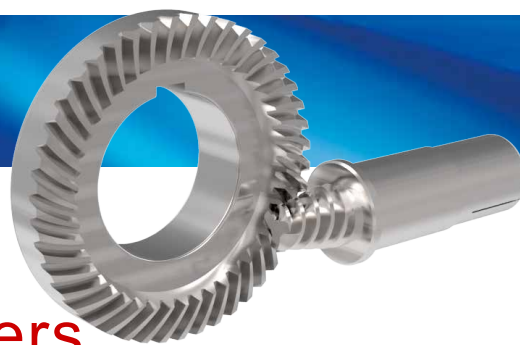
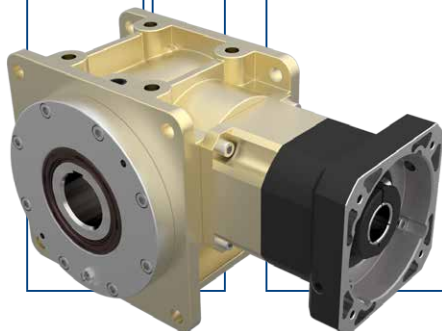


HY series



Indication of Model Numbers

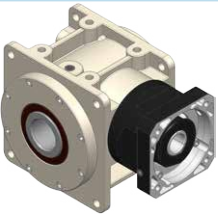
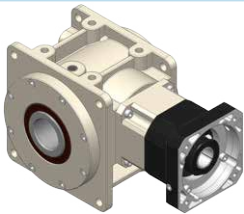
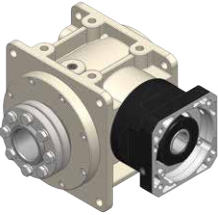
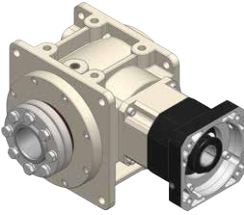
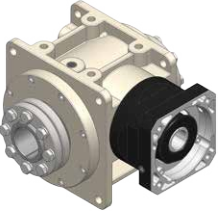
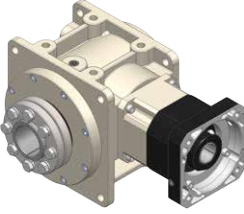
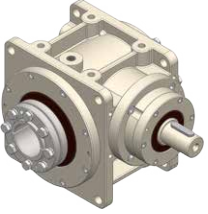
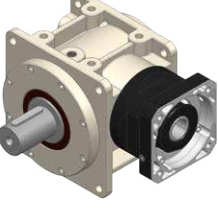
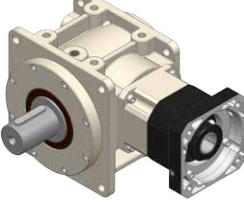
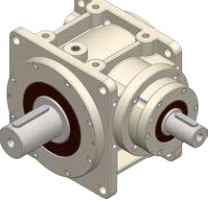
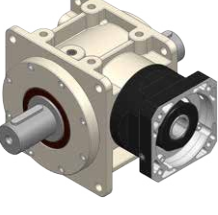
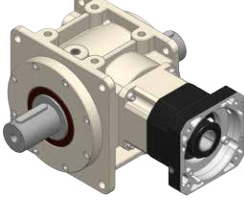
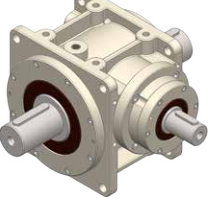
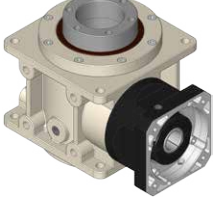
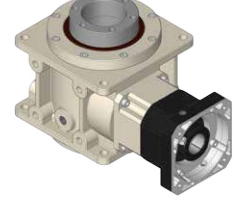
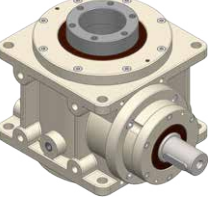
HY	55	F	O	B	5	L	P0
Type	Model	Input	Output	Bearing	Ratio	Shaft Direction	Backlash Class
HY	55	F: Input Flange R44: Reducer	O: Hollow Output Shaft	B: Ball Bearing (55#~190#)	1-Stage Hypoid only	L: Left Shaft	P0
	75		N: Single Clamping		5, 10, 15	R: Right Shaft	P1
	90		M: Double Clamping		-----		P2
	115	1-Stage:			With 1-Stage		
	130	R44、R62...	S: Single Output Shaft (Keyway)	T: Taper Bearing (90#~190#)	Planetary		
	140	2-Stage:	S1: Single Output Shaft (No Keyway)		Reducer	1. Shaft direction is optional for output type N, S.	
	160	R62S...	V: Double Output Shaft (Keyway)		25 ~ 150		
	190	2-Stage (A-Type): R44A、R62A...	V1: Double Output Shaft (No Keyway)		With 2-Stage	2. Output type P only with R shaft.	
		D: Single Input Shaft (Keyway)	P: (75#~190#) Ball Screw (Taper Bearing Only)		Planetary		
		D1: Single Input Shaft (No Keyway)			Reducer		
					250 ~ 1500		



Models & Ratio Table of Hypoid Gear and Planetary Reducer Assembly

Model	Ratio	Flange Model	Planetary Reducer Model	Ratio of 1-Stage Planetary Reducer 5, 10	Ratio of 2-Stage Planetary Reducer 25, 50, 100
55	5 10 15	44	44	Ratio of Bevel Gear Reducer with 1-Stage Planetary Reducer 25, 50, 75, 100, 150	Ratio of Bevel Gear Reducer with 2-Stage Planetary Reducer 250, 500, 750, 1000, 1500
75		62	62		
90		90	80		
115		90	90		
130		120	120		
140		142	142		
160		142	142		
190		180	180		

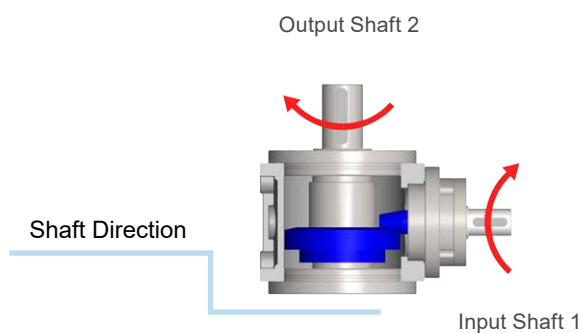
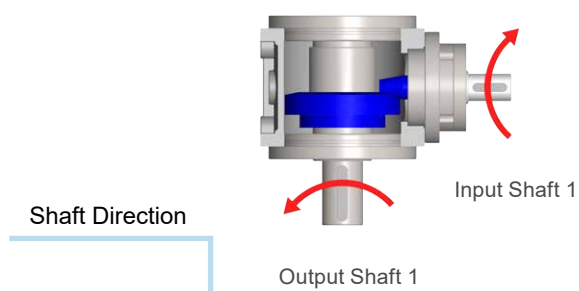
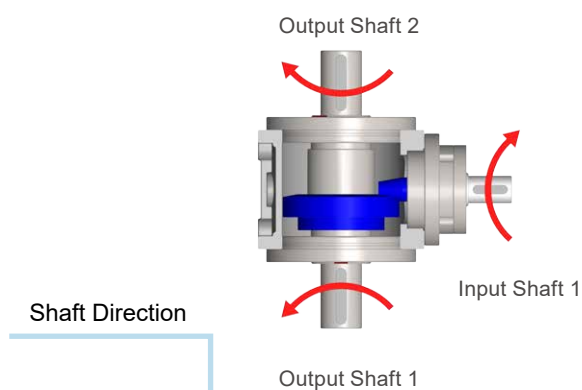
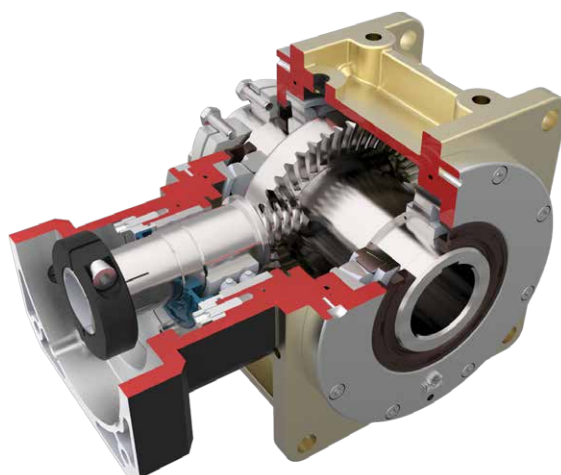
Selection of Type

		Input Type		
Output Type		F Input Flange	R Reducer	D Single Input Shaft
	O Hollow Output Shaft	 FO	 RO	 DO
	N Single Clamping	 FN	 RN	 DN
	M Double Clamping	 FM	 RM	 DM
	S Single Output Shaft	 FS	 RS	 DS
	V Double Output Shaft	 FV	 RV	 DV
	P Ball Screw	 FP	 RP	 DP

1. Shaft direction is optional for output type N, S.
2. Output type P has only R shaft option

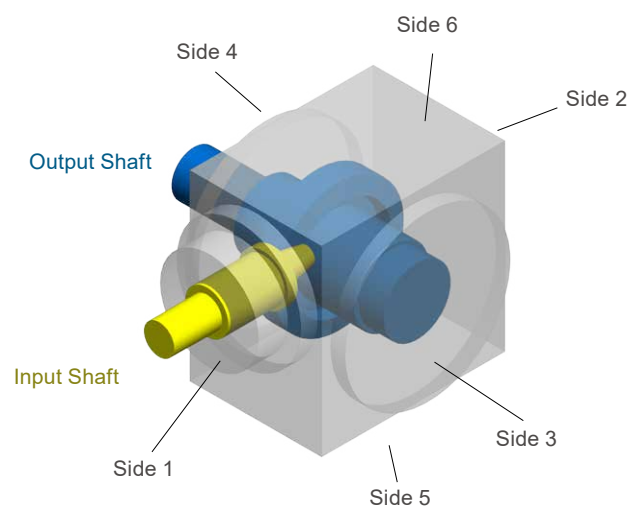
Rotation Direction

HY



Standard product is L shaft direction, R shaft direction is optional.

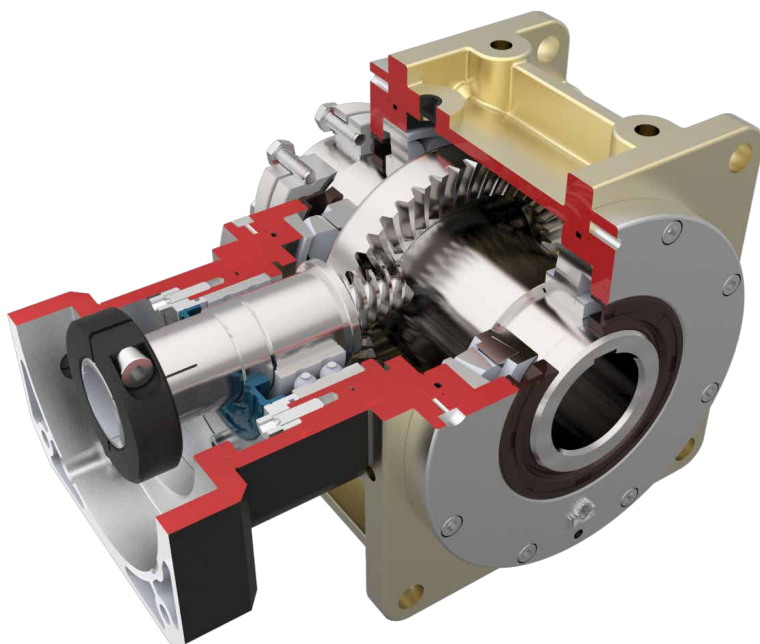
Installation Orientation



Side 1	Side 2
Side 3	Side 4
Side 5	Side 6

[Note 1] Side 4 operation shall be avoid.

HY Series Features

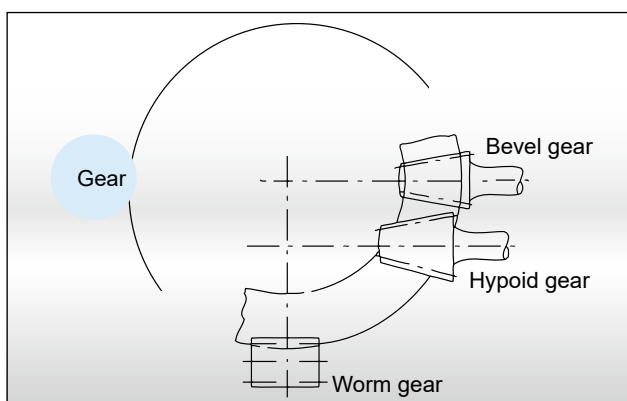


The HY series integrated structure ensures the high rigidity and corrosion-resistance.

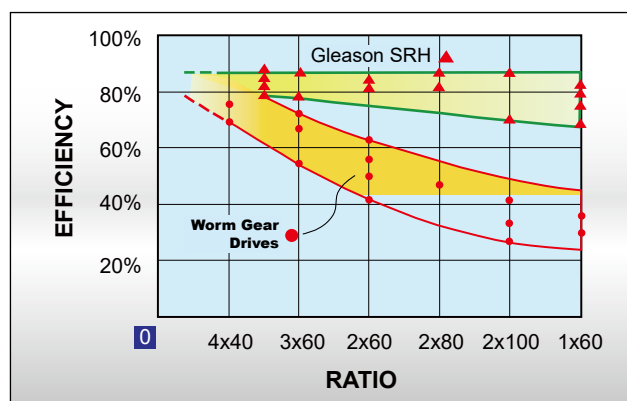


Super-Reduction-Hypoid Gear

Gleason super-reduction-hypoid gear system achieves single stage reduction up to 1/15. Single stage reduction up to 1/60 is available as an option.



- High Output Torque



- High Efficiency

HY Series Specifications

HY

1-Stage

Model No.	Sym	Unit	Ratio	55	75	90	115	130	140	160	190
Rated Output Torque (Nominal output torque)	T_{2N}	Nm	5	35	70	140	260	430	720	1,100	1,440
			10	30	60	117	220	365	615	957	1,230
			15	25	50	95	180	300	510	815	1,020
Max. Acceleration Torque	T_{2B}	Nm	5~15	1.5 Times of Rated Output Torque							
Max. Output Torque/ Emergency Stop Torque	T_{2NOT}	Nm	5~15	3 Times of Rated Output Torque							
Rated Input Speed	n_{1N}	rpm	5~15	3,000	3,000	3,000	3,000	2,500	2,500	2,000	2,000
Max. Input Speed	n_{1B}	rpm	5~15	6,000	6,000	6,000	6,000	5,000	5,000	4,000	4,000
Backlash	J_t	arcmin	P0	-	-	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
			P1	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6
			P2	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Max. Radial Force Ball Bearing	F_{2rB}	N	5~15	1,495	2,366	2,691	4,797	5,837	7,020	9,490	12,337
Max. Axial Force Ball Bearing	F_{2aB}	N	5~15	748	1,183	1,346	2,399	2,919	3,510	4,745	6,169
Max. Radial Force Taper Bearing	F_{2rB}	N	5~15	-	- 5,000(P)	5,523 6,545(P)	9,100	12,320	14,420	18,620	24,080
Max. Axial Force Taper Bearing	F_{2aB}	N	5~15	-	- 2,500(P)	2,762 3,273(P)	4,550	6,160	7,210	9,310	12,040
Service Life	L_{Ht}	hr	5~15	S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)							
Efficiency	η	%	5	$\geq 96\%$							
			10~15	$\geq 93\%$							
Operating Temperature		°C	5~15	-10°C ~ +90°C							
Lubrication			5~15	Synthetic Oil							
Noise Level		dB	5~15	≤ 67	≤ 67	≤ 69	≤ 69	≤ 71	≤ 71	≤ 72	≤ 72

NOTE: (P) Ball Screw

Mass Moments of Inertia (kgcm²)

Ratio	55	75	90	115	130	140	160	190
5	0.23	0.58	1.41	4.00	7.12	13.53	24.76	44.29
10	0.15	0.38	1.00	2.46	4.27	7.38	12.47	21.43
15	0.13	0.34	0.81	2.07	3.45	5.76	9.23	15.53

HY Series Specifications

HY

2-Stage

Model No.	Sym	Unit	Ratio	55	75	90	115	130	140	160	190
Rated Output Torque (Nominal output torque)	T_{2N}	Nm	25, 50	35	70	140	260	430	720	1,100	1,440
			100	30	60	117	220	365	615	957	1,230
			75, 150	25	50	95	180	300	510	815	1,020
Max. Acceleration Torque	T_{2B}	Nm	25~150	1.5 Times of Rated Output Torque							
Max. Output Torque / Emergency Stopping Torque	T_{2NOT}	Nm	25~150	3 Times of Rated Output Torque							
Rated Input Speed	n_{1N}	rpm	25~150	3,000	3,000	3,000	3,000	3,000	3,000	2,000	3,000
Max. Input Speed	n_{1B}	rpm	25~150	6,000	6,000	6,000	6,000	5,000	5,000	4,000	4,000
Backlash	J_t	arcmin	P0	-	-	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4
			P1	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
			P2	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
Max. Radial Force Ball Bearing	F_{2rB}	N	25~150	1,495	2,366	2,691	4,797	5,837	7,020	9,490	12,337
Max. Axial Force Ball Bearing	F_{2aB}	N	25~150	748	1,183	1,346	2,399	2,919	3,510	4,745	61,69
Max. Radial Force Taper Bearing	F_{2rB}	N	25~150	-	- 5,000(P)	5,523 6,545(P)	9,100	12,320	14,420	18,620	24,080
Max. Axial Force Taper Bearing	F_{2aB}	N	25~150	-	- 2,500(P)	2,762 3,273(P)	4,550	6,160	7,210	9,310	12,040
Service Life	L_H	hr	25~150	S5 Cycle Operation: >30,000 hrs S1 Continuous Operation: >15,000 hrs							
Efficiency	η	%	25, 50	$\geq 92\%$							
			75, 100, 150	$\geq 90\%$							
Operating Temperature		°C	25~150	-10°C ~ +90°C							
Lubrication			25~150	Synthetic Oil							
Noise Level		dB	25~150	≤ 67	≤ 67	≤ 69	≤ 69	≤ 71	≤ 71	≤ 72	≤ 72

NOTE: (P) Ball Screw

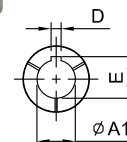
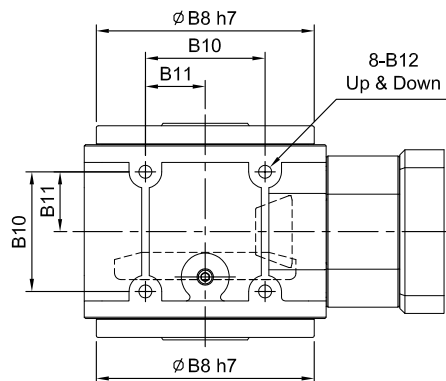
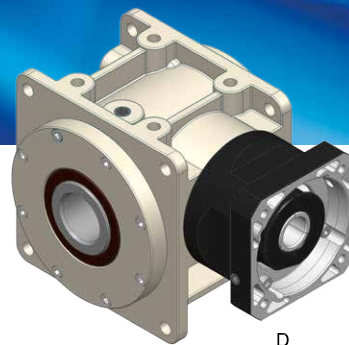
Mass Moments of Inertia (kgcm²)

Ratio	55	75	90	115	130	140	160	190
25	0.39	1.15	1.18	4.9	4.99	7.99	8.27	8.75
50	0.36	1.05	1.06	4.07	4.09	6.31	6.36	6.45
75	0.35	0.94	0.96	3.17	3.24	4.04	4.23	4.56
100	0.34	0.93	0.94	3.12	3.14	3.87	3.92	4.01
150	0.33	0.92	0.93	3.08	3.06	3.73	3.68	3.59

HY-FO Series

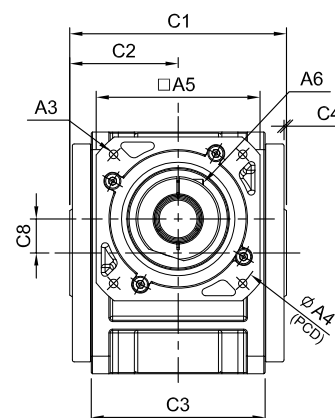
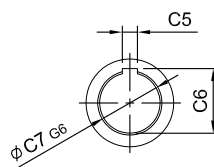
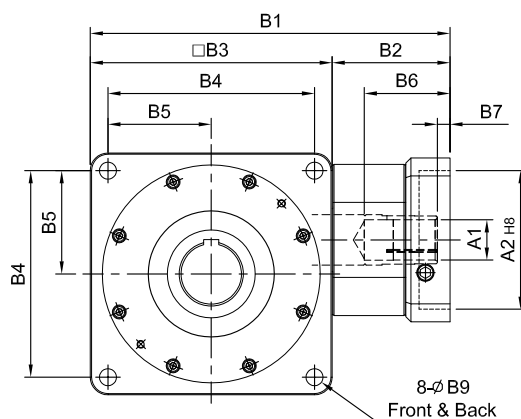
RATIO : 5.10.15 (1-Stage)

Input Flange - Hollow Output Shaft



(140#)

φA1	D	E
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



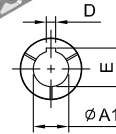
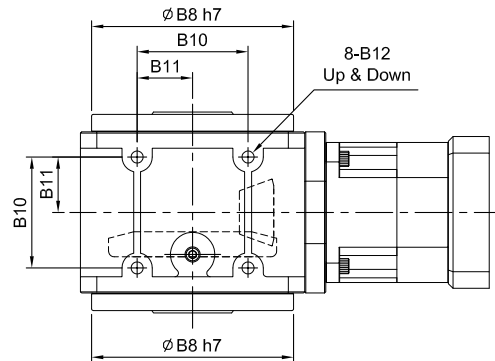
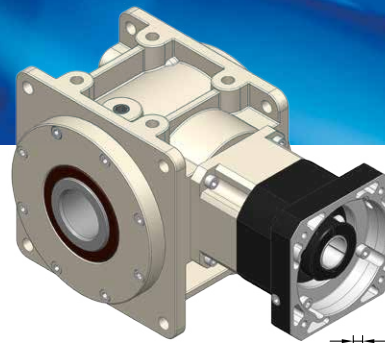
unit: mm

	Model	Unit: mm							
	Code	55	75	90	115	130	140	160	190
A	A1	8·11	14	14·19·24	19·22·24	24·28·32	32·35	35·38	42·48·55
	A2	30·40·50	50·60·70	50·70·80·95	70·80·95·110	95·110·130	110·130·180	110·130·180	114.3·180·230·250
	A3	M3·M4·M5	M4·M5·M6	M5·M6	M5·M6·M8	M6·M8·M10	M8·M10·M12	M8·M10·M12	M12·M16
	A4	46·60·63	70·75·90	70·90·100·115	90·100·115·145	115·145·165	145·165·200	145·165·200	200·215·265·300
	A5	46·55	64·70·80	80·92·110	92·110·130	122·130·150	146·150·190	146·150·190	182·200·250·265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
B	B1	135	172	202·221	241	286	333	358	417·419
	B2	45	57	62·81	71	94	118	118	153·155
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	28	38	49·68.5	58	69.5	81.5	81.5	114.5·116.5
	B7	5	6	9·23.5	8	10	10	10	11.5·13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	88	108	132	156	172	187	212	242
	C2	44	54	66	78	86	93.5	106	121
	C3	60	80	100	120	138	146	166	196
	C4	2	2	2	2	2	2	2	2
	C5	6	7	8	10	12	14	14	18
	C6	22.8	28.3	33.3	43.3	51.3	58.8	63.8	74.3
	C7	20	25	30	40	48	55	60	70
	C8	9	14	18	23	27	32	38	42
Weight	kg	3.0	4.6	8.3	12.3	18.2	26.6	37.6	59.5

HY-RO Series

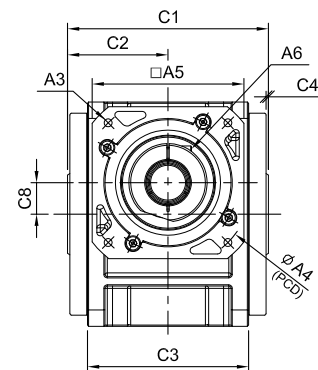
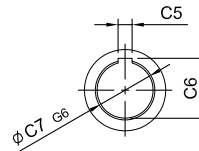
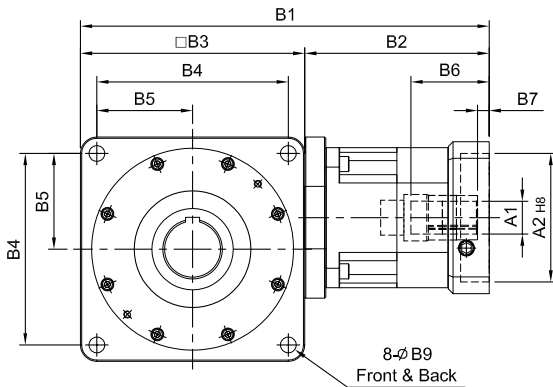
RATIO : 25.50.75.100.150 (2-Stage)

Fitted with Planetary Reducer - Hollow Output Shaft



(140#)

φA1	D	E
φ28	8	31.3
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



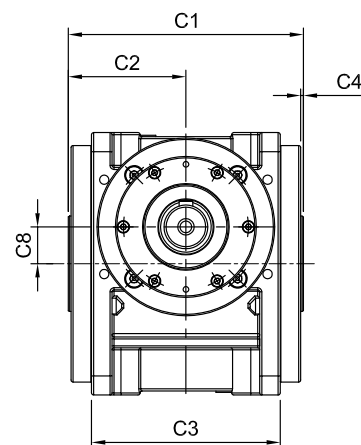
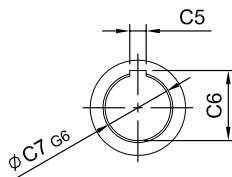
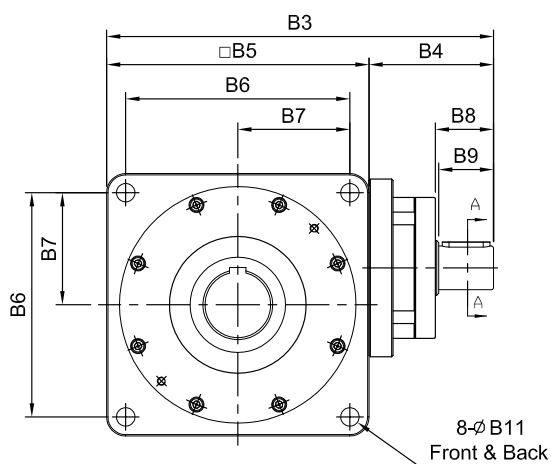
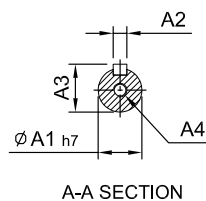
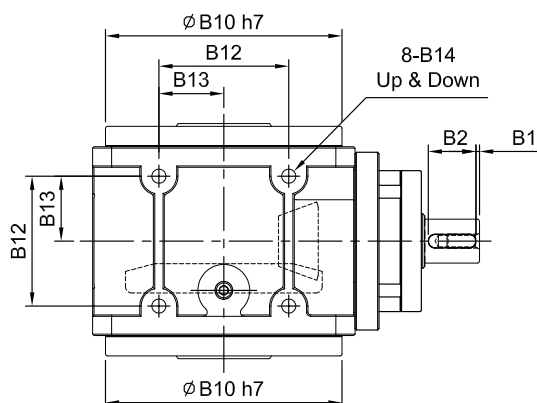
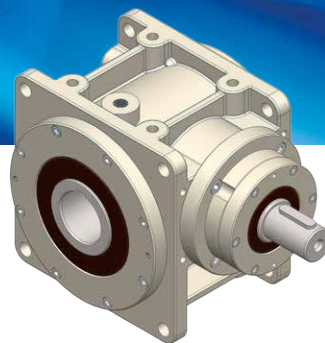
unit: mm

	Model Code	55	75	90	115	130	140	160	190
A	A1	8 · 9 · 11 · 14	11 · 14 · 16 · 19	(14) · 16 · 19	16 · 19 · 22 · 24	22 · 24 · 28 · 32 · 35	28 · 32 · 35 · 38	28 · 32 · 35 · 38	35 · 38 · 42 · 48 · 55
	A2	30 · 40 · 50	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	110 · 130 · 180	114.3 · 180 · 230 · 250
	A3	M3 · M4 · M5	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M8 · M10 · M12	M12 · M16
	A4	46 · 60 · 63	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	145 · 165 · 200	200 · 215 · 265 · 300
	A5	46 · 55	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	146 · 150 · 190	182 · 200 · 250 · 265
	A6	M3 x P.05	M5 x P.0.8	M5 x P.0.8	M6 x P.1.0	M8 x P.1.25	M10 x P.1.5	M10 x P.1.5	M10 x P.1.5
B	B1	157	201 · 209	(224.5) · 237	287	340 · 360	405	430	508 · 510
	B2	67	86 · 94	(84.5) · 97	117	148 · 168	190	190	244 · 246
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	26	32 · 41.5	(33.5) · 45.5	59	67 · 83	84.5	84.5	114.5 · 116.5
	B7	5	6	(6) · 10	9	10 · 11	10	10	11.5 · 13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P.1.0	M8 x P.1.25	M10 x P.1.5	M12 x P.1.75	M12 x P.1.75	M14 x P.2.0	M16 x P.2.0	M16 x P.2.0
C	C1	88	108	132	156	172	187	212	242
	C2	44	54	66	78	86	93.5	106	121
	C3	60	80	100	120	138	146	166	196
	C4	2	2	2	2	2	2	2	2
	C5	6	7	8	10	12	14	14	18
	C6	22.8	28.3	33.3	43.3	51.3	58.8	63.8	74.3
	C7	20	25	30	40	48	55	60	70
	C8	9	14	18	23	27	32	38	42
Weight	kg	3.5	5.8	10.0	16.0	26.8	41.2	52.1	86.1

HY-DO Series

RATIO : 5.10.15 (1-Stage)

Single Input Shaft - Hollow Output Shaft



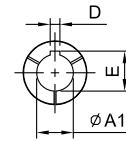
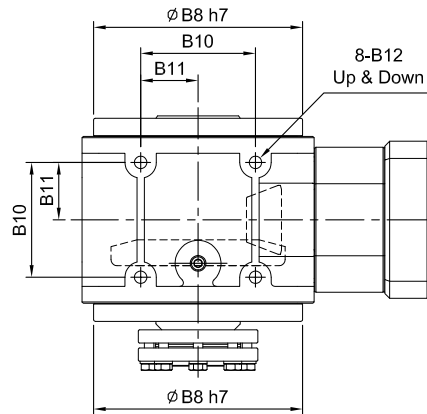
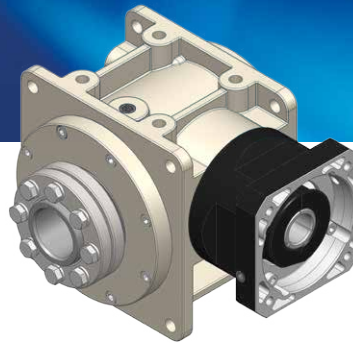
unit: mm

Model Code	55	75	90	115	130	140	160	190
A	A1	14	19	24	28	32	38	40
	A2	5	6	8	8	10	12	12
	A3	16	21.5	27	31	35	41	43
	A4	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	2.5	5	5	5
	B2	20	25	35	35	40	50	50
	B3	147	181	218	260	293	367	403
	B4	57	66	78	90	101	127	139
	B5	90	115	140	170	192	240	264
	B6	78	98	118	144	164	206	224
	B7	39	49	59	72	82	103	112
	B8	27	32	42.5	42.5	52.5	63	63.5
	B9	25	30	40	40	50	60	60
	B10	84	103	128	148	173	227	254
	B11	6.8	9	11	11	13.5	17.5	17.5
	B12	44	54	66	80	95	120	140
	B13	22	27	33	40	47.5	60	70
	B14	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0
C	C1	88	108	132	156	172	212	242
	C2	44	54	66	78	86	106	121
	C3	60	80	100	120	138	166	196
	C4	2	2	2	2	2	2	2
	C5	6	7	8	10	12	14	18
	C6	22.8	28.3	33.3	43.3	51.3	63.8	74.3
	C7	20	25	30	40	48	60	70
	C8	9	14	18	23	27	38	42
Weight	kg	2.9	4.6	8.1	11.0	18.7	25.9	56.1

HY-FN Series

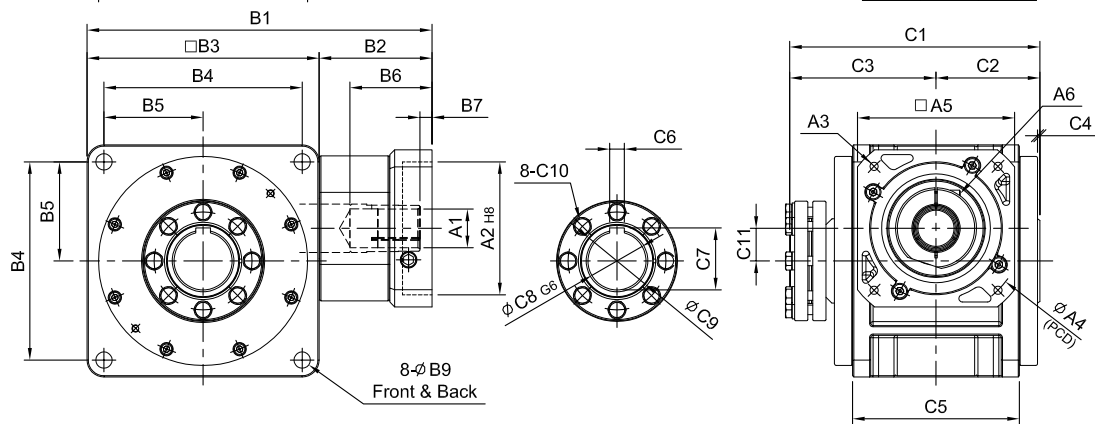
RATIO : 5.10.15 (1-Stage)

Input Flange - Single Clamping



(140#)

φA1	D	E
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



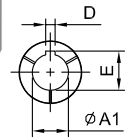
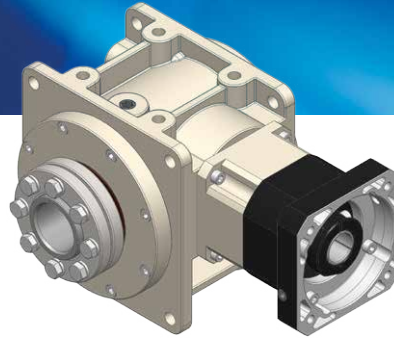
unit: mm

	Model Code	55	75	90	115	130	140	160	190
	A1	8, 11	14	14, 19, 24	19, 22, 24	24, 28, 32	32, 35	35, 38	42, 48, 55
A	A2	30, 40, 50	50, 60, 70	50, 70, 80, 95	70, 80, 95, 110	95, 110, 130	110, 130, 180	110, 130, 180	114.3, 180, 230, 250
	A3	M3, M4, M5	M4, M5, M6	M5, M6	M5, M6, M8	M6, M8, M10	M8, M10, M12	M8, M10, M12	M12, M16
	A4	46, 60, 63	70, 75, 90	70, 90, 100, 115	90, 100, 115, 145	115, 145, 165	145, 165, 200	145, 165, 200	200, 215, 265, 300
	A5	46, 55	64, 70, 80	80, 92, 110	92, 110, 130	122, 130, 150	146, 150, 190	146, 150, 190	182, 200, 250, 265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
B	B1	135	172	202, 221	241	286	333	358	417, 419
	B2	45	57	62, 81	71	94	118	118	153, 155
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	28	38	49, 68.5	58	69.5	81.5	81.5	114.5, 116.5
	B7	5	6	9, 23.5	8	10	10	10	11.5, 13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	109	134	160	189	207	224	249	281
	C2	44	54	66	78	86	93.5	106	121
	C3	65	80	94	111	121	130.5	143	160
	C4	2	2	2	2	2	2	2	2
	C5	60	80	100	120	138	146	166	196
	C6	6	7	8	10	12	14	14	18
	C7	22.8	28.3	33.3	43.3	51.3	58.8	63.8	74.3
	C8	20	25	30	40	48	55	60	70
	C9	28	34	44	52	60	65	73	83
	C10	M6	M6	M6	M8	M8	M8	M8	M10
	C11	9	14	18	23	27	32	38	42
Weight	kg	3.2	5.0	8.7	13.0	19.3	27.4	39.4	61.7

HY-RN Series

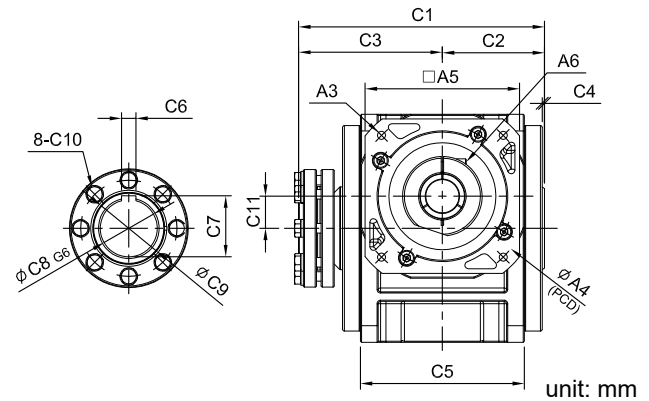
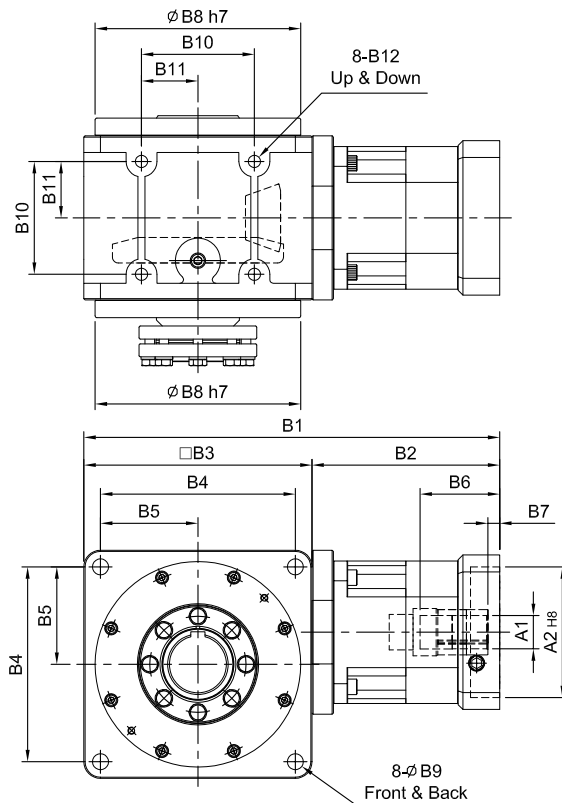
RATIO : 25.50.75.100.150 (2-Stage)

Fitted with Planetary Reducer - Single Clamping



(140#)

$\phi A1$	D	E
$\phi 28$	8	31.3
$\phi 32$	10	35.3
$\phi 35$	10	38.3
$\phi 38$	10	41.3
$\phi 42$	12	45.3
$\phi 48$	14	51.8
$\phi 55$	16	59.3



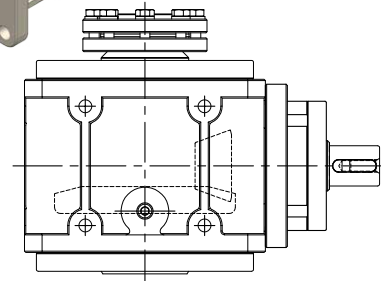
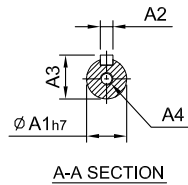
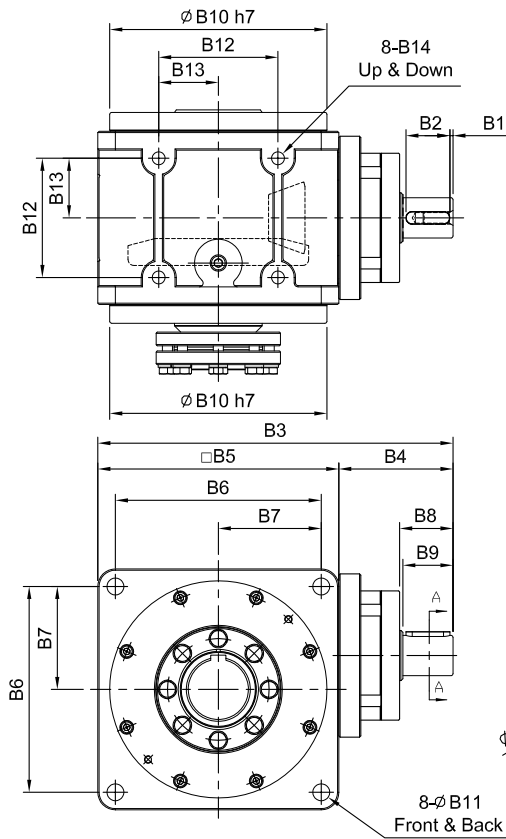
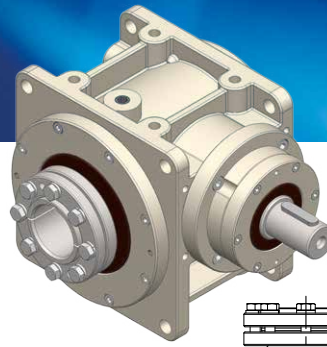
unit: mm

	Model Code	55	75	90	115	130	140	160	190
	A1	8, 9, 11, 14	11, 14, 16, 19	(14), 16, 19	16, 19, 22, 24	22, 24, 28, 32, 35	28, 32, 35, 38	28, 32, 35, 38	35, 38, 42, 48, 55
A	A2	30, 40, 50	50, 60, 70	50, 70, 80, 95	70, 80, 95, 110	95, 110, 130	110, 130, 180	110, 130, 180	114.3, 180, 230, 250
	A3	M3, M4, M5	M4, M5, M6	M5, M6	M5, M6, M8	M6, M8, M10	M8, M10, M12	M8, M10, M12	M12, M16
	A4	46, 60, 63	70, 75, 90	70, 90, 100, 115	90, 100, 115, 145	115, 145, 165	145, 165, 200	145, 165, 200	200, 215, 265, 300
	A5	46, 55	64, 70, 80	80, 92, 110	92, 110, 130	122, 130, 150	146, 150, 190	146, 150, 190	182, 200, 250, 265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B1	157	201, 209	(224.5), 237	287	340, 360	405	430	508, 510
B	B2	67	86, 94	(84.5), 97	117	148, 168	190	190	244, 246
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	26	32, 41.5	(33.5), 45.5	59	67, 83	84.5	84.5	114.5, 116.5
	B7	5	6	(6), 10	9	10, 11	10	10	11.5, 13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
	C	C1	109	134	160	189	207	224	249
C2		44	54	66	78	86	93.5	106	121
C3		65	80	94	111	121	130.5	143	160
C4		2	2	2	2	2	2	2	2
C5		60	80	100	120	138	146	166	196
C6		6	7	8	10	12	14	14	18
C7		22.8	28.3	33.3	43.3	51.3	58.8	63.8	74.3
C8		20	25	30	40	48	55	60	70
C9		28	34	44	52	60	65	73	83
C10		M6	M6	M6	M8	M8	M8	M8	M10
C11		9	14	18	23	27	32	38	42
Weight	kg	3.8	6.2	10.5	16.7	28.0	41.9	53.9	88.4

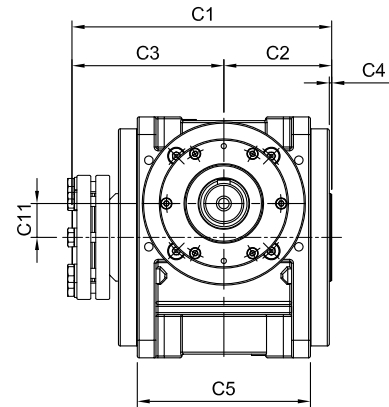
HY-DN Series

RATIO : 5.10.15 (1-Stage)

Single Input Shaft - Single Clamping



R
Shaft Direction



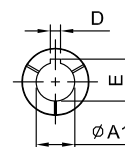
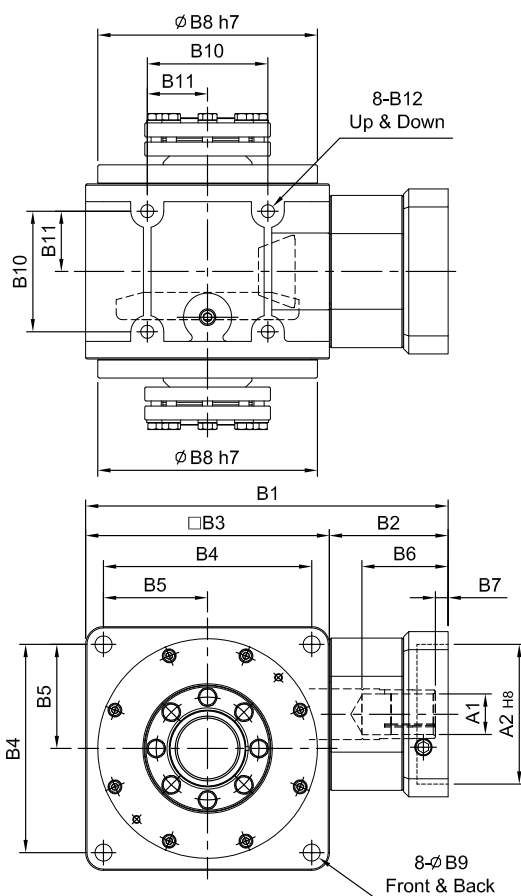
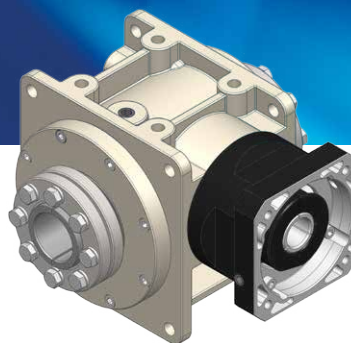
unit: mm

	Model Code	55	75	90	115	130	140	160	190
A	A1	14	19	24	28	32	32	38	40
	A2	5	6	8	8	10	10	12	12
	A3	16	21.5	27	31	35	35	41	43
	A4	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	2.5	5	5	5	5
	B2	20	25	35	35	40	40	50	50
	B3	147	181	218	260	293	315	367	403
	B4	57	66	78	90	101	100	127	139
	B5	90	115	140	170	192	215	240	264
	B6	78	98	118	144	164	182	206	224
	B7	39	49	59	72	82	91	103	112
	B8	27	32	42.5	42.5	52.5	51.5	63	63.5
	B9	25	30	40	40	50	50	60	60
	B10	84	103	128	148	173	200	227	254
	B11	6.8	9	11	11	13.5	15	17.5	17.5
C	B12	44	54	66	80	95	104	120	140
	B13	22	27	33	40	47.5	52	60	70
	B14	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
	C1	109	134	160	189	207	224	249	281
	C2	44	54	66	78	86	93.5	106	121
	C3	65	80	94	111	121	130.5	143	160
	C4	2	2	2	2	2	2	2	2
	C5	60	80	100	120	138	146	166	196
	C6	6	7	8	10	12	14	14	18
	C7	22.8	28.3	33.3	43.3	51.3	58.8	63.8	74.3
	C8	20	25	30	40	48	55	60	70
	C9	28	34	44	52	60	65	73	83
Weight	C10	M6	M6	M6	M8	M8	M8	M8	M10
	C11	9	14	18	23	27	32	38	42
kg		3.1	5.0	8.6	11.6	19.9	27.8	38.6	58.4

HY-FM Series

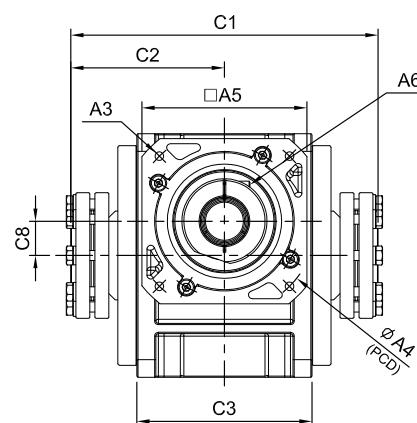
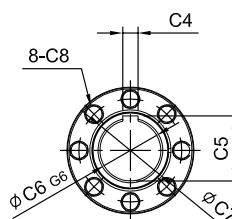
RATIO : 5.10.15 (1-Stage)

Input Flange - Double Clamping



(140#)

ØA1	D	E
Ø32	10	35.3
Ø35	10	38.3
Ø38	10	41.3
Ø42	12	45.3
Ø48	14	51.8
Ø55	16	59.3

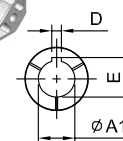
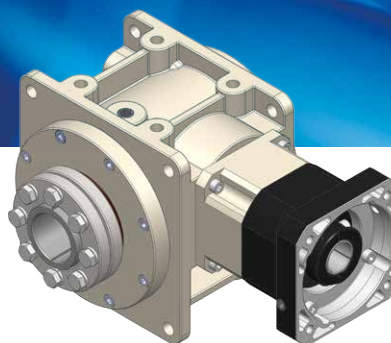


unit: mm

A	Model Code	55	75	90	115	130	140	160	190
	A1	811	14	14 · 19 · 24	19 · 22 · 24	24 · 28 · 32	32 · 35	35 · 38	42 · 48 · 55
	A2	30 · 40 · 50	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	110,130,180	114.3 · 180 · 230 · 250
	A3	M3 · M4 · M5	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M8 · M10 · M12	M12 · M16
	A4	46 · 60 · 63	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	145 · 165 · 200	200 · 215 · 265 · 300
	A5	46 · 55	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	146 · 150 · 190	182 · 200 · 250 · 265
	A6	M3 x P.05	M5 x P0.8	M5 x P.0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
B	B1	135	172	202 · 221	241	286	333	358	417 · 419
	B2	45	57	62 · 81	71	94	118	118	153 · 155
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	28	38	49 · 68.5	58	69.5	81.5	81.5	114.5 · 116.5
	B7	5	6	9 · 23.5	8	10	10	10	11.5 · 13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	130	160	188	222	242	261	286	320
	C2	65	80	94	111	121	130.5	143	160
	C3	60	80	100	120	138	146	166	196
	C4	-	-	-	-	12	14	14	18
	C5	-	-	-	-	51.3	58.8	63.8	74.3
	C6	20	25	30	40	48	55	60	70
	C7	28	34	44	52	60	65	73	83
	C8	M6	M6	M6	M8	M8	M8	M8	M10
C9	9	14	18	23	27	32	38	42	
Weight	kg	3.5	5.3	9.2	13.7	20.5	28.6	41.0	64.0

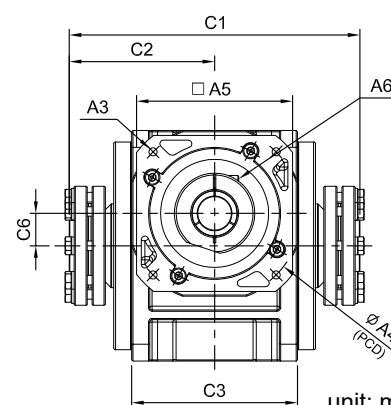
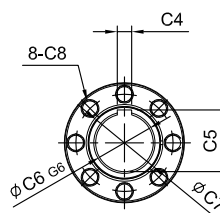
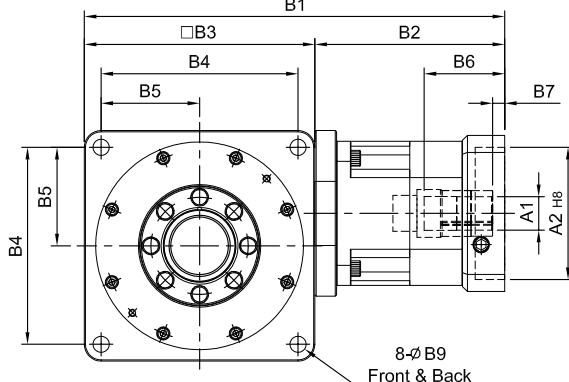
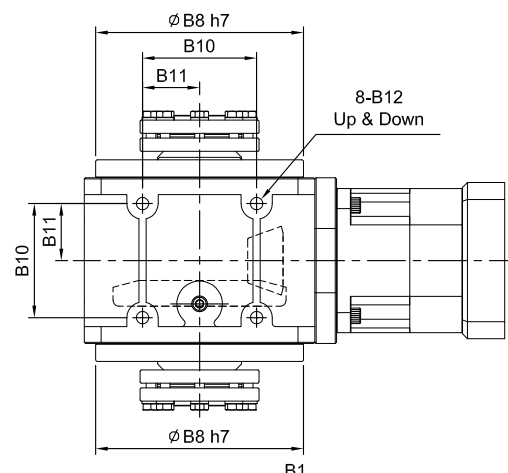
RATIO : 25.50.75.100.150 (2-Stage)

Fitted with Planetary Reducer - Double Clamping



(140#)

$\phi A1$	D	E
$\phi 28$	8	31.3
$\phi 32$	10	35.3
$\phi 35$	10	38.3
$\phi 38$	10	41.3
$\phi 42$	12	45.3
$\phi 48$	14	51.8
$\phi 55$	16	59.3



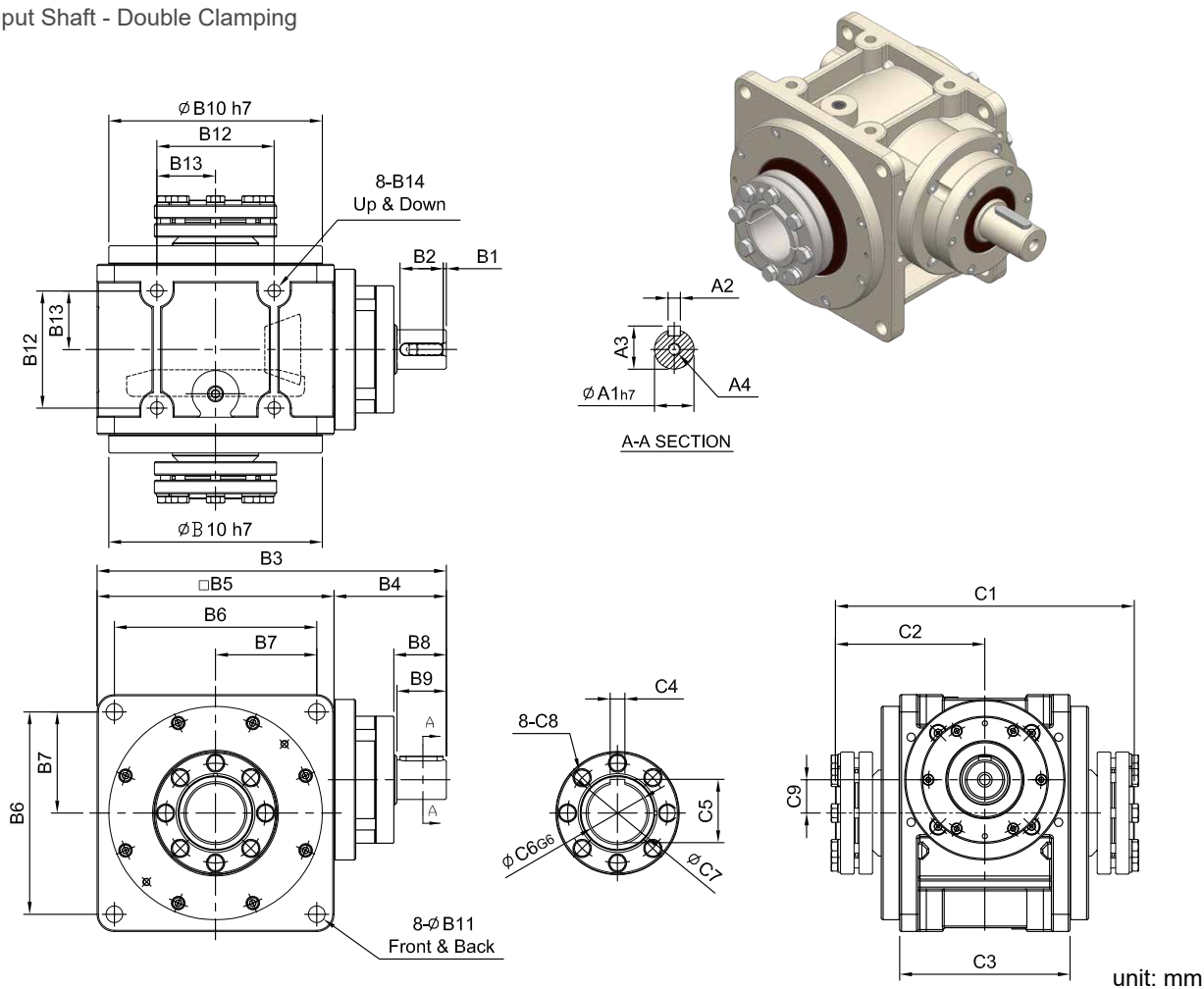
unit: mm

	Model	55	75	90	115	130	140	160	190
	Code								
A	A1	8・9・11・14	11・14・16・19	(14)・16・19	16・19・22・24	22・24・28・32・35	28・32・35・38	28・32・35・38	35・38・42・48・55
	A2	30・40・50	50・60・70	50・70・80・95	70・80・95・110	95・110・130	110・130・180	110・130・180	114.3・180・230・250
	A3	M3・M4・M5	M4・M5・M6	M5・M6	M5・M6・M8	M6・M8・M10	M8・M10・M12	M8・M10・M12	M12・M16
	A4	46・60・63	70・75・90	70・90・100・115	90・100・115・145	115・145・165	145・165・200	145・165・200	200・215・265・300
	A5	46・55	64・70・80	80・92・110	92・110・130	122・130・150	146・150・190	146・150・190	182・200・250・265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
B	B1	157	201・209	(224.5)・237	287	340・360	405	430	508・510
	B2	67	86・94	(84.5)・97	117	148・168	190	190	244・246
	B3	90	115	140	170	192	215	240	264
	B4	78	98	118	144	164	182	206	224
	B5	39	49	59	72	82	91	103	112
	B6	26	32・41.5	(33.5)・45.5	59	67・83	84.5	84.5	114.5・116.5
	B7	5	6	(6)・10	9	10・11	10	10	11.5・13.5
	B8	84	103	128	148	173	200	227	254
	B9	6.8	9	11	11	13.5	15	17.5	17.5
	B10	44	54	66	80	95	104	120	140
	B11	22	27	33	40	47.5	52	60	70
	B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	130	160	188	222	242	261	286	320
	C2	65	80	94	111	121	130.5	143	160
	C3	60	80	100	120	138	146	166	196
	C4	-	-	-	-	12	14	14	18
	C5	-	-	-	-	51.3	58.8	63.8	74.3
	C6	20	25	30	40	48	55	60	70
	C7	28	34	44	52	60	65	73	83
	C8	M6	M6	M6	M8	M8	M8	M8	M10
	C9	9	14	18	23	27	32	38	42
Weight	kg	4.1	6.6	11.0	17.4	29.1	43.1	55.6	90.7

HY-DM Series

RATIO : 5.10.15 (1-Stage)

Single Input Shaft - Double Clamping

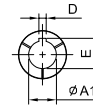
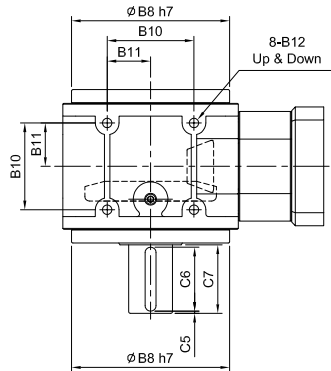
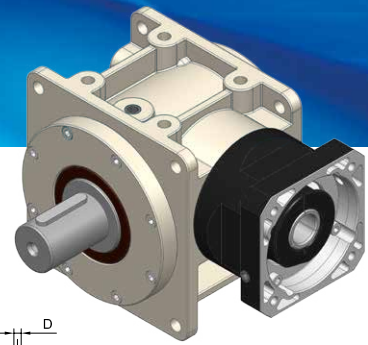


Model Code	55	75	90	115	130	140	160	190
A	A1	14	19	24	28	32	38	40
	A2	5	6	8	8	10	12	12
	A3	16	21.5	27	31	35	41	43
	A4	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75
B	B1	2.5	2.5	2.5	2.5	5	5	5
	B2	20	25	35	35	40	50	50
	B3	147	181	218	260	293	367	403
	B4	57	66	78	90	101	127	139
	B5	90	115	140	170	192	240	264
	B6	78	98	118	144	164	206	224
	B7	39	49	59	72	82	103	112
	B8	27	32	42.5	42.5	52.5	63	63.5
	B9	25	30	40	40	50	60	60
	B10	84	103	128	148	173	227	254
	B11	6.8	9	11	11	13.5	17.5	17.5
	B12	44	54	66	80	95	120	140
	B13	22	27	33	40	47.5	60	70
	B14	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0
C	C1	130	160	188	222	242	286	320
	C2	65	80	94	111	121	143	160
	C3	60	80	100	120	138	166	196
	C4	-	-	-	-	12	14	18
	C5	-	-	-	-	51.3	63.8	74.3
	C6	20	25	30	40	48	60	70
	C7	28	34	44	52	60	73	83
	C8	M6	M6	M6	M8	M8	M8	M10
	C9	9	14	18	23	27	38	42
Weight	kg	3.4	5.3	8.9	11.9	20.7	41	60.7

HY-FS Series

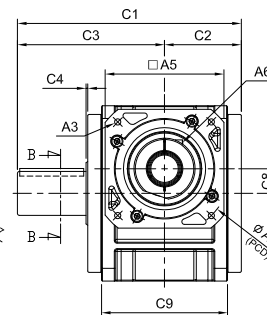
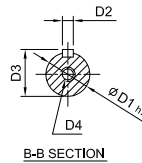
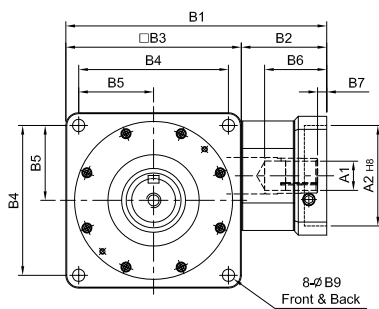
RATIO : 5.10.15 (1-Stage)

Input Flange - Single Output Shaft



(140#以上)

φA1	D	E
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



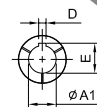
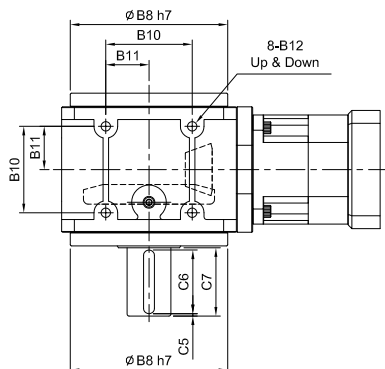
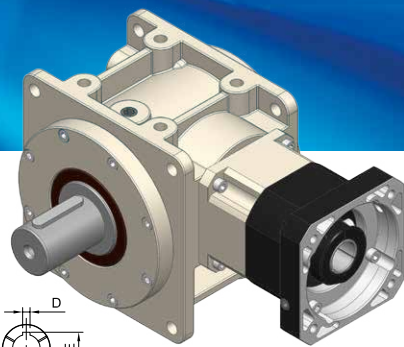
unit: mm

	Model Code	55	75	90	115	130	140	160	190
	A1	8・11	14	14・19・24	19・22・24	24・28・32	32・35	35・38	42・48・55
A	A2	30・40・50	50・60・70	50・70・80・95	70・80・95・110	95・110・130	110・130・180	110・130・180	114.3・180・230・250
	A3	M3・M4・M5	M4・M5・M6	M5・M6	M5・M6・M8	M6・M8・M10	M8・M10・M12	M8・M10・M12	M12・M16
	A4	46・60・63	70・75・90	70・90・100・115	90・100・115・145	115・145・165	145・165・200	145・165・200	200・215・265・300
	A5	46・55	64・70・80	80・92・110	92・110・130	122・130・150	146・150・190	146・150・190	182・200・250・265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B	B1	135	172	202・221	241	286	333	358
B2		45	57	62・81	71	94	118	118	153・155
B3		90	115	140	170	192	215	240	264
B4		78	98	118	144	164	182	206	224
B5		39	49	59	72	82	91	103	112
B6		28	38	49・68.5	58	69.5	81.5	81.5	114.5・116.5
B7		5	6	9・23.5	8	10	10	10	11.5・13.5
B8		84	103	128	148	173	200	227	254
B9		6.8	9	11	11	13.5	15	17.5	17.5
B10		44	54	66	80	95	104	120	140
B11		22	27	33	40	47.5	52	60	70
B12		M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	121	146	180	214	245	275	310	350
	C2	42	52	64	76	84	91.5	103	118
	C3	79	94	120	138	161	183.5	206	231
	C4	2	2	2	2	2	2	2	2
	C5	5	5	5	5	5	5	5	5
	C6	25	30	40	50	65	80	90	100
	C7	35	40	50	60	75	90	100	110
	C8	9	14	18	23	27	32	38	42
	C9	60	80	100	120	138	146	166	196
D	D1	20	24	32	40	48	55	60	70
	D2	6	8	10	12	12	14	14	16
	D3	22.5	27	35	43	51	58.5	63.5	74
	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5	M20 x P2.5
Weight	kg	3.2	5.0	9.1	14.0	21.0	30.6	42.8	67.9

HY-RS Series

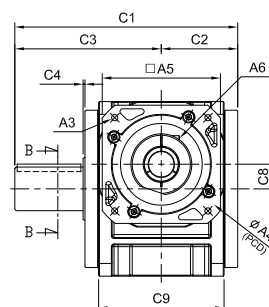
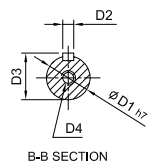
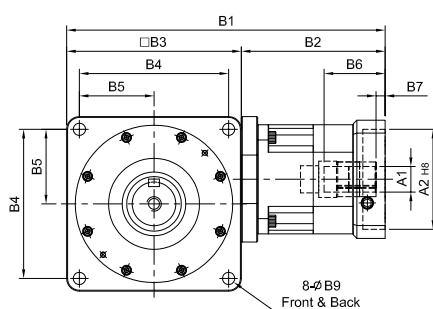
RATIO : 25.50.75.100.150 (2-Stage)

Fitted with Planetary Reducer - Single Output Shaft



(140#以上)

ØA1	D	E
Ø28	8	31.3
Ø32	10	35.3
Ø35	10	38.3
Ø38	10	41.3
Ø42	12	45.3
Ø48	14	51.8
Ø55	16	59.3



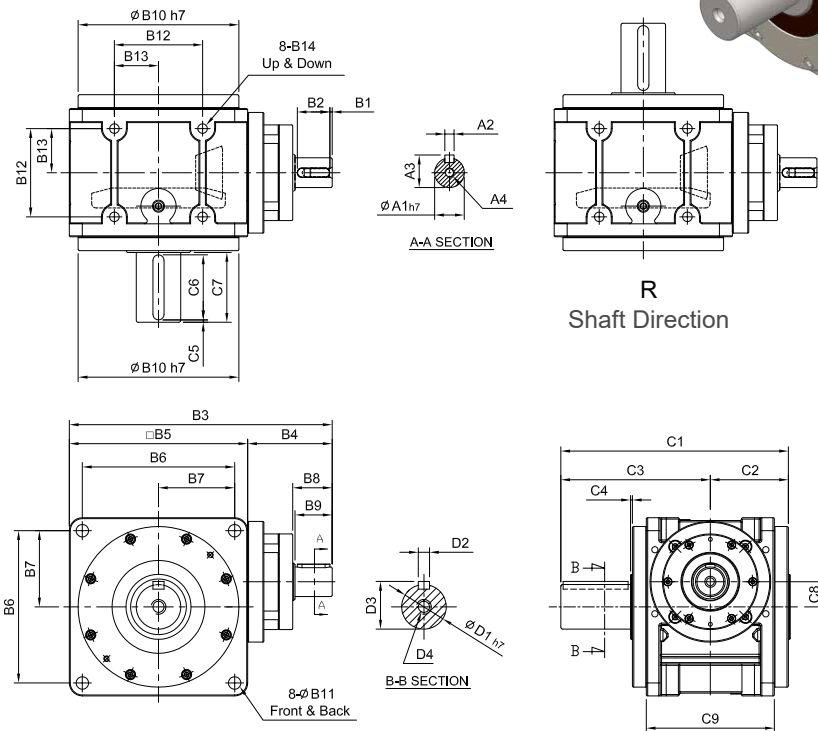
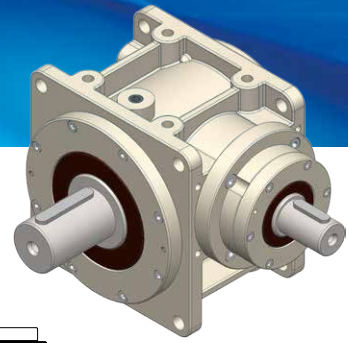
unit: mm

	Model Code	55	75	90	115	130	140	160	190	
	A	A1	8・9・11・14	11・14・16・19	(14)・16・19	16・19・22・24	22・24・28・32・35	28・32・35・38	28・32・35・38	35・38・42・48・55
	A	A2	30・40・50	50・60・70	50・70・80・95	70・80・95・110	95・110・130	110・130・180	110・130・180	114.3・180・230・250
	A	A3	M3・M4・M5	M4・M5・M6	M5・M6	M5・M6・M8	M6・M8・M10	M8・M10・M12	M8・M10・M12	M12・M16
	A	A4	46・60・63	70・75・90	70・90・100・115	90・100・115・145	115・145・165	145・165・200	145・165・200	200・215・265・300
	A	A5	46・55	64・70・80	80・92・110	92・110・130	122・130・150	146・150・190	146・150・190	182・200・250・265
	A	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
		B	B1	157	201・209	(224.5)・237	287	340・360	405	430
B		B2	67	86・94	(84.5)・97	117	148・168	190	190	244・246
B		B3	90	115	140	170	192	215	240	264
B		B4	78	98	118	144	164	182	206	224
B		B5	39	49	59	72	82	91	103	112
B		B6	26	32・41.5	(33.5)・45.5	59	67・83	84.5	84.5	114.5・116.5
B		B7	5	6	(6)・10	9	10・11	10	10	11.5・13.5
B		B8	84	103	128	148	173	200	227	254
B		B9	6.8	9	11	11	13.5	15	17.5	17.5
B		B10	44	54	66	80	95	104	120	140
B		B11	22	27	33	40	47.5	52	60	70
B		B12	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
	C	C1	121	146	180	214	245	275	310	350
	C	C2	42	52	64	76	84	91.5	103	118
	C	C3	79	94	120	138	161	183.5	206	231
	C	C4	2	2	2	2	2	2	2	2
	C	C5	5	5	5	5	5	5	5	5
	C	C6	25	30	40	50	65	80	90	100
	C	C7	35	40	50	60	75	90	100	110
	C	C8	9	14	18	23	27	32	38	42
	C	C9	60	80	100	120	138	146	166	196
	D	D1	20	24	32	40	48	55	60	70
	D	D2	6	8	10	12	12	14	14	16
	D	D3	22.5	27	35	43	51	58.5	63.5	74
	D	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5	M20 x P2.5
Weight	kg	3.8	6.3	10.9	17.7	29.6	45.2	57.4	94.6	

HY-DS Series

RATIO : 5.10.15 (1-Stage)

Single Input Shaft - Single Output Shaft



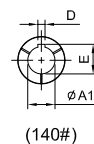
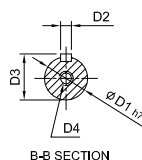
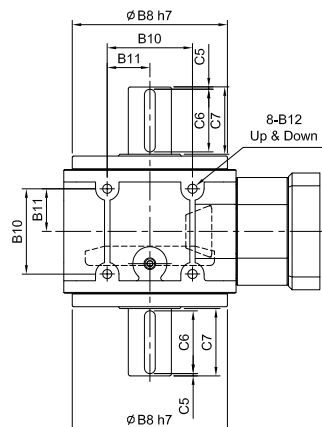
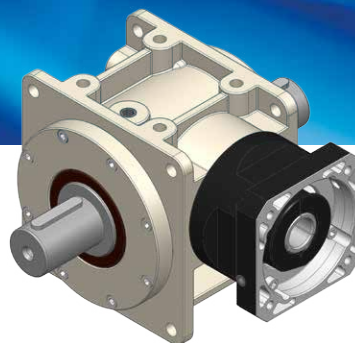
unit: mm

Model Code								
	55	75	90	115	130	140	160	190
A	A1	14	19	24	28	32	32	40
	A2	5	6	8	8	10	10	12
	A3	16	21.5	27	31	35	35	43
	A4	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75
B	B1	2.5	2.5	2.5	2.5	5	5	5
	B2	20	25	35	35	40	40	50
	B3	147	180.5	218	260	293	315	402.5
	B4	57	65.5	78	90	101	100	138.5
	B5	90	115	140	170	192	215	264
	B6	78	98	118	144	164	182	224
	B7	39	49	59	72	82	91	103
	B8	27	32	42.5	42.5	52.5	51.5	63
	B9	25	30	40	40	50	50	60
	B10	84	103	128	148	173	200	227
	B11	6.8	9	11	11	13.5	15	17.5
	B12	44	54	66	80	95	104	120
	B13	22	27	33	40	47.5	52	60
	B14	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0
C	C1	121	146	180	214	245	275	350
	C2	42	52	64	76	84	91.5	103
	C3	79	94	120	138	161	183.5	206
	C4	2	2	2	2	2	2	2
	C5	5	5	5	5	5	5	5
	C6	25	30	40	50	65	80	90
	C7	35	40	50	60	75	90	100
	C8	9	14	18	23	27	32	38
	C9	60	80	100	120	138	146	166
D	D1	20	24	32	40	48	55	60
	D2	6	8	10	12	12	14	16
	D3	22.5	27	35	43	51	58.5	63.5
	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5
Weight	kg	2.9	5.0	8.7	12.0	21.1	32.8	42.0

HY-FV Series

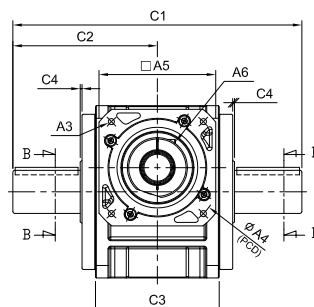
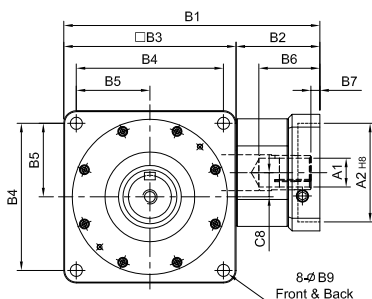
RATIO : 5.10.15 (1-Stage)

Input Flange - Double Output Shaft



(140#)

φA1	D	E
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



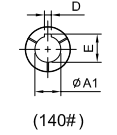
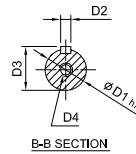
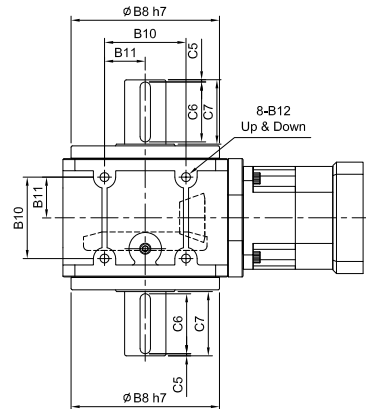
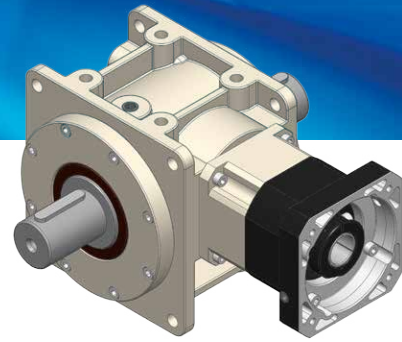
unit: mm

	Model Code	55	75	90	115	130	140	160	190
	A1	8 · 11	14	14 · 19 · 24	19 · 22 · 24	24 · 28 · 32	32 · 35	35 · 38	42 · 48 · 55
A	A2	30 · 40 · 50	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	110 · 130 · 180	114.3 · 180 · 230 · 250
	A3	M3 · M4 · M5	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M8 · M10 · M12	M12 · M16
	A4	46 · 60 · 63	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	145 · 165 · 200	200 · 215 · 265 · 300
	A5	46 · 55	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	146 · 150 · 190	182 · 200 · 250 · 265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B	B1	135	172	202 · 221	241	286	333	358
B2		45	57	62 · 81	71	94	118	118	153 · 155
B3		90	115	140	170	192	215	240	264
B4		78	98	118	144	164	182	206	224
B5		39	49	59	72	82	91	103	112
B6		28	38	49 · 68.5	58	69.5	81.5	81.5	114.5 · 116.5
B7		5	6	9 · 23.5	8	10	10	10	11.5 · 13.5
B8		84	103	128	148	173	200	227	254
B9		6.8	9	11	11	13.5	15	17.5	17.5
B10		44	54	66	80	95	104	120	140
B11		22	27	33	40	47.5	52	60	70
B12		M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	158	188	232	276	322	367	412	462
	C2	79	94	116	138	161	183.5	206	231
	C3	60	80	100	120	138	146	166	196
	C4	2	2	2	2	2	2	2	2
	C5	5	5	5	5	5	5	5	5
	C6	25	30	40	50	65	80	90	100
	C7	35	40	50	60	75	90	100	110
	C8	9	14	18	23	27	32	38	42
D	D1	20	24	32	40	48	55	60	70
	D2	6	8	10	12	12	14	14	16
	D3	22.5	27	35	43	51	58.5	63.5	74
	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5	M20 x P2.5
Weight	kg	3.4	5.4	9.7	15.3	23.1	34.7	47.1	74.0

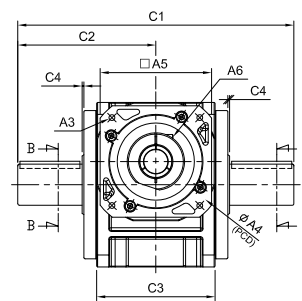
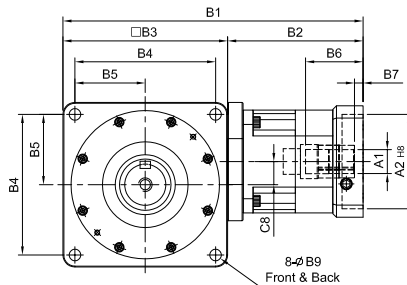
HY-RV Series

RATIO : 25.50.75.100.150 (2-Stage)

Fitted with Planetary Reducer - Double Output Shaft



φA1	D	E
φ28	8	31.3
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



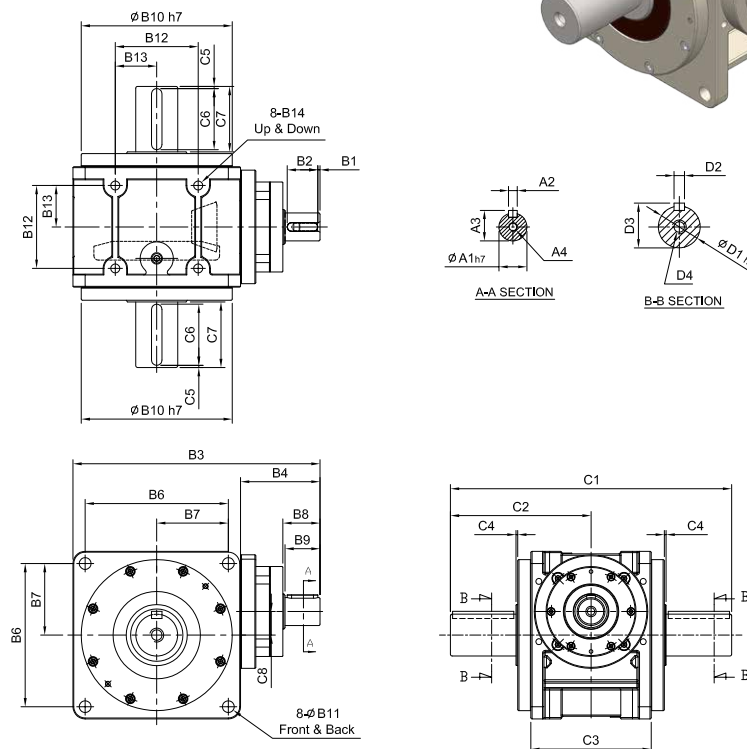
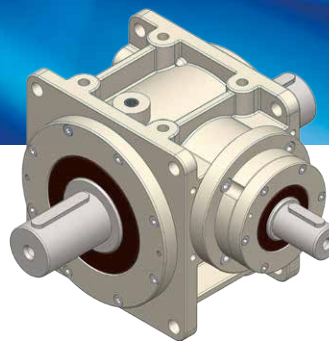
unit: mm

	Model Code	55	75	90	115	130	140	160	190
	A1	8·9·11·14	11·14·16·19	(14)·16·19	16·19·22·24	22·24·28·32·35	28·32·35·38	28·32·35·38	35·38·42·48·55
A	A2	30·40·50	50·60·70	50·70·80·95	70·80·95·110	95·110·130	110·130·180	110·130·180	114.3·180·230·250
	A3	M3·M4·M5	M4·M5·M6	M5·M6	M5·M6·M8	M6·M8·M10	M8·M10·M12	M8·M10·M12	M12·M16
	A4	46·60·63	70·75·90	70·90·100·115	90·100·115·145	115·145·165	145·165·200	145·165·200	200·215·265·300
	A5	46·55	64·70·80	80·92·110	92·110·130	122·130·150	146·150·190	146·150·190	182·200·250·265
	A6	M3 x P.05	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B	B1	157	201·209	(224.5)·237	287	340·360	405	430
B2		67	86·94	(84.5)·97	117	148·168	190	190	244·246
B3		90	115	140	170	192	215	240	264
B4		78	98	118	144	164	182	206	224
B5		39	49	59	72	82	91	103	112
B6		26	32·41.5	(33.5)·45.5	59	67·83	84.5	84.5	114.5·116.5
B7		5	6	(6)·10	9	10·11	10	10	11.5·13.5
B8		84	103	128	148	173	200	227	254
B9		6.8	9	11	11	13.5	15	17.5	17.5
B10		44	54	66	80	95	104	120	140
B11		22	27	33	40	47.5	52	60	70
B12		M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	158	188	232	276	322	367	412	462
	C2	79	94	116	138	161	183.5	206	231
	C3	60	80	100	120	138	146	166	196
	C4	2	2	2	2	2	2	2	2
	C5	5	5	5	5	5	5	5	5
	C6	25	30	40	50	65	80	90	100
	C7	35	40	50	60	75	90	100	110
	C8	9	14	18	23	27	32	38	42
D	D1	20	24	32	40	48	55	60	70
	D2	6	8	10	12	12	14	14	16
	D3	22.5	27	35	43	51	58.5	63.5	74
	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5	M20 x P2.5
Weight	kg	4.0	6.6	11.5	18.9	31.7	41.2	61.6	100.6

HY-DV Series

RATIO : 5.10.15 (1-Stage)

Single Input Shaft - Double Output Shaft



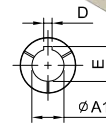
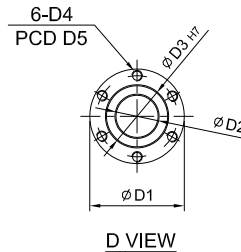
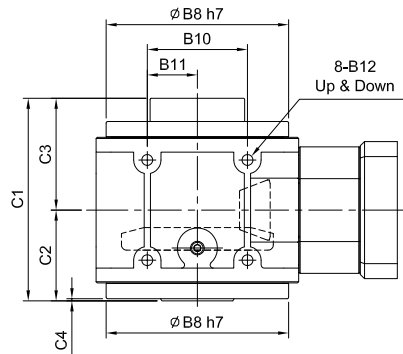
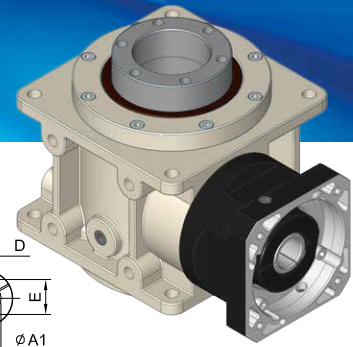
unit: mm

	Model Code	55	75	90	115	130	140	160	190
A	A1	14	19	24	28	32	32	38	40
	A2	5	6	8	8	10	10	12	12
	A3	16	21.5	27	31	35	35	41	43
	A4	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	2.5	5	5	5	5
	B2	20	25	35	35	40	40	50	50
	B3	147	181	218	260	293	315	367	403
	B4	57	66	78	90	101	100	127	139
	B5	90	115	140	170	192	215	240	264
	B6	78	98	118	144	164	182	206	224
	B7	39	49	59	72	82	91	103	112
	B8	27	32	42.5	42.5	52.5	51.5	63	63.5
	B9	25	30	40	40	50	50	60	60
	B10	84	103	128	148	173	200	227	254
	B11	6.8	9	11	11	13.5	15	17.5	17.5
	B12	44	54	66	80	95	104	120	140
	B13	22	27	33	40	47.5	52	60	70
	B14	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	158	188	232	276	322	367	412	462
	C2	79	94	116	138	161	183.5	206	231
	C3	60	80	100	120	138	146	166	196
	C4	2	2	2	2	2	2	2	2
	C5	5	5	5	5	5	5	5	5
	C6	25	30	40	50	65	80	90	100
	C7	35	40	50	60	75	90	100	110
	C8	9	14	18	23	27	32	38	42
D	D1	20	24	32	40	48	55	60	70
	D2	6	8	10	12	12	14	14	16
	D3	22.5	27	35	43	51	58.5	63.5	74
	D4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M12 x P1.75	M16 x P2.0	M20 x P2.5	M20 x P2.5
Weight	kg	3.1	5.3	9.2	14.7	23.6	37.7	47.8	70.6

HY-FP series

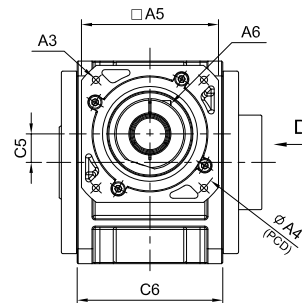
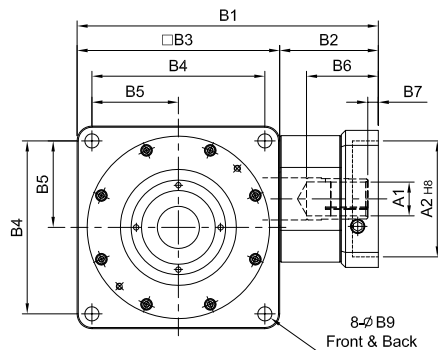
RATIO : 5.10.15 (1-Stage)

Input Flange - Ball Screw



(140#)

φA1	D	E
φ32	10	35.3
φ35	10	38.3
φ38	10	41.3
φ42	12	45.3
φ48	14	51.8
φ55	16	59.3



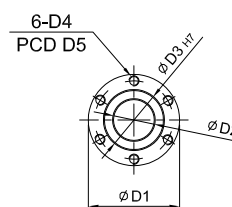
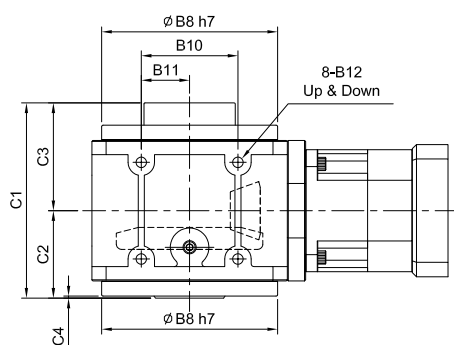
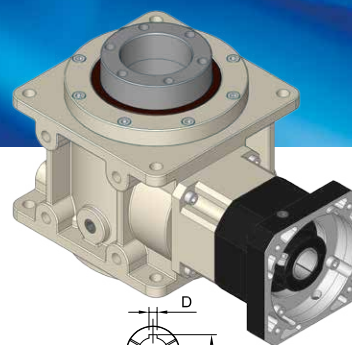
unit: mm

	Model Code	75	90	115	130	140	160	190
	A1	14	14、19、24	19、22、24	24、28、32	32、35	35、38	42、48、55
A	A2	50、60、70	50、70、80、95	70、80、95、110	95、110、130	110、130、180	110、130、180	114.3、180、230、250
	A3	M4、M5、M6	M5、M6	M5、M6、M8	M6、M8、M10	M8、M10、M12	M8、M10、M12	M12、M16
	A4	70、75、90	70、90、100、115	90、100、115、145	115、145、165	145、165、200	145、165、200	200、215、265、300
	A5	64、70、80	80、92、110	92、110、130	122、130、150	146、150、190	146、150、190	182、200、250、265
	A6	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B	B1	172	202、221	241	286	333	358
B2		57	62、81	71	94	118	118	153、155
B3		115	140	170	192	215	240	264
B4		98	118	144	164	182	206	224
B5		49	59	72	82	91	103	112
B6		38	49、68.5	58	69.5	81.5	81.5	114.5、116.5
B7		6	9、23.5	8	10	10	10	11.5、13.5
B8		103	128	148	173	200	227	254
B9		9	11	11	13.5	15	17.5	17.5
B10		54	66	80	95	104	120	140
B11		27	33	40	47.5	52	60	70
B12		M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	125	140	177	193	205	230	260
	C2	58	66	78.5	87	94	107	123
	C3	67	74	98.5	106	111	123	137
	C4	3.25	2	2.5	2	2.5	2.5	3
	C5	50	58	72	72	82	92	117
	C6	75	82	105	121	123	138	143
	C7	14	18	23	27	32	38	42
	C8	80	100	120	138	146	166	196
D	D1	54.7	64.7	89.7	89.7	99.7	117.7	129.7
	D2	22	30	38	40	44	54	65
	D3	34	40	58	58	64	75	90
	D4	M5 x P0.8	M5 x P0.8	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
	D5	45	51	77	77	84	97	112
Weight	kg	4.3	8.3	12.7	18.7	26.9	37.9	58.9

HY-RP Series

RATIO : 25.50.75.100.150 (2-Stage)

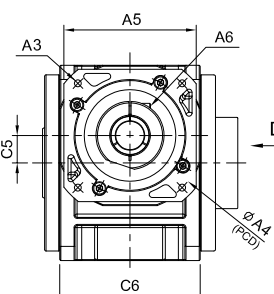
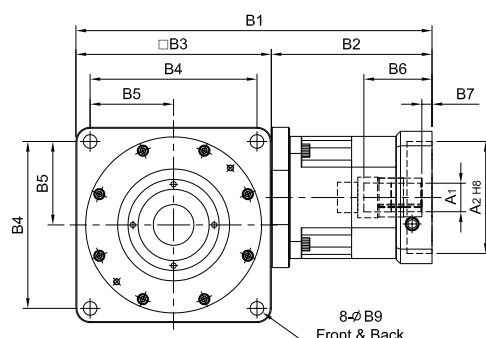
Fitted with Planetary Reducer - Ball Screw



D VIEW

(140#)

ØA1	D	E
Ø28	8	31.3
Ø32	10	35.3
Ø35	10	38.3
Ø38	10	41.3
Ø42	12	45.3
Ø48	14	51.8
Ø55	16	59.3



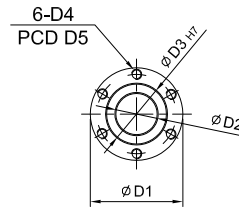
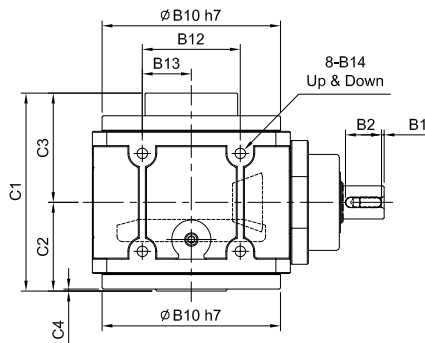
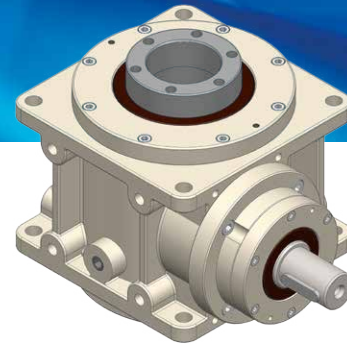
unit: mm

	Model Code	75	90	115	130	140	160	190
	A1	11、14、16、19	(14)、16、19	16、19、22、24	22、24、28、32、35	28、32、35、38	28、32、35、38	35、38、42、48、55
A	A2	50、60、70	50、70、80、95	70、80、95、110	95、110、130	110、130、180	110、130、180	114.3、180、230、250
	A3	M4、M5、M6	M5、M6	M5、M6、M8	M6、M8、M10	M8、M10、M12	M8、M10、M12	M12、M16
	A4	70、75、90	70、90、100、115	90、100、115、145	115、145、165	145、165、200	145、165、200	200、215、265、300
	A5	64、70、80	80、92、110	92、110、130	122、130、150	146、150、190	146、150、190	182、200、250、265
	A6	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	B	B1	201、209	(224.5)、237	287	340、360	405	430
B2		86、94	(84.5)、97	117	148、168	190	190	244、246
B3		115	140	170	192	215	240	264
B4		98	118	144	164	182	206	224
B5		49	59	72	82	91	103	112
B6		32、41.5	(33.5)、45.5	59	67、83	84.5	84.5	114.5、116.5
B7		6	(6)、10	9	10、11	10	10	11.5、13.5
B8		103	128	148	173	200	227	254
B9		9	11	11	13.5	15	17.5	17.5
B10		54	66	80	95	104	120	140
B11		27	33	40	47.5	52	60	70
B12		M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	125	140	177	193	205	230	260
	C2	58	66	78.5	87	94	107	123
	C3	67	74	98.5	106	111	123	137
	C4	3.25	2	2.5	2	2.5	2.5	3
	C5	50	58	72	72	82	92	117
	C6	75	82	105	121	123	138	143
	C7	14	18	23	27	32	38	42
	C8	80	100	120	138	146	166	196
D	D1	54.7	64.7	89.7	89.7	99.7	117.7	129.7
	D2	22	30	38	40	44	54	65
	D3	34	40	58	58	64	75	90
	D4	M5 x P0.8	M5 x P0.8	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
	D5	45	51	77	77	84	97	112
Weight	kq	5.5	10.1	16.4	27.3	41.5	52.5	85.5

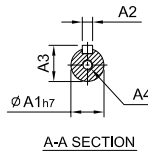
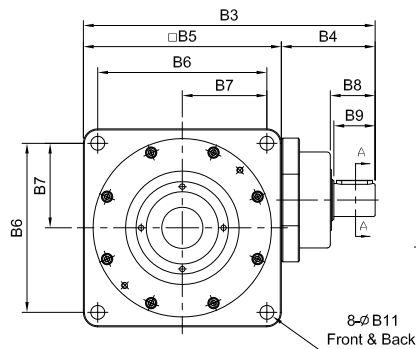
HY-DP Series

RATIO : 5.10.15 (1-Stage)

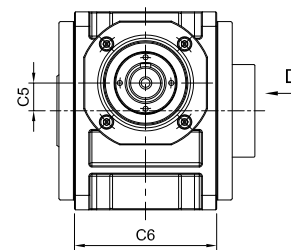
Single Input Shaft - Ball Screw



D VIEW



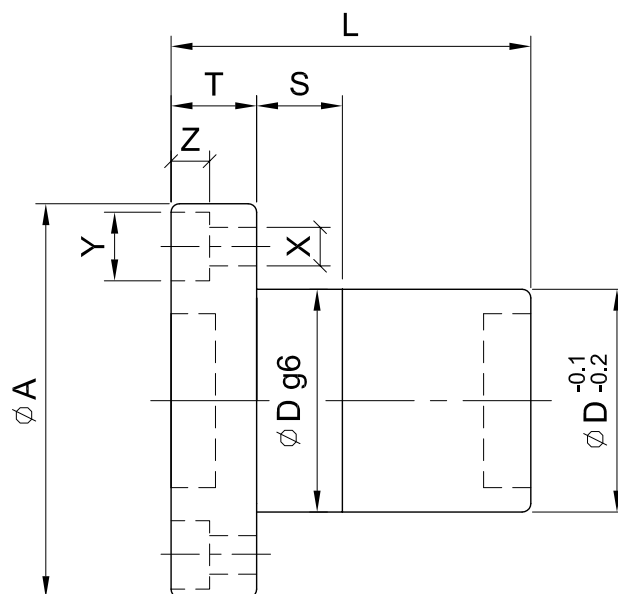
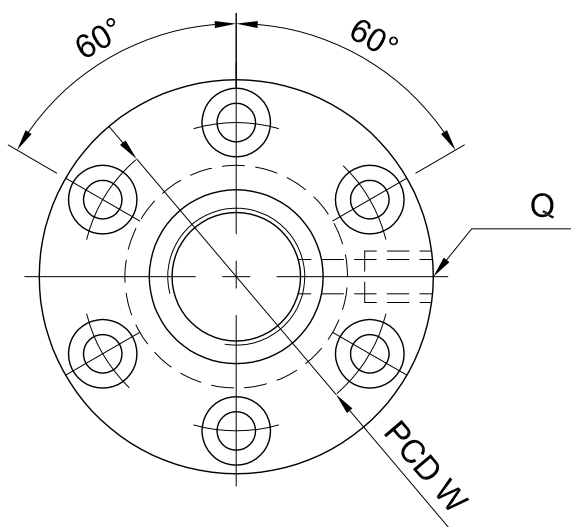
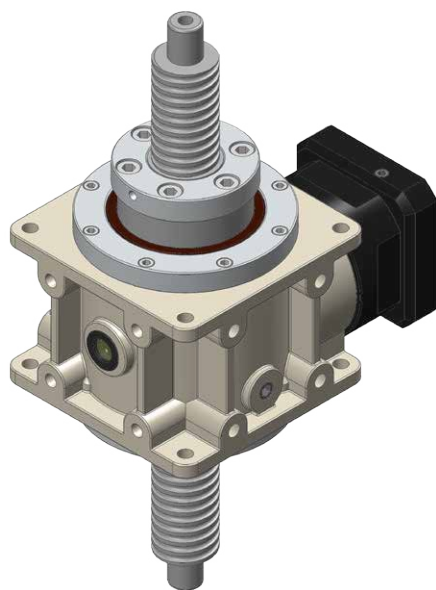
A-A SECTION



unit: mm

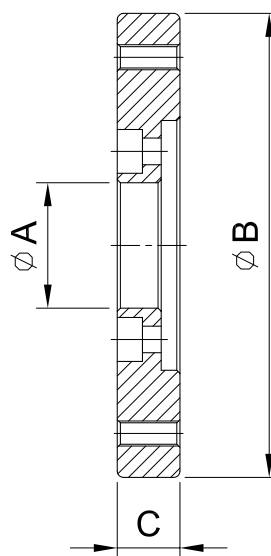
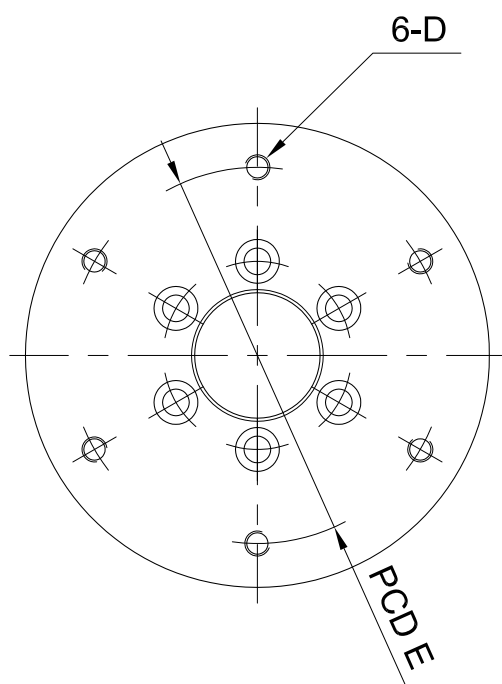
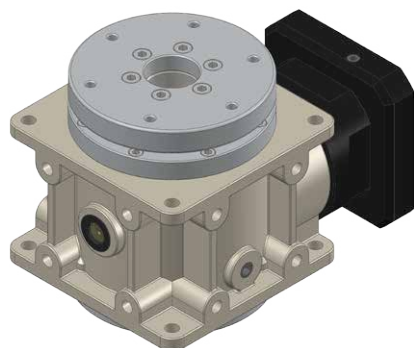
Model Code	75	90	115	130	140	160	190	
A	A1	19	24	28	32	32	38	40
	A2	6	8	8	10	10	12	12
	A3	21.5	27	31	35	35	41	43
	A4	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5
	B2	25	35	35	40	40	50	50
	B3	181	218	260	293	315	367	403
	B4	66	78	90	101	100	127	139
	B5	115	140	170	192	215	240	264
	B6	98	118	144	164	182	206	224
	B7	49	59	72	82	91	103	112
	B8	32	42.5	42.5	52.5	51.5	63	63.5
	B9	30	40	40	50	50	60	60
	B10	103	128	148	173	200	227	254
	B11	9	11	11	13.5	15	17.5	17.5
	B12	54	66	80	95	104	120	140
	B13	27	33	40	47.5	52	60	70
	B14	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75	M14 x P2.0	M16 x P2.0	M16 x P2.0
C	C1	125	140	177	193	205	230	260
	C2	58	66	78.5	87	94	107	123
	C3	67	74	98.5	106	111	123	137
	C4	3.25	2	2.5	2	2.5	2.5	3
	C5	50	58	72	72	82	92	117
	C6	75	82	105	121	123	138	143
	C7	14	18	23	27	32	38	42
	C8	80	100	120	138	146	166	196
D	D1	54.7	64.7	89.7	89.7	99.7	117.7	129.7
	D2	22	30	38	40	44	54	65
	D3	34	40	58	58	64	75	90
	D4	M5 x P0.8	M5 x P0.8	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.75	M12 x P1.75
	D5	45	51	77	77	84	97	112
Weight	kg	4.2	7.8	12.2	19.2	29.6	38.7	55.5

Reference Information of Ball Screw



Reducer Model	Screw Size		Basic Rate Load (kgf)		Nut		Flange			FIT	Screw Bolt			Oil Hole	Length
	O.D.	Lead	Dynamic	Static	Dg6	L	A	T	W	S	X	Y	Z	Q	
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	20	6	1,380	2,730	34	61	57	12	45	12	5.5	9.5	5.5	M6 x P1	≤ 1500
90	25	8	1,630	3,650	40	69	63.5	12	51	15	5.5	9.5	5.5	M8 x P1	≤ 1500
115	36	10	3,600	8,280	58	89	98	18	77	20	11	17.5	11	M8 x P1	≤ 1500
130	36	10	3,600	8,280	58	89	98	18	77	20	11	17.5	11	M8 x P1	≤ 1500
140	40	10	4,670	11,830	64	99	106	18	84	20	11	17.5	11	M8 x P1	≤ 1500
160	50	12	5,770	14,870	75	111	121	22	97	20	14	20	13	1/8"PT	≤ 1500
190	63	12	9,320	29,150	90	136	136	22	112	20	14	20	13	1/8"PT	≤ 1500

Flange (B)



Model Code	55	75	90	115	130	140	160	190
A	-	25	30	40	45	50	55	60
B	-	102	128	148	168	198	228	248
C	-	15	16	20	23	24	23	27
D	-	M6 x P1.0	M8 x P1.25	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5	M12 x P1.25
E	-	80	100	120	140	160	180	200