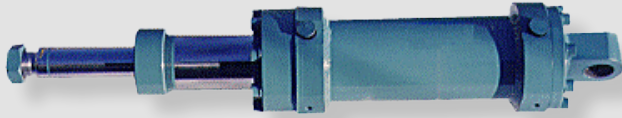


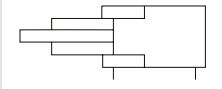
KTC70HP series



Features

- Telescopic single acting constant speed cylinder.
- 2-stage stroke cylinder requires less space for installation in the axial direction.
- Both stroke ends are provided with fixed cushions.

Symbol



Hydraulic
Cylinder

Reference
Data

KP140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

KP35R

KH

How to Order

**KTC
70HP**

-

LA

20

-

A

1500

C

A

①

②

③

④

⑤

⑥

⑦

① Series

KTC 70HP	Telescopic cylinder
----------	---------------------

② Mounting style

LA	Axial angle of foot	CA	Single clevis
LT	Base mounting axial angle of foot	TA	Rod side trunnion
FA	Rod side flange	TB	Head side trunnion
FB	Head side flange		

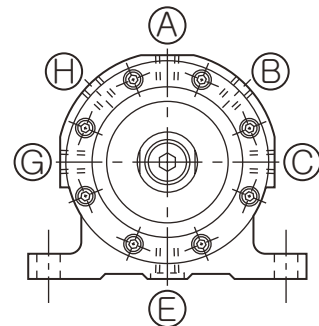
⑤ Cylinder stroke

Type	Stroke
Type 10	50~1700
Type 20	50~2500
Type 30	50~3100
Type 40	50~3100
Type 50	50~3100

- ※ Check buckling, as it varies depending on mounting style.
- ※ Contact us for longer stroke.
- ※ Max. stroke is 50mm.

Mounting style LA, LT

The standard port positions are C and G, and the standard air vent position is A.



③ Type

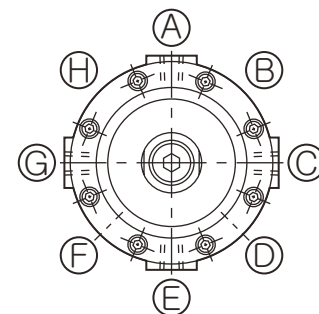
Type		Bore size	
		1 stage	2 stage
10	Type 10	Ø63	Ø45
20	Type 20	Ø90	Ø65
30	Type 30	Ø110	Ø80
40	Type 40	Ø125	Ø90
50	Type 50	Ø140	Ø100

⑥ Port position

C, G	Standard
A, B, D, E, F, H	Refer to figure below according to mounting style.

Mounting style FA, FB, CA, TA, TB

The standard port positions are A and E, and the standard air vent position is C.



④ Rod end thread length(dimension A)

Type	A	B
	(Standard)	(Semi-standard)
Type 10	25mm	35mm
Type 20	35mm	45mm
Type 30	40mm	55mm
Type 40	45mm	60mm
Type 50	52mm	72mm

⑦ Air vent position

A	Standard
B, C, D, E, F, G, H	Refer to figure below according to mounting style.

Note) Locate the ports and air vent at a distance of 90° or 180° from one another.

Specifications

Type		Type 10	Type 20	Type 30	Type 40	Type 50
Bore size	1 Stage	Ø63	Ø90	Ø110	Ø125	Ø140
	2 Stage	Ø45	Ø65	Ø80	Ø90	Ø100
Operating pressure		70kgf/cm ² (7MPa)				
Max. operating pressure		Rod side:150kgf/cm ² (15MPa)			Head side:90kgf/cm ² (9MPa)	
Proof pressure		Rod side:210kgf/cm ² (21MPa)			Head side:140kgf/cm ² (14MPa)	
Min. operating pressure		Rod side:6kgf/cm ² (0.6MPa)			Head side:3kgf/cm ² (0.3MPa)	
Operating piston speed		10m/min	9m/min	8.4m/min	7.7m/min	7.1m/min
Min.operating piston speed		0.06m/min				
Fluid temperature		-5 ~ 80℃ (No freezing)				
Ambient temperature		-10 ~ 50℃				
Working oil		Petroleum-based fluid				
Tolerance of thread		KS class 2				
Tolerance of stroke		0~1000 ^{+2.8} ₀	1001~1600 ^{+3.2} ₀	1601~2500 ^{+3.6} ₀	2501~3100 ^{+4.0} ₀	
Mounting style		LA, LT, FA, FB, CA, TA, TB				

- * 60kgf/cm² is standard pressure when cylinder is in reverse operation with common speed.
- * 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 a cylinder can withstand without unreliable performance when returning to operating pressure.
- * Min. operating pressure: Minimum pressure for a cylinder installed horizontally and operating without load.

Mass

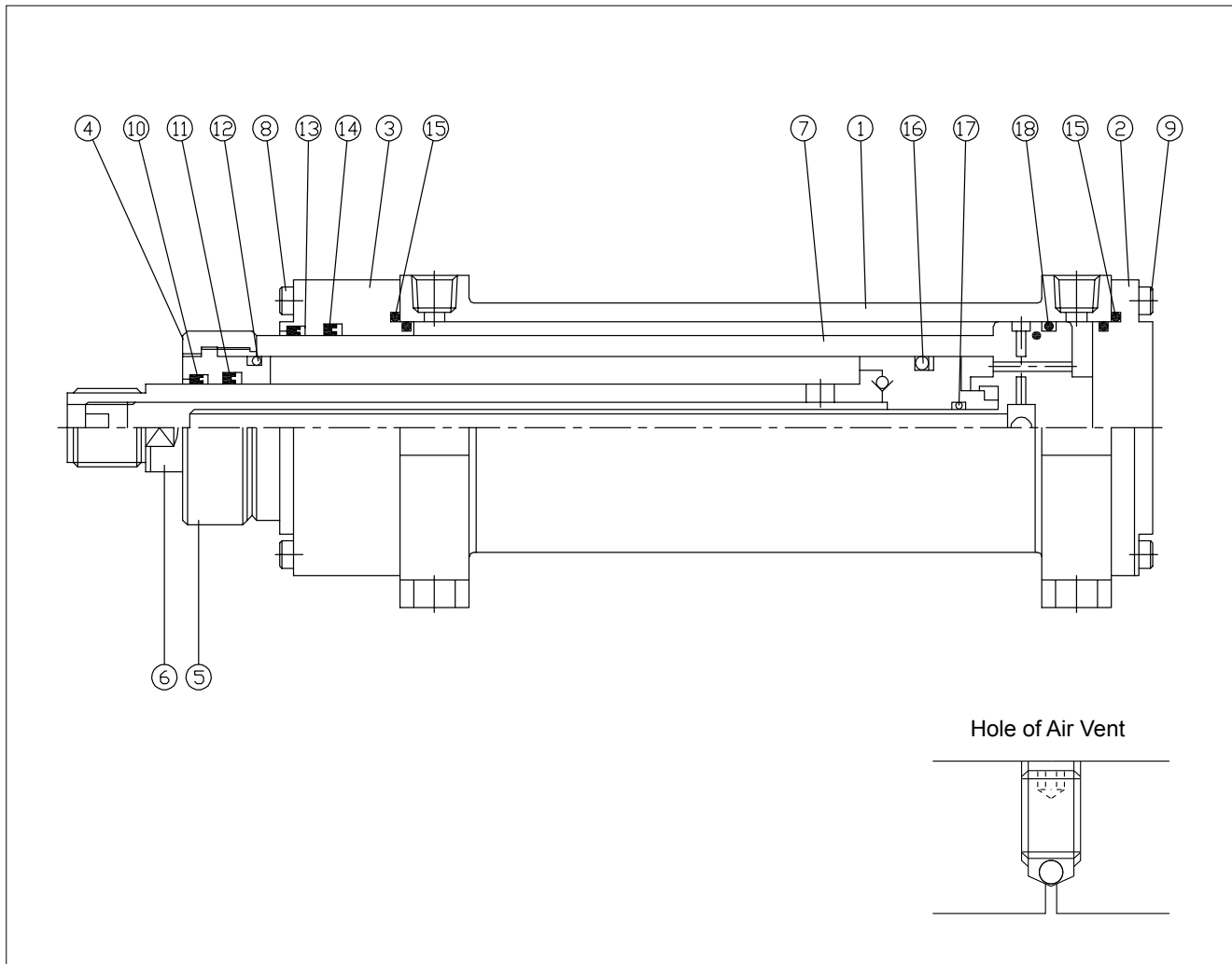
Unit : kg

Type	Basic mass (SD)	Mounting mass							Additional mass for each 1mm stroke
		LA	LT	TA	TB	FA	FB	CA	
Type 10	5.7	0.44	0.37	1.08	1.08	0.93	0.93	0.32	0.0084
Type 20	15.4	1.25	1.05	3.06	3.06	2.85	2.85	0.91	0.0169
Type 30	27.0	2.29	1.93	5.61	5.61	4.88	4.88	1.66	0.0212
Type 40	41.4	3.52	2.22	8.64	8.64	7.43	7.43	2.56	0.0313
Type 50	57.2	4.92	4.14	11.99	11.99	10.24	10.24	3.55	0.0431

Calculation:

Ex) KTC70HP-FB30-A1500
Basic mass: 27.0 / Additional mass: 0.0212 / Cylinder stroke: 1,500mm / FB type: 4.88
27.0 + (0.0212 X 1500) + 4.88 = 63.68 kg

Structure



Hydraulic
Cylinder

Reference
Data

KP140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

KP35R

KH

Part List

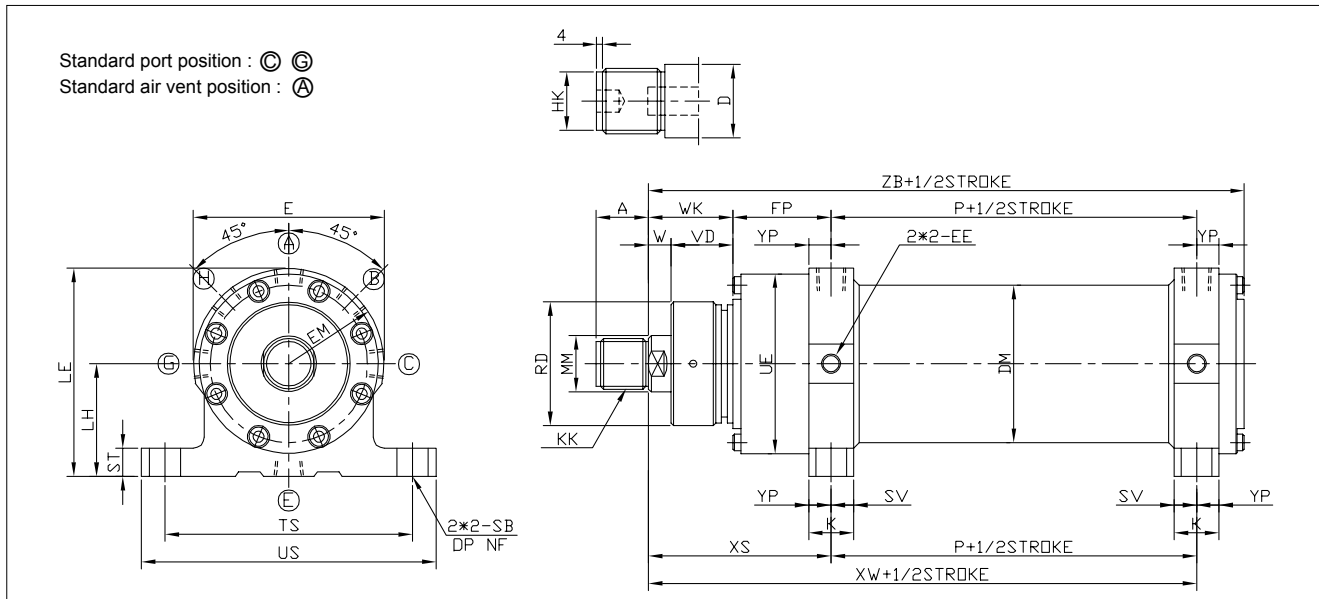
Part no.	Parts	Material	Quantity
1	Tube	STKM13C	1
2	Head Cover	S45C	1
3	Rod Cover	S45C	1
4	Bush	BC3	1
5	Bush Cover	S45C	1

Part no.	Parts	Material	Quantity
6	Piston & Rod	S45C	1
7	Piston & Rod	S45C(STPG38)	1
8	Socket Bolt	SCM440	8
9	Socket Bolt	SCM440	8

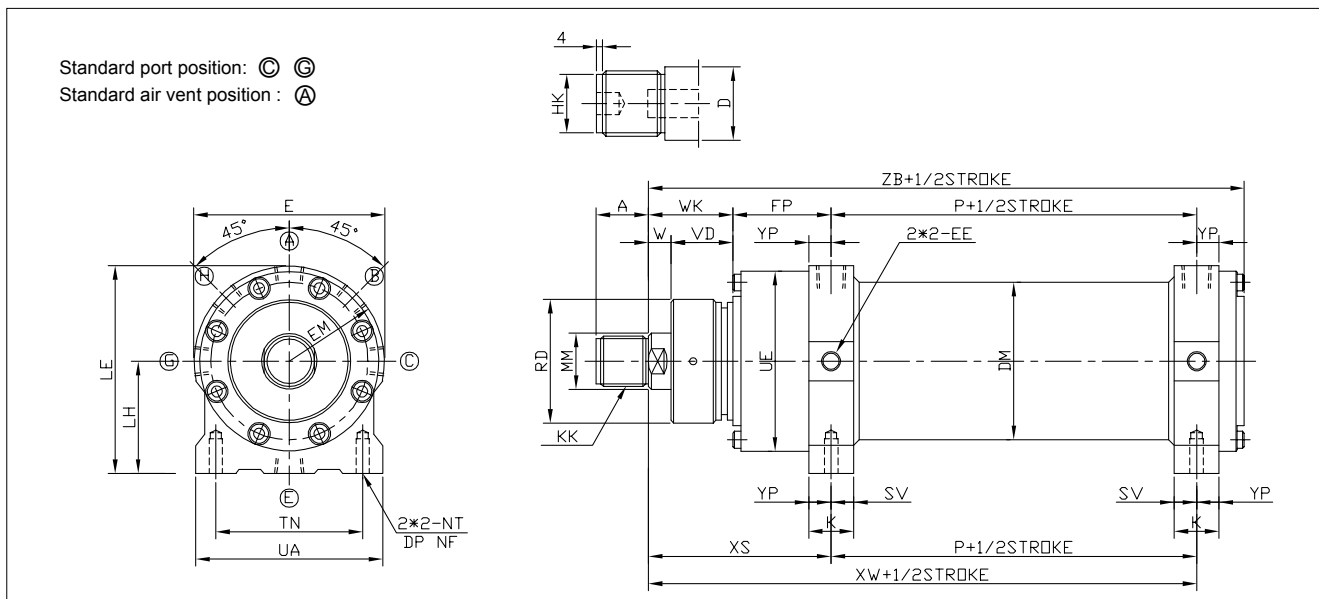
Packing List

Part no.	10	11	12	13	14	15	16	17	18
Parts	Dust Seal	R/Packing	O-Ring	Dust Seal	R/Packing	O-Ring	O-Ring & Packing	R/Packing	O-Ring & Packing
Material	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR
Quantity	1	1	1	1	1	2	1	2	1
Type	Type 10	SDR28	SKY28	G40	SDR53	SKY53	G58/G63	P39	16x24x5
Type 20	SDR40	SKY40	G60	SDR75	SKY75	G85/G90	65x49x20.5	16x24x5	90x70x22.4
Type 30	SDR45	SKY45	G75	SDR90	SKY90	G105/G110	80x60x22.4	16x24x5	110x85x22.4
Type 40	SDR53	SKY53	G85	SDR106	SKY106	G120/G115	90x70x22.4	16x24x5	125x100x25.4
Type 50	SDR60	SKY60	G95	SDR118	SKY118	G135/G140	100x75x22.4	16x24x5	140x115x22.4

Dimensions-Axial Angle of Foot (LA)



Dimensions-Base Mounting Axial Angle of Foot (LT)



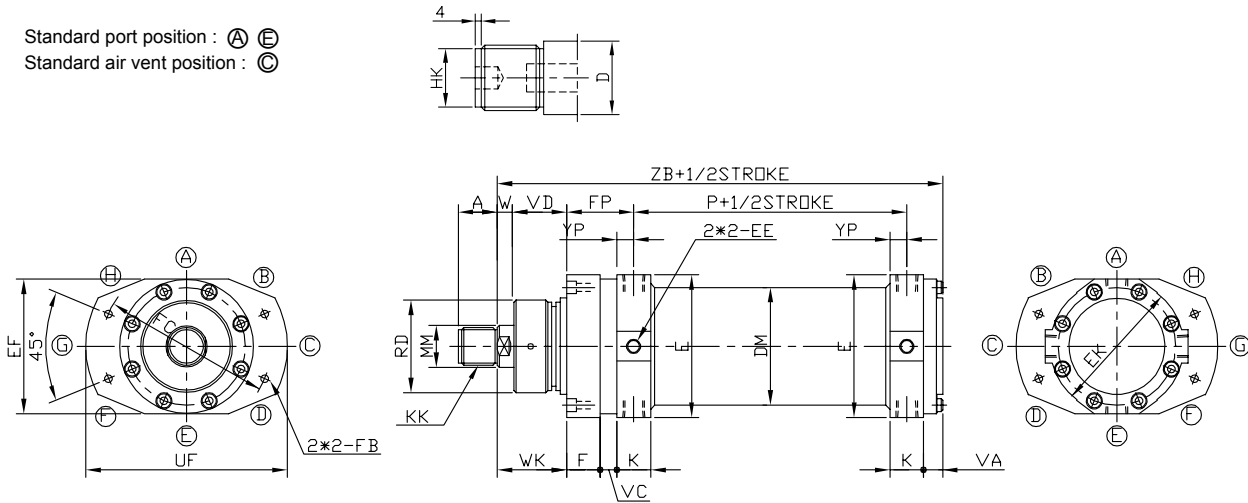
Unit : mm

Type	A	D	DM	E	EE	EM	FP	HK	K	KK	LE	LH	MM	NF	NT	P
Type 10	25	24	Ø73	98	Rc(PT)3/8	51	48	Ø21 ^{H9}	26 ⁰ _{-0.1}	M24×2	99	50 ^{±0.2}	Ø27	18	M12	25
Type 20	35	32	Ø105	138	Rc(PT)1/2	71	67	Ø30 ^{H9}	34 ⁰ _{-0.1}	M33×2	139	70 ^{±0.2}	Ø38	24	M16	35
Type 30	40	41	Ø125	158	Rc(PT)1/2	81	80	Ø36 ^{H9}	42 ⁰ _{-0.1}	M39×2	164	85 ^{±0.2}	Ø45	30	M20	40
Type 40	45	46	Ø145	178	Rc(PT)3/4	92	93	Ø46 ^{H9}	47 ⁰ _{-0.1}	M45×2	184	95 ^{±0.2}	Ø52	36	24	45
Type 50	52	55	Ø165	196	Rc(PT)3/4	100	107	Ø49 ^{H9}	48 ⁰ _{-0.1}	M52×2	203	105 ^{±0.2}	Ø59	36	24	50

Type	RD	SB	ST	SV	TN	TS	UA	UE	US	VD	W	WK	XS	XW	YP	ZB
Type 10	Ø59	Ø13.5	10	13	75	110	98	Ø89.5	130	32	13	45	93	118	13	145
Type 20	Ø84	Ø18	16	17	105	150	138	Ø129	180	43	17	60	127	162	17	200
Type 30	Ø100	Ø22	20	22	115	175	158	Ø155	210	50	20	70	150	190	20	235
Type 40	Ø112	Ø24	22	23	130	205	178	Ø177	240	57	23	80	173	218	24	270
Type 50	Ø128	Ø26	24	23	150	230	196	Ø193	270	65	25	90	197	247	25	303

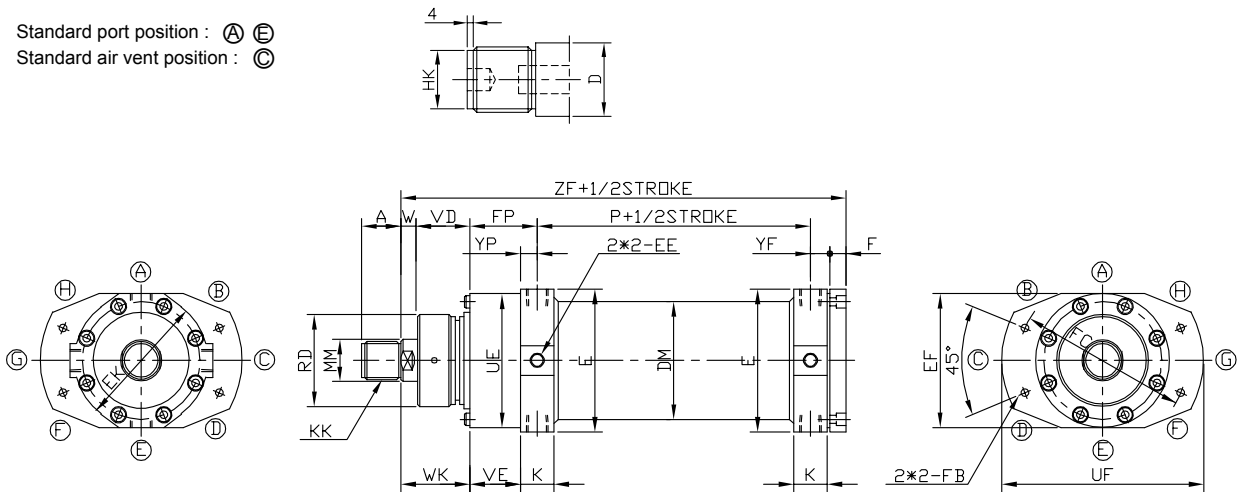
Dimensions-Rod Side Flange (FA)

Standard port position : (A) (E)
Standard air vent position : (C)



Dimensions-Head Side Flange (FB)

Standard port position : (A) (E)
Standard air vent position : (C)



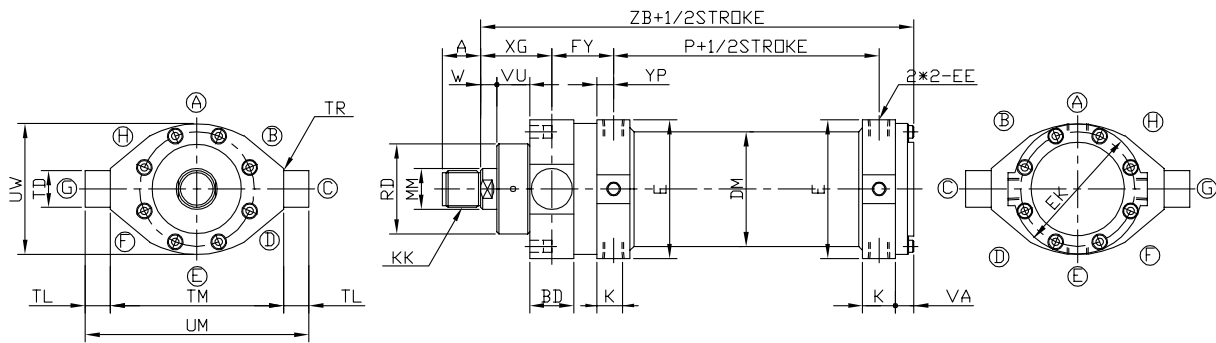
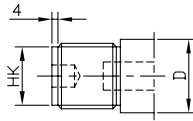
Unit : mm

Type	A	D	DM	E	EE	EF	EK	F	FB	FC	FP	HK	K	KK	MM	P	RD
Type 10	25	24	Ø73	98	Rc(PT)3/8	98	95	20	Ø9	Ø120	48	Ø21 ^{H9}	26 ⁰ _{-0.1}	M24×2	Ø27	25	Ø59
Type 20	35	32	Ø105	138	Rc(PT)1/2	138	136	30	Ø13.5	Ø170	67	Ø30 ^{H9}	34 ⁰ _{-0.1}	M33×2	Ø38	35	Ø84
Type 30	40	41	Ø125	158	Rc(PT)1/2	165	161	35	Ø16	Ø195	80	Ø36 ^{H9}	42 ⁰ _{-0.1}	M39×2	Ø45	40	Ø100
Type 40	45	46	Ø145	178	Rc(PT)3/4	190	183	40	Ø18	Ø225	93	Ø46 ^{H9}	47 ⁰ _{-0.1}	M45×2	Ø52	45	Ø112
Type 50	52	55	Ø165	196	Rc(PT)3/4	205	200	45	Ø20	Ø245	107	Ø49 ^{H9}	48 ⁰ _{-0.1}	M52×2	Ø59	50	Ø128

Type	UE	UF	VA	VC	VD	VE	W	WK	YF	YP	ZB	ZF
Type 10	Ø89.5	135	14	15	32	35	13	45	17	13	145	155
Type 20	Ø129	195	21	20	43	50	17	60	23	17	200	215
Type 30	Ø155	225	25	25	50	60	20	70	32	20	235	255
Type 40	Ø177	260	28	29	57	69	23	80	32	24	270	290
Type 50	Ø193	285	31	37	65	82	25	90	33	25	303	325

Dimensions-Rod Side Trunnion (TA)

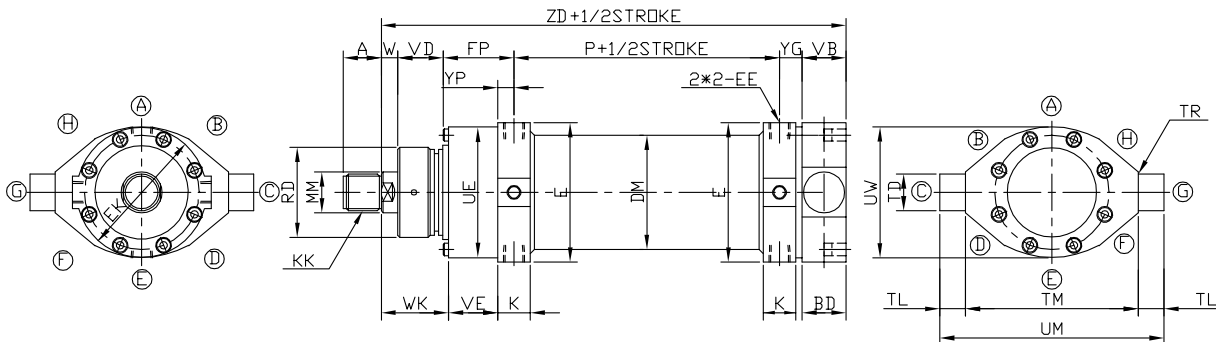
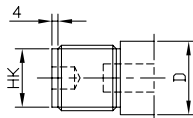
Standard port position : (A) (E)
Standard air vent position : (C)



* For cylinder (stroke over 600mm) installed in horizontal direction, please support the weight of cylinder head.

Dimensions-Head Side Trunnion (TB)

Standard port position : (A) (E)
Standard air vent position : (C)



* For cylinder (stroke over 1200mm) installed in horizontal direction, please support the weight of rod side of cylinder.

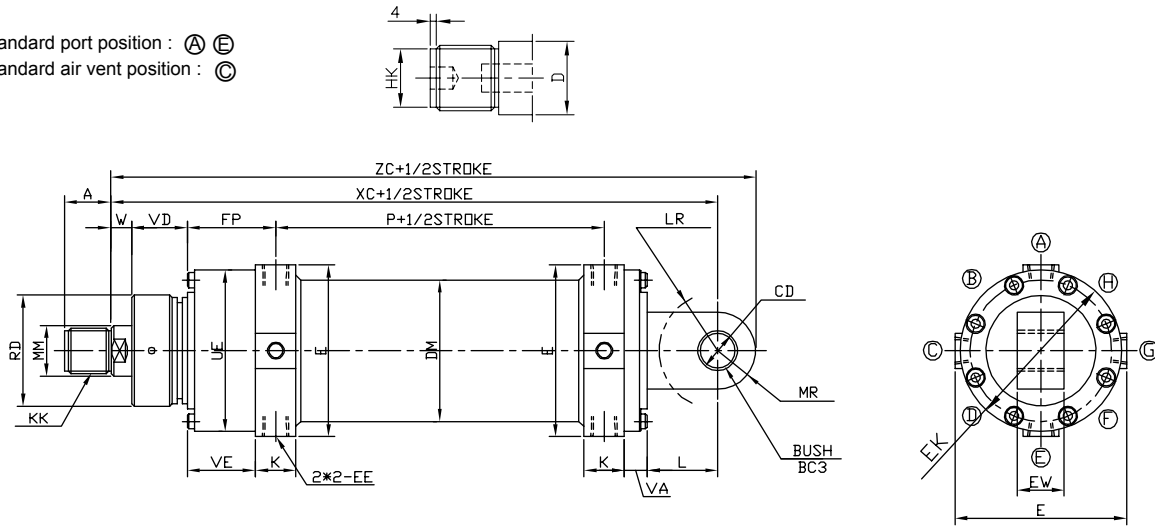
Unit : mm

Type	A	BD	D	DM	E	EE	EK	FY	FP	HK	K	KK	MM	P	RD	TD	TL
Type 10	25	31	24	Ø73	98	Rc(PT)3/8	95	43	48	Ø21 ^{H9}	26 ⁰ _{-0.1}	M24×2	Ø27	25	Ø59	Ø28 ^{e9}	20
Type 20	35	38	32	Ø105	138	Rc(PT)1/2	136	55	67	Ø30 ^{H9}	34 ⁰ _{-0.1}	M33×2	Ø38	35	Ø84	Ø35 ^{e9}	25
Type 30	40	48	41	Ø125	158	Rc(PT)1/2	161	68	80	Ø36 ^{H9}	42 ⁰ _{-0.1}	M39×2	Ø45	40	Ø100	Ø45 ^{e9}	30
Type 40	45	58	46	Ø145	178	Rc(PT)3/4	183	81	93	Ø46 ^{H9}	47 ⁰ _{-0.1}	M45×2	Ø52	45	Ø112	Ø55 ^{e9}	30
Type 50	52	63	55	Ø165	196	Rc(PT)3/4	200	93	107	Ø49 ^{H9}	48 ⁰ _{-0.1}	M52×2	Ø59	50	Ø128	Ø60 ^{e9}	35

Type	TM	TR	UE	UM	UW	VA	VB	VD	VE	VU	W	WK	XC	XG	YG	YP	ZB	ZD
Type 10	100 ⁰ _{-0.35}	R3	Ø89.5	140	95	14	16	32	35	21	13	45	150	50	32	13	145	166
Type 20	145 ⁰ _{-0.4}	R3	Ø129	195	135	21	20	43	50	35	17	60	205	72	43	17	200	225
Type 30	175 ⁰ _{-0.4}	R3	Ø155	235	160	25	25	50	60	37	20	70	240	82	50	20	235	265
Type 40	200 ⁰ _{-0.46}	R3	Ø177	260	185	28	30	57	69	39	23	80	280	92	62	24	270	310
Type 50	220 ⁰ _{-0.46}	R3	Ø193	290	205	31	32	65	82	47	25	90	315	104	68	25	303	347

Dimensions-Single Clevis (CA)

Standard port position : ㊤ ㊦
Standard air vent position : ㊣



※ For cylinder (stroke over 1200mm) installed in horizontal direction, please support the weight of rod side of cylinder.

Unit : mm

Type	A	CD	D	DM	E	EE	EK	EW	FP	HK	K	KK	L	LR	MM	MR	P
Type 10	25	∅25 ^{H10}	24	∅73	98	Rc(PT)3/8	95	28 ⁰ _{-0.1}	48	∅21 ^{H9}	26 ⁰ _{-0.1}	M24×2	30	R29	∅27	R22	25
Type 20	35	∅35 ^{H10}	32	∅105	138	Rc(PT)1/2	136	40 ⁰ _{-0.1}	67	∅30 ^{H9}	34 ⁰ _{-0.1}	M33×2	45	R44	∅38	R30	35
Type 30	40	∅45 ^{H10}	41	∅125	158	Rc(PT)1/2	161	50 ⁰ _{-0.1}	80	∅36 ^{H9}	42 ⁰ _{-0.1}	M39×2	55	R54	∅45	R38	40
Type 40	45	∅55 ^{H10}	46	∅145	178	Rc(PT)3/4	183	55 ⁰ _{-0.1}	93	∅46 ^{H9}	47 ⁰ _{-0.1}	M45×2	65	R64	∅52	R45	45
Type 50	52	∅60 ^{H10}	55	∅165	196	Rc(PT)3/4	200	63 ⁰ _{-0.1}	107	∅49 ^{H9}	48 ⁰ _{-0.1}	M52×2	70	R69	∅59	R69	50

Type	RD	UE	VA	VD	VE	W	XC	ZC
Type 10	∅59	∅89.5	14	32	35	13	175	197
Type 20	∅84	∅129	21	43	50	17	245	275
Type 30	∅100	∅155	25	50	60	20	290	328
Type 40	∅112	∅177	28	57	69	23	335	380
Type 50	∅128	∅193	31	65	82	25	373	423

Hydraulic
Cylinder

Reference
Data

KP140H

KP210H

KPC70/140H

KPC210H

KTC70HP

KP140HS

KP125/160A

KP35R

KH