

SEG160 ISO 6020-2
HYDRAULIC CYLINDERS



- Compliant with ISO6020/2 specification
- Maximum working pressure is 16MPa (160kgf/cm²)
- Structure: Four-stage tie-rod structure design, strong versatility and easy maintenance
- Strictly control the machining accuracy, it has the advantages of low friction and long life
- Various installation methods
- Can be used in engineering design, such as steel, metallurgy, ships and other machines
- External dimensions similar to cylinders MMB of Paker's company

FEATURE

Series		REG160		SEG160		HEG250	
Working pressure		160Kgf/cm ² (16MPa)		160Kgf/cm ² (16MPa)		250Kgf/cm ² (25MPa)	
Test pressure		240Kgf/cm ² (24MPa)		240Kgf/cm ² (24MPa)		375Kgf/cm ² (37.5MPa)	
Temperature	Regular	NBR -10°C~~+80°C					
	Heat, acid & alkali resist.	(FPM) -30°C~~+150°C					
Stroke (mm)		Stroke	Tolerance	Stroke	Tolerance		
		≦ 100	+0.8 0	631~1000	+1.4 0		
		101~250	+1.0 0	1001~1600	+1.6 0		
		251~630	+1.25 0	1601~2000	+1.8 0		
Cushion		1. With loading, a square cylinder should be cushioning when the speed reach 100mm/s. 2. If reaching more than 200mm/s, external buffer required. 3. Cushion symbol: (1) N (or no symbol) means without cushion (2) B means cushion on both ends (3) R means cushion on rod cover (4) H means cushion on head cover					
Oil & seal	Mineral oil (ISO-VG32)	(PU)	(NBR)	(FPM)			
		●	●	●			
	Water solutions	X	●	●			
	Soluble	X	●	●			
	Phosphated ester	X	X	●			

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

Round
Hydraulic
Cylinders

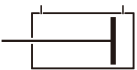
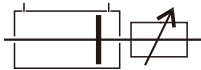
Specific
Hydraulic
Cylinders

Systems
&
Fittings

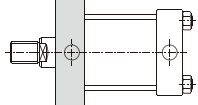
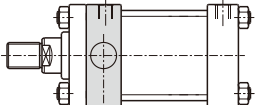
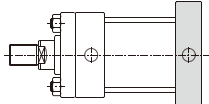
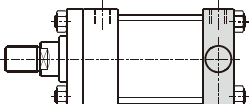
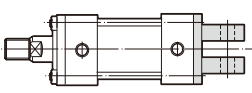
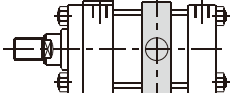
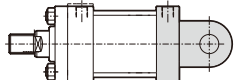
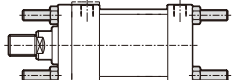
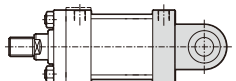
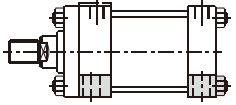
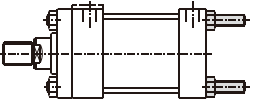
THEORETICAL
OUTPUT TABLE

Bore (mm)				25	32	40	50	63	80	100	125	160	200
Piston pressure area (cm ²)	Extend			4.9	8.0	12.6	19.6	31.2	50.3	78.5	122.7	201.1	314.2
	Retract	Rod	Class C	3.8	6.5	10.0	15.8	25.0	40.1	62.6	98.1	162.6	250.5
			Class B	2.4	4.2	6.4	9.5	15.3	25.6	40.1	59.1	106.0	160.2
Theoretical output (kgf)	Pressure 70 (kgf/cm ²)	Extend		344	563	880	1374	2182	3519	5498	8590	14074	21991
		Retract	Class C	264	455	702	1108	1751	2806	4384	6866	11380	17538
			Class B	165	297	449	662	1069	1794	2804	4137	7422	11215
	Pressure 160 (kgf/cm ²)	Extend		785	1287	2011	3142	4988	8042	12566	19635	32170	50265
		Retract	Class C	604	1040	1603	2533	4002	6414	10022	15694	26012	40087
			Class B	378	679	1025	1513	2443	4102	6409	9456	16965	25635

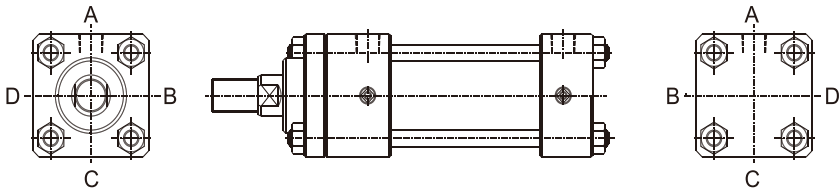
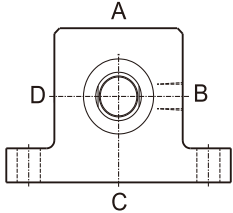
TYPE

Type	Mark	Graphics	Dust cover	Heat resistance	Bore (mm)
Double acting cylinder	SEG160-A		SEG160-AH	SEG160-AJ	25~200
Double rod cylinder	SEG160-C		SEG160-CH	SEG160-CJ	
Double acting cylinder with adjustable stroke	SEG160-D		SEG160-DH	SEG160-DJ	

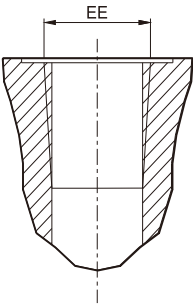
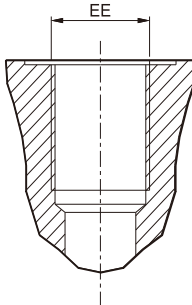
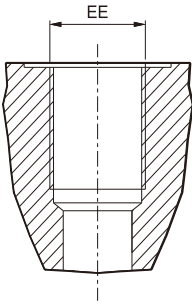
INSTALLATION FORM

Mark	Type	Graphics	Mark	Type	Graphics
ME5 (FA)	Rod flange		MT1 (TA)	Rod trunnion	
ME6 (FB)	Head flange		MT2 (TB)	Head trunnion	
MP1 (CB)	Dual clevis		MT4 (TC)	Mid trunnion	
MP3 (CA)	Clevis		MX1	Tie-Rod extend (both end)	
MP5 (CAB)	Clevis (with ball bearing)		MX2	Tie-Rod extend (rod)	
MS2 (LA)	Foot flange		MX3	Tie-Rod extend (head)	

PORT AND CUSHION POSITIONS

M00(SD) Basic	MS2(LA) Foot flange
	
M00(SD): Standard location A = input port B = cushion position D = check valve position	
MS2(LA): Representation : SEG160A-MS2-C-100-200-B-A B = input port A = cushion position	

SPEC. OF OIL INLET

Type	RC Taper	G Parallel	M Straight
Graphics			
Bore \ Symbol	EE	EE	EE
25	RC1/4	G1/4	M14x1.5
32			
40	RC3/8	G3/8	M18x1.5
50			
63	RC1/2	G1/2	M22x1.5
80			
100	RC3/4	G3/4	M27x2
125			
160	RC1	G1	M33x2
200			
	RC1 1/4	G1 1/4	M42x2

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

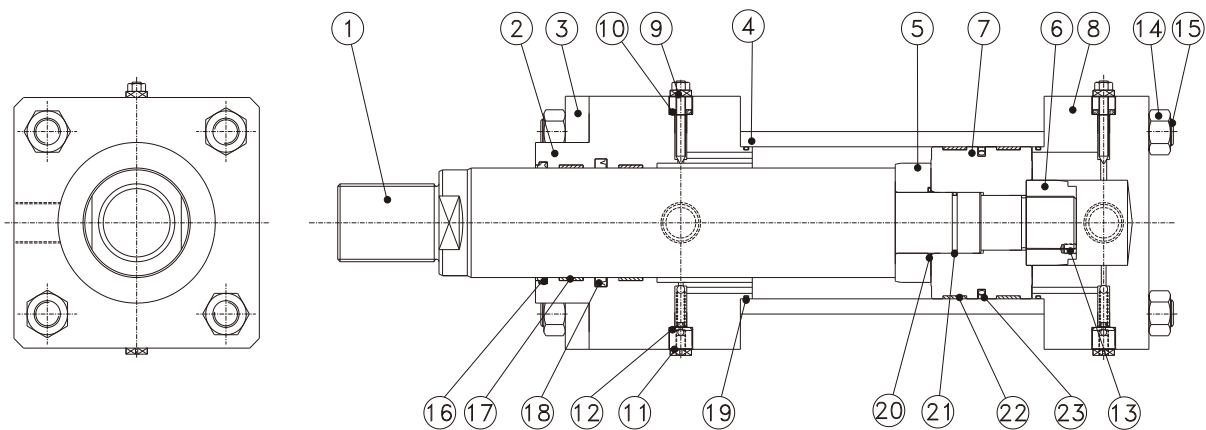
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

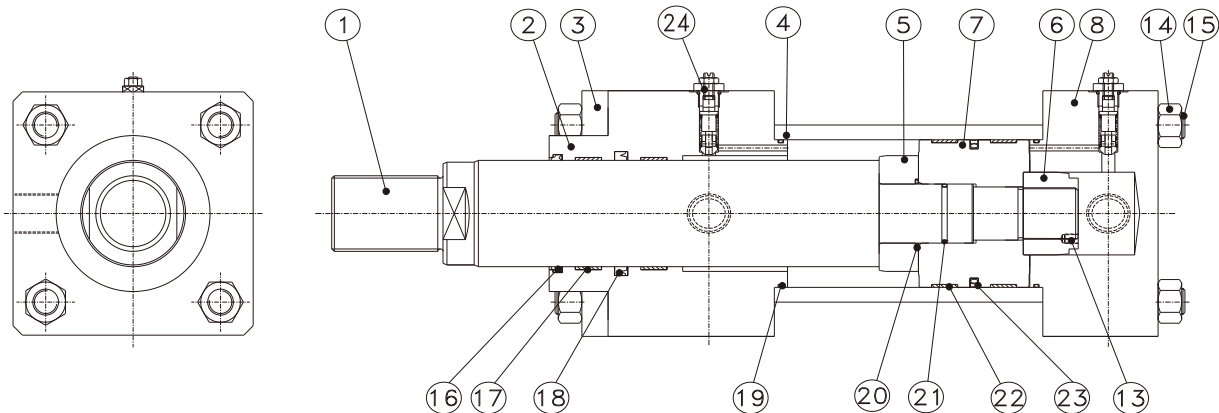
Systems
&
Fittings

INTERNAL STRUCTURE AND PART NAMES

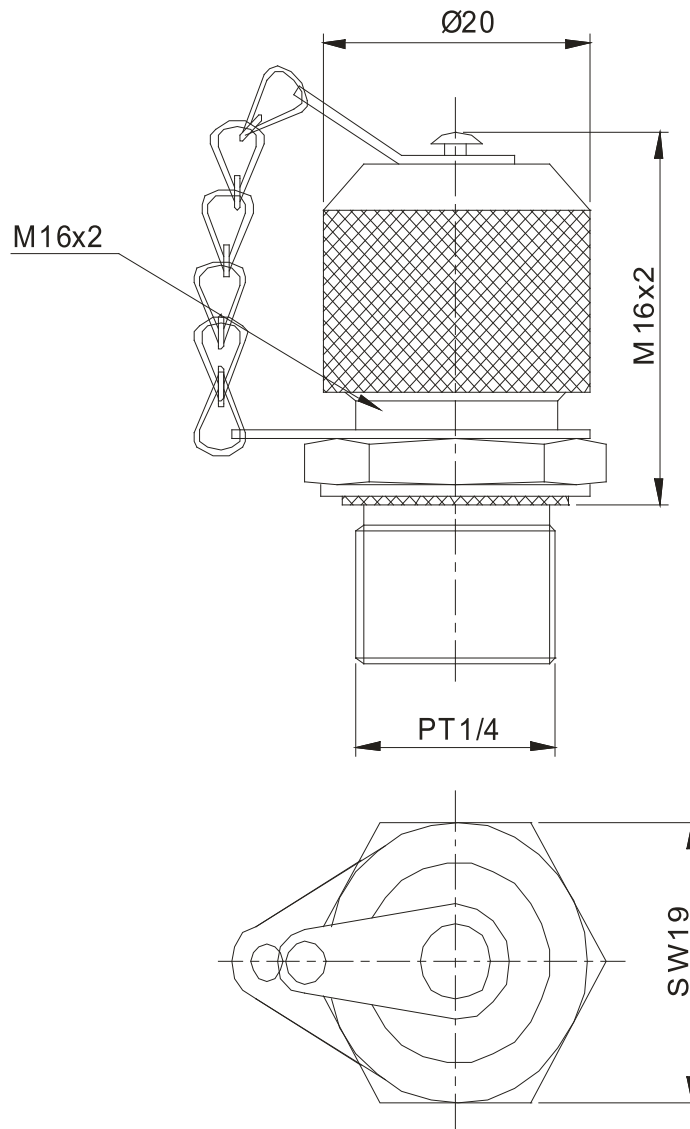
● Bore Ø25 ~ Ø 160



● Bore: Ø200



Item	Part name	Qty	Item	Part name	Qty
①	Piston rod	1	⑬	Set screw	1
②	Rod cover	1	⑭	Tie-rod nut	8
③	Board	1	⑮	Tie-rod	4
④	Tube	1	⑯	Rod cover dust seal	1
⑤	Rod cushion	1	⑰	Rod cover wear ring	2
⑥	Head cushion	1	⑱	Rod cover seal	1
⑦	Piston	1	⑲	Cover O-ring	2
⑧	Head cover	1	⑳	Buffer O-ring	1
⑨	Cushion aligning valve	2	㉑	O-ring inside piston	1
⑩	Cushion gasket	2	㉒	Piston wear ring	2
⑪	Check valve and escape valve	2	㉓	Piston seal	1
⑫	Check valve O-ring	2	㉔	Buffer adjustment and check escape valve	2

**AV-PRESSURE GAUGE AND
QUICK EXHAUST FITTING****Note:**

This joint is used for air escape and pressure measurement.

When measuring the pressure, unscrew this part and put it into the pressure gauge to measure the internal pressure of the cylinder.

This coupling can also be used for air escape and can be used without disassembly.

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

Systems
&
Fittings

ORDER INDICATION

SEG160	A		ME5	C	100
Series	Type	Performance	Installation form	Shaft diameter	Bore
ISO-6020/2 Square cylinders	A: Double acting cylinder	Blank = indicates standard H: Shaft with dust cover J: Heat/acid & alkali resistance	ME5: Rod flange (FA)	C: C class	25:25mm
	C: Double rod cylinder		ME6: Head flange (FB)	B: B class (same spec. as Class C)	32:32mm
	D: Double acting cylinder with adjustable stroke		MP1: Dual clevis (CB)	BB: B class (Plus size)	40:40mm
			MP3: Clevis (CA)		50:50mm
			MP5: Clevis + Ball joint (CAB)		63:63mm
			MS2: Foot flange (LA)		80:80mm
			MT1: Rod trunnion (TA)		100:100mm
			MT2: Head trunnion (TB)		125:125mm
			MT4: Mid trunnion (TC)		160:160mm
			MX1: Tie-Rod extend (both end)		200:200mm
			MX2: Tie-Rod extend (rod)		250:250mm
			MX3: Tie-Rod extend (head)		320:320mm

200ST					RC	
Stroke	Cushion	Adjustable stroke	Port position	Cushion position	Spec. of oil inlet	Pressure joint
Customized	Blank = indicates standard (no cushion) B: Cushion on both ends R: Cushion on rod cover H: Cushion on head cover	⚠ Unlimited adjustable length for double acting cylinder with adjustable stroke	Pls refer to P.251	Pls refer to P.251	RC: Taper G: Parallel M: Straight	Blank = indicates standard (not attached) AV: Pressure gauge and quick exhaust fitting

ORDER INDICATION

SEG160	A	ME 5	32	100	B	Rod cover
Series	Type	Installation form	Bore	Stroke	Shaft diameter	Part name
ISO-6020/2 Square cylinders	A: Double acting cylinder	ME5: Rod flange (FA)			C: C class	Refer to internal structure and part name
	C: Double rod cylinder	ME6: Head flange (FB)			B: B class	
	D: Double acting cylinder with adjustable stroke	MP1: Dual clevis (CB)				
		MP3: Clevis (CA)				
		MP5: Clevis + Ball joint (CAB)				
		MS2: Foot flange (LA)				
		MT1: Rod trunnion (TA)				
		MT2: Head trunnion (TB)				
		MT4: Mid trunnion (TC)				
		MX1: Tie-Rod extend (both end)				
		MX2: Tie-Rod extend (rod)				
		MX3: Tie-Rod extend (head)				

Tie-rod Hydraulic Cylinder

Mold Hydraulic Cylinders

Swivel & Clamp Hydraulic Cylinders

Booster Cylinders & Unclamping cylinders

ISO Specifications Cylinders

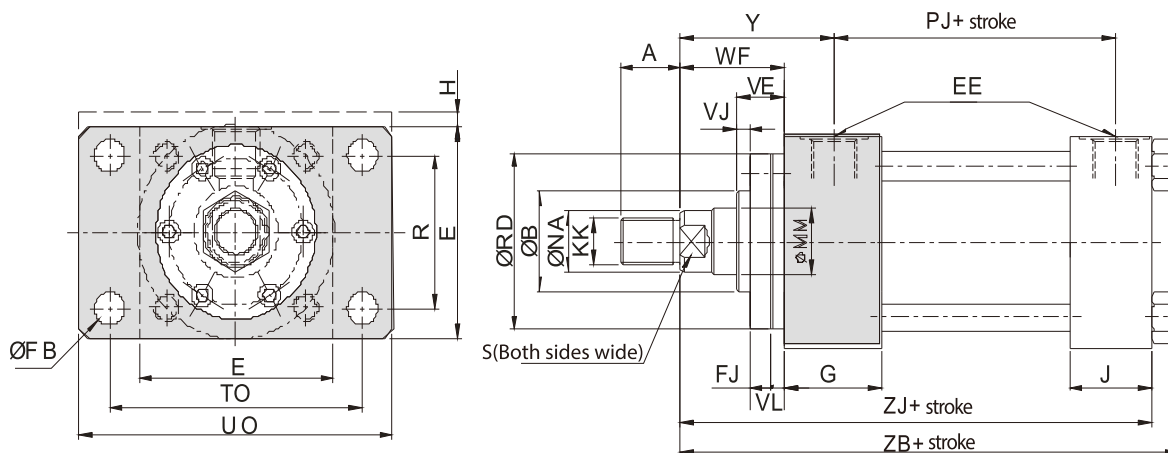
Round Hydraulic Cylinders

Specific Hydraulic Cylinders

Systems & Fittings

EXTERNAL DIMENSIONS

• ME5(FA) Double acting(head flange)



Bore	Class C							Class B							E	EE	FB	G	J	R	TO	UO	WF	Y	H
	MM	KK	A	B	S	NA	VE	MM	KK	A	B	S	NA	VE											
25	12	M10x1.25	14	24	10	11	16	18	M14x1.5	18	30	15	17	16	40	G1/4	5.5	40	25	27	51	65	25	50	5
32	14	M12x1.25	16	26	12	13	22	22	M16x1.5	22	34	18	21	22	45	G1/4	6.6	40	25	33	58	70	35	60	5
40	18	M14x1.5	18	30	15	17	16	28	M20x1.5	28	42	22	26	22	63	G3/8	11	45	38	41	87	110	35	62	-
50	22	M16x1.5	22	34	18	21	22	36	M27x2	36	50	30	34	25	75	G1/2	14	45	38	52	105	130	41	67	-
63	28	M20x1.5	28	42	22	26	22	45	M33x2	45	60	39	43	29	90	G1/2	14	45	38	65	117	145	48	71	-
80	36	M27x2	36	50	30	34	25	56	M42x2	56	72	48	54	29	115	G3/4	18	50	45	83	149	180	51	77	-
100	45	M33x2	45	60	39	43	29	70	M48x2	63	88	62	68	32	130	G3/4	18	50	45	97	162	200	57	82	-
125	56	M42x2	56	72	48	54	29	90	M64x3	85	108	80	88	32	165	G1	22	58	58	126	208	250	57	86	-
160	70	M48x2	63	88	62	68	32	110	M80x3	95	133	100	108	32	205	G1	26	58	58	155	253	300	57	86	-
200	90	M64x3	85	108	80	88	32	140	M100x3	112	163	128	138	32	245	G1 1/4	33	76	76	190	300	360	57	98	-

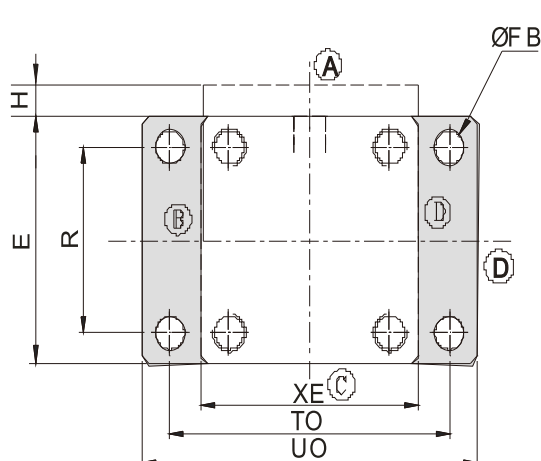
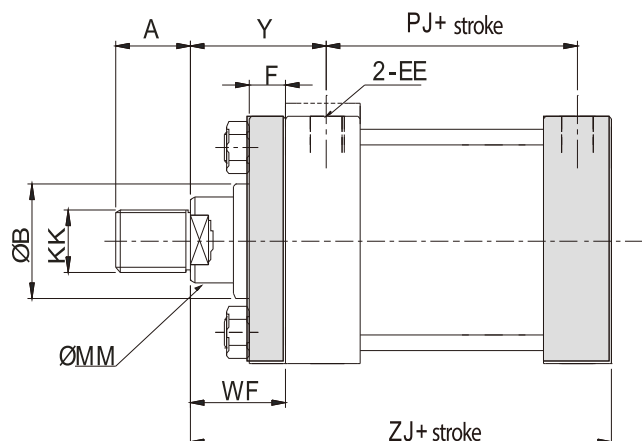
Bore	PJ	ZB	ZJ	VL	RD		VJ		FJ	
					C	B	C	B	C	B
25	53	121	114	3	38	38	6	6	10	10
32	56	137	128	3	42	42	12	12	10	10
40	73	166	153	3	62	62	6	12	10	10
50	74	176	139	4	74	74	6	9	16	16
63	80	185	168	4	75	88	6	13	16	16
80	93	212	190	4	82	105	5	9	20	20
100	101	225	203	5	92	125	7	10	22	22
125	117	260	232	5	105	150	9	10	20	22
160	130	279	245	5	125	170	10	7	22	25
200	165	336	299	5	150	210	10	7	22	25



In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

ME6(FB) Double acting(head flange)



Bore	Class C				Class B				H	E	Y	F	PJ	EE	TO	FB	R	WF	UO	ZJ
	MM	KK	A	B	MM	KK	A	B												
25	12	M10x1.25	14	24	18	M10x1.25	14	30	5	40	50	10	53	RC1/4	51	5.5	27	25	65	114
32	14	M12x1.25	16	26	22	M14x1.5	18	34	5	45	60	10	56	RC1/4	58	6.6	33	35	70	128
						M16x1.5	22													
40	18	M14x1.5	18	30	28	M14x1.5	18	42	-	63	62	10	73	RC3/8	87	11	41	35	110	153
						M20x1.5	28													
50	22	M16x1.5	22	34	36	M16x1.5	22	50	-	75	67	16	74	RC1/2	105	14	52	41	130	159
						M27x2	36													
63	28	M20x1.5	28	42	45	M20x1.5	28	60	-	90	71	16	80	RC1/2	117	14	65	48	145	168
						M33x2	45													
80	36	M27x2	36	50	56	M27x2	36	72	-	115	77	20	93	RC3/4	149	18	83	51	180	190
						M42x2	56													
100	45	M33x2	45	60	70	M33x2	45	88	-	130	82	22	101	RC3/4	162	18	97	57	200	203
						M48x2	63													
125	56	M42x2	56	72	90	M42x2	56	108	-	165	86	22	117	RC1	208	22	126	57	250	232
						M64x3	85													
160	70	M48x2	63	88	110	M48x2	63	133	-	205	86	25	130	RC1	253	26	155	57	300	245
						M80x3	95													
200	90	M64x3	85	108	140	M64x3	85	163	-	245	98	25	165	RC11/4	300	33	190	57	360	299
						M100x3	112													

! In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

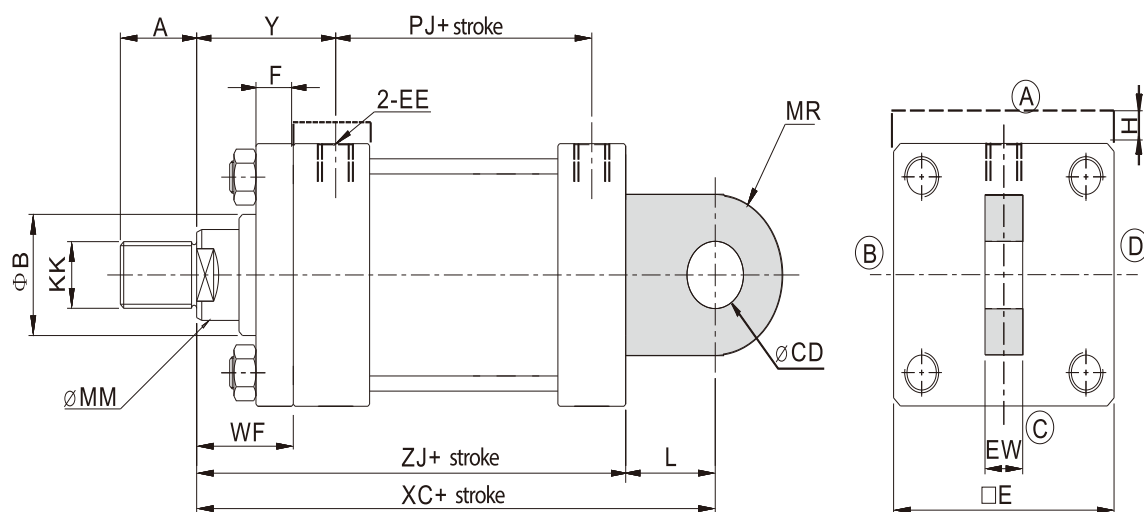
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

Systems
&
Fittings

EXTERNAL DIMENSIONS

- MP3(CA) Double acting(clevis)



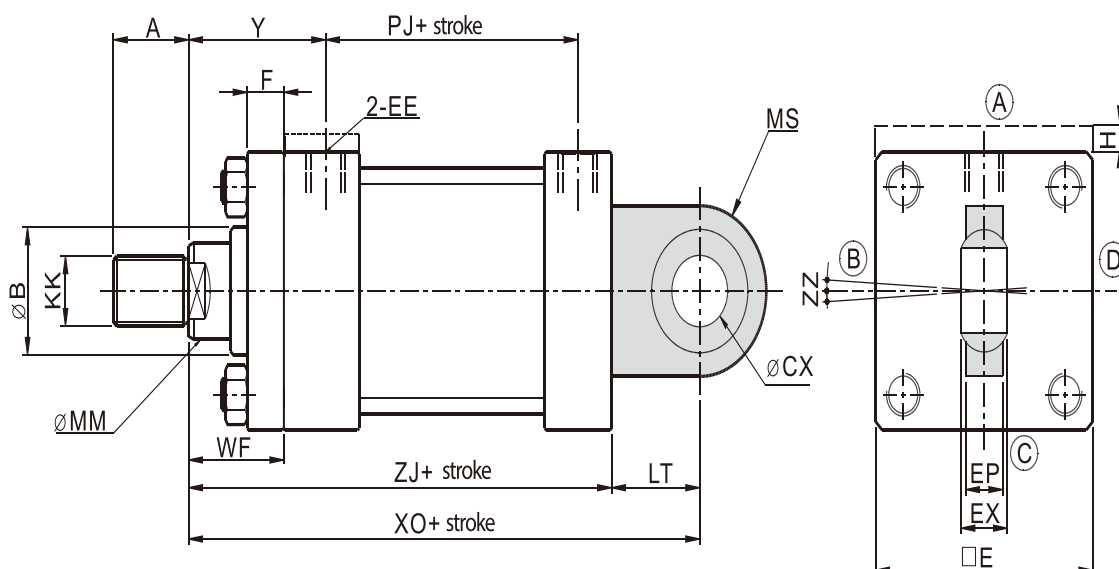
Bore	Class C				Class B				H	E	Y	PJ	EE	WF	CD	MRE	W	L	XC	ZJ
	MM	KK	A	B	MM	KK	A	B												
25	12	M10x1.25	14	24	18	M10x1.25 M14x1.5	14 18	30	5	40	50	53	RC1/4	25	10	12	12	13	127	114
32	14	M12x1.25	16	26	22	M12x1.25 M16x1.5	16 22	34	5	45	60	56	RC1/4	35	12	15	16	19	147	128
40	18	M14x1.5	18	30	28	M14x1.5 M20x1.5	18 28	42	-	63	62	73	RC3/8	35	14	16	20	19	172	153
50	22	M16x1.5	22	34	36	M16x1.5 M27x2	22 36	50	-	75	67	74	RC1/2	41	20	25	30	32	191	159
63	28	M20x1.5	28	42	45	M20x1.5 M33x2	28 45	60	-	90	71	80	RC1/2	48	20	25	30	32	200	168
80	36	M27x2	36	50	56	M27x2 M42x2	36 56	72	-	115	77	93	RC3/4	51	28	34	40	39	229	190
100	45	M33x2	45	60	70	M33x2 M48x2	45 63	88	-	130	82	101	RC3/4	57	36	44	50	54	257	203
125	56	M42x2	56	72	90	M42x2 M64x3	56 85	108	-	165	86	117	RC1	57	45	53	60	57	289	232
160	70	M48x2	63	88	110	M48x2 M80x3	63 95	133	-	205	86	130	RC1	57	56	59	70	63	308	245
200	90	M64x3	85	108	140	M64x3 M100x3	85 112	163	-	245	98	165	RC11/4	57	70	76	80	82	381	299



In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

- MP5(CAB) Double acting(clevis + ball joint)



Bore	Class C				Class B				H	E	Y	F	PJ	EE	WF	EP	EX	CX	MS	LT	XO	Z	ZJ
	MM	KK	A	B	MM	KK	A	B															
25	12	M10x1.25	14	24	18	M10x1.25 M14x1.5	14 18	30	5	40	50	10	53	RC1/4	25	8	10	12	20	16	130	30	114
32	14	M12x1.25	16	26	22	M12x1.25 M16x1.5	16 22	34	5	45	60	10	56	RC1/4	35	11	14	16	23	20	148	30	128
40	18	M14x1.5	18	30	28	M14x1.5 M20x1.5	18 28	42	-	63	62	10	73	RC3/8	35	13	16	20	29	25	178	30	153
50	22	M16x1.5	22	34	36	M16x1.5 M27x2	22 36	50	-	75	67	16	74	RC1/2	41	17	20	25	33	31	190	30	159
63	28	M20x1.5	28	42	45	M20x1.5 M33x2	28 45	60	-	90	71	16	80	RC1/2	48	19	22	30	40	38	206	30	168
80	36	M27x2	36	50	56	M27x2 M42x2	36 56	72	-	115	77	20	93	RC3/4	51	23	28	40	50	48	238	30	190
100	45	M33x2	45	60	70	M33x2 M48x2	45 63	88	-	130	82	22	101	RC3/4	57	30	35	50	62	58	261	30	203
125	56	M42x2	56	72	90	M42x2 M64x3	56 85	108	-	165	86	22	117	RC1	57	38	44	60	80	72	304	30	232
160	70	M48x2	63	88	110	M48x2 M80x3	63 95	133	-	205	86	25	130	RC1	57	47	55	80	100	92	337	30	245
200	90	M64x3	85	108	140	M64x3 M100x3	85 112	163	-	245	98	25	165	RC11/4	57	57	70	100	120	116	415	30	299



In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

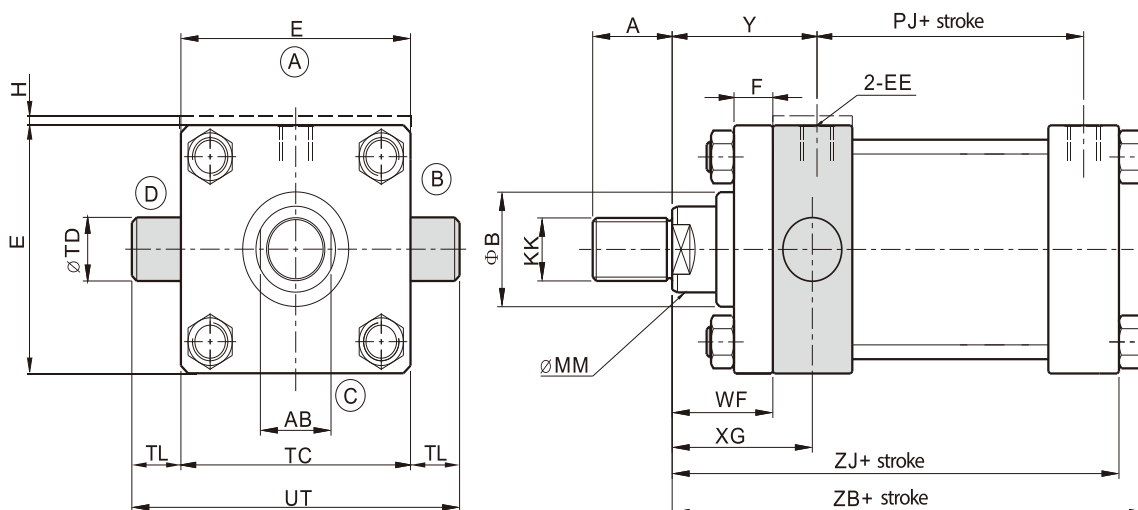
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

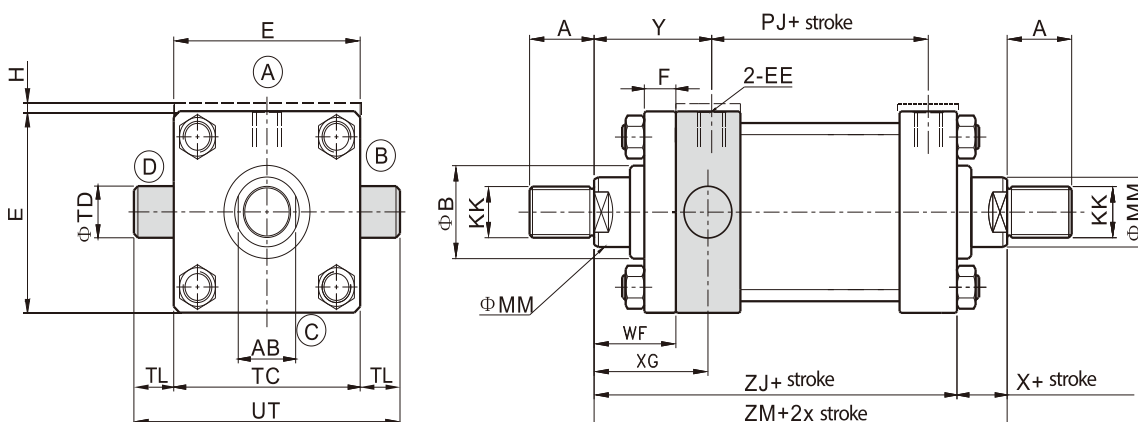
Systems
&
Fittings

EXTERNAL DIMENSIONS

- MT1(TA) Double acting(rod trunnion)



- MT1(TA) Double rods(rod trunnion)



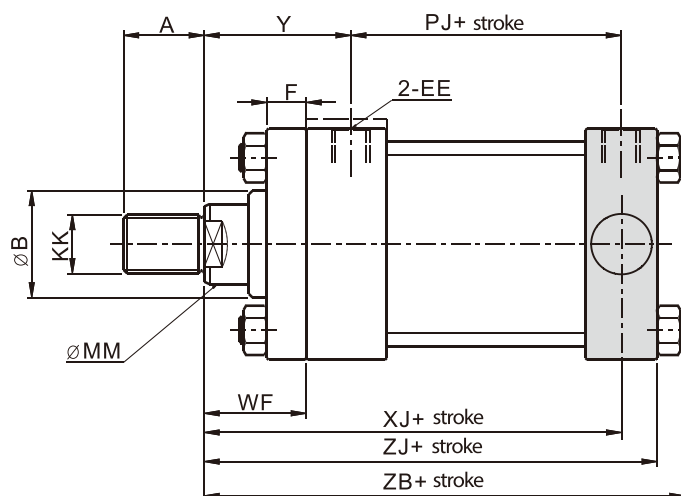
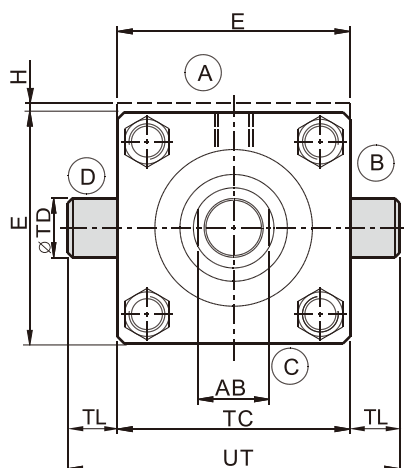
Bore	Class C					Class B					H	E	Y	PJ	EE	WF	F	ZB	TC	UT	TD	XG	ZM	X	ZJ
	MM	KK	A	B	AB	MM	KK	A	B	AB															
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	30	15	5	40	50	53	RC1/4	25	10	121	38	58	12	44	129	15	114
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	34	18	5	45	60	56	RC1/4	35	10	137	44	68	16	54	153	25	128
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 28	42	22	-	63	62	73	RC3/8	35	10	166	63	95	20	57	178	25	153
50	22	M16x1.5	22	34	18	36	M16x1.5 M27x2	22 36	50	30	-	75	67	74	RC1/2	41	16	176	76	116	25	64	184	25	159
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	60	39	-	90	71	80	RC1/2	48	16	185	89	139	32	70	200	32	168
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	72	48	-	115	77	93	RC3/4	51	20	212	114	178	40	76	221	31	190
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 63	88	62	-	130	82	101	RC3/4	57	22	225	127	207	50	71	238	35	203
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	108	80	-	165	86	117	RC1	57	22	260	165	265	63	75	267	35	232
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	133	100	-	205	86	130	RC1	57	25	279	203	329	80	75	277	32	245
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	163	128	-	245	98	165	RC11/4	57	25	336	241	401	100	85	331	32	299



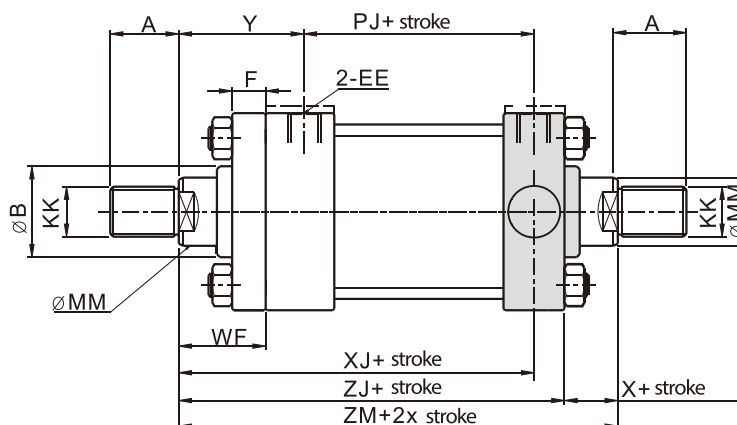
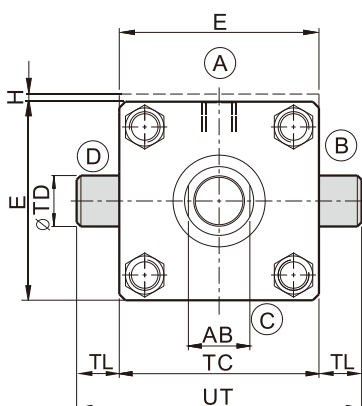
In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

- MT2(TB) Double acting(head trunnion)



- MT2(TB) Double rods(head trunnion)



Bore	Class C					Class B					H	E	Y	PJ	EE	WF	F	ZB	TC	UT	TD	XJ	ZM	X	ZJ
	MM	KK	A	B	AB	MM	KK	A	B	AB															
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	30	15	5	40	50	53	RC1/4	25	10	121	38	58	12	101	129	15	114
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	34	18	5	45	60	56	RC1/4	35	10	137	44	68	16	115	153	25	128
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 28	42	22	-	63	62	73	RC3/8	35	10	166	63	95	20	134	178	25	153
50	22	M16x1.5	22	34	18	36	M16x1.5 M27x2	22 36	50	30	-	75	67	74	RC1/2	41	16	176	76	116	25	140	184	25	159
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	60	39	-	90	71	80	RC1/2	48	16	185	89	139	32	149	200	32	168
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	72	48	-	115	77	93	RC3/4	51	20	212	114	178	40	168	221	31	190
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 63	88	62	-	130	82	101	RC3/4	57	22	225	127	207	50	187	238	35	203
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	108	80	-	165	86	117	RC1	57	22	260	165	265	63	209	267	35	232
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	133	100	-	205	86	130	RC1	57	25	279	203	329	80	230	277	32	245
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	163	128	-	245	98	165	RC11/4	57	25	336	241	401	100	276	331	32	299



In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

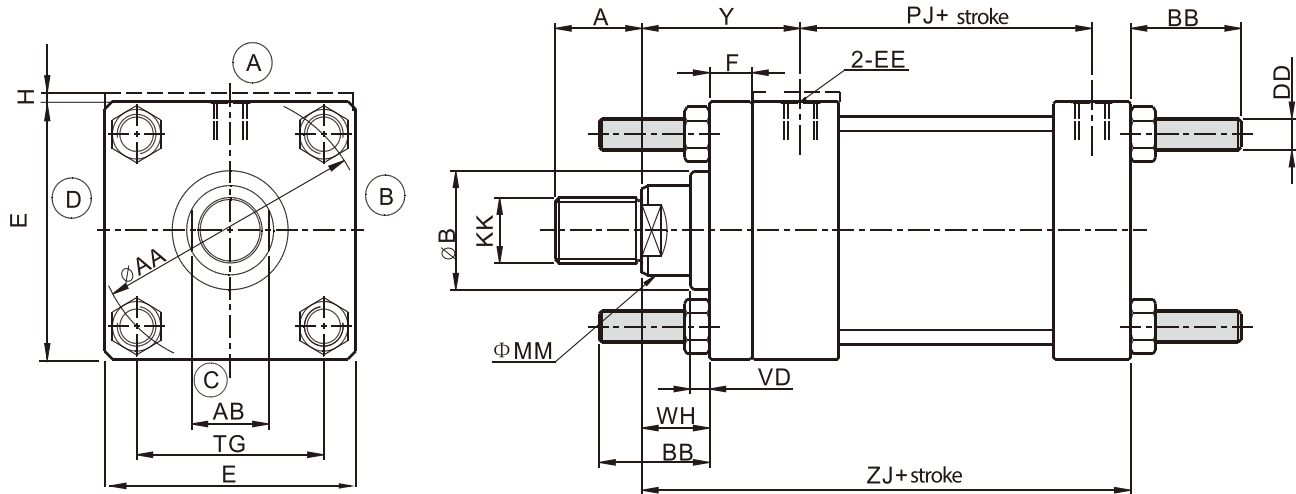
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

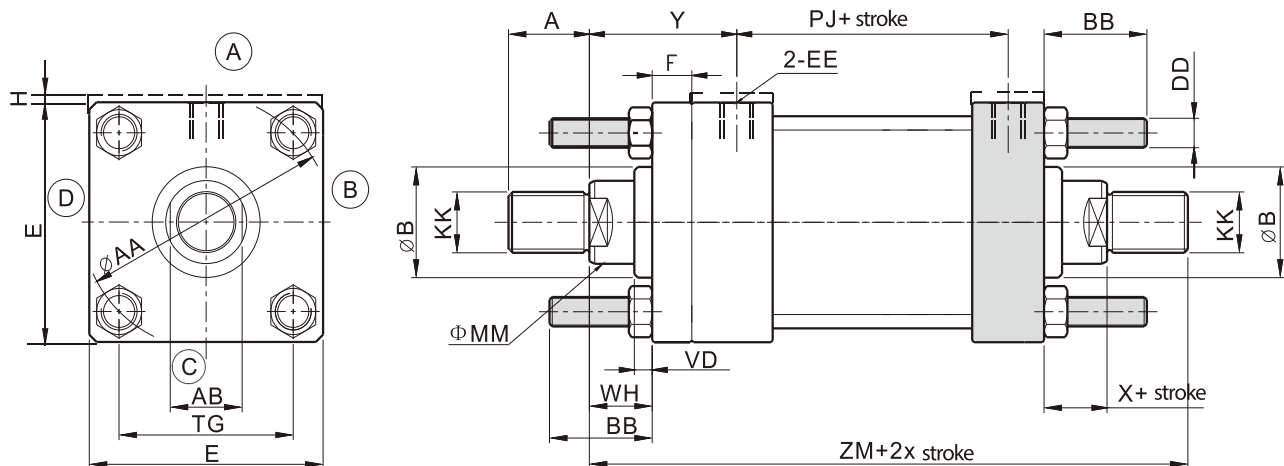
Systems
&
Fittings

EXTERNAL DIMENSIONS

- MX1 Double acting(tie-rod extend)(both end)



- MX1 Double rods(tie-rod extend)(both end)

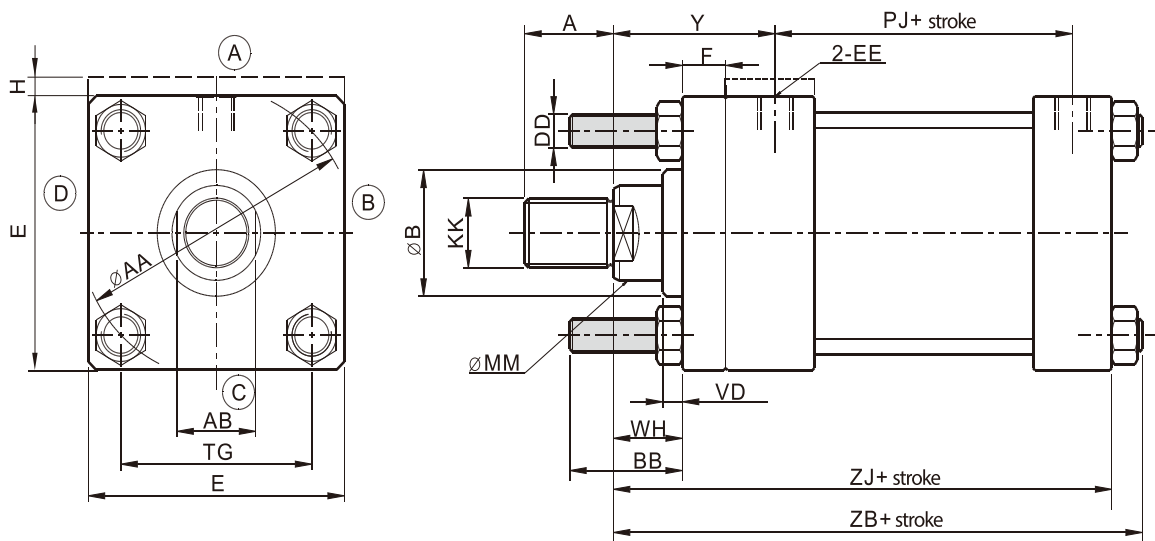


Bore	Class C					Class B					H	E	Y	PJ	EE	WF	F	ZJ	DD	BB	AA	WH	VD	TG	ZM	X
	MM	KK	A	B	AB	MM	KK	A	B	AB																
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	30	15	5	40	50	53	RC1/4	25	10	114	M5x0.8	19	40	15	5	28.3	129	15
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	34	18	5	45	60	56	RC1/4	35	10	128	M6x1	24	47	25	5	33.2	153	25
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 22	42	22	-	63	62	73	RC3/8	35	10	153	M8x1	35	59	25	5	41.7	178	25
50	22	M16x1.5	22	34	18	36	M16x1.5 M27x2	22 36	50	30	-	75	67	74	RC1/2	41	16	159	M12x1.25	46	74	25	5	52.3	184	25
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	60	39	-	90	71	80	RC1/2	48	16	168	M12x1.25	46	91	32	5	64.3	200	32
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	72	48	-	115	77	93	RC3/4	51	20	190	M16x1.5	59	117	31	5	82.7	221	31
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 56	88	62	-	130	82	101	RC3/4	57	22	203	M16x1.5	59	137	35	5	96.9	238	35
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	108	80	-	165	86	117	RC1	57	22	232	M22x1.5	81	178	35	5	125.9	267	35
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	133	100	-	205	86	130	RC1	57	25	245	M27x2	92	219	32	5	154.9	277	32
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	163	128	-	245	98	165	RC11/4	57	25	299	M30x2	115	269	32	5	190.2	331	32

⚠ In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

- MX2 Double acting(tie-rod extend)(rod)



Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

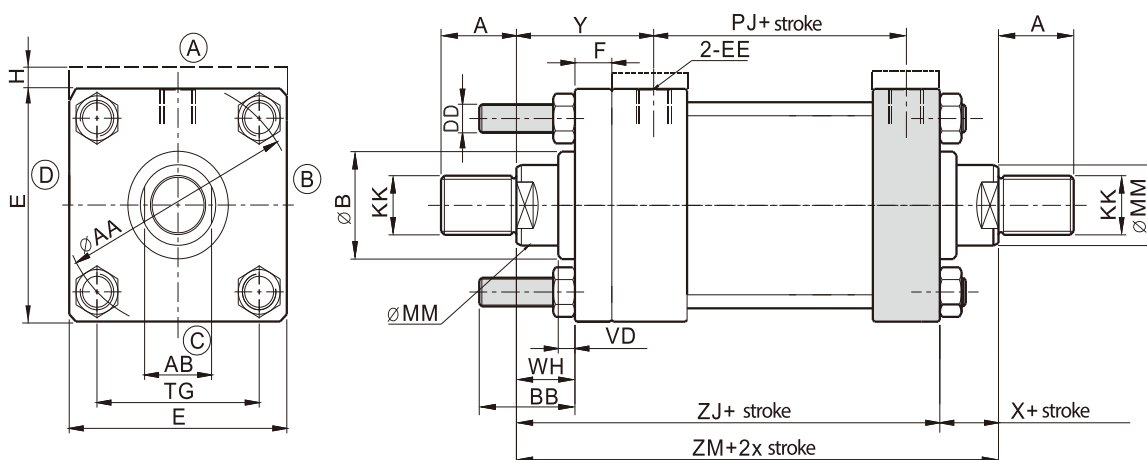
ISO
Specifications
Cylinders

Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

Systems
&
Fittings

- MX3 Double rods(tie-rod extend)(rod)

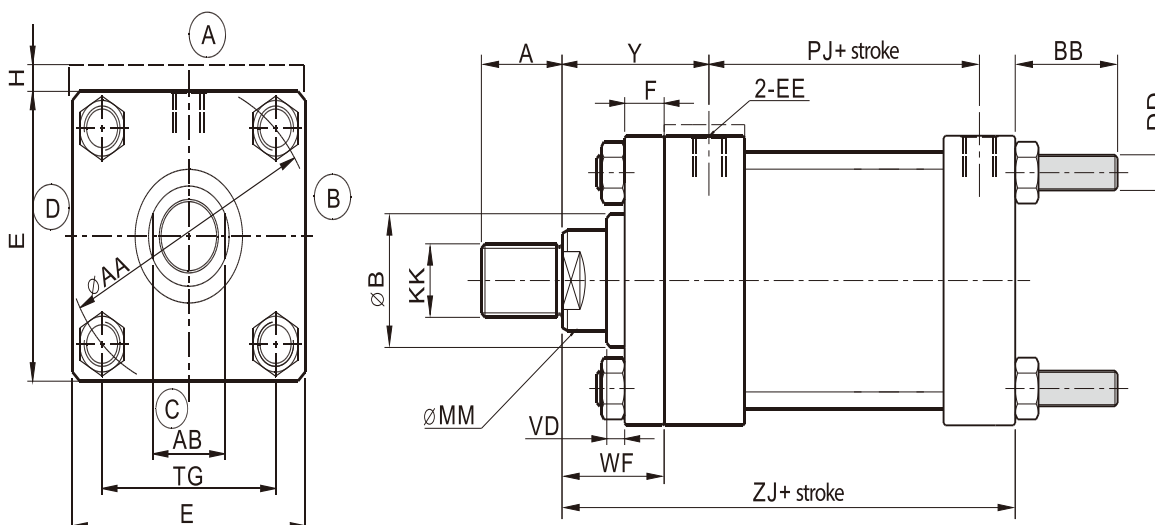


Bore	Class C					Class B					H	E	Y	PJ	EE	WF	F	ZJ	DD	BB	AA	WH	VD	TG	ZM	X
	MM	KK	A	B	AB	MM	KK	A	AB	B																
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	15	30	5	40	50	53	RC1/4	25	10	114	M5x0.8	19	40	15	5	28.3	129	15
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	18	34	5	45	60	56	RC1/4	35	10	128	M6x1	24	47	25	5	33.2	153	25
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 28	22	42	-	63	62	73	RC3/8	35	10	153	M8x1	35	59	25	5	41.7	178	25
50	22	M16x1.5	22	34	18	36	M16x1.5 M27x2	22 36	30	50	-	75	67	74	RC1/2	41	16	159	M12x1.25	46	74	25	5	52.3	184	25
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	39	60	-	90	71	80	RC1/2	48	16	168	M12x1.25	46	91	32	5	64.3	200	32
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	48	72	-	115	77	93	RC3/4	51	20	190	M16x1.5	59	117	31	5	82.7	221	31
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 63	62	88	-	130	82	101	RC3/4	57	22	203	M16x1.5	59	137	35	5	96.9	238	35
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	80	108	-	165	86	117	RC1	57	22	232	M22x1.5	81	178	35	5	125.9	267	35
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	100	133	-	205	86	130	RC1	57	25	245	M27x2	92	219	32	5	154.9	277	32
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	128	163	-	245	98	165	RC11/4	57	25	299	M30x2	115	269	32	5	190.2	331	32

⚠ In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

- MX3 Double acting(tie-rod extend)(head)



Bore	Class C					Class B					H	E
	MM	KK	A	B	AB	MM	KK	A	B	AB		
25	12	M10x1.25	14	24	10	18	M10x1.25	14	30	15	5	40
32	14	M12x1.25	16	26	12	22	M14x1.5	18	34	18	5	45
							M12x1.25	16				
40	18	M14x1.5	18	30	15	28	M16x1.5	22	42	22	-	63
							M20x1.5	28				
50	22	M16x1.5	22	34	18	36	M16x1.5	22	50	30	-	75
							M27x2	36				
63	28	M20x1.5	28	42	22	45	M20x1.5	28	60	39	-	90
							M33x2	45				
80	36	M27x2	36	50	30	56	M27x2	36	72	48	-	115
							M42x2	56				
100	45	M33x2	45	60	39	70	M33x2	45	88	62	-	130
							M48x2	63				
125	56	M42x2	56	72	48	90	M42x2	56	108	80	-	165
							M64x3	85				
160	70	M48x2	63	88	62	110	M48x2	63	133	100	-	205
							M80x3	95				
200	90	M64x3	85	108	80	140	M64x3	85	163	128	-	245
							M100x3	112				

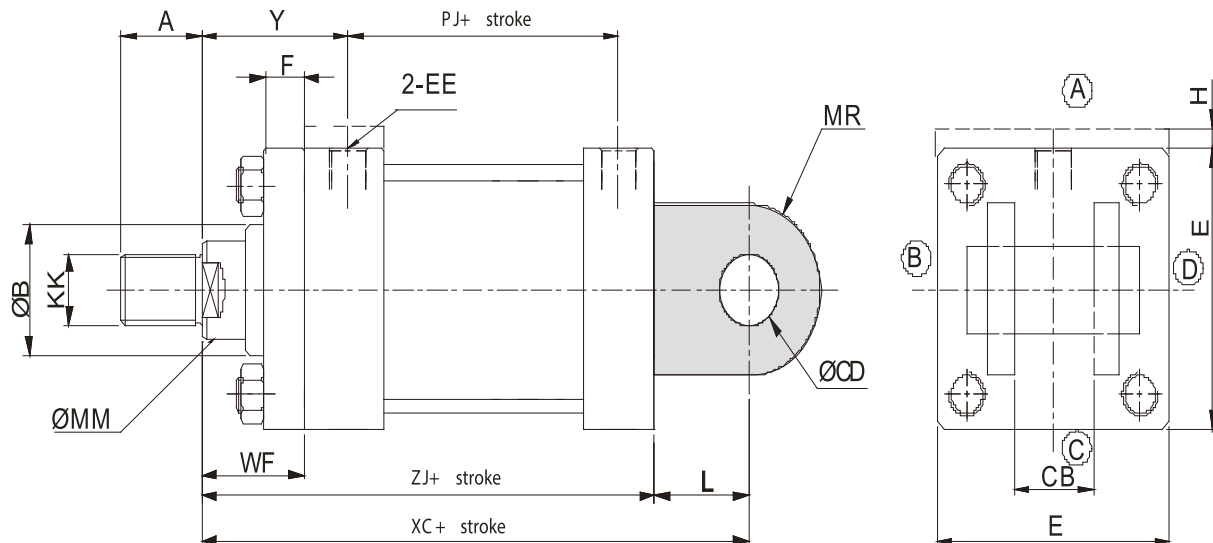
Bore	Y	PJ	EE	WF	F	ZJ	DD	BB	AA	VD	TG
25	50	53	RC1/4	25	10	114	M5x0.8	19	40	5	28.3
32	60	56	RC1/4	35	10	128	M6x1	24	47	5	33.2
40	62	73	RC3/8	35	10	153	M8x1	35	59	5	41.7
50	67	74	RC1/2	41	16	159	M12x1.25	46	74	5	52.3
63	71	80	RC1/2	48	16	168	M12x1.25	46	91	5	64.3
80	77	93	RC3/4	51	20	190	M16x1.5	59	117	5	82.7
100	82	101	RC3/4	57	22	203	M16x1.5	59	137	5	96.9
125	86	117	RC1	57	22	232	M22x1.5	81	178	5	125.9
160	86	130	RC1	57	25	245	M27x2	92	219	5	154.9
200	98	165	RC1 1/4	57	25	299	M30x2	115	269	5	190.2



In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

- MP1(CB) Double acting(Twin mountain type)



Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

Systems
&
Fittings

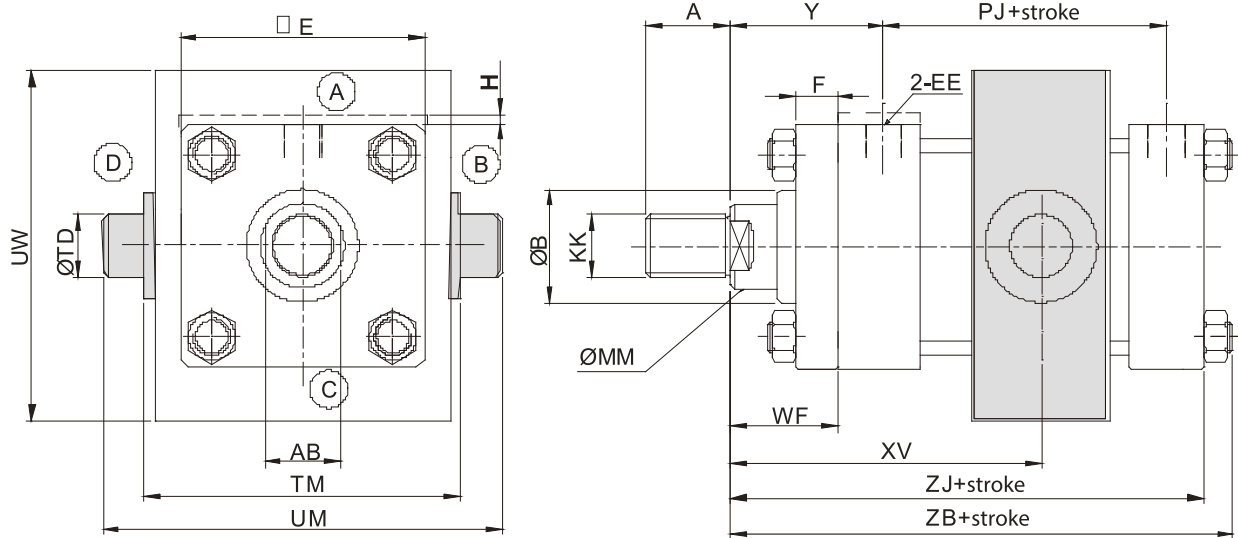
Bore	Class C				Class B				H	E	Y	F	PJ	ZJ	EE	CB	CD	MR	WF	XC	L
	MM	KK	A	B	MM	KK	A	B													
25	12	M10x1.25	14	24	18	M10x1.25 M14x1.5	14 18	30	5	40	50	10	53	114	RC1/4	12	10	12	25	127	13
32	14	M12x1.25	16	26	22	M12x1.25 M16x1.5	16 22	34	5	45	60	10	56	128	RC1/4	16	12	17	35	147	19
40	18	M14x1.5	18	30	28	M14x1.5 M20x1.5	18 28	42	-	63	62	10	73	153	RC3/8	20	14	17	35	172	19
50	22	M16x1.5	22	34	36	M16x1.5 M27x2	22 36	50	-	75	67	16	74	159	RC1/2	30	20	29	41	191	32
63	28	M20x1.5	28	42	45	M20x1.5 M33x2	28 45	60	-	90	71	16	80	168	RC1/2	30	20	29	48	200	32
80	36	M27x2	36	50	56	M27x2 M42x2	36 56	72	-	115	77	20	93	190	RC3/4	40	28	34	51	229	39
100	45	M33x2	45	60	70	M33x2 M48x2	45 63	88	-	130	82	22	101	203	RC3/4	50	36	50	57	257	54
125	56	M42x2	56	72	90	M42x2 M64x3	56 85	108	-	165	86	22	117	232	RC1	60	45	53	57	289	57
160	70	M48x2	63	88	110	M48x2 M80x3	63 95	133	-	205	86	25	130	245	RC1	70	56	59	57	308	63
200	90	M64x3	85	108	140	M64x3 M100x3	85 112	163	-	245	98	25	165	299	RC11/4	80	70	78	57	381	82



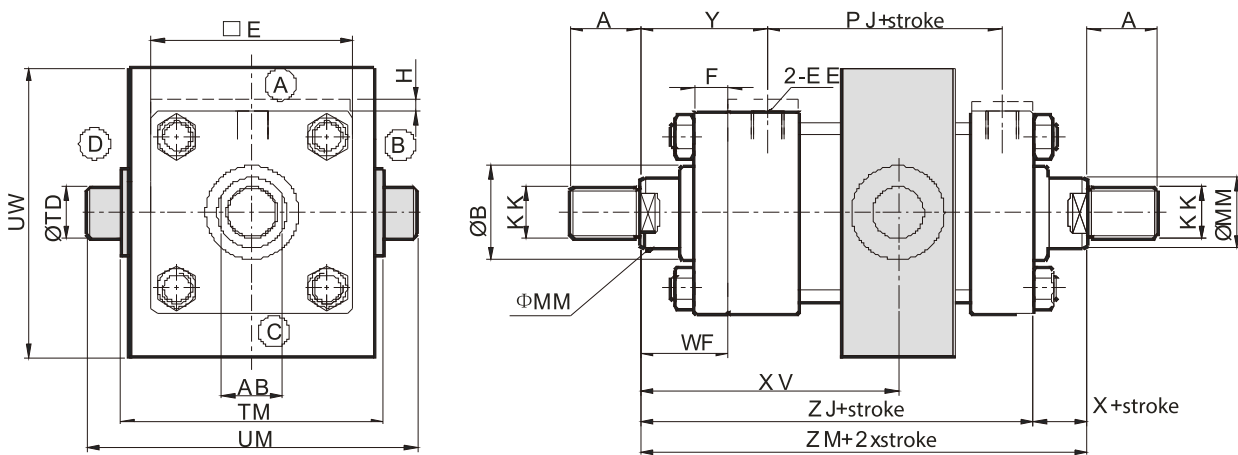
In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

● MT4(TC) Double acting(Middle trunnion)



● MT4(TC) Double rods(Middle trunnion)



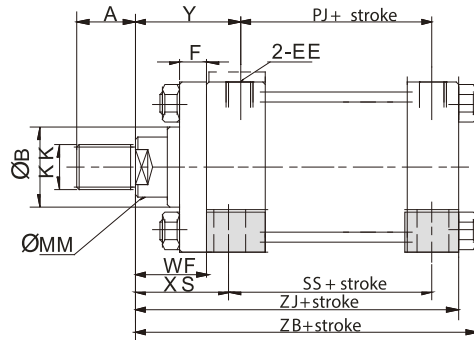
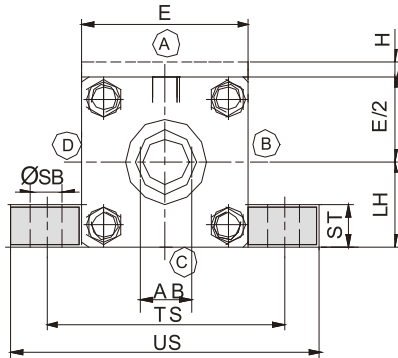
Bore	Class C					Class B					H	E	Y	PJ	EE	WF	F	ZB	TD	UW	TM	XV	ZM	X	ZJ	UM
	MM	KK	A	B	AB	MM	KK	A	B	AB																
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	30	15	5	40	50	53	RC1/4	25	10	121	12	45	48	Subject to customer size	129	15	114	68
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	34	18	5	45	60	56	RC1/4	35	10	137	16	54	55		153	25	128	79
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 28	42	22	-	63	62	73	RC3/8	35	10	166	20	76	76		178	25	153	108
50	22	M16x1.5	22	34	18	36	M16x1.5 M27x2	22 36	50	30	-	75	67	74	RC1/2	41	16	176	25	89	89		184	25	159	129
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	60	39	-	90	71	80	RC1/2	48	16	185	32	95	100		200	32	168	150
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	72	48	-	115	77	93	RC3/4	51	20	212	40	127	127		221	31	190	191
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 63	88	62	-	130	82	101	RC3/4	57	22	225	50	140	140		238	35	203	220
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	108	80	-	165	86	117	RC1	57	22	260	63	178	178		267	35	232	278
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	133	100	-	205	86	130	RC1	57	25	279	80	216	215		277	32	245	341
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	163	128	-	245	98	165	RC11/4	57	25	336	100	280	279		331	32	299	439



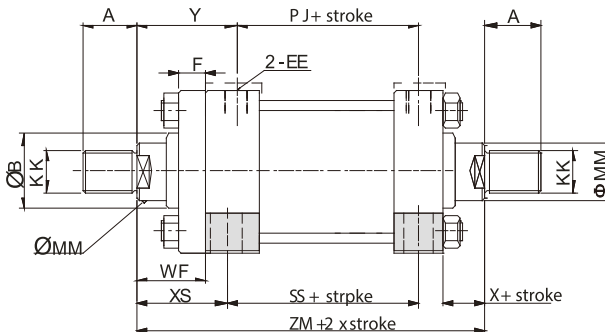
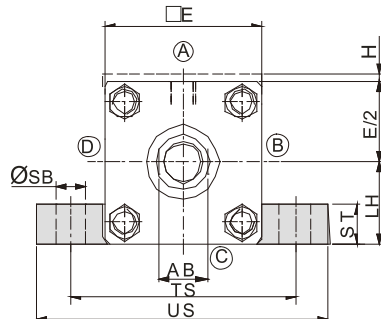
In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

EXTERNAL DIMENSIONS

● MS2(LA) Double acting(Radial foot)



● MS2(LA) Double rods(Radial foot)



Bore	Class C					Class B					H	E	Y	PJ	EE	WF	ZB	TS
	MM	KK	A	B	AB	MM	KK	A	B	AB								
25	12	M10x1.25	14	24	10	18	M10x1.25 M14x1.5	14 18	30	15	5	40	50	53	RC1/4	25	121	54
32	14	M12x1.25	16	26	12	22	M12x1.25 M16x1.5	16 22	34	18	5	45	60	56	RC1/4	35	137	63
40	18	M14x1.5	18	30	15	28	M14x1.5 M20x1.5	18 28	42	22	-	63	62	73	RC3/8	35	166	83
50	22	M16x1.5	22	34	18	36	M16x1.5 M20x1.5	22 36	50	30	-	75	67	74	RC1/2	41	176	102
63	28	M20x1.5	28	42	22	45	M20x1.5 M33x2	28 45	60	39	-	90	71	80	RC1/2	48	185	124
80	36	M27x2	36	50	30	56	M27x2 M42x2	36 56	72	48	-	115	77	93	RC3/4	51	212	149
100	45	M33x2	45	60	39	70	M33x2 M48x2	45 63	88	62	-	130	82	101	RC3/4	57	225	172
125	56	M42x2	56	72	48	90	M42x2 M64x3	56 85	108	80	-	165	86	117	RC1	57	260	210
160	70	M48x2	63	88	62	110	M48x2 M80x3	63 95	133	100	-	205	86	130	RC1	57	279	260
200	90	M64x3	85	108	80	140	M64x3 M100x3	85 112	163	128	-	245	98	165	RC11/4	57	336	311

Bore	F	LH	XS	SS	ST	US	ZM	SB	X	ZJ
25	10	19	33	73	8.5	72	129	6.6	15	114
32	10	22	45	73	12.5	84	153	9	25	128
40	10	31	45	98	12.5	103	178	11	25	153
50	16	37	54	92	19	127	184	14	25	159
63	16	44	65	86	26	161	200	18	32	168
80	20	57	68	105	26	186	221	18	31	190
100	22	63	79	102	32	216	238	26	35	203
125	22	82	79	131	32	254	267	26	35	232
160	25	101	86	130	38	318	277	33	32	245
200	25	122	92	172	44	381	331	39	32	299

⚠ In order to match bore of 25mm and 32mm, the length of the front cover from the oil port is increased by 'H' dimension

Tie-rod
Hydraulic
CylinderMold
Hydraulic
CylindersSwivel &
Clamp
Hydraulic
CylindersBooster
Cylinders
&
Unclamping
cylindersISO
Specifications
CylindersRound
Hydraulic
CylindersSpecific
Hydraulic
CylindersSystems
&
Fittings