

Order form

HC **A** - **70** - **H** - **FA** - **C** - **100** × **200** - **B** - **Y** - **25mm** - **A** - **B** - **1**
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

HC : HC Tie-rod cylinders

①	type	(1) A : double acting (2) C : double rods (3) D : double rods with stroke alignment
②	working pressure	(1)70 : 70kgf/cm ² (2)140 : 140kgf/cm ²
③	options	(1)H : with bellow (2)J : with heat/erosion proof (note : "space" if not be used)
④	mounting type	SD,FA,FB,CA,CB,LA,LB,TA,TC
⑤	rod size	(1)C : C class (2)B : B class note : 1.standard : HC-70+C class rod. 2.standard : HC-140+B class rod. 3.Please specify when HC-70+B class rod or HC-140+C class rod.
⑥	tube bore(mm)	32,40,50,63,80,100,125,150,180,200,224,250
⑦	stroke(mm)	max. stroke refer to P2.4
⑧	cushion	(1)space : no cushion (2)B : cushions on both ends (3)R : cushion on rod cover (4)H : cushion on head cover
⑨	connectors	(1)Y connector (2)I connector
⑩	stroke alignment	only forward alignment and aligned length ≤ stroke length
⑪	port position	refer to p2.5
⑫	cushion position	refer to p2.5
⑬	packing material	(1)1 : (PU)(standard usage) (2)2 : (NBR) (3)3 : (FPM)

GENTLE AUTOMATIC SOLUTION SDN BHD

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

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email:sales@gentle.com.my / gpauto@tm.net.my

External dimensions

●HCA-SD double acting, basic														●HCC-SD double rods, basic																																																																																																																																																																																																																																																																																																																																																																																																																				
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1/4	231	241	225	250	112	M100×2.0	140	140	M130×2.0	190	170	325	111	105	75	68	58	85	161	161	39	-	-	40	30	M42×1.5	1 1/4	231	241	250	<table border="1"> <thead> <tr> <th>Symbol bore</th> <th>DH</th> <th>XF</th> <th>YG</th> </tr> </thead> <tbody> <tr><td>80</td><td>φ 10</td><td>79</td><td>20</td></tr> <tr><td>85</td><td>φ 10</td><td>84</td><td>20</td></tr> <tr><td>90</td><td>φ 10</td><td>89</td><td>20</td></tr> <tr><td>100</td><td>φ 12</td><td>99</td><td>24</td></tr> <tr><td>112</td><td>φ 12</td><td>111</td><td>24</td></tr> <tr><td>125</td><td>φ 12</td><td>124</td><td>24</td></tr> <tr><td>140</td><td>φ 12</td><td>139</td><td>24</td></tr> </tbody> </table>														Symbol bore	DH	XF	YG	80	φ 10	79	20	85	φ 10	84	20	90	φ 10	89	20	100	φ 12	99	24	112	φ 12	111	24	125	φ 12	124	24	140	φ 12	139	24
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Tie-rod hydraulic cylinders

GENTLE AUTOMATIC SOLUTION SDN BHD

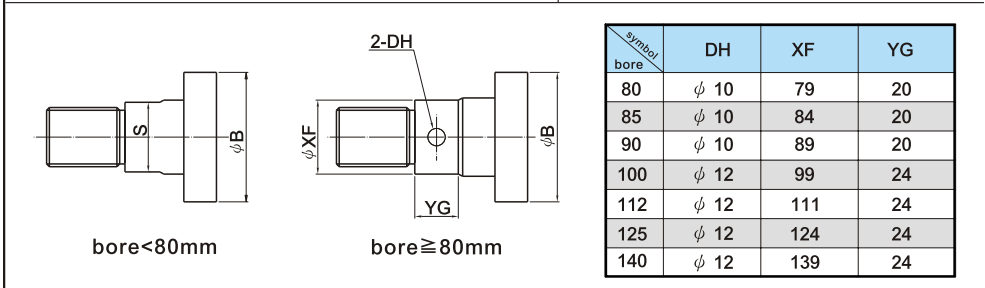
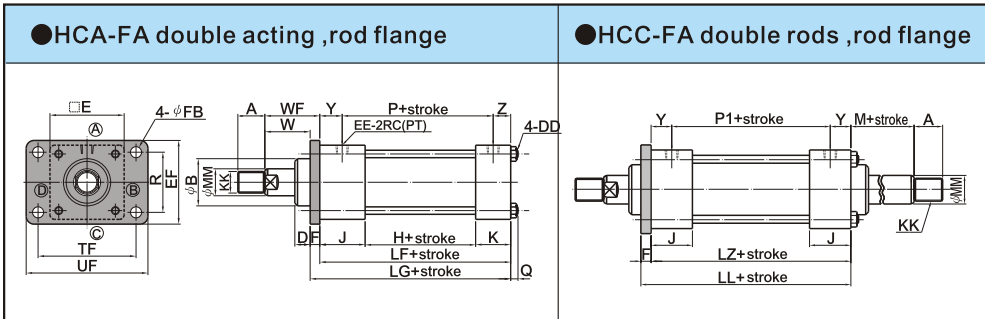
No.36, Jalan Industri USJ 1/13, Taman Perindustrian USJ 1, 47600 Subang Jaya, Selangor.

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External dimensions

Tie-rod hydraulic cylinders



symbol bore	bore C class			bore B class			D		E	F		H	J	K	M	P	P1	Q	R	
	MM	KK	A	MM	KK	A	B	C		B	C									B
32	16	M12×P1.5	18	20	M16×P1.5	25	35	14	14	55	11	11	50	36	26	30	80	84	10	40
40	20	M16×P1.5	25	25	M20×P1.5	30	40	14	14	65	11	11	50	36	26	30	78	80	10	46
50	25	M20×P1.5	30	30	M24×P1.5	35	46	14	10	75	14	18	58	42	34	33	88	88	10	58
63	30	M24×P1.5	35	35	M30×P1.5	45	55	14	9	90	15	20	58	42	34	34	88	88	12	65
80	35	M30×P1.5	45	40	M36×P1.5	55	65	14	8	110	18	24	62	46	40	37	98	98	15	87
100	40	M36×P1.5	60	56	M48×P1.5	70	80	14	6	135	20	28	74	50	40	39	114	114	17	109
125	56	M48×P1.5	75	70	M64×P2.0	90	95	17	8	165	24	33	83	58	48	46	123	123	20	130
150	65	M60×P2.0	85	85	M76×P2.0	110	110	19	8	196	28	39	89	58	48	52	129	129	24	155
180	80	M72×P2.0	110	100	M95×P2.0	130	125	23	10	220	33	46	95	68	58	61	151	151	26	185
200	90	M80×P2.0	120	112	M100×P2.0	150	140	24	10	245	37	51	100	68	58	66	158	158	27	206
224	100	M95×P2.0	130	125	M120×P2.0	170	150	27	10	292	41	58	105	68	58	78	161	161	34	230
250	112	M100×P2.0	140	140	M130×P2.0	190	170	29	10	325	46	65	105	68	58	85	161	161	39	250

symbol bore	S		W	Y	Z	DD	EE	EF	FB	LL		LG		LF	LZ	TF	UF	WF	
	C	B								C	B	C	B					C	B
32	14	17	30	19	14	M10×P1.5	3/8	63	11	133	133	123	123	112	122	88	109	41	41
40	17	21	30	21	13	M10×P1.5	3/8	69	11	133	133	123	123	112	122	95	118	41	41
50	21	27	30	27	19	M10×P1.5	3/8	85	14	156	160	148	152	134	142	115	145	44	48
63	27	32	35	27	19	M12×P1.5	1/2	98	18	157	162	149	154	134	142	132	165	50	55
80	32	37	35	28	22	M16×P1.5	1/2	118	18	172	178	166	172	148	154	155	190	53	59
100	37	51	40	30	20	M18×P1.5	3/4	150	22	194	202	184	192	164	174	190	230	60	68
125	50	65	45	38	28	M22×P1.5	3/4	175	26	223	232	213	222	189	199	224	272	69	78
150	62	—	50	38	28	M26×P1.5	3/4	210	30	233	244	223	234	195	205	270	320	78	89
180	—	—	55	40	30	M30×P1.5	1	243	33	264	277	254	267	221	231	315	375	88	101
200	—	—	55	38	30	M33×P1.5	1	272	36	273	287	263	277	226	236	355	425	92	106
224	—	—	60	40	30	M39×P1.5	1 1/4	300	42	282	299	272	289	231	241	395	475	101	118
250	—	—	65	40	30	M42×P1.5	1 1/4	335	45	287	306	277	296	231	241	425	515	111	130

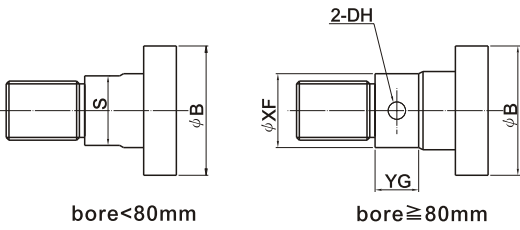
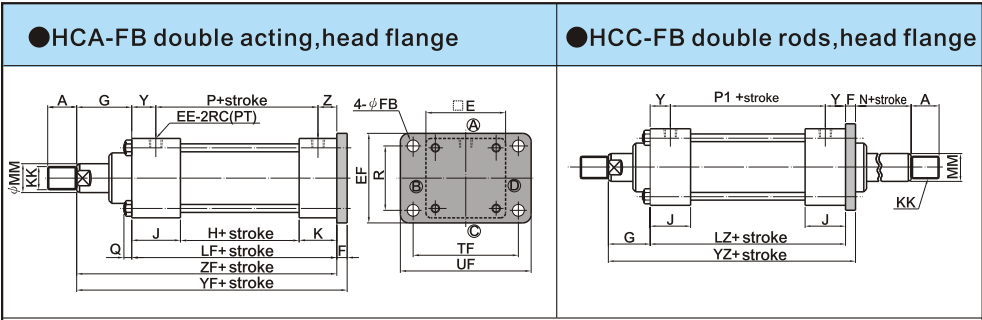
GENTLE AUTOMATIC SOLUTION SDN BHD

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

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email:sales@gentle.com.my / gpauto@tm.net.my

External dimensions



Symbol bore	DH	XF	YG
80	ϕ 10	79	20
85	ϕ 10	84	20
90	ϕ 10	89	20
100	ϕ 12	99	24
112	ϕ 12	111	24
125	ϕ 12	124	24
140	ϕ 12	139	24

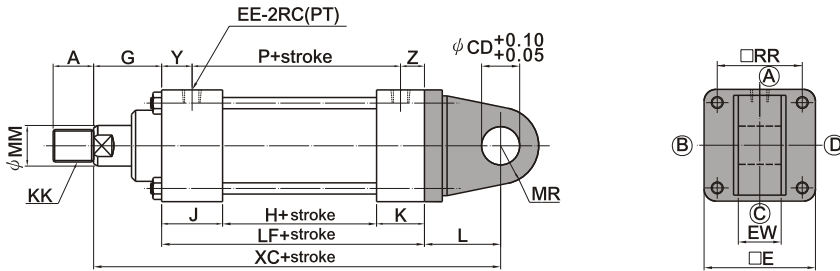
Symbol bore	bore C class			bore B class			E	F		G	H	J	K	N		P	P1	Q	R
	MM	KK	A	MM	KK	A		C	B					C	B				
32	16	M12×P1.5	18	20	M16×P1.5	25	55	11	11	41	50	36	26	19	19	80	84	10	40
40	20	M16×P1.5	25	25	M20×P1.5	30	65	11	11	41	50	36	26	19	19	78	80	10	46
50	25	M20×P1.5	30	30	M24×P1.5	35	75	14	18	44	58	42	34	19	15	88	88	10	58
63	30	M24×P1.5	35	35	M30×P1.5	45	90	15	20	50	58	42	34	19	14	88	88	12	65
80	35	M30×P1.5	45	40	M36×P1.5	55	110	18	24	53	62	46	40	19	13	98	98	15	87
100	40	M36×P1.5	60	56	M48×P1.5	70	135	20	28	60	74	50	40	19	11	114	114	17	109
125	56	M48×P1.5	75	70	M64×P2.0	90	165	24	33	69	83	58	48	22	13	123	123	20	130
150	65	M60×P2.0	85	85	M76×P2.0	110	196	28	39	78	89	58	48	24	13	129	129	24	155
180	80	M72×P2.0	110	100	M95×P2.0	130	220	33	46	88	95	68	58	28	15	151	151	26	185
200	90	M80×P2.0	120	112	M100×P2.0	150	245	37	51	92	100	68	58	29	15	158	158	27	206
224	100	M95×P2.0	130	125	M120×P2.0	170	292	41	58	101	105	68	58	37	20	161	161	34	230
250	112	M100×P2.0	140	140	M130×P2.0	190	325	46	65	111	105	68	58	39	20	161	161	39	250

Symbol bore	S		Y	Z	EE	EF	FB	LF	LZ	TF	UF	YF		YZ		ZF
	C	B										C	B	C	B	
32	14	17	19	14	3/8	63	11	112	122	88	109	164	164	174	174	153
40	17	21	21	13	3/8	69	11	112	122	95	118	164	164	174	174	153
50	21	27	27	19	3/8	85	14	134	142	115	145	192	196	200	204	178
63	27	32	27	19	1/2	98	18	134	142	132	165	199	204	207	212	184
80	32	37	28	22	1/2	118	18	148	154	155	190	219	225	225	231	201
100	37	51	30	20	3/4	150	22	164	174	190	230	244	252	254	262	224
125	50	65	38	28	3/4	175	26	189	199	224	272	282	291	292	301	258
150	62	—	38	28	3/4	210	30	195	205	270	320	301	312	311	322	273
180	—	—	40	30	1	243	33	221	231	315	375	342	355	352	365	309
200	—	—	38	30	1	272	36	226	236	355	425	355	369	365	379	318
224	—	—	40	30	1 1/4	300	42	231	241	395	475	373	390	383	400	332
250	—	—	40	30	1 1/4	335	45	231	241	425	515	388	407	398	417	342

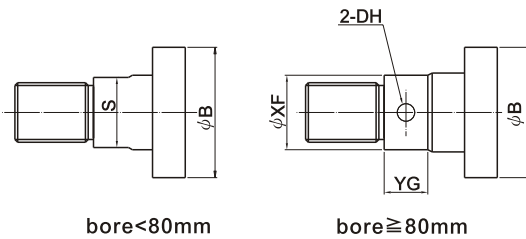
External dimensions

Tie-rod hydraulic cylinders

●HCA-CA double acting, clevis



EW tolerance : 1. φ 32~ φ 100 :-0.10~-0.40
2. φ 125~ φ 280 :-0.1~-0.60



Symbol bore	DH	XF	YG
	80	φ 10	79
85	φ 10	84	20
90	φ 10	89	20
100	φ 12	99	24
112	φ 12	111	24
125	φ 12	124	24
140	φ 12	139	24

Symbol bore	bore C class			bore B class			E	G	H	J	K	L	P	S		Y	Z	CD	EE	EW	LF	MR	RR	XC
	MM	KK	A	MM	KK	A								C	B									
32	16	M12×P1.5	18	20	M16×P1.5	25	55	41	50	36	26	38	80	14	17	19	14	16	3/8	25	112	16	40	191
40	20	M16×P1.5	25	25	M20×P1.5	30	65	41	50	36	26	38	78	17	21	21	13	16	3/8	25	112	16	45	191
50	25	M20×P1.5	30	30	M24×P1.5	35	75	44	58	42	34	45	88	21	27	27	19	20	3/8	31.5	134	20	52	223
63	30	M24×P1.5	35	35	M30×P1.5	45	90	50	58	42	34	63	88	27	32	27	19	31.5	1/2	40	134	31.5	63	247
80	35	M30×P1.5	45	40	M36×P1.5	55	110	53	62	46	40	72	98	32	37	28	22	31.5	1/2	40	148	31.5	80	273
100	40	M36×P1.5	60	56	M48×P1.5	70	135	60	74	50	40	84	114	37	51	30	20	40	3/4	50	164	40	102	308
125	56	M48×P1.5	75	70	M64×P2.0	90	165	69	83	58	48	100	123	50	65	38	28	50	3/4	63	189	50	122	358
150	65	M60×P2.0	85	85	M76×P2.0	110	196	78	89	58	48	122	129	62	—	38	28	63	3/4	80	195	63	148	395
180	80	M72×P2.0	110	100	M95×P2.0	130	220	88	95	68	58	150	151	—	—	40	30	80	1	100	221	80	168	459
200	90	M80×P2.0	120	112	M100×P2.0	150	245	92	100	68	58	170	158	—	—	38	30	90	1	125	226	90	190	488
224	100	M95×P2.0	130	125	M120×P2.0	170	292	101	105	68	58	185	161	—	—	40	30	100	1 1/4	125	231	100	225	517
250	112	M100×P2.0	140	140	M130×P2.0	190	325	111	105	68	58	185	161	—	—	40	30	100	1 1/4	125	231	100	250	527

GENTLE AUTOMATIC SOLUTION SDN BHD

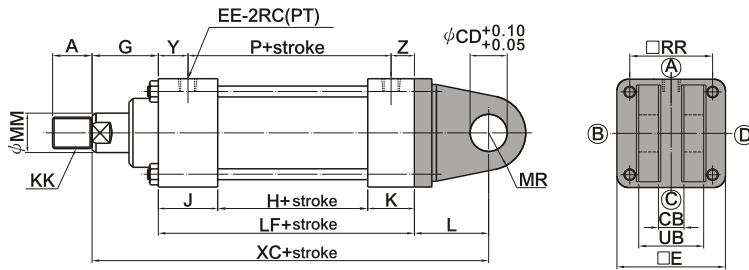
No.36, Jalan Industri USJ 1/13, Taman Perindustrian USJ 1, 47600 Subang Jaya, Selangor.

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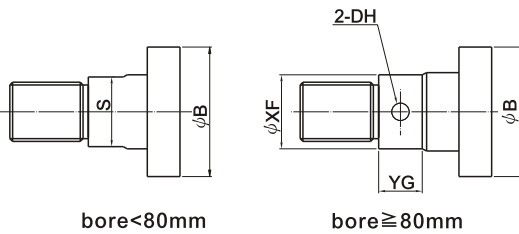
email:sales@gentle.com.my / gpauto@tm.net.my

External dimensions

● HCA-CB double acting, dual clevis



CB tolerance :
 1. φ 32~φ 125: +0.10~+0.40
 2. φ 150~φ 250: +0.10~+0.60



Symbol	DH	XF	YG
bore 80	φ 10	79	20
85	φ 10	84	20
90	φ 10	89	20
100	φ 12	99	24
112	φ 12	111	24
125	φ 12	124	24
140	φ 12	139	24

Symbol	bore C class			bore B class			E	G	H	J	K	L	P	S		Y	Z	CB	CD	EE	LF	MR	RR	UB	XC
	MM	KK	A	MM	KK	A								C	B										
32	16	M12×P1.5	18	20	M16×P1.5	25	55	41	50	36	26	38	80	14	17	19	14	25	16	3/8	112	16	40	50	191
40	20	M16×P1.5	25	25	M20×P1.5	30	65	41	50	36	26	38	78	17	21	21	13	25	16	3/8	112	16	45	50	191
50	25	M20×P1.5	30	30	M24×P1.5	35	75	44	58	42	34	45	88	21	27	27	19	31.5	20	3/8	134	20	52	63.5	223
63	30	M24×P1.5	35	35	M30×P1.5	45	90	50	58	42	34	63	88	27	32	27	19	40	31.5	1/2	134	31.5	63	80	247
80	35	M30×P1.5	45	40	M36×P1.5	55	110	53	62	46	40	72	98	32	37	28	22	40	31.5	1/2	148	31.5	80	80	273
100	40	M36×P1.5	60	56	M48×P1.5	70	135	60	74	50	40	84	114	37	51	30	20	50	40	3/4	164	40	102	100	308
125	56	M48×P1.5	75	70	M64×P2.0	90	165	69	83	58	48	100	123	50	65	38	28	63	50	3/4	189	50	122	126	358
150	65	M60×P2.0	85	85	M76×P2.0	110	196	78	89	58	48	122	129	62	—	38	28	80	63	3/4	195	63	148	160	395
180	80	M72×P2.0	110	100	M95×P2.0	130	220	88	95	68	58	150	151	—	—	40	30	100	80	1	221	80	168	200	459
200	90	M80×P2.0	120	112	M100×P2.0	150	245	92	100	68	58	170	158	—	—	38	30	125	90	1	226	90	190	225	488
224	100	M95×P2.0	130	125	M120×P2.0	170	292	101	105	68	58	185	161	—	—	40	30	125	100	1 1/4	231	100	225	251	517
250	112	M100×P2.0	140	140	M130×P2.0	190	325	111	105	68	58	185	161	—	—	40	30	125	100	1 1/4	231	100	250	251	527

GENTLE AUTOMATIC SOLUTION SDN BHD

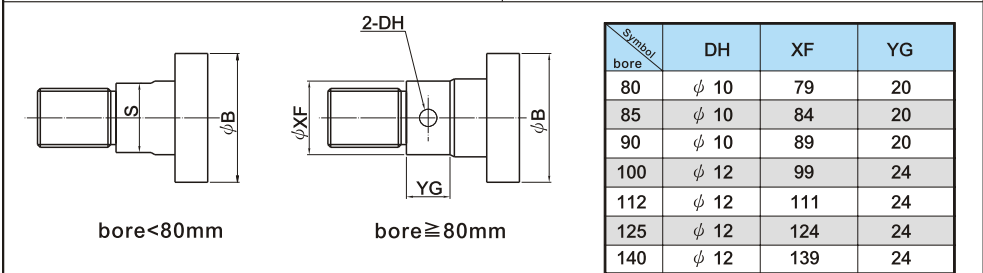
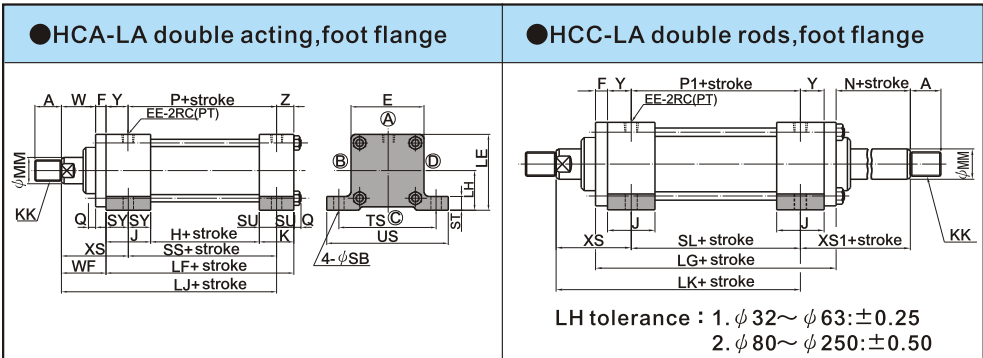
No.36, Jalan Industri USJ 1/13, Taman Perindustrian USJ 1, 47600 Subang Jaya, Selangor.

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External dimensions

Tie-rod hydraulic cylinders



Symbol bore	bore C class			bore B class					E	F	H	J	K	N	P	P1	Q	S		
	MM	KK	A	MM	KK	A	C	B										17		
32	16	M12×P1.5	18	20	M16×P1.5	25	55	11	50	36	26	19	80	84	10	14	17			
40	20	M16×P1.5	25	25	M20×P1.5	30	65	11	50	36	26	19	78	80	10	17	21			
50	25	M20×P1.5	30	30	M24×P1.5	35	75	14	58	42	34	19	88	88	10	21	27			
63	30	M24×P1.5	35	35	M30×P1.5	45	90	15	58	42	34	19	88	88	12	27	32			
80	35	M30×P1.5	45	40	M36×P1.5	55	110	18	62	46	40	19	98	98	15	32	37			
100	40	M36×P1.5	60	56	M48×P1.5	70	135	20	74	50	40	19	114	114	17	37	51			
125	56	M48×P1.5	75	70	M64×P2.0	90	165	24	83	58	48	22	123	123	20	50	65			
150	65	M60×P2.0	85	85	M76×P2.0	110	196	28	89	58	48	24	129	129	24	62	—			
180	80	M72×P2.0	110	100	M95×P2.0	130	220	33	95	68	58	28	151	151	26	—	—			
200	90	M80×P2.0	120	112	M100×P2.0	150	245	37	100	68	58	29	158	158	27	—	—			
224	100	M95×P2.0	130	125	M120×P2.0	170	292	41	105	68	58	37	161	161	34	—	—			
250	112	M100×P2.0	140	140	M130×P2.0	190	325	46	105	68	58	39	161	161	39	—	—			

Symbol bore	Y	Z	EE	LE	LF	LG	LH	LK	LJ	SB	SL	SS	ST	SU	SY	TS	US	W	WF	XS	XS1
32	19	14	3/8	62.5	112	144	35	145	140	11	86	81	14	13	18	88	109	30	41	59	48
40	21	13	3/8	70	112	144	37.5	145	140	11	86	81	14	13	18	95	118	30	41	59	48
50	27	19	3/8	82.5	134	170	45	165	161	14	100	96	17	17	21	115	145	30	44	65	54
63	27	19	1/2	95	134	172	50	171	167	18	100	96	19	17	21	132	165	35	50	71	55
80	28	22	1/2	115	148	190	60	184	181	18	108	105	25	20	23	155	190	35	53	76	60
100	30	20	3/4	138.5	164	214	71	209	204	22	124	119	27	20	25	190	230	40	60	85	64
125	38	28	3/4	167.5	189	247	85	239	234	26	141	136	32	24	29	224	272	45	69	98	75
150	38	28	3/4	204	195	261	106	254	249	30	147	142	37	24	29	270	320	50	78	107	81
180	40	30	1	242.5	221	297	125	285	280	33	163	158	47	29	34	315	375	55	88	122	95
200	38	30	1	271	226	308	140	294	289	36	168	163	52	29	34	355	425	55	92	126	100
224	40	30	1 1/4	296	231	323	150	308	303	42	173	168	52	29	34	395	475	60	101	135	112
250	40	30	1 1/4	332.5	231	333	170	318	313	45	173	168	57	29	34	425	515	65	111	145	119

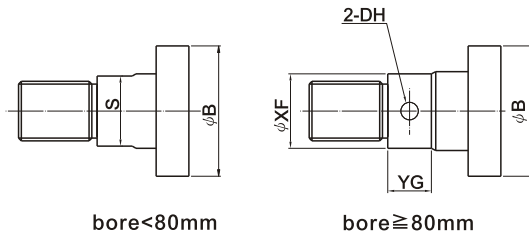
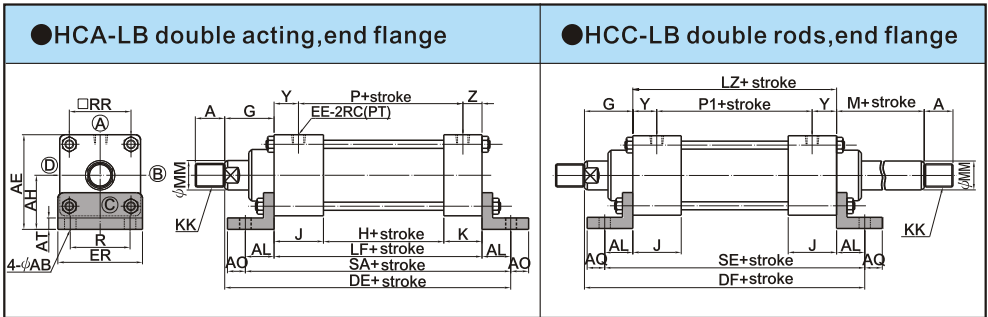
GENTLE AUTOMATIC SOLUTION SDN BHD

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email:sales@gentle.com.my / gpauto@tm.net.my

External dimensions



Symbol bore	DH	XF	YG
80	φ 10	79	20
85	φ 10	84	20
90	φ 10	89	20
100	φ 12	99	24
112	φ 12	111	24
125	φ 12	124	24
140	φ 12	139	24

Symbol bore	bore C class			bore B class					ER	G	H	J	K	M	P	P1	R	S	
	MM	KK	A	MM	KK	A	C	B											
32	16	M12×P1.5	18	20	M16×P1.5	25	55	41	50	36	26	30	80	84	35	14	17		
40	20	M16×P1.5	25	25	M20×P1.5	30	65	41	50	36	26	30	78	80	45	17	21		
50	25	M20×P1.5	30	30	M24×P1.5	35	75	44	58	42	34	33	88	88	50	21	27		
63	30	M24×P1.5	35	35	M30×P1.5	45	90	50	58	42	34	34	88	88	58	27	32		
80	35	M30×P1.5	45	40	M36×P1.5	55	110	53	62	46	40	37	98	98	78	32	37		
100	40	M36×P1.5	60	56	M48×P1.5	70	135	60	74	50	40	39	114	114	96	37	51		
125	56	M48×P1.5	75	70	M64×P2.0	90	165	69	83	58	48	46	123	123	120	50	65		
150	65	M60×P2.0	85	85	M76×P2.0	110	196	78	89	58	48	52	129	129	146	62	—		
180	80	M72×P2.0	110	100	M95×P2.0	130	235	88	95	68	58	61	151	151	180	—	—		
200	90	M80×P2.0	120	112	M100×P2.0	150	262	92	100	68	58	66	158	158	200	—	—		
224	100	M95×P2.0	130	125	M120×P2.0	170	310	101	105	68	58	78	161	161	222	—	—		
250	112	M100×P2.0	140	140	M130×P2.0	190	335	111	105	68	58	85	161	161	250	—	—		

Symbol bore	Y	Z	AB	AE	AH	AL	AO	AT	DE	DF	RR	EE	LF	LZ	SA	SE
32	19	14	11	67.5	40	32	13	6	185	195	40	3/8	112	122	176	186
40	21	13	11	75.5	43	32	13	6	185	195	45	3/8	112	122	176	186
50	27	19	14	87.5	50	35	15	6	213	221	52	3/8	134	142	204	212
63	27	19	18	105	60	42	18	8	226	234	63	1/2	134	142	218	226
80	28	22	18	127	72	50	20	9	251	257	80	1/2	148	154	248	254
100	30	20	22	152.5	85	55	20	10	279	289	102	3/4	164	174	274	284
125	38	28	26	187.5	105	66	29	13	324	334	122	3/4	189	199	321	331
150	38	28	30	221	123	75	30	18	348	358	148	3/4	195	205	345	355
180	40	30	33	258	148	85	40	18	394	404	168	1	221	231	391	401
200	38	30	36	287.5	165	98	40	25	416	424	190	1	226	234	422	430
224	40	30	42	331	185	115	45	30	447	457	225	1 1/4	231	241	461	471
250	40	30	45	370.5	208	130	50	35	472	482	250	1 1/4	231	241	491	501

Tie-rod hydraulic cylinders

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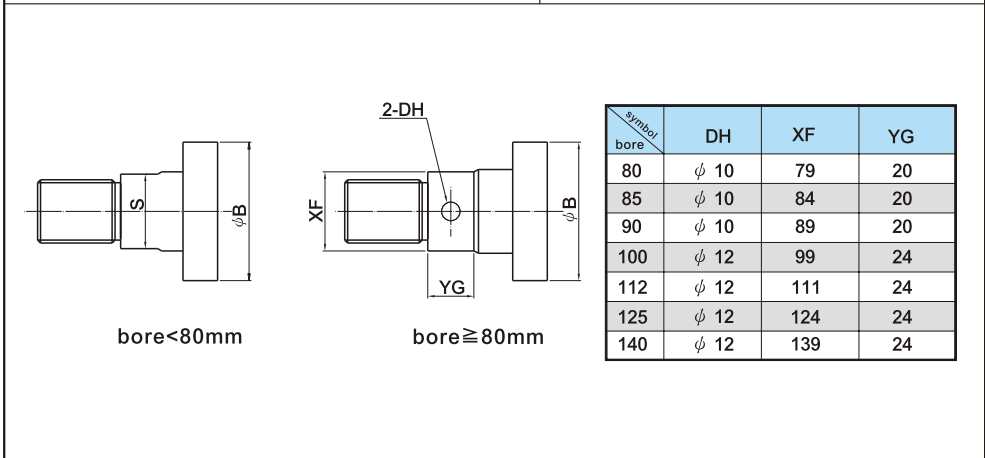
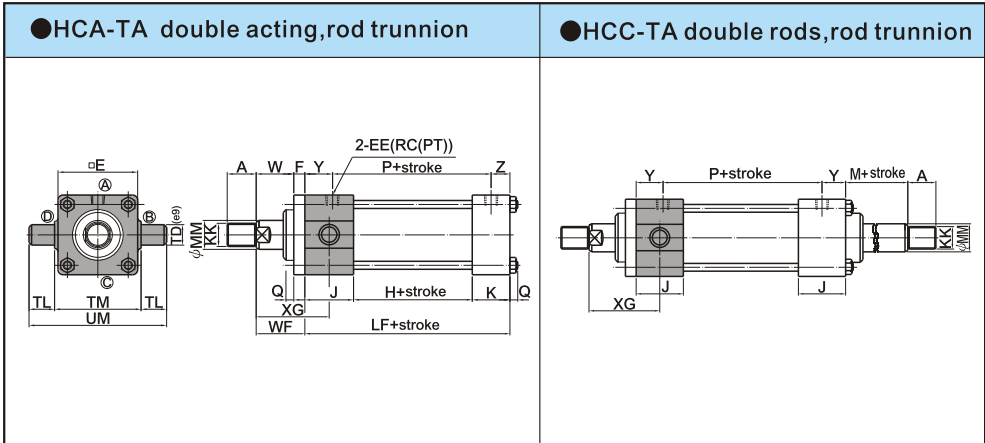
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External dimensions

Tie-rod hydraulic cylinders



Symbol bore	DH	XF	YG
80	φ 10	79	20
85	φ 10	84	20
90	φ 10	89	20
100	φ 12	99	24
112	φ 12	111	24
125	φ 12	124	24
140	φ 12	139	24

Symbol bore	bore C class				bore B class				E	F	H	J	K	M	P	P1	Q	S		W	Y	Z	EE	LF	TD	TL	TM	UM	XG
	MM	KK	A	MM	KK	A	C	B																					
	32	16	M12×P1.5	18	20	M16×P1.5	25	55	11	50	36	26	30	80	84	10	14	17	30	19	14	3/8	112	20	20	58 ^{+0.3} ₀	98	59	
40	20	M16×P1.5	25	25	M20×P1.5	30	65	11	50	36	26	30	78	80	10	17	21	30	21	13	3/8	112	20	20	69 ^{+0.3} ₀	109	59		
50	25	M20×P1.5	30	30	M24×P1.5	35	75	14	58	42	34	33	88	88	10	21	27	30	27	19	3/8	134	25	25	85 ^{+0.35} ₀	135	65		
63	30	M24×P1.5	35	35	M30×P1.5	45	90	15	58	42	34	34	88	88	12	27	32	35	27	19	1/2	134	31.5	31.5	98 ^{+0.35} ₀	161	71		
80	35	M30×P1.5	45	40	M36×P1.5	55	110	18	62	46	40	37	98	98	15	32	37	35	28	22	1/2	148	31.5	31.5	118 ^{+0.35} ₀	181	76		
100	40	M36×P1.5	60	56	M48×P1.5	70	135	20	74	50	40	39	114	114	17	37	51	40	30	20	3/4	164	40	40	145 ^{+0.40} ₀	225	85		
125	56	M48×P1.5	75	70	M64×P2.0	90	165	24	83	58	48	46	123	123	20	50	65	45	38	28	3/4	189	50	50	175 ^{+0.40} ₀	275	98		
150	65	M60×P2.0	85	85	M76×P2.0	110	196	28	89	58	48	52	129	129	24	62	—	50	38	28	3/4	195	63	63	206 ^{+0.46} ₀	332	107		

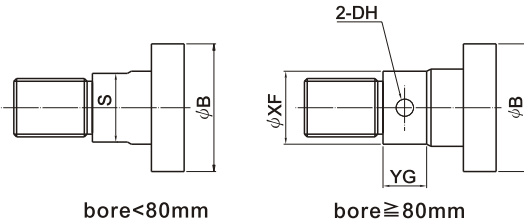
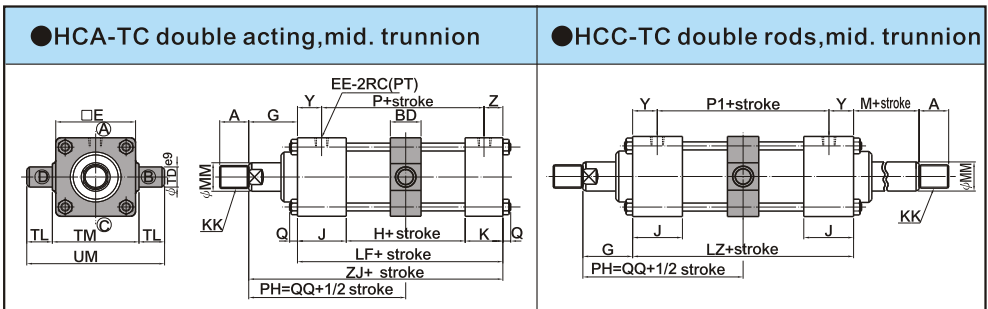
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External dimensions



Symbol bore	DH	XF	YG
80	φ 10	79	20
85	φ 10	84	20
90	φ 10	89	20
100	φ 12	99	24
112	φ 12	111	24
125	φ 12	124	24
140	φ 12	139	24

Symbol bore	bore C class			bore B class			E	G	H	J	K	M	P	P1
	MM	KK	A	MM	KK	A								
32	16	M12×P1.5	18	20	M16×P1.5	25	55	41	50	36	26	30	80	84
40	20	M16×P1.5	25	25	M20×P1.5	30	65	41	50	36	26	30	78	80
50	25	M20×P1.5	30	30	M24×P1.5	35	75	44	58	42	34	33	88	88
63	30	M24×P1.5	35	35	M30×P1.5	45	90	50	58	42	34	34	88	88
80	35	M30×P1.5	45	40	M36×P1.5	55	110	53	62	46	40	37	98	98
100	40	M36×P1.5	60	56	M48×P1.5	70	135	60	74	50	40	39	114	114
125	56	M48×P1.5	75	70	M64×P2.0	90	165	69	83	58	48	46	123	123
150	65	M60×P2.0	85	85	M76×P2.0	110	196	78	89	58	48	52	129	129
180	80	M72×P2.0	110	100	M95×P2.0	130	220	88	95	68	58	61	151	151
200	90	M80×P2.0	120	112	M100×P2.0	150	245	92	100	68	58	66	158	158
224	100	M95×P2.0	130	125	M120×P2.0	170	292	101	105	68	58	78	161	161
250	112	M100×P2.0	140	140	M130×P2.0	190	325	111	105	68	58	85	161	161

Symbol bore	Q	S		Y	Z	BD	EE	LF	LZ	QQ	TD	TL	TM	UM	ZJ
		C	B												
32	10	14	17	19	14	28	3/8	112	122	102	20	20	58 ^{0.3}	98	153
40	10	17	21	21	13	28	3/8	112	122	102	20	20	69 ^{0.3}	109	153
50	10	21	27	27	19	33	3/8	134	142	115	25	25	85 ^{0.35}	135	178
63	12	27	32	27	19	43	1/2	134	142	121	31.5	31.5	98 ^{0.35}	161	184
80	15	32	37	28	22	43	1/2	148	154	130	31.5	31.5	118 ^{0.35}	181	201
100	17	37	51	30	20	53	3/4	164	174	147	40	40	145 ^{0.40}	225	224
125	20	50	65	38	28	58	3/4	189	199	168.5	50	50	175 ^{0.40}	275	258
150	24	62	—	38	28	78	3/4	195	205	180.5	63	63	206 ^{0.46}	332	273
180	26	—	—	40	30	98	1	221	231	203.5	80	80	243 ^{0.46}	403	309
200	27	—	—	38	30	108	1	226	236	210	90	90	272 ^{0.52}	452	318
224	34	—	—	40	30	117	1 1/4	231	241	221.5	100	100	308 ^{0.52}	500	332
250	39	—	—	40	30	117	1 1/4	231	241	231.5	100	100	335 ^{0.57}	535	342

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