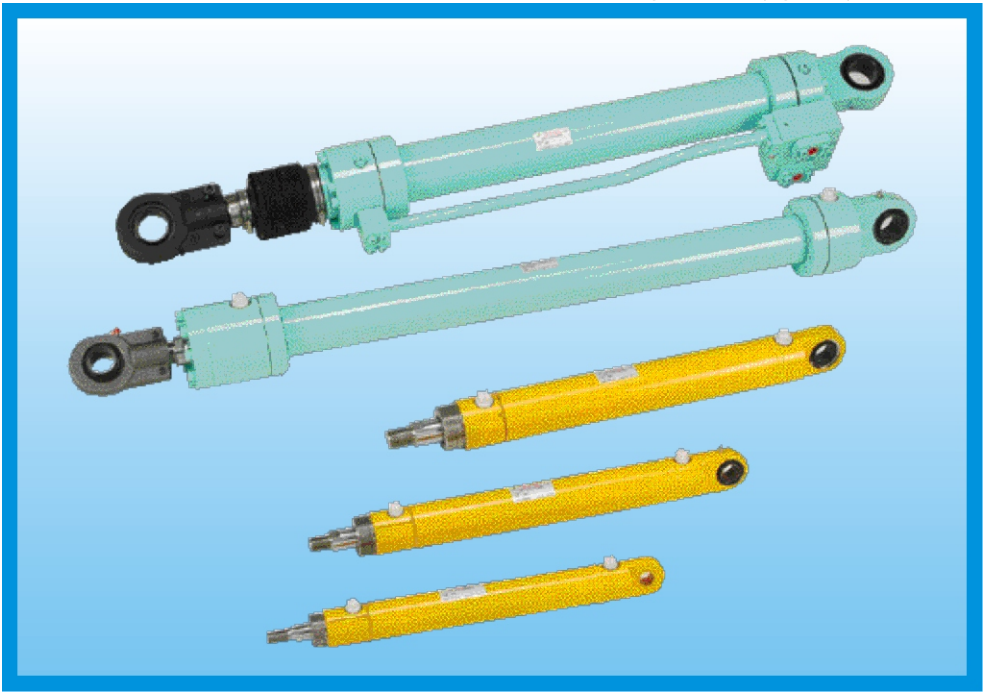
13 : ISO-6020/1 RD round cylinders

Suitable for vehicles and construction equipments

TÜV *ISO-9001 : 2000 quality certified*

■ meet ISO-6020/1 ■ bore(mm) : ϕ25～ϕ500 ■ working pressure(kgf/cm^2) :70 ,160



■■■ Index ■■■

1.RD features..... P13.2

2.RD theoretical force..... P13.3

3.RD installations..... P13.4

4.RD inlet spec..... P13.5

5.RD rod end connectors.....P13.6

6.RD rod end ball joints..... P13.7

7.RD order form.. ..... P13.8

8.RD external dimensions P13.9

GENTLE AUTOMATIC SOLUTION SDN BHD

No. 36 Jalan Industri USJ 1/13, Taman Perindustrian USJ 1, 47600 Subang Jaya, Selangor.

REL: 603-8023 7743 / 8743 FAX: 603-8023 9743

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Features

model		RD70		RD160	
working pressure		70kgf/cm^2(7MPa)		160kgf/cm^2(16MPa)	
test pressure		105kgf/cm^2(14MPa)		240kgf/cm^2(24MPa)	
temperature	regular	-10°～+80°C			
	Viton or FMP seal	-10°～+200°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 a load, if the cylinder's speed is over 500mm/sec, cushion devices should be considered. 2.If the cylinder's speed is much higher than 500mm/sec, reducing valves or requlators should be added. cushion selection：N:(or space)no cushion R：cushion on rod cover H：cushion on head cover B：cushion on both covers			
oil & seal	mineral oil (eg.：R68)	PU		NBR	FPM
		●		●	●
	water solutions	●		×	●
	soluble	●		×	●
	phosphated ester	×		×	●

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Theoretical force

bore (mm)	pressed piston area (cm^2)			output force (Kg)					
	push	pull		working pressure (kg/cm^2)			working pressure (kg/cm^2)		
		rod bore		push	rod bore		push	rod bore	
		C	B		C	B		C	B
25	4.9	2.9	2.4	343	203	168	784	464	384
32	8	5.5	4.2	560	385	294	1280	880	672
40	12.6	8.8	6.4	882	616	448	2016	1408	1024
50	19.6	13.4	9.4	1372	938	658	3136	2144	1504
63	31.2	21	15.3	2184	1470	1071	4992	3360	2448
80	50.3	34.4	25.7	3521	2408	1799	8048	5504	4112
100	78.5	54	47.4	5495	3780	3318	12560	8640	7584
125	122.7	91.6	66	8589	6412	4620	19632	14656	10560
160	201	144	130	14070	10080	9100	32160	23040	20800
200	314	243	216	21980	17010	15120	50240	38880	34560
250	491	393	368	34370	27510	25760	78560	62880	58880
320	804	681	603	56280	47670	42210	128640	108960	96480
400	1256	1055	942	87920	73850	65940	200960	168800	150720
500	1962	1648	1471	137340	115360	102970	313920	263680	235360

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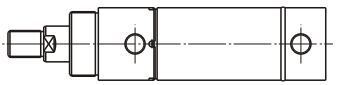
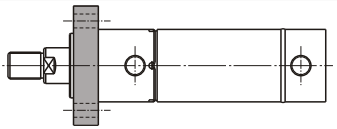
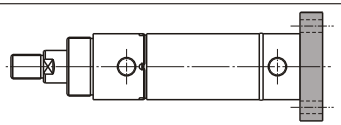
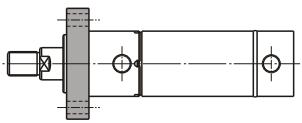
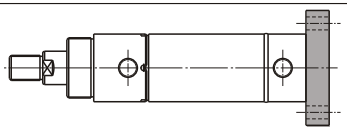
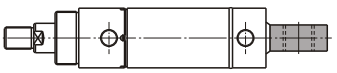
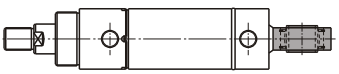
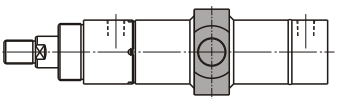
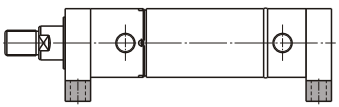
Mounting type

ISO notation	JIS notation	name	template	bore
	SD	basic		25,32,40,50,63 80,100,125,160,200 250,320,400500
MF1	FA	rod flange		25,32,40,50 63,80,100,125
MF2	FB	head flange		
MF3	FC	rod flange (round)		25,32,40,50,63 80,100,125,160,200 250,320,400,500
MF4	FD	head flange (round)		
MP3	CA	clevis (with bushing)		
MP5	CAI	clevis (with ball bearing)		
MT4	TC	intermediate trunnion		
MS2	LA	foot		25,32,40,50,63 80,100,125,160,200

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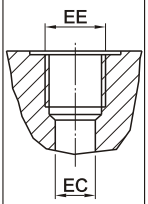
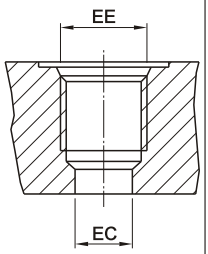
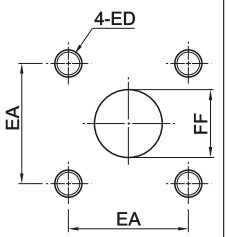
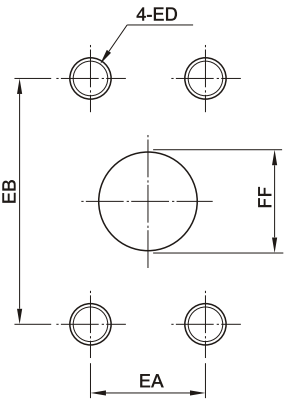
Port spec.

ISO spec.	ISO1179-1	ISO6149-1	ISO6164	ISO6162-1
name	G parallel	M straight	F square	MM regtangle
draw				

notation / bore	EE	EC	EE	EC	FF (max.)	EA	ED	FF -1.5 0	EA ±0.25	EB ±0.25	ED
25	G1/4	7.5	M14×1.5	7.5	—	—	—	—	—	—	—
32	G3/8	9	M18×1.5	11	—	—	—	—	—	—	—
40 50	G1/2	14	M22×1.5	14	—	—	—	—	—	—	—
63 80	G3/4	18	M27×2	18	15	29.7	M8×1.25	12	17.5	38.1	M8×12.5
100 125	G1	23	M33×2	23	20	35.4	M8×1.25	20	22.3	47.6	M10×1.5
160 200	G1 1/4	30	M42×2	30	25	43.8	M10×1.5	25	26.2	52.4	M10×1.5
250 320	G1 1/2	36	M48×2	36	32	51.6	M12×1.75	32	30.2	58.7	M10×1.5
400 500	—	—	M60×2	46	38	60.1	M16×2	38	35.7	69.9	M12×1.75

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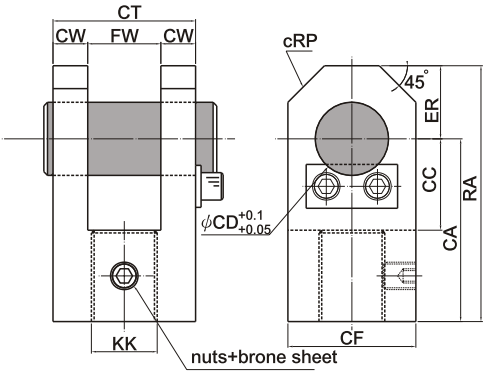
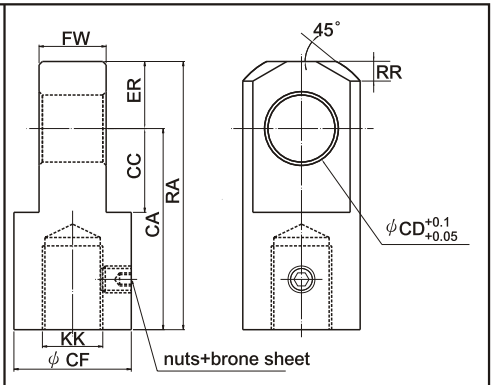
End connectors

(1)Y connector



(2)I connector



symbol / bore	KK		FW		CA		CC		RA		CF		CD	CT	ER	CW	RP	RP
	C rod	B rod	Y	I	Y	I	Y	I	Y	I	Y	I						
25	M12×1.25	M14×1.5			49	69	24	24	65	85	32	38	16	45	16	12.5	8	8
32	M14×1.5	M16×1.5	$^{+0.4}_{0}$ 20	$^{-0.1}_{-0.4}$ 20	49	69	24	24	65	85	32	38	16	45	16	12.5	8	8
40	M16×1.5	M20×1.5			49	69	24	24	65	85	32	38	16	45	16	12.5	8	8
50	M20×1.5	M27×2	$^{+0.4}_{+0}$ 25	$^{-0.1}_{-0.4}$ 25	60	80	35	30	80	100	40	44	20	55	20	15	10	10
63	M27×2	M33×2	$^{+0.4}_{+0}$ 30	$^{-0.1}_{-0.4}$ 30	75	105	40	45	105	135	60	60	31.5	63	30	16.5	15	15
80	M33×2	M42×2			75	105	40	45	105	135	60	60	31.5	63	30	16.5	15	15
100	M42×2	M48×2	$^{+0.4}_{+0}$ 40	$^{-0.1}_{-0.4}$ 40	100	120	50	50	140	160	70	70	40	78	40	19	20	20
125	M48×2	M64×3	$^{+0.4}_{+0}$ 63	$^{-0.1}_{-0.4}$ 63	180	180	70	65	230	230	100	100	50	126	50	31.5	25	25
160	M64×3	M80×3	$^{+0.6}_{+0}$ 80	$^{-0.1}_{-0.6}$ 80	240	240	100	90	310	310	140	140	71	160	70	40	35	35
200	M80×3	M100×3	$^{+0.6}_{+0}$ 125	$^{-0.1}_{-0.6}$ 125	210	210	115	115	300	300	180	180	90	225	90	50	45	45
250	M100×3	M125×4			245	245	125	125	345	345	200	200	100	251	100	63	50	50

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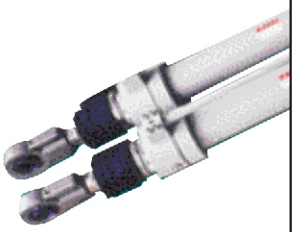
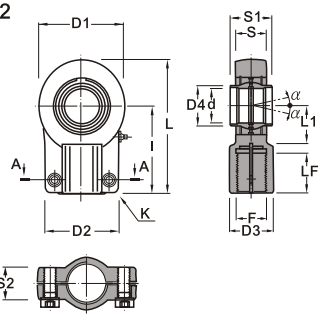
(3)Ball connectors

PR ...CE



meet DIN-24338A or ISO-6982



bore(mm)	25	32	40	50	63	80	100	125	160	200	250
applied model PR...CE	12CE 16CE	16CE 20CE	20CE 25CE	25CE 32CE	32CE 40CE	40CE 50CE	50CE 63CE	63CE 80CE	80CE 100CE	100CE 125CE	125CE 160CE

external dimensions

bore	symbol	F	d	S_1	α	l	L	D1	D2	D3	D4	S	S2	L1	LF
25	PR-12CE	M12×1.25	12	12	4°	38	54	32	32	16	15.5	11	15	14	17
	PR-16CE	M14×1.5	16	16	4°	44	64	40	40	21	20	13.8	15	20	19
32	PR-16CE	M14×1.5													
	PR-20CE	M16×1.5	20	20	4°	52	75	47	47	25	25	17.8	18.7	22	23
40	PR-20CE	M16×1.5													
	PR-25CE	M20×1.5	25	25	4°	65	96	58	54	30	30.5	21.9	19	27	29
50	PR-25CE	M20×1.5													
	PR-32CE	M27×2	32	32	4°	80	119	71	66	38	38	28	22	32	37
63	PR-32CE	M27×2													
	PR-40CE	M33×2	40	40	4°	97	146	90	80	47	46	33	26	41	46
80	PR-40CE	M33×2													
	PR-50CE	M42×2	50	50	4°	120	180	109	96	58	57	41	32	50	57
100	PR-50CE	M42×2													
	PR-63CE	M48×2	63	63	4°	140	212	132	114	70	71.5	53	38	62	64
125	PR-63CE	M48×2													
	PR-80CE	M64×3	80	80	4°	180	271	169	148	90	91	67	48	78	86
160	PR-80CE	M64×3													
	PR-100CE	M80×3	100	100	4°	210	323	211	178	110	113	85	62	98	96
200	PR-100CE	M80×3													
	PR-125CE	M100×3	125	125	4°	260	406	264	200	135	138	103	72	120	113
250	PR-125CE	M100×3													
	PR-160CE	M125×4	160	160	4°	310	488	326	250	165	177	130	82	150	126

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Order form

RD 70 — J — C — CA — 63 × 200 — B — Y — RC

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

RD：Round cylinders for construction mechinery		
❶	working pressure (kgf/cm^2)	(1)70 (2)160
❷	option	(1)J：with vitor(or FPM) seal (2)H：with bellow
❸	rod size	(1)space：C class standard for 70 kgf/cm^2 and B class standard for 160 kgf/cm^2 (2)B：C class rod is selected (3)B class rod is selected
❹	mounting type	(1)SD ：basic (2)MF1(FA) ：rod flange (3)MF2(FB) ：head flange (4)MF3(FC) ：rod round flange (5)MF4(FD) ：head round flange (6)MP3(CA) ：clevis (7)MP5(CA1)：clevis+ball joint (8)MT4(TC) ：intermediate trunnion (9)MS2(LA) ：foot
❺	bore(mm)	25,32,40,50,63,80,100,125,160,200,250,320,400,500
❻	stroke(mm)	bassed on oustomer's request
❼	cushion	(1)space：no cushion (2)B：cushions on both ends (3)R：cushion on rod cover (4)H：cushion on head cover covers dimensions are different when cushions are required.
❽	rod end connectors	(1)Y：Y connector (2)I：I connector (3)PRC...CE：ball joint(ISO-6982 or DIN-24338A)
❾	port position	(1)RC：taper (2)G：parallel (3)M：straight (4)F：square (5)MM：regtange

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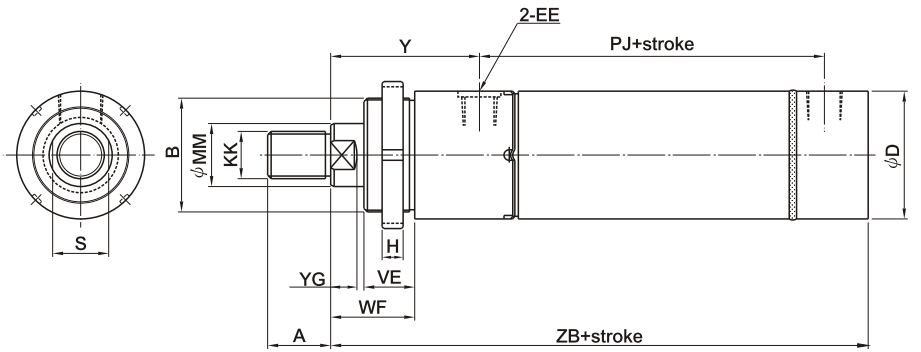
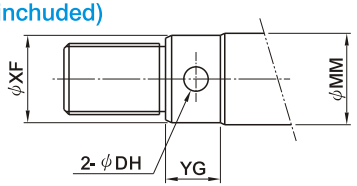
External dimensions

SD



● wrench dimension for rod size over 90 (inchuded)



notation / bore	MM		XF		DH	
	C	B	C	B	C	B
125	70	90	—	88	—	10
160	90	110	88	108	10	12
200	110	140	108	138	12	12
250	140	180	138	178	12	12
320	180	220	178	218	12	14
400	220	280	218	278	14	16
500	280	360	278	358	16	16

symbol / bore	rod (C class)			rod (B class)			B		D		EE	S		Y	VE	WF	PJ	ZB	YG		H
	MM	KK	A	MM	KK	A	C	B	C	B		C	B						C	B	
25	16	M12×1.25	16	18	M14×1.5	18	M30×1.5		35		RC1/8	14	16	58	15	28	77	150	12		7
32	18	M14×1.5	18	22	M16×1.5	22	M35×1.5		42		RC1/4	16	17	64	19	32	89	170	12		8
40	22	M16×1.5	22	28	M20×1.5	28	M45×1.5		55		RC3/8	17	23	71	19	32	97	190	12		10
50	28	M20×1.5	28	36	M27×2	36	M55×1.5		65			23	32	72	24	38	111	205	12		11
63	36	M27×2	36	45	M33×2	45	M65×2		76		RC1/2	32	39	82	29	45	117	224	12		12
80	45	M33×2	45	56	M42×2	56	M80×2		95			39	50	91	36	54	134	250	14		15
100	56	M42×2	56	70	M48×2	63	M100×2		114		RC3/4	50	64	108	37	57	162	300	16		18
125	70	M48×2	63	90	M64×3	85	M125×2		140	145		64	—	121	37	60	174	325	16	20	21
160	90	M64×3	85	110	M80×3	95	M160×3		178	185	RC1	—	—	143	41	66	191	370	20	20	25
200	110	M80×3	95	140	M100×3	112	M200×3		216	232		—	—	190	45	75	224	450	24	24	29
250	140	M100×3	112	180	M125×4	125	M240×4	M260×4	267	298	RC11/4	—	—	—	64	96	—	550	24	24	32
320	180	M125×4	125	220	M160×4	160	M320×4	M340×4	352	380		—	—	—	71	108	—	660	24	24	35
400	220	M160×4	160	280	M200×4	200	—	—	—	—	RC11/2	—	—	—	90	130	—	740	30	30	—
500	280	M200×4	200	360	M250×6	250	—	—	—	—		—	—	—	110	163	—	890	30	30	—

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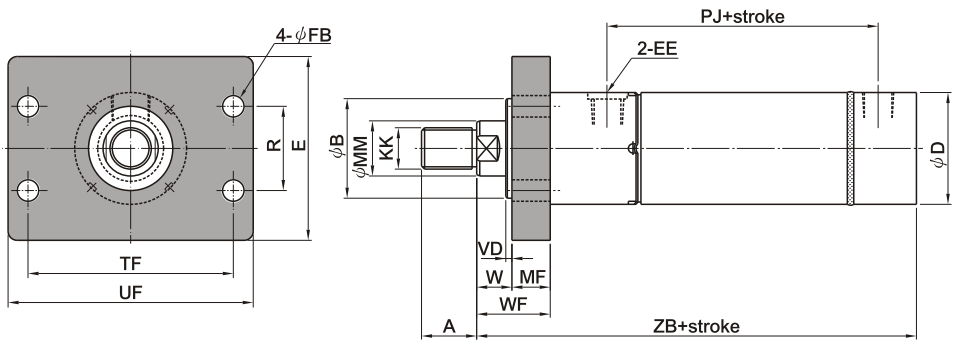
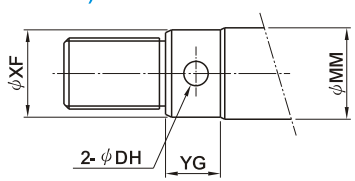
External dimensions

MF1(FA)



● wrench dimension for rod size over 90 (included)



bore \ notation	MM		XF		DH	
	C	B	C	B	C	B
125	70	90	—	88	—	10
160	90	110	88	108	10	12
200	110	140	108	138	12	12
250	140	180	138	178	12	12
320	180	220	178	218	12	14
400	220	280	218	278	14	16
500	280	360	278	358	16	16

bore \ symbol	rod (C class)			rod (B class)			B	D		EE	VD	MF	W	WF	FB	E	R	TF	UF	PJ	ZB
	MM	KK	A	MM	KK	A		C	B												
25	16	M12×1.25	16	18	M14×1.5	18	32	35		RC1/8	3	12	16	28	6.6	45	28	69	85	77	150
32	18	M14×1.5	18	22	M16×1.5	22	40	42		RC1/4	3	16	16	32	9	55	35	85	105	89	170
40	22	M16×1.5	22	28	M20×1.5	28	50	55		RC3/8	3	16	16	32	9	60	40	98	115	97	190
50	28	M20×1.5	28	36	M27×2	36	60	65			4	20	18	38	11	72	48	116	140	111	205
63	36	M27×2	36	45	M33×2	45	70	76		RC1/2	4	25	20	45	14	82	55	134	160	117	224
80	45	M33×2	45	56	M42×2	56	85	95			4	32	22	54	18	100	63	152	185	134	250
100	56	M42×2	56	70	M48×2	63	106	114		RC3/4	5	32	25	57	22	120	76	185	225	162	300
125	70	M48×2	63	90	M64×3	85	132	140	145		5	32	28	60	22	150	90	217	255	174	325

GENTLE AUTOMATIC SOLUTION SDN BHD
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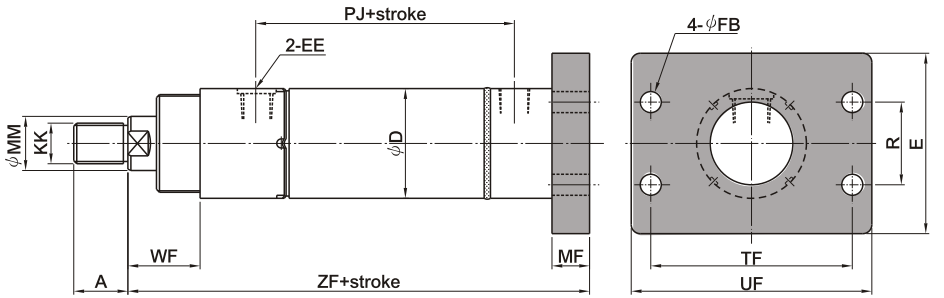
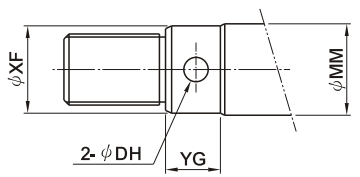
External dimensions

MF2(FB)



´ wrench dimension for rod size over 90 (included)



notation / bore	MM		XF		DH	
	C	B	C	B	C	B
125	70	90	—	88	—	10
160	90	110	88	108	10	12
200	110	140	108	138	12	12
250	140	180	138	178	12	12
320	180	220	178	218	12	14
400	220	280	218	278	14	16
500	280	360	278	358	16	16

symbol / bore	rod (C class)			rod (B class)			D		EE	MF	FB	R	E	TF	UF	WF	PJ	ZF
	MM	KK	A	MM	KK	A	C	B										
25	16	M12×1.25	16	18	M14×1.5	18	35		RC1/8	12	6.6	28	45	69	85	28	77	162
32	18	M14×1.5	18	22	M16×1.5	22	42		RC1/4	16	9	35	55	85	105	32	89	186
40	22	M16×1.5	22	28	M20×1.5	28	55		RC3/8	16	9	40	60	98	115	32	97	206
50	28	M20×1.5	28	36	M27×2	36	65			20	11	48	72	116	140	38	111	225
63	36	M27×2	36	45	M33×2	45	76		RC1/2	25	14	55	82	134	160	45	117	249
80	45	M33×2	45	56	M42×2	56	95			32	18	63	100	152	185	54	134	282
100	56	M42×2	56	70	M48×2	63	114		RC3/4	32	22	76	120	185	225	57	162	332
125	70	M48×2	63	90	M64×3	85	140	145		32	22	90	150	217	255	60	174	357

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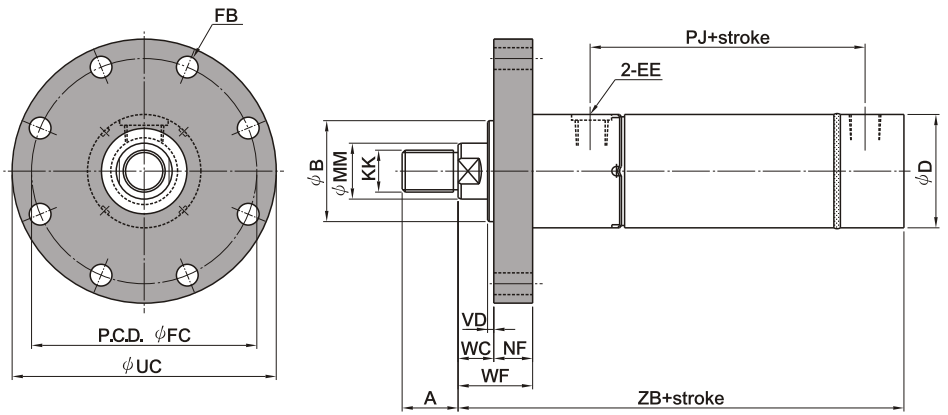
External dimensions

MF3(FC)



Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			B	D		EE	VD	NF	WC	WF	FB	FC	UC	PJ	ZB
	MM	KK	A	MM	KK	A		C	B										
25	16	M12×1.25	16	18	M14×1.5	18	32	35		RC1/8	3	12	16	28	8-φ6.6	75	90	77	150
32	18	M14×1.5	18	22	M16×1.5	22	40	42		RC1/4	3	16	16	32	8-φ9	92	110	89	170
40	22	M16×1.5	22	28	M20×1.5	28	50	55		RC3/8	3	16	16	32	8-φ9	106	125	97	190
50	28	M20×1.5	28	36	M27×2	36	60	65			4	20	18	38	8-φ11	126	150	111	205
63	36	M27×2	36	45	M33×2	45	70	76		RC1/2	4	25	20	45	8-φ14	145	170	117	224
80	45	M33×2	45	56	M42×2	56	85	95			4	32	22	54	8-φ18	165	195	134	250
100	56	M42×2	56	70	M48×2	63	106	114		RC3/4	5	32	25	57	8-φ22	200	240	162	300
125	70	M48×2	63	90	M64×3	85	132	140	145		5	32	28	60	8-φ22	235	275	174	325
160	90	M64×3	85	110	M80×3	95	160	178	185	RC1	5	36	30	66	8-φ22	280	320	191	370
200	110	M80×3	95	140	M100×3	112	200	216	232		5	40	35	75	8-φ26	340	385	224	450
250	140	M100×3	112	180	M125×4	125	250	267	298	RC11/4	8	56	40	96	8-φ33	420	490	—	550
320	180	M125×4	125	220	M160×4	160	320	352	380		8	63	45	108	8-φ39	520	600	—	660
400	220	M160×4	160	280	M200×4	200	400	—	—	RC11/2	10	80	50	130	8-φ45	640	730	—	740
500	280	M200×4	200	360	M250×6	250	500	—	—		10	100	63	163	12-φ45	720	810	—	890

GENTLE AUTOMATIC SOLUTION SDN BHD
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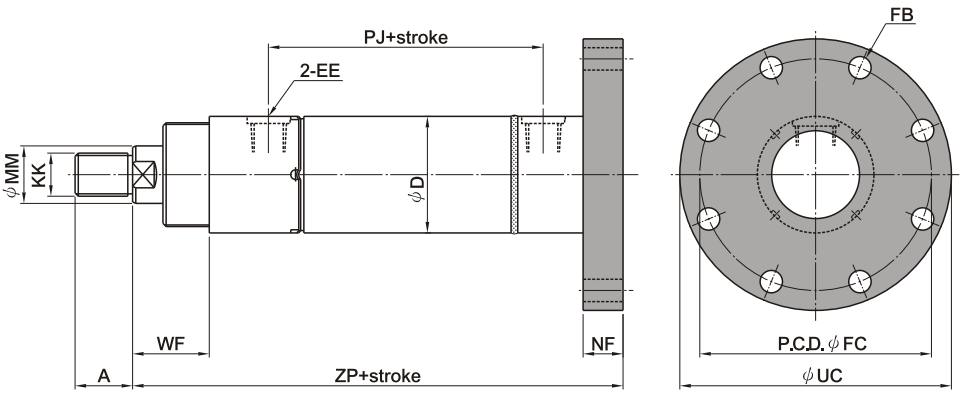
External dimensions

MF4(FD)



Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			D		EE	NF	WF	FB	FC	UC	PJ	ZP
	MM	KK	A	MM	KK	A	C	B								
25	16	M12×1.25	16	18	M14x1.5	18	35		RC1/8	12	28	8-φ6.6	75	90	77	162
32	18	M14×1.5	18	22	M16x1.5	22	42		RC1/4	16	32	8-φ9	92	110	89	186
40	22	M16×1.5	22	28	M20x1.5	28	55		RC3/8	16	32	8-φ9	106	125	97	206
50	28	M20×1.5	28	36	M27×2	36	65			20	38	8-φ11	126	150	111	225
63	36	M27×2	36	45	M33×2	45	76		RC1/2	25	45	8-φ14	145	170	117	249
80	45	M33×2	45	56	M42×2	56	95			32	54	8-φ18	165	195	134	282
100	56	M42×2	56	70	M48×2	63	114		RC3/4	32	57	8-φ22	200	240	162	332
125	70	M48×2	63	90	M64×3	85	140	145		32	60	8-φ22	235	275	174	357
160	90	M64×3	85	110	M80×3	95	178	185	RC1	36	66	8-φ22	280	320	191	406
200	110	M80×3	95	140	M100×3	112	216	232		40	75	8-φ26	340	385	224	490
250	140	M100×3	112	180	M125×4	125	267	298	RC11/4	56	96	8-φ33	420	490	—	606
320	180	M125×4	125	220	M160×4	160	352	380		63	108	8-φ39	520	600	—	723
400	220	M160×4	160	280	M200×4	200	—	—	RC11/2	80	130	8-φ45	640	730	—	820
500	280	M200×4	200	360	M250×6	250	—	—		100	163	12-φ45	720	810	—	990

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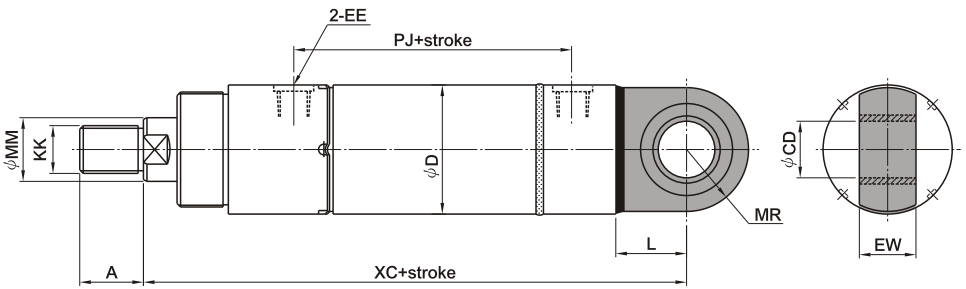
External dimensions

MP3(CA)



Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			D		EE	L	CD	EW	MR	PJ	XC
	MM	KK	A	MM	KK	A	C	B							
25	16	M12×1.25	16	18	M14×1.5	18	35		RC1/8	16	12	12	16	77	178
32	18	M14×1.5	18	22	M16×1.5	22	42		RC1/4	20	16	16	20	89	206
40	22	M16×1.5	22	28	M20×1.5	28	55		RC3/8	25	20	20	25	97	231
50	28	M20×1.5	28	36	M27×2	36	65			32	25	25	28	111	257
63	36	M27×2	36	45	M33×2	45	76		RC1/2	40	32	32	35	117	289
80	45	M33×2	45	56	M42×2	56	95			50	40	40	44.5	134	332
100	56	M42×2	56	70	M48×2	63	114		RC3/4	63	50	50	54	162	395
125	70	M48×2	63	90	M64×3	85	140	145		71	63	63	66	174	428
160	90	M64×3	85	110	M80×3	95	178	185	RC1	90	80	80	84	191	505
200	110	M80×3	95	140	M100×3	112	216	232		112	100	100	105	224	615
250	140	M100×3	112	180	M125×4	125	267	298	RC11/4	160	125	125	131	—	773
320	180	M125×4	125	220	M160×4	160	352	380		200	160	160	163	—	930
400	220	M160×4	160	280	M200×4	200	—	—	RC11/2	250	200	200	210	—	990
500	280	M200×4	200	360	M250×6	250	—	—		320	250	250	270	—	1210

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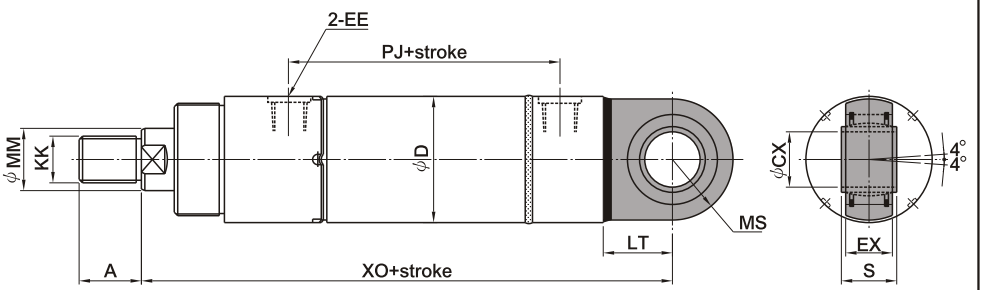
External dimensions

MP5(CA1)



Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			D		EE	LT	CX	EX	MS	PJ	XO	S
	MM	KK	A	MM	KK	A	C	B								
25	16	M12×1.25	16	18	M14×1.5	18	35		RC1/8	16	12	12	16	77	178	12
32	18	M14×1.5	18	22	M16×1.5	22	42		RC1/4	20	16	16	20	89	206	16
40	22	M16×1.5	22	28	M20×1.5	28	55		RC3/8	25	20	20	25	97	231	20
50	28	M20×1.5	28	36	M27×2	36	65			32	25	23	28	111	257	25
63	36	M27×2	36	45	M33×2	45	76		RC1/2	40	32	28	35	117	289	32
80	45	M33×2	45	56	M42×2	56	95			50	40	33	44.5	134	332	40
100	56	M42×2	56	70	M48×2	63	114		RC3/4	63	50	41	54	162	395	50
125	70	M48×2	63	90	M64×3	85	140	145		71	63	53	66	174	428	63
160	90	M64×3	85	110	M80×3	95	178	185	RC1	90	80	67	84	191	505	80
200	110	M80×3	95	140	M100×3	112	216	232		112	100	85	105	224	615	100
250	140	M100×3	112	180	M125×4	125	267	298	RC1 1/4	160	125	103	131	—	773	125
320	180	M125×4	125	220	M160×4	160	352	380		200	160	130	163	—	930	160
400	220	M160×4	160	280	M200×4	200	—	—	RC1 1/2	250	200	162	210	—	990	200
500	280	M200×4	200	360	M250×6	250	—	—		320	250	210	270	—	1210	250

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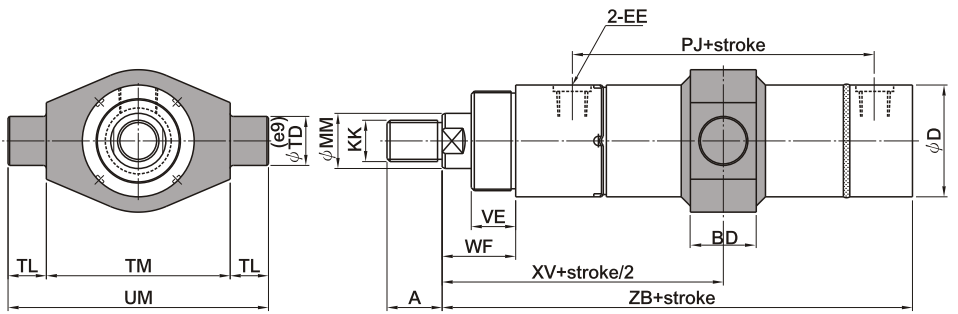
External dimensions

MT4(TC)



Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			D		EE	VE	WF	BD	TD	TM	TL	UM	PJ	XV	ZB
	MM	KK	A	MM	KK	A	C	B											
25	16	M12×1.25	16	18	M14×1.5	18	35		RC1/8	15	28	18	12	63	10	83	77	90	150
32	18	M14×1.5	18	22	M16×1.5	22	42		RC1/4	19	32	22	16	75	12	99	89	106	170
40	22	M16×1.5	22	28	M20×1.5	28	55		RC3/8	19	32	28	20	90	16	122	97	116	190
50	28	M20×1.5	28	36	M27×2	36	65			24	38	33	25	105	20	145	111	123	205
63	36	M27×2	36	45	M33×2	45	76		RC1/2	29	45	43	32	120	25	170	117	140	224
80	45	M33×2	45	56	M42×2	56	95			36	54	53	40	135	32	199	134	159	250
100	56	M42×2	56	70	M48×2	63	114		RC3/4	37	57	58	50	160	40	240	162	182	300
125	70	M48×2	63	90	M64×3	85	140	145		37	60	78	63	195	50	295	174	197	325
160	90	M64×3	85	110	M80×3	95	178	185	RC1	41	66	98	80	240	63	366	191	231	370
200	110	M80×3	95	140	M100×3	112	216	232		45	75	117	100	295	80	455	224	288	450
250	140	M100×3	112	180	M125×4	125	267	298	RC11/4	64	96	148	125	370	100	570	—	—	550
320	180	M125×4	125	220	M160×4	160	352	380		71	108	186	160	470	125	720	—	—	660
400	220	M160×4	160	280	M200×4	200	—	—	RC11/2	90	130	230	200	570	160	890	—	—	740
500	280	M200×4	200	360	M250×6	250	—	—		110	163	280	250	700	250	1200	—	—	890

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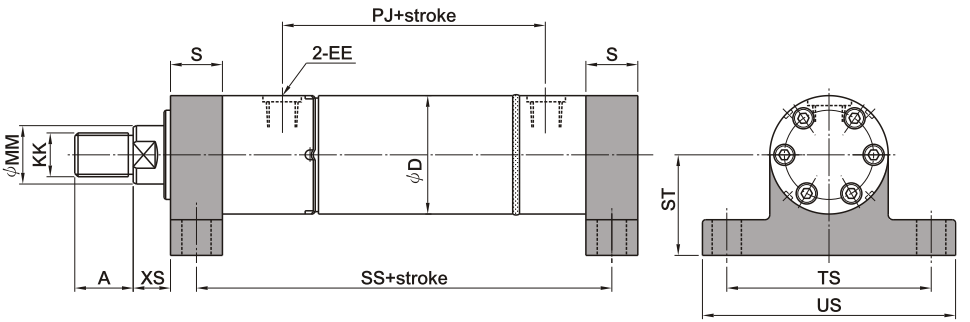
External dimensions

■MS2(LA)



■ Wrench dimension for rod size over 90 (included) (see SD P13.9)

symbol / bore	rod (C class)			rod (B class)			EE	S	XS	ST	SB	TS	US	PJ	SS
	MM	KK	A	MM	KK	A									
25	16	M12×1.25	16	18	M14×1.5	18	RC1/8	20	18	32	9	75	92	77	142
32	18	M14×1.5	18	22	M16×1.5	22	RC1/4	25	19.5	38	11	90	110	89	163
40	22	M16×1.5	22	28	M20×1.5	28	RC3/8	25	19.5	43	11	100	120	97	183
50	28	M20×1.5	28	36	M27×2	36		32	22	52	14	120	145	111	199
63	36	M27×2	36	45	M33×2	45	RC1/2	32	29	62	18	150	180	117	211
80	45	M33×2	45	56	M42×2	56		40	34	70	22	170	210	134	236
100	56	M42×2	56	70	M48×2	63	RC3/4	50	32	82	26	205	250	162	293
125	70	M48×2	63	90	M64×3	85		56	32	100	33	245	300	174	321
160	90	M64×3	85	110	M80×3	95	RC1	60	36	119	33	295	350	191	364
200	110	M80×3	95	140	M100×3	112		72	39	145	39	350	415	224	447

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email: sales@gentle.com.my