50	139	40	350	400
$\varnothing 125$	75	$\varnothing 63^{H9}$	$\square 190$	R α (PT)1	80 ^{-0.1} _{-0.6}	83	M64×2	105	267	R79	$\varnothing 71$	R63	159	45	417	480
$\varnothing 140$	80	$\varnothing 71^{H9}$	$\square 215$	R α (PT)1	80 ^{-0.1} _{-0.6}	86	M72×2	115	275	R89	$\varnothing 80$	R71	164	50	440	511
$\varnothing 160$	90	$\varnothing 80^{H9}$	$\square 240$	R α (PT)1	100 ^{-0.1} _{-0.6}	94	M80×2	125	304	R100	$\varnothing 90$	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 800mm at Ø140 ~ Ø160.

Hydraulic Cylinder

Reference Data

KP70/140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

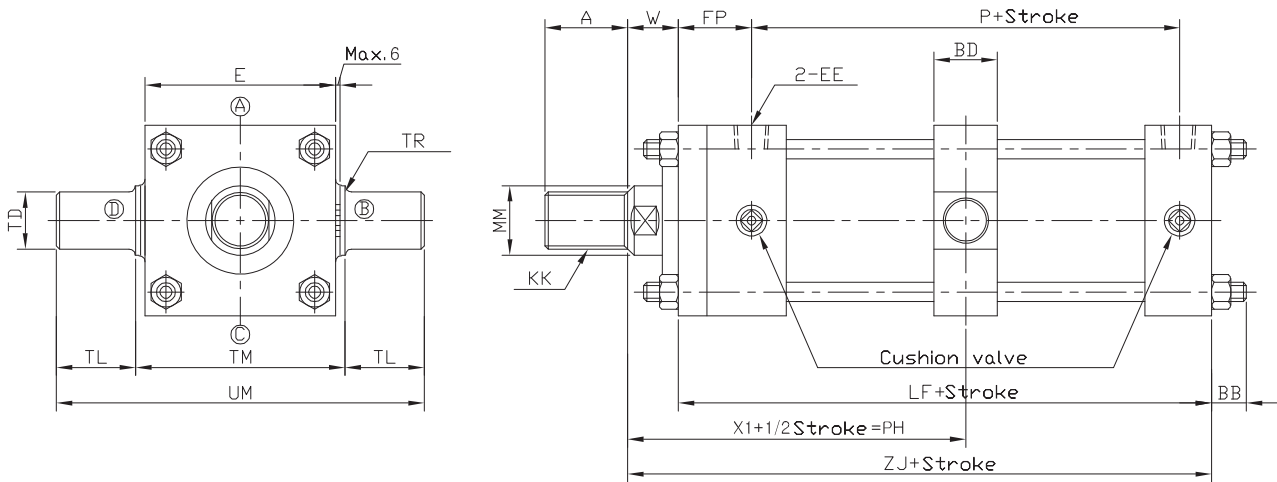
KP35R

KH

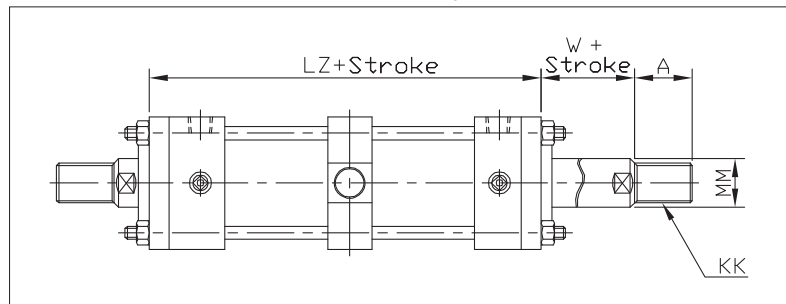
Unit : mm

Bore size	A	CD	E	EE	EW	FP	KK	L	LF	LR	MM	MR	P	W	XC	ZC
Ø40	25	Ø20 ^{H9}	□70	Rc(PT)3/8	32 ^{+0.4 +0.1}	43	M20×1.5	35	156	R25	Ø22.4	R25	98	30	221	246
Ø50	30	Ø25 ^{H9}	□85	Rc(PT)1/2	36 ^{+0.4 +0.1}	48	M24×1.5	45	172	R32	Ø28	R30	106	30	247	277
Ø63	35	Ø31.5 ^{H9}	□100	Rc(PT)1/2	40 ^{+0.4 +0.1}	56	M30×1.5	55	187	R40	Ø35.5	R35	113	35	277	312
Ø80	45	Ø40 ^{H9}	□125	Rc(PT)3/4	50 ^{+0.4 +0.1}	69	M39×1.5	70	218	R50	Ø45	R40	129	35	323	363
Ø100	55	Ø50 ^{H9}	□160	Rc(PT)3/4	63 ^{+0.4 +0.1}	71	M48×1.5	80	230	R63	Ø56	R50	139	40	350	400
Ø125	75	Ø63 ^{H9}	□190	Rc(PT)1	80 ^{+0.6 +0.1}	83	M64×2	105	267	R79	Ø71	R63	159	45	417	480
Ø140	80	Ø71 ^{H9}	□215	Rc(PT)1	80 ^{+0.6 +0.1}	86	M72×2	115	275	R89	Ø80	R71	164	50	440	511
Ø160	90	Ø80 ^{H9}	□240	Rc(PT)1	100 ^{+0.6 +0.1}	94	M80×2	125	304	R100	Ø90	R80	186	55	484	564

Dimensions-Center Trunnion (TC)



Double Rod Type

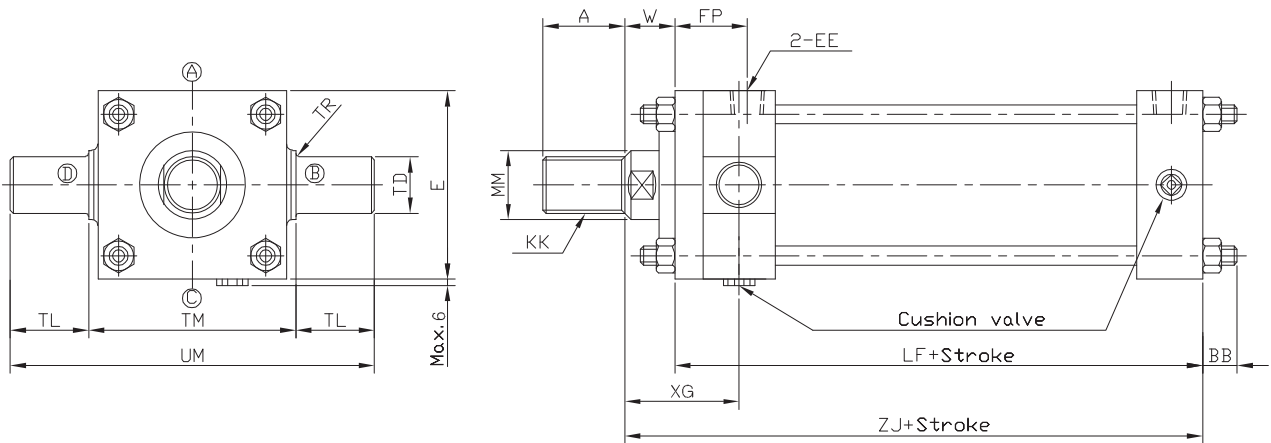


※ For not shown dimensions, refer to SD type (standard type).
 ※ Flange type tube is applied for stroke over 800mm at Ø140 ~ Ø160.

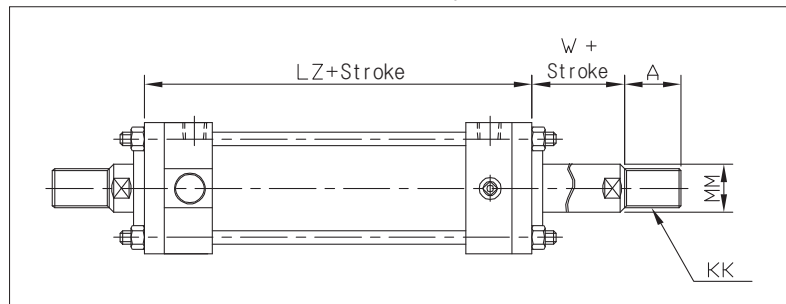
Unit : mm

Bore size	A	BB	BD	E	EE	FP	KK	LF	LZ	MM	P	Min. PH	TL	TM	TD	TR	UM	W	X1	ZJ
Ø40	25	17	33	□70	Rc(PT)3/8	43	M20×1.5	156	183	Ø22	98	107	25	73 ⁰ _{-0.3}	Ø25 ^{g9}	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 ^{g9}	2.5	138	30	131	202
Ø63	35	20	43	□100	Rc(PT)1/2	56	M30×1.5	187	225	Ø35	113	132	31.5	106 ⁰ _{-0.35}	Ø31.5 ^{g9}	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 ^{g9}	3	208	35	169	253
Ø100	55	26	63	□160	Rc(PT)3/4	71	M48×1.5	230	281	Ø55	139	165	50	170 ⁰ _{-0.4}	Ø50 ^{g9}	3	270	40	181	270
Ø125	75	30	78	□190	Rc(PT)1	83	M64×2	267	325	Ø71	159	209	63	205 ⁰ _{-0.46}	Ø63 ^{g9}	4	331	45	208	312
Ø140	80	33	88	□215	Rc(PT)1	86	M72×2	275	336	Ø80	164	222	71	225 ⁰ _{-0.46}	Ø71 ^{g9}	4	367	50	218	325
Ø160	90	35	98	□240	Rc(PT)1	94	M80×2	304	366	Ø90	186	243	80	255 ⁰ _{-0.52}	Ø80 ^{g9}	4	415	55	242	359

Dimensions-Rod Side Trunnion (TA)



Double Rod Type



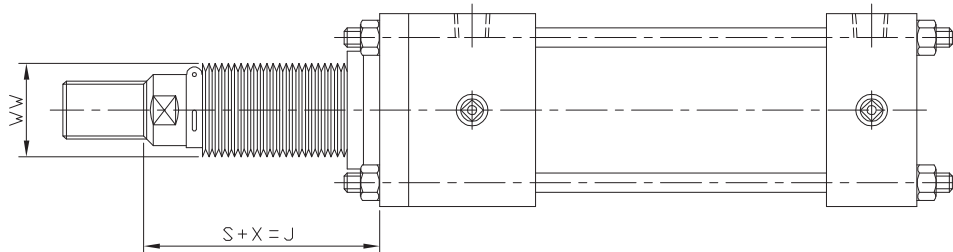
※ For not shown dimensions, refer to SD type (standard type).
 ※ Flange type tube is applied for stroke over 800mm at $\varnothing 140 \sim \varnothing 160$.

Hydraulic Cylinder
Reference Data
KP70/140H
KP210H
KPC70/140H
KPC210H
KTC70HP
KP140HS
KP125/160A
KP35R
KH

Unit : mm

Bore size	A	BB	E	EE	FP	KK	LF	LZ	MM	TD	TL	TM	TR	UM	W	XG	ZJ
$\varnothing 40$	25	17	$\square 70$	Rc(PT)3/8	43	M20×1.5	156	183	$\varnothing 22.4$	$\varnothing 25^{e9}$	25	$73^{0}_{-0.3}$	2.5	123	30	66	186
$\varnothing 50$	30	18	$\square 85$	Rc(PT)1/2	48	M24×1.5	172	202	$\varnothing 28$	$\varnothing 25^{e9}$	25	$88^{0}_{-0.35}$	2.5	138	30	71	202
$\varnothing 63$	35	20	$\square 100$	Rc(PT)1/2	56	M30×1.5	187	225	$\varnothing 35.5$	$\varnothing 31.5^{e9}$	31.5	$106^{0}_{-0.35}$	2.5	169	35	81	222
$\varnothing 80$	45	23	$\square 125$	Rc(PT)3/4	69	M39×1.5	218	267	$\varnothing 45$	$\varnothing 40^{e9}$	40	$128^{0}_{-0.4}$	3	208	35	92	253
$\varnothing 100$	55	26	$\square 160$	Rc(PT)3/4	71	M48×1.5	230	281	$\varnothing 56$	$\varnothing 50^{e9}$	50	$170^{0}_{-0.4}$	3	270	40	99	270
$\varnothing 125$	75	30	$\square 190$	Rc(PT)1	83	M64×2	267	325	$\varnothing 71$	$\varnothing 63^{e9}$	63	$205^{0}_{-0.46}$	4	331	45	116	312
$\varnothing 140$	80	33	$\square 215$	Rc(PT)1	86	M72×2	288	349	$\varnothing 80$	$\varnothing 71^{e9}$	71	$225^{0}_{-0.46}$	4	367	50	131	338
$\varnothing 160$	90	35	$\square 240$	Rc(PT)1	94	M80×2	324	386	$\varnothing 90$	$\varnothing 80^{e9}$	80	$255^{0}_{-0.52}$	4	415	55	146	379

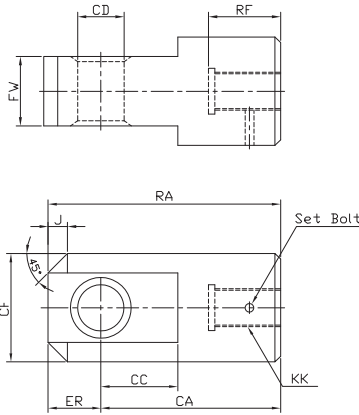
Dimensions- Bellows Attached Type (J, K)



		Bore size										
		Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø140	Ø160			
Type	J	K										
Material	Nylon Tarpaulin	Neoprene Cloth										
Temperature	60°C	110°C										
			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		

Dimensions-Accessory

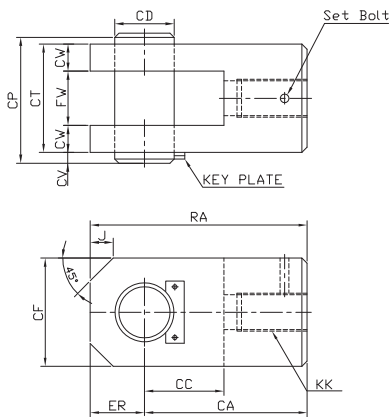
Single Knuckle Joint



Part no.	CA	CC	CD	CF	CP	CT	CW	CV	ER	FW	KK	RA	RF	J
KP210H I(Hdy.)40	70	28	∅16 ^{H10}	∅49	76.5	63.5	16	8	25	31.5 ^{-0.1/-0.4}	M20×1.5	95	32	10
KP210H I(Hdy.)50	85	35	∅20 ^{H10}	∅55	84.5	71.5	18	8	30	35.5 ^{-0.1/-0.4}	M24×1.5	115	35	12
KP210H I(Hdy.)63	115	43	∅31.5 ^{H10}	∅62	93	80	20	8	35	40 ^{-0.1/-0.4}	M30×1.5	150	47	15
KP210H I(Hdy.)80	145	55	∅40 ^{H10}	∅79	117	100	25	12	40	50 ^{-0.1/-0.4}	M39×1.5	185	62	20
KP210H I(Hdy.)100	180	65	∅50 ^{H10}	∅100	143	126	31.5	12	50	63 ^{-0.1/-0.4}	M48×1.5	230	77	30
KP210H I(Hdy.)125	225	85	∅63 ^{H10}	∅130	183	160	40	18	65	80 ^{-0.1/-0.4}	M64×2	290	82	30
KP210H I(Hdy.)140	225	85	∅63 ^{H10}	∅130	183	160	40	18	65	80 ^{-0.1/-0.4}	M72×2	290	87	30

Unit : mm

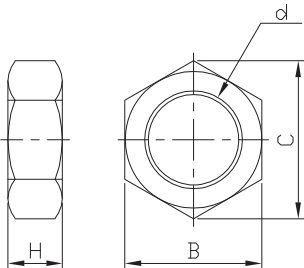
Double Knuckle Joint



Part no.	CA	CC	CD	CF	CP	CT	CW	CV	ER	FW	KK	RA	RF	J
KP210H Y(Hdy.)40	70	32	∅20 ^{H10/B}	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	∅25 ^{H10/B}	50	84.5	71.5	18	8	25	35.5 ^{+0.4/+0.1}	M24×1.5	110	35	12
KP210H Y(Hdy.)63	115	50	∅31.5 ^{H10/B}	60	93	80	20	8	30	40 ^{+0.4/+0.1}	M30×1.5	145	47	15
KP210H Y(Hdy.)80	145	60	∅40 ^{H10/B}	80	117	100	25	12	40	50 ^{+0.4/+0.1}	M39×1.5	185	62	20
KP210H Y(Hdy.)100	180	70	∅50 ^{H10/B}	100	143	126	31.5	12	50	63 ^{+0.4/+0.1}	M48×1.5	230	77	30
KP210H Y(Hdy.)125	225	90	∅50 ^{H10/B}	120	183	160	40	18	65	80 ^{+0.4/+0.1}	M64×2	290	82	30
KP210H Y(Hdy.)140	225	90	∅63 ^{H10/B}	120	183	160	40	18	65	80 ^{+0.4/+0.1}	M72×2	290	87	30

Unit : mm

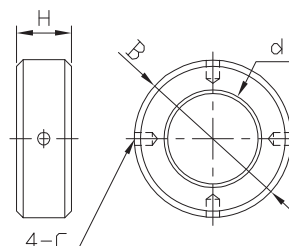
Rod End Nut
∅40~∅63



Part no.	d	B	C	H
KP210H RN(Hdy.)40	M20×P1.5	30	34	12
KP210H RN(Hdy.)50	M24×P1.5	36	41	14
KP210H RN(Hdy.)63	M30×P1.5	41	47	17

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

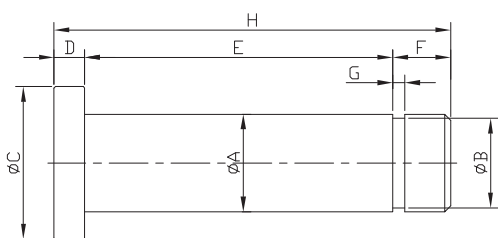
Rod End Nut
∅80~∅160



Part no.	d	B	C	H
KP210H RN(Hdy.)80	M39×P1.5	∅58	∅8	20
KP210H RN(Hdy.)100	M48×P1.5	∅70	∅8	26
KP210H RN(Hdy.)125	M64×P2	∅84	∅8	35
KP210H RN(Hdy.)140	M72×P2	∅108	∅10	38
KP210H RN(Hdy.)160	M80×P2	∅115	∅10	43

Unit : mm

Knuckle Joint / Clevis Pin



Part no.		Unit : mm							
Clevis Pin	Knuckle Joint Pin	A	B	C	D	E	F	G	H
KP210H CB PIN(Hdy.)40	KP210H Y PIN(Hdy.)40	16	14.7	25	5	50.5	9.5	2	65
KP210H CB PIN(Hdy.)50	KP210H Y PIN(Hdy.)50	20	18.5	30	5	64	10	2	79
KP210H CB PIN(Hdy.)63	KP210H Y PIN(Hdy.)63	31.5	30	40	5	80.5	9.5	2.5	95
KP210H CB PIN(Hdy.)80	KP210H Y PIN(Hdy.)80	40	37.5	50	5	100.5	9.5	2.5	115
KP210H CB PIN(Hdy.)100	KP210H Y PIN(Hdy.)100	50	46.5	60	5	126.5	9.5	3	141
KP210H CB PIN(Hdy.)125	KP210H Y PIN(Hdy.)125	63	58.5	70	10	161	9	3	180
KP210H CB PIN(Hdy.)140	KP210H Y PIN(Hdy.)140	63	58.5	70	10	161	9	3	180