

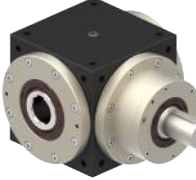
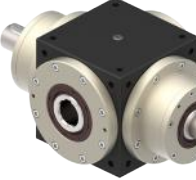


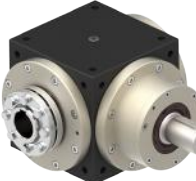
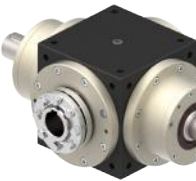



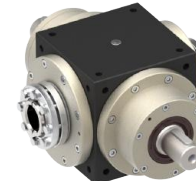


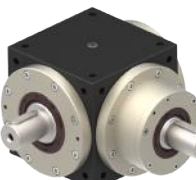
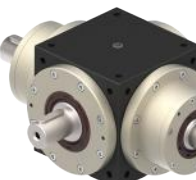


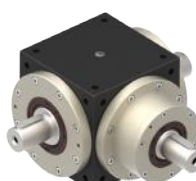
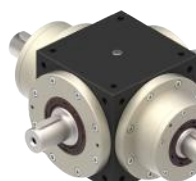




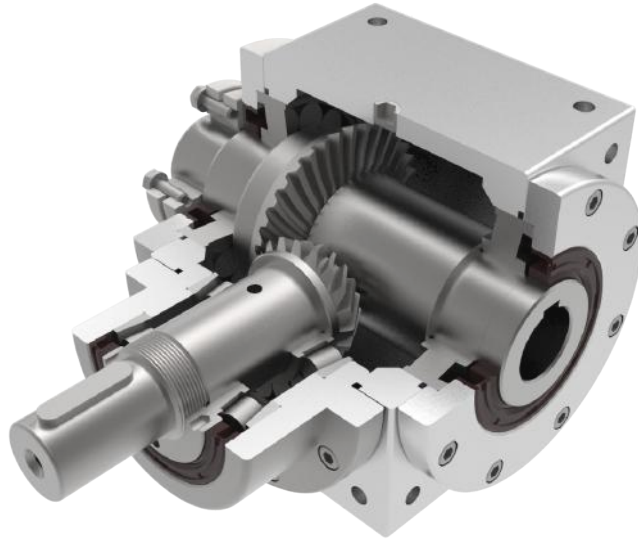


ST Series / Serileri

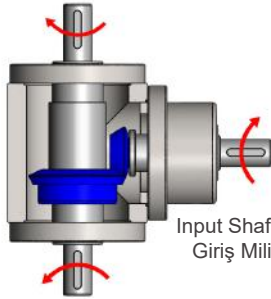
Input Shaft / Giriş Mili

	F	R	D	Y
O Hollow Output Shaft / Delik Millî				
	FO	RO	DO	YO
N Single Clamping / Tek Konik Sıkma				
	FN	RN	DN	YN
M Double Clamping / Çift Konik Sıkma				
	FM	RM	DM	YM
S Single Output Shaft / Tek Çıkış Mili				
	FS	RS	DS	YS
V Double Output Shaft / Çift Çıkış Mili				
	FV	RV	DV	YV
P Flange / Flanş				
	FP	RP	DP	YP

Rotating Direction / Milin Dönüş Yönü

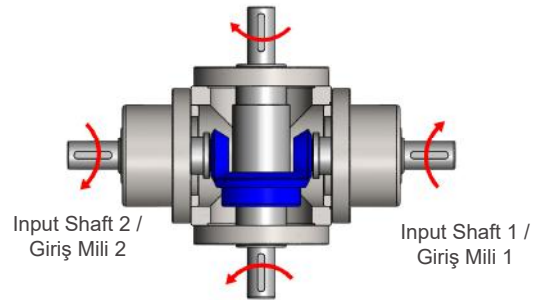


Output Shaft 2 / Çıkış Mil 2



Output Shaft 1 / Giriş Mil 1

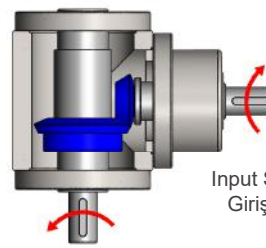
Output Shaft 2 / Çıkış Mil 2



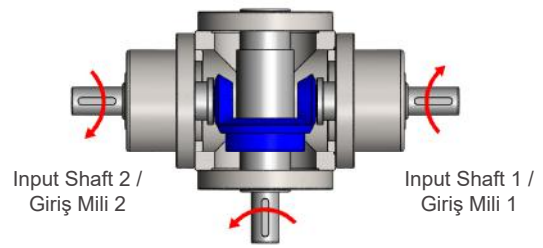
Output Shaft 1 / Çıkış Mil 1

L
Shaft Direction /
Mil Yönü

L
Shaft Direction /
Mil Yönü

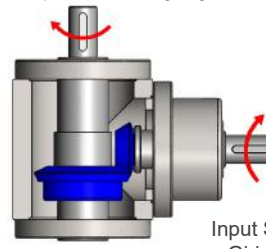


Output Shaft 1 / Çıkış Mil 1



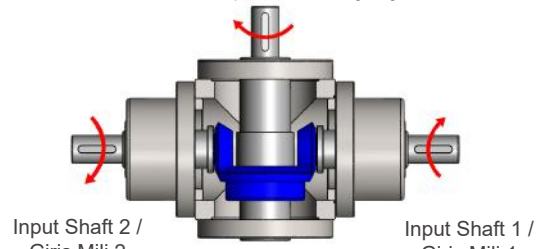
Output Shaft 1 / Çıkış Mil 1

Output Shaft 2 / Çıkış Mil 2



Input Shaft 1 /
Giriş Mil 1

Output Shaft 2 / Çıkış Mil 2

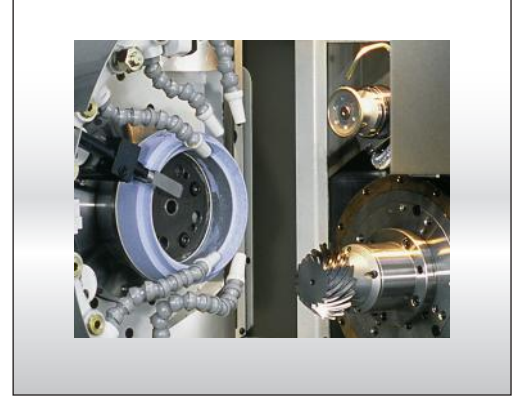
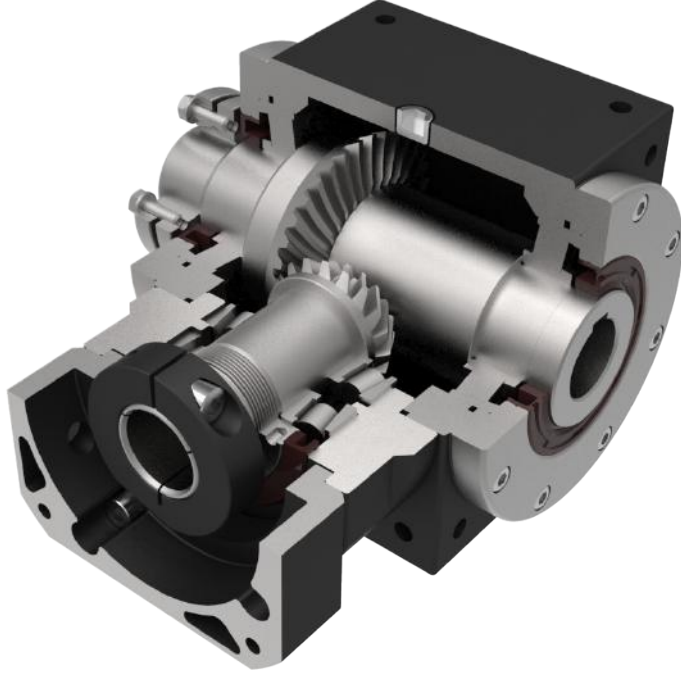


Input Shaft 2 /
Giriş Mil 2

Input Shaft 1 /
Giriş Mil 1

R 軸向
Shaft Direction

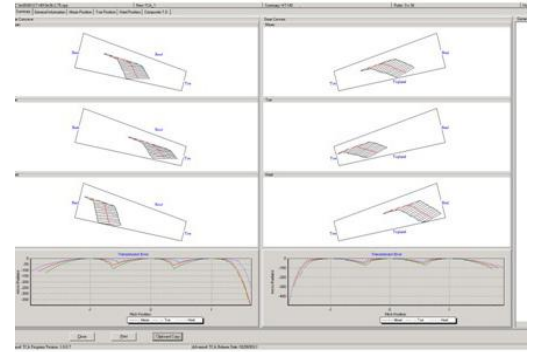
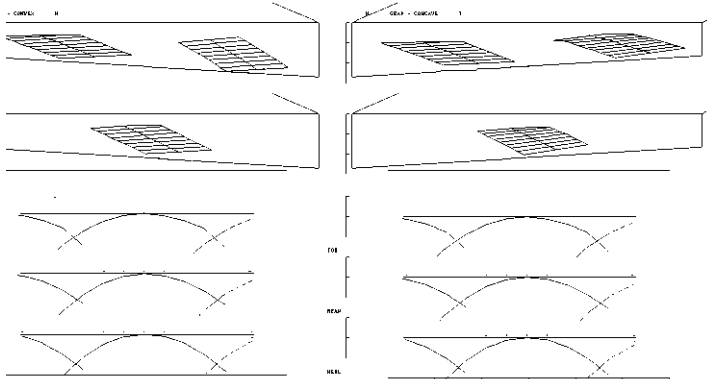
Features of ST Series / ST Serilerinin Özellikleri



High precision grinded and carburized spiral bevel gears /
Yüksek hassasiyetle taşlanmış ve karbürlenmiş konik dişliler

High precision grinded and carburized spiral bevel gears to meet standard AGMA12.

AGMA12 standardına ulaşmak amacıyla konik dişliler yüksek hassasiyetle taşlanıp, karbürlenmiştir.



Optimized Design and CAE Analysis / Optimize Edilmiş Dizayn ve CAE Analizi

Use Gleason's design software to design new spiral bevel gears. Through the ideal gear contact pattern for application, achieve high permissible output torque. Employs 3D-CAE software for analysis and design, the software allows for analyzing the strength of the entire gear reducer and helical teeth. Increasing the service life of gears and the gear reducer.

Konik dişlilerin dizaynında Gleason yazılımı kullanılmıştır. En uygun temas modellemesiyle, yüksek çıkış torkuna ulaşılır. Analiz ve dizayn için 3D-CAE yazılımı kullanılmıştır. Bu sayede redüktör ve helis dişlilerin mukavemeti ve hizmet ömrü test edilmiş olur.

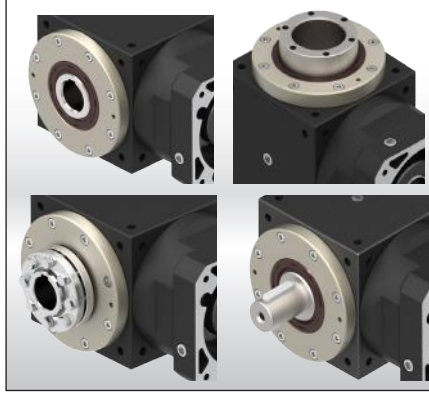
Features of ST Series / ST Serilerinin Özellikleri



Low Backlash / Düşük Boşluk Oranı

Using Gleason high precision CNC grinding machine to grinding the spiral bevel gears. Torsional backlash depending on design up to <math><2</math> arcmin.

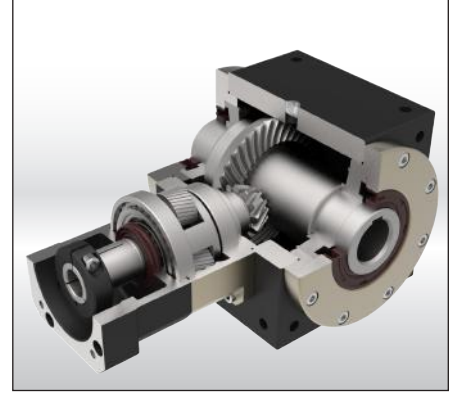
Konik dişlileri taşlamak için yüksek hassasiyetli Gleason CNC kullanılmıştır. Bu sayede <math><2</math> arcmin'e kadar burulma boşluğu elde edilir.



Mounting Position / Montaj Pozisyonu

Multiple precision machined surface is easy for assembly, suitable for any optional mounting orientation. Output shaft and input shaft are designed to suit for various industries applications.

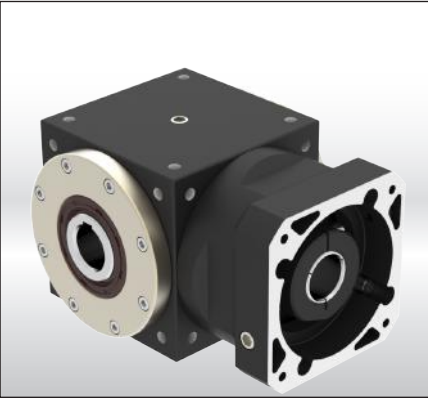
Çok hassas işlenen yüzeyler montajda kolaylık ve çeşitlilik sağlar. Çıkış ve giriş milleri birçok uygulama için tasarlanmıştır.



More High Gear Ratio / Çok Çeşitli Çevrim Oranı

High precision grinded and carburized spiral bevel gears with optimal designed planetary gear can do ratio 500: 1.

Yüksek hassasiyetle taşlanmış ve karbürlenmiş konik dişliler ve planet dişliler sayesinde 1/500'e kadar tahvil oranına ulaşılır.



No Maintenance / Bakım Gerektirmez

It features no maintenance and long service life.

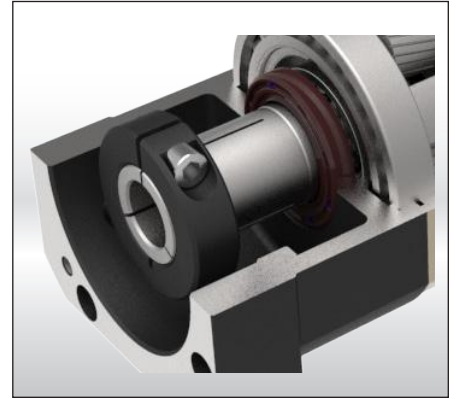
Bakım gerektirmeyen uzun hizmet ömrü.



High Output Torque / Yüksek Çıkış Torku

The gear box is one-piece constructed to ensure the high rigidity and corrosion-resistant capability.

Redüktör sağlamlık ve paslanmaya karşı dayanıklı olması için tek parça olarak üretilmiştir.



Collet Locking Mechanism / Kovan Kilitleme Mekanizması

The input-end and the motor are coupled through a collet locking mechanism. It has passed dynamical balance analysis to assure concentricity and balance on the connection and no backlash for power transmission while running at high speed.

Giriş mili ve motor mili kovan kilitleme mekanizmasıyla birbirine bağlanır. Yüksek devirlerde çalışırken güç iletiminde boşluk olmaması ve bağlantı dengesinin sağlanması amacıyla dinamik denge analizi yapılır.

ST Series / Serileri

1-Stage / Kademe

Model No.		Unit Birim	Ratio Çevrim	65	75	90	110	140	170	210
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	1	25	45	78	150	360	585	1,300
			2	24	42	68	150	330	544	1,220
			3	18	33	54	120	270	450	1,020
			4	13	28	52	100	224	376	860
			5	12	25	40	85	196	320	740
Max. Acceleration Torque / Max. İvmelenme Torku	T_{2B}	Nm	1~5	1.5 Times of Rated Output Torque / 1,5 x Nominal Çıkış Torku						
Max. Output Torque / Max. Çıkış Torku	T_{2NOT}	Nm	1~5	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku						
Rated Input Speed / Nominal Giriş Devri	n_{1N}	rpm	1~5	3,000	3,000	3,000	2,500	2,500	2,000	2,000
Max. Input Speed / Max. Giriş Devri	n_{1B}	rpm	1~5	7,500	6,500	5,500	4,500	3,500	3,000	3,000
Backlash / Boşluk Oranı		arcmin	P0	-	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
			P1	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6
			P2	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Max. Radial Force Ball Bearing / Max. Radyal Yük Bilyalı Rulman	F_{2rB}	N	1~5	700	1,050	1,500	2,360	3,080	4,800	6,400
Max. Axial Force Ball Bearing / Max. Aksiyel Yük Bilyalı Rulman	F_{2aB}	N	1~5	350	525	750	1,180	1,540	2,400	3,200
Max. Radial Force Taper Bearing / Max. Radyal Yük Masuralı Rulman	F_{2rB}	N	1~5	-	2,400	3,200	5,000	6,500	9,100	13,000
Max. Axial Force Taper Bearing / Max. Aksiyel Yük Masuralı Rulman	F_{2aB}	N	1~5	-	1,200	1,600	2,500	3,250	4,550	6,500
Service Life / Hizmet Ömrü	L_H	hr	1~5	S5 Döngüsel Çalışma : >30,000 (S1 Sürekli Çalışma : >15,000 hrs) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)						
Efficiency / Verim	η	%	1~5	94% ~ 98%						
Operating Temperature / Çalışma Sıcaklığı		°C	1~5	-30°C ~ +100°C						
Lubrication / Yağlama			1~5	Synthetic Oil / Sentetik Yağ						
Noise Level / Ses Seviyesi		dB	1~5	≤ 65	≤ 67	≤ 71	≤ 73	≤ 74	≤ 75	≤ 77

Mass Moments of Inertia / Atalet Ağırlık Momenti (kgcm²)

Ratio / Çevrim	65	75	90	110	140	170	210
1	0.51	1.79	4.93	12.5	36.8	85.9	287
2	0.44	0.95	2.78	7.41	15.6	39.3	123
3	0.43	0.78	2.34	6.18	10.9	28.5	84.1
4	0.43	0.72	2.18	5.71	9.19	24.5	69.9
5	0.43	0.69	2.10	5.48	8.32	22.6	62.7

ST Series / Serileri

2-Stage / Kademe

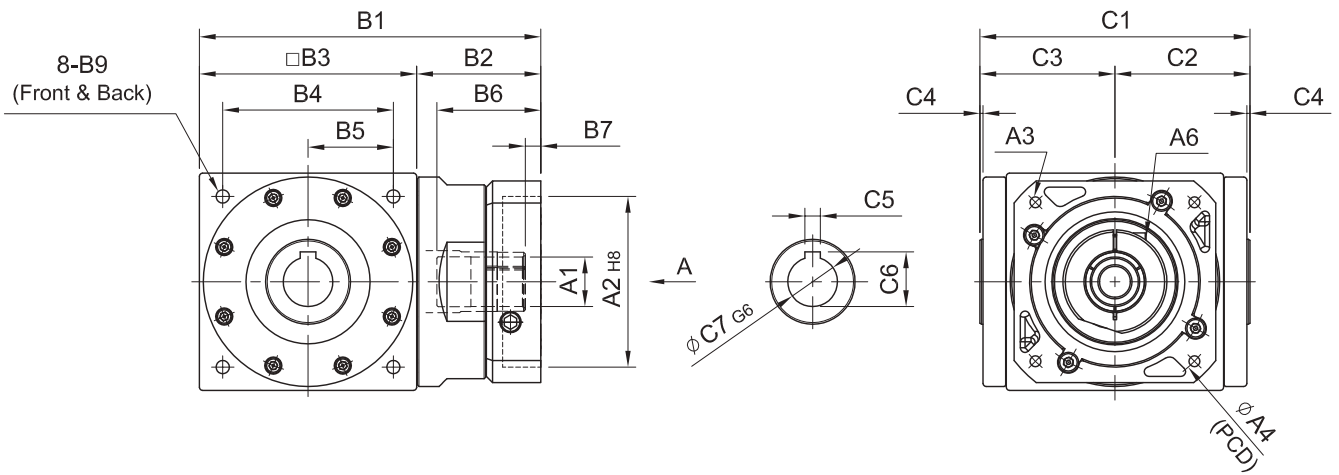
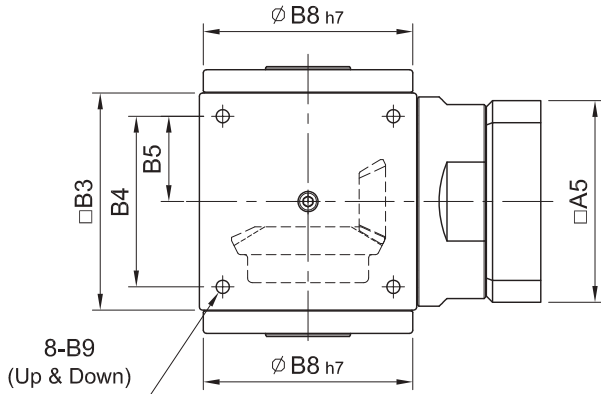
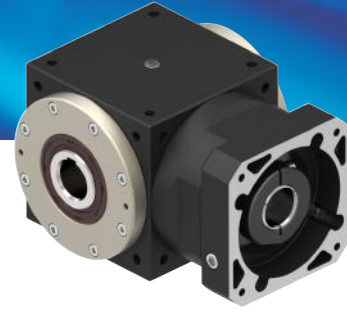
Model No.		Unit Birim	Ratio Çevrim	65	75	90	110	140	170	210
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	10	24	42	68	150	330	544	1,220
			15	18	33	54	120	270	450	1,020
			20	13	28	48	100	224	376	860
			25	12	25	40	85	196	320	740
			30	18	33	54	120	270	450	1,020
			40	13	28	52	100	224	376	860
			50	12	25	40	85	196	320	740
Max. Acceleration Torque / Max. İvmelenme Torku	T_{2B}	Nm	10~50	1.5 Times of Rated Output Torque / 1,5 x Nominal Çıkış Torku						
Max. Output Torque / Max. Çıkış Torku	T_{2NOT}	Nm	10~50	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku						
Rated Input Speed / Nominal Giriş Devri	n_{1N}	rpm	10~50	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Max. Input Speed / Max. Giriş Devri	n_{1B}	rpm	10~50	8,000	8,000	6,000	6,000	6,000	5,000	5,000
Backlash / Boşluk Oranı		arcmin	P0	-	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4
			P1	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
			P2	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
Max. Radial Force Ball Bearing / Max. Radyal Yük Bilyalı Rulman	F_{2rB}	N	1~5	700	1,050	1,500	2,360	3,080	4,800	6,400
Max. Axial Force Ball Bearing / Max. Aksiyel Yük Bilyalı Rulman	F_{2aB}	N	1~5	350	525	750	1,180	1,540	2,400	3,200
Max. Radial Force Taper Bearing / Max. Radyal Yük Masuralı Rulman	F_{2rB}	N	1~5	-	2,400	3,200	5,000	6,500	9,100	13,000
Max. Axial Force Taper Bearing / Max. Aksiyel Yük Masuralı Rulman	F_{2aB}	N	1~5	-	1,200	1,600	2,500	3,250	4,550	6,500
Service Life / Hizmet Ömrü	L_H	hr	10~50	S5 Döngüsel Çalışma : >30,000 (S1 Sürekli Çalışma : >15,000 hrs) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)						
Efficiency / Verim	η	%	10~50	90% ~ 94%						
Operating Temperature / Çalışma Sıcaklığı		°C	10~50	-30°C ~ +100°C						
Lubrication / Yağlama			10~50	Synthetic Oil / Sentetik Yağ						
Noise Level / Ses Seviyesi		dB	10~50	≤ 68	≤ 69	≤ 73	≤ 74	≤ 75	≤ 76	≤ 78

Mass Moments of Inertia / Atalet Ağırlık Momenti (kgcm²)

Ratio / Çevrim	65	75	90	110	140	170	210
10	0.05	0.15	0.18	0.41	0.56	3.25	8.9
15	0.05	0.15	0.18	0.41	0.56	3.25	8.9
20	0.05	0.15	0.18	0.41	0.56	3.25	8.9
25	0.05	0.15	0.18	0.41	0.56	3.25	8.9
30	0.05	0.15	0.16	0.38	0.53	3.09	8.4
40	0.05	0.15	0.16	0.38	0.53	3.09	8.4
50	0.05	0.15	0.16	0.38	0.53	3.09	8.4

ST-FO series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

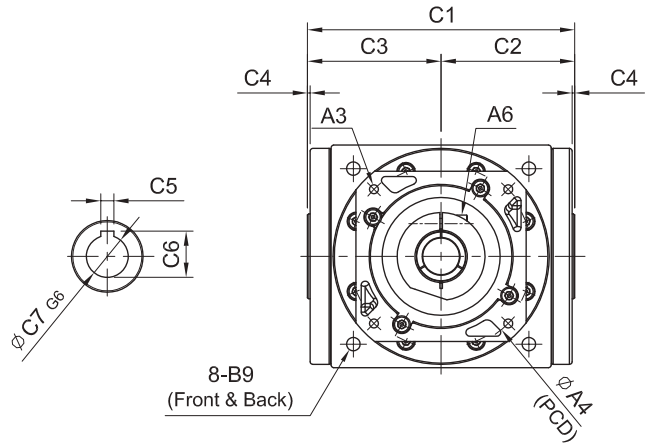
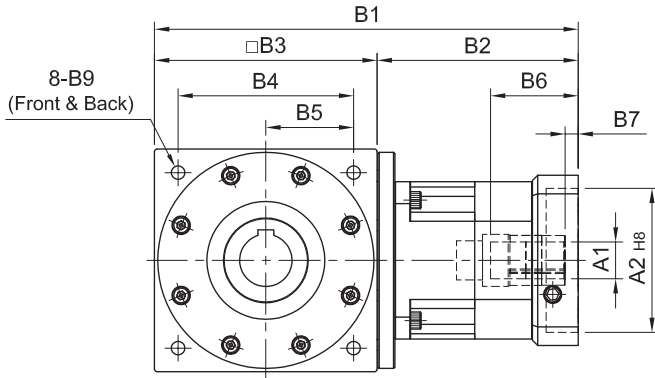
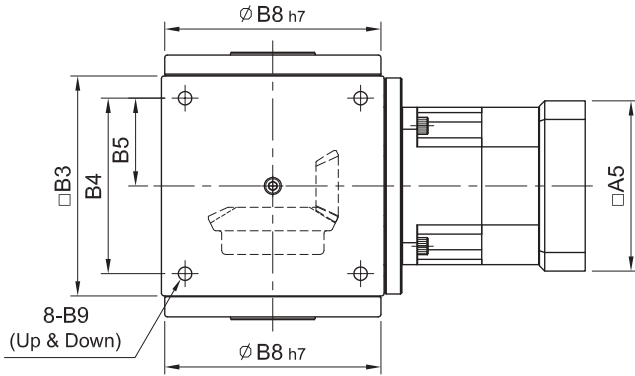
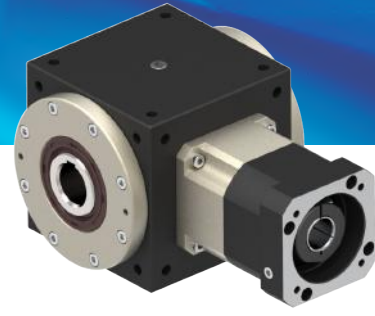


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	14	19·24	22·24	28·32	35	38·42·48·55
	A2	50·60·70	50·60·70	50·60·70	70·80·95·110	70·80·95·110	95·110·130	110·130·180	114.3·180·230
	A3	M4·M5·M6	M4·M5·M6	M4·M5·M6	M5·M6·M8	M5·M6·M8	M6·M8·M10	M8·M10·M12	M10·M12·M16
	A4	70·75·90	70·75·90	70·75·90	90·100·115·145	90·100·115·145	115·145·165	145·165·200	200·215·265
	A5	64·70·80	64·70·80	64·70·80	92·110·130	92·110·130	122·130·150	146·150·190	182·200·250
	A6	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	110	110	115	148·162	177·191	224	274	357
	B2	45	45	40	58·72	67·81	84	104	147
	B3	65	65	75	90	110	140	170	210
	B4	52	52	60	72	88	110	134	170
	B5	26	26	30	36	44	55	67	85
	B6	36	36	36	51·65.5	51·65.5	68	84.5	117·119
	B7	7	7	7	9·23.5	9·23.5	10	9.5	14
	B8	62	64	73	88	106	135	164	205
B9	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0	
C	C1	84	89	100	118	144	174	204	250
	C2	42	44.5	50	59	72	87	102	125
	C3	42	44.5	50	59	72	87	102	125
	C4	2	2	2	2	2	2	2	2
	C5	5	5	5	6	8	10	12	14
	C6	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
	C7	14	14	14	18	22	32	40	50
Weight / Ağırlık	1.7	1.7	2.4	4.3	7.1	14.9	24.5	46	

ST-RO series / serileri

RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)



unit / birim: mm

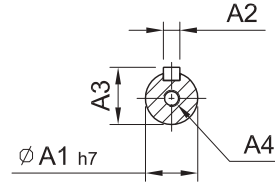
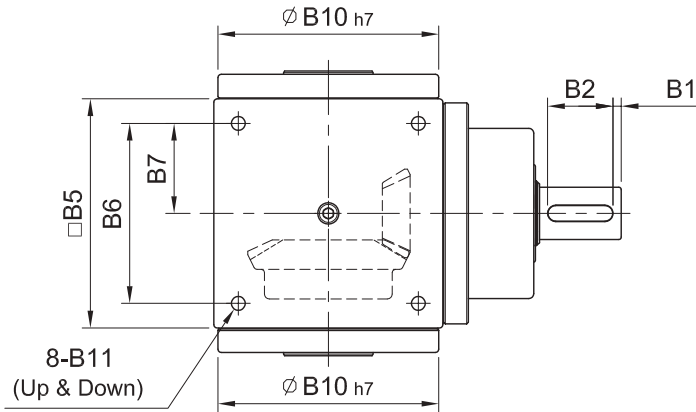
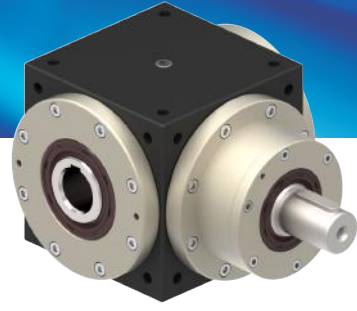
Model Code	65	75	90	110	140	170	210	
	A	A1 8 · 11	8 · 11	14	14	(14) · 19	19 · 24	28 · 32
A2	30 · 40 · 50	30 · 40 · 50	50 · 60 · 70	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180
A3	M3 · M4 · M5	M3 · M4 · M5	M4 · M5 · M6	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12
A4	46 · 60 · 63	46 · 60 · 63	70 · 75 · 90	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200
A5	46 · 55	46 · 55	64 · 70 · 80	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190
A6	M4 x P0.7	M4 x P0.7	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B	B1 132	137	149	165	(191) · 203	260	313	394
B2	67	62	74	75	(81) · 93	120	143	184
B3	65	75	75	90	110	140	170	210
B4	52	60	60	72	88	110	134	170
B5	26	30	30	36	44	55	67	85
B6	26	26	33.5	33.5	(33.5) · 45.5	59	67	85
B7	5	5	6	6	(6) · 10	9	10	10
B8	62	73	73	88	106	135	164	205
B9	M5 x P0.8	M6 x P1.0	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1 84	100	100	118	144	174	204	250
C2	42	50	50	59	72	87	102	125
C3	42	50	50	59	72	87	102	125
C4	2	2	2	2	2	2	2	2
C5	5	5	5	6	8	10	12	14
C6	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
C7	14	14	14	18	22	32	40	50

Weight / Ağırlık

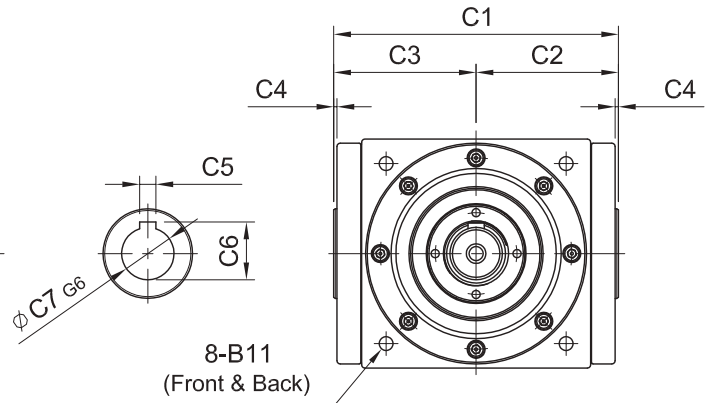
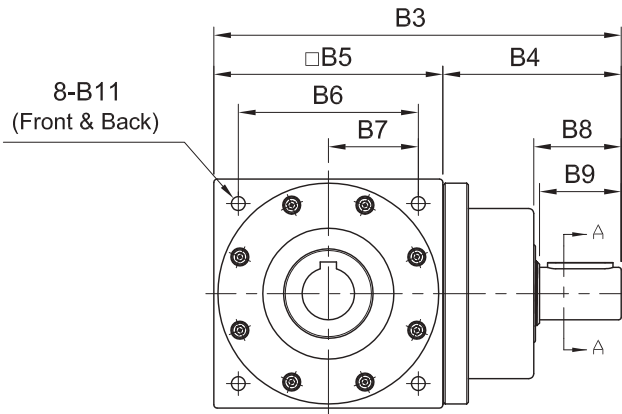
1.9 3.6 3.4 4.8 8.5 14.2 24 52

ST-DO series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)



A-A SECTION

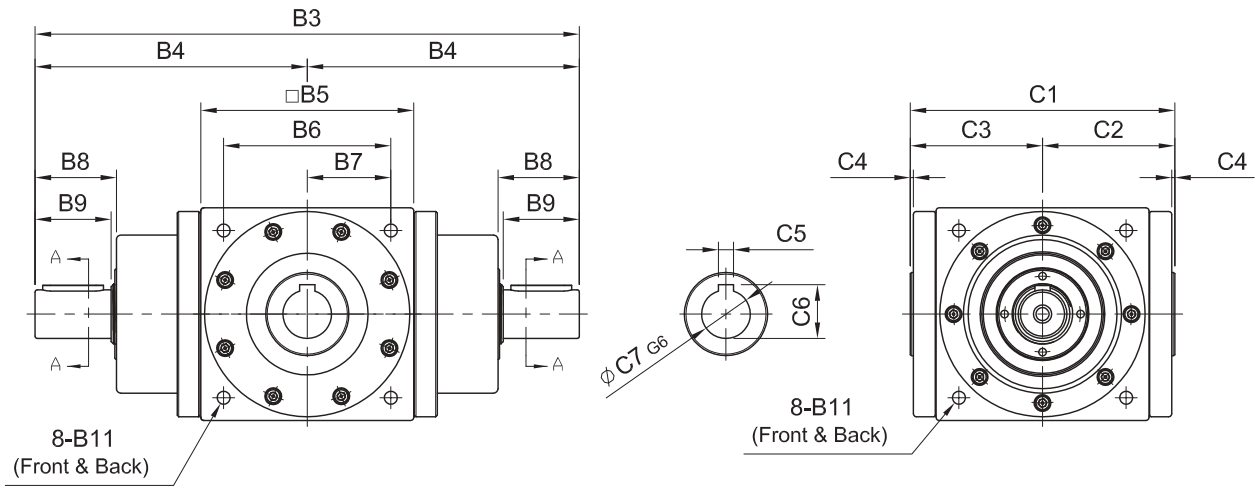
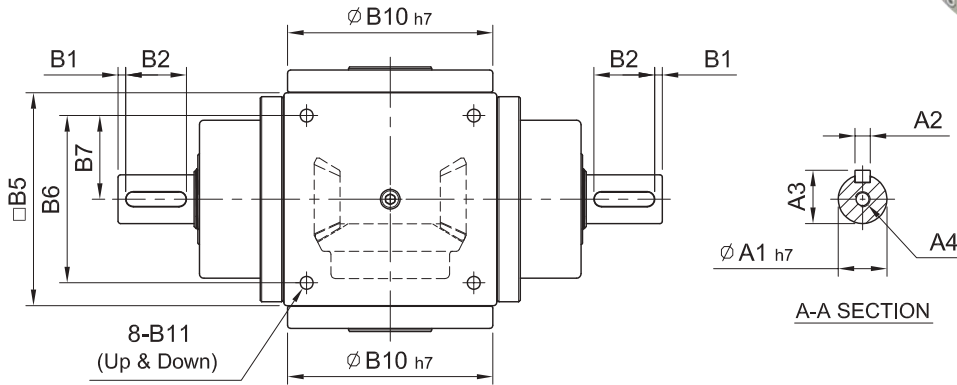
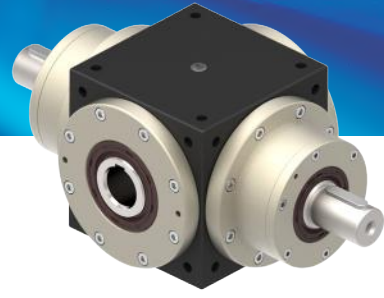


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210
A	A1	14	14	16	18	22	32	50
	A2	5	5	5	6	6	10	14
	A3	16	16	18	20.5	24.5	35	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5
	B2	15	15	25	25	30	40	65
	B3	127.5	127.5	145.5	168.5	207	250	375
	B4	62.5	62.5	67.5	78.5	97	110	165
	B5	65	65	75	90	110	140	170
	B6	52	52	60	72	88	110	134
	B7	26	26	30	36	44	55	85
	B8	22	22	32	38	43	53.5	64
	B9	20	20	30	35	40	50	60
	B10	62	64	73	88	106	135	164
B11	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	84	89	100	118	144	174	250
	C2	42	44.5	50	59	72	87	125
	C3	42	44.5	50	59	72	87	125
	C4	2	2	2	2	2	2	2
	C5	5	5	5	6	8	10	12
	C6	16.3	16.3	16.3	20.8	25.3	35.3	43.3
	C7	14	14	14	18	22	32	40
Weight / Ağırlık	2.1	2.1	2.8	4.9	9	15.5	25	53

ST-YO series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

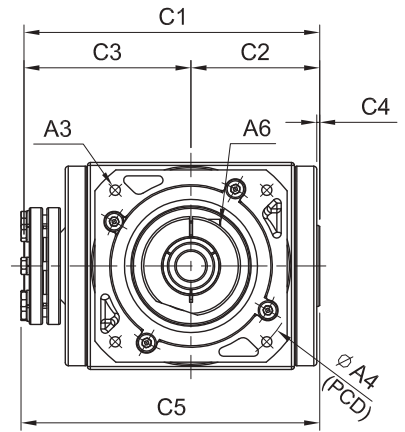
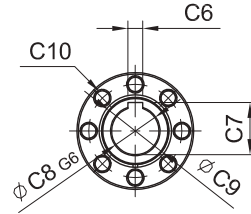
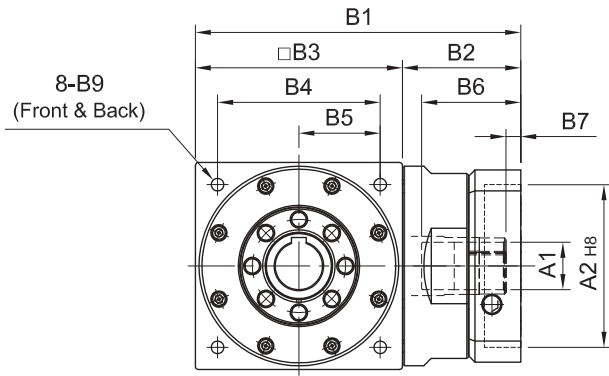
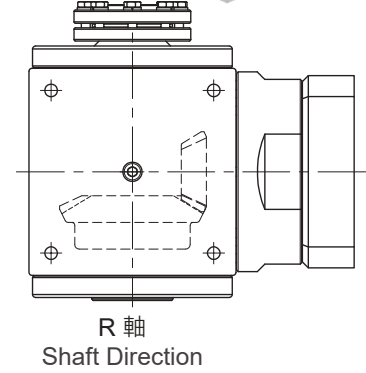
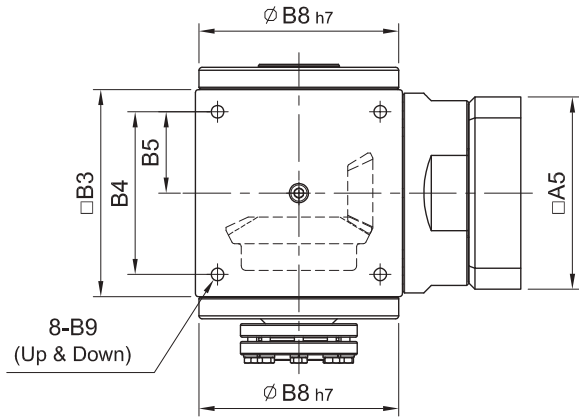
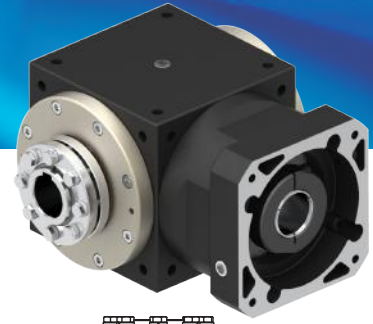


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210
	A							
A1	14	14	16	18	22	32	40	50
A2	5	5	5	6	6	10	12	14
A3	16	16	18	20.5	24.5	35	43	53.5
A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B								
B1	2.5	2.5	2.5	5	5	5	5	5
B2	15	15	25	25	30	40	50	65
B3	190	190	210	247	304	360	430	540
B4	95	95	105	123.5	152	180	215	270
B5	65	65	75	90	110	140	170	210
B6	52	52	60	72	88	110	134	170
B7	26	26	30	36	44	55	67	85
B8	22	22	32	38	43	53.5	64	77
B9	20	20	30	35	40	50	60	75
B10	62	64	73	88	106	135	164	205
B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C								
C1	84	89	100	118	144	174	204	250
C2	42	44.5	50	59	72	87	102	125
C3	42	44.5	50	59	72	87	102	125
C4	2	2	2	2	2	2	2	2
C5	5	5	5	6	8	10	12	14
C6	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
C7	14	14	14	18	22	32	40	50
Weight / Ağırlık	2.85	2.85	3.6	6.2	11.5	18	28	57

ST-FN series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

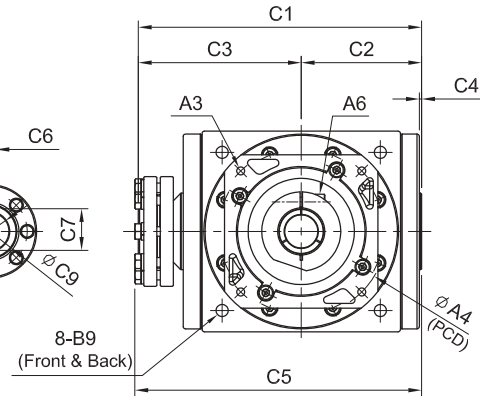
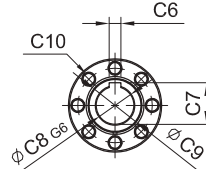
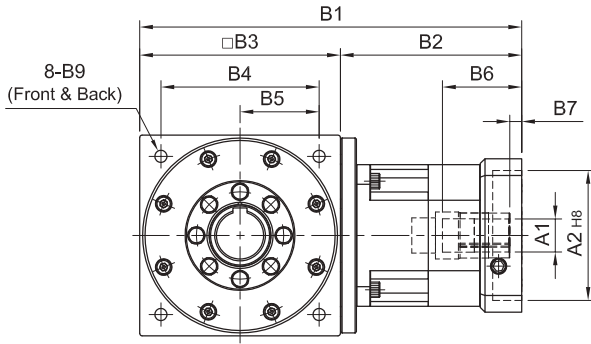
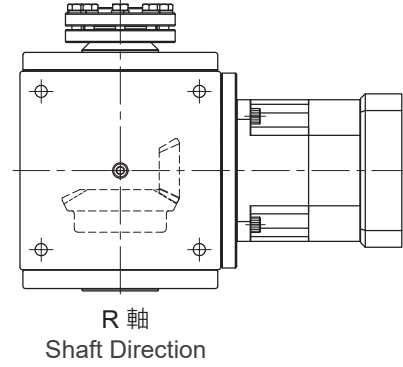
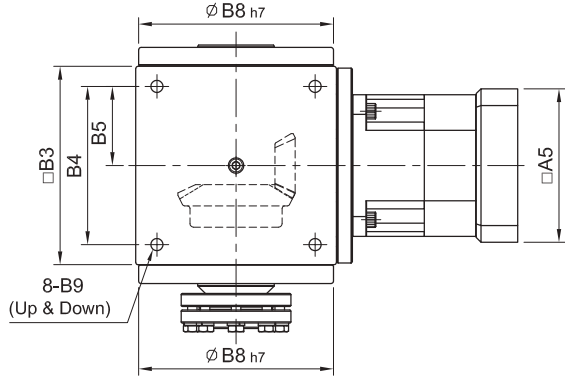
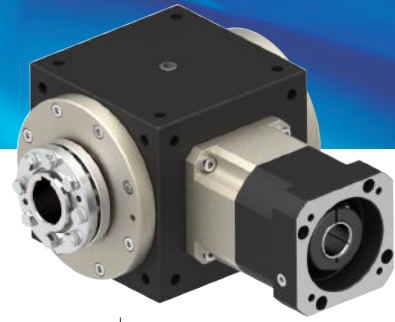


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	14	19·24	22·24	28·32	35	38·42·48·55
	A2	50·60·70	50·60·70	50·60·70	70·80·95·110	70·80·95·110	95·110·130	110·130·180	114.3·180·230
	A3	M4·M5·M6	M4·M5·M6	M4·M5·M6	M5·M6·M8	M5·M6·M8	M6·M8·M10	M8·M10·M12	M10·M12·M16
	A4	70·75·90	70·75·90	70·75·90	90·100·115·145	90·100·115·145	115·145·165	145·165·200	200·215·265
	A5	64·70·80	64·70·80	64·70·80	92·110·130	92·110·130	122·130·150	146·150·190	182·200·250
	A6	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	110	110	115	148·162	177·191	224	274	357
	B2	45	45	40	58·72	67·81	84	104	147
	B3	65	65	75	90	110	140	170	210
	B4	52	52	60	72	88	110	134	170
	B5	26	26	30	36	44	55	67	85
	B6	36	36	36	51·65.5	51·65.5	68	84.5	117
	B7	7	7	7	9·23.5	9·23.5	10	9.5	14
	B8	62	64	73	88	106	135	164	205
	B9	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	104	109	120	138	169	202	240	285
	C2	42	44.5	50	59	72	87	102	125
	C3	62	64.5	70	79	97	115	138	160
	C4	2	2	2	2	2	2	2	2
	C5	110	113	124	142	171	202	242	288
	C6	5	5	5	6	8	10	12	14
	C7	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
	C8	14	14	14	18	22	32	40	50
	C9	22	22	22	28	34	44	52	65
	C10	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık	1.7	1.7	2.4	4.3	7.1	14.9	24.5	46	

ST-RN series / serileri

RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)

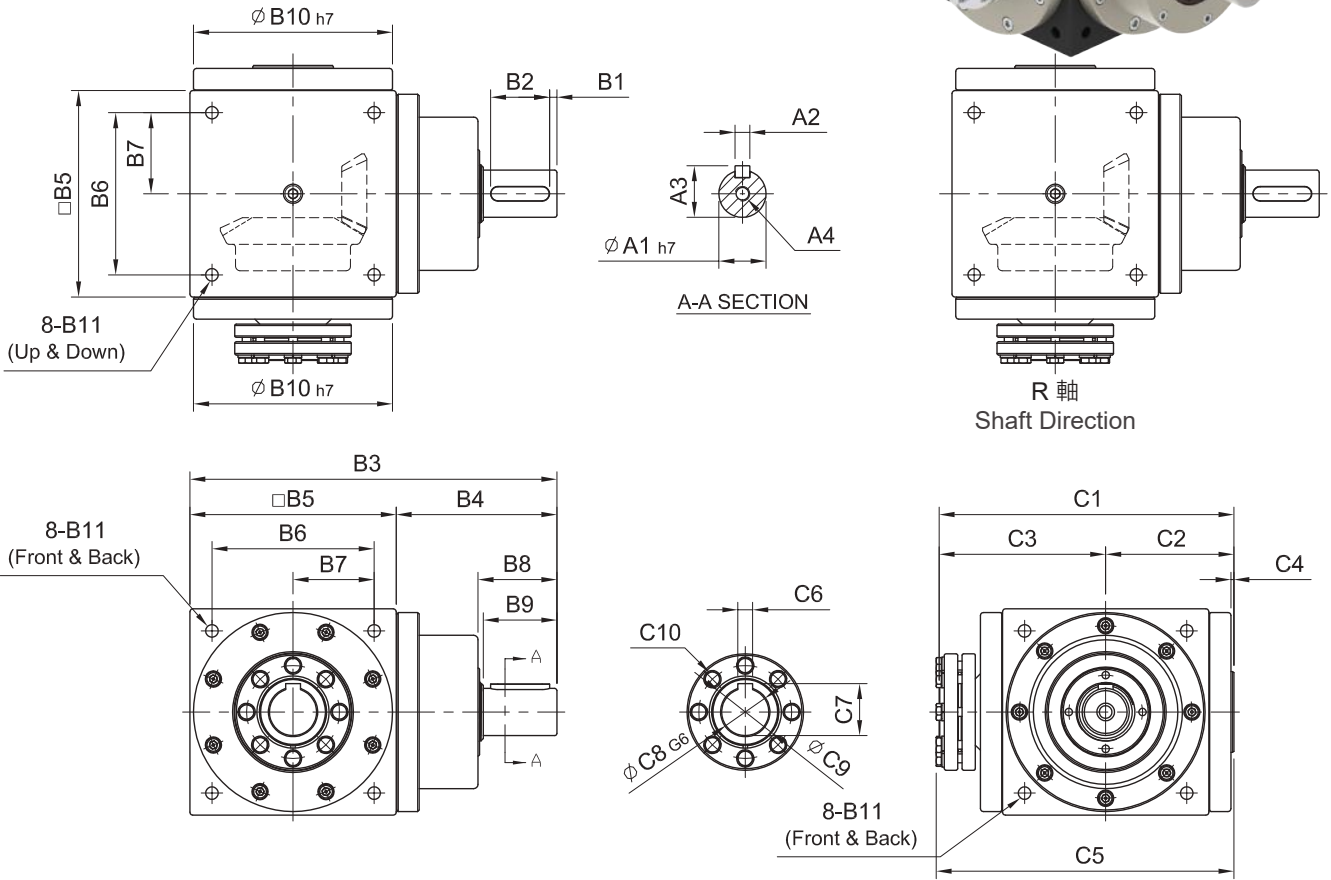
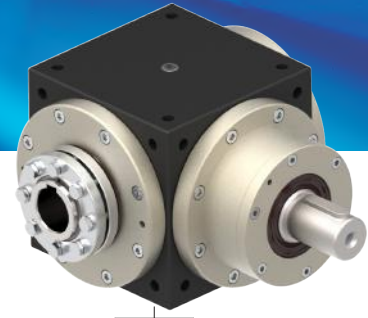


unit / birim: mm

	Model Code	65	75	90	110	140	170	210	
		A	A1	8 · 11	8 · 11	14	14	(14) · 19	19 · 24
	A2	30 · 40 · 50	30 · 40 · 50	50 · 60 · 70	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180
	A3	M3 · M4 · M5	M3 · M4 · M5	M4 · M5 · M6	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12
	A4	46 · 60 · 63	46 · 60 · 63	70 · 75 · 90	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200
	A5	46 · 55	46 · 55	64 · 70 · 80	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190
	A6	M4 x P0.7	M4 x P0.7	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B	B1	132	137	149	165	(191) · 203	260	313	394
	B2	67	62	74	75	(81) · 93	120	143	184
	B3	65	75	75	90	110	140	170	210
	B4	52	60	60	72	88	110	134	170
	B5	26	30	30	36	44	55	67	85
	B6	26	26	33.5	33.5	(33.5) · 45.5	59	67	85
	B7	5	5	6	6	(6) · 10	9	10	10
	B8	62	73	73	88	106	135	164	205
	B9	M5 x P0.8	M6 x P1.0	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	104	120	120	138	169	200	240	285
	C2	42	50	50	59	72	87	102	125
	C3	62	70	70	79	97	113	138	160
	C4	2	2	2	2	2	2	2	2
	C5	118	124	124	142	171	202	242	288
	C6	5	5	5	6	8	10	12	14
	C7	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
	C8	14	14	14	18	22	32	40	50
	C9	22	22	22	28	34	44	52	65
	C10	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık		1.9	3.6	3.4	4.8	8.5	14.2	24	52

ST-DN series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

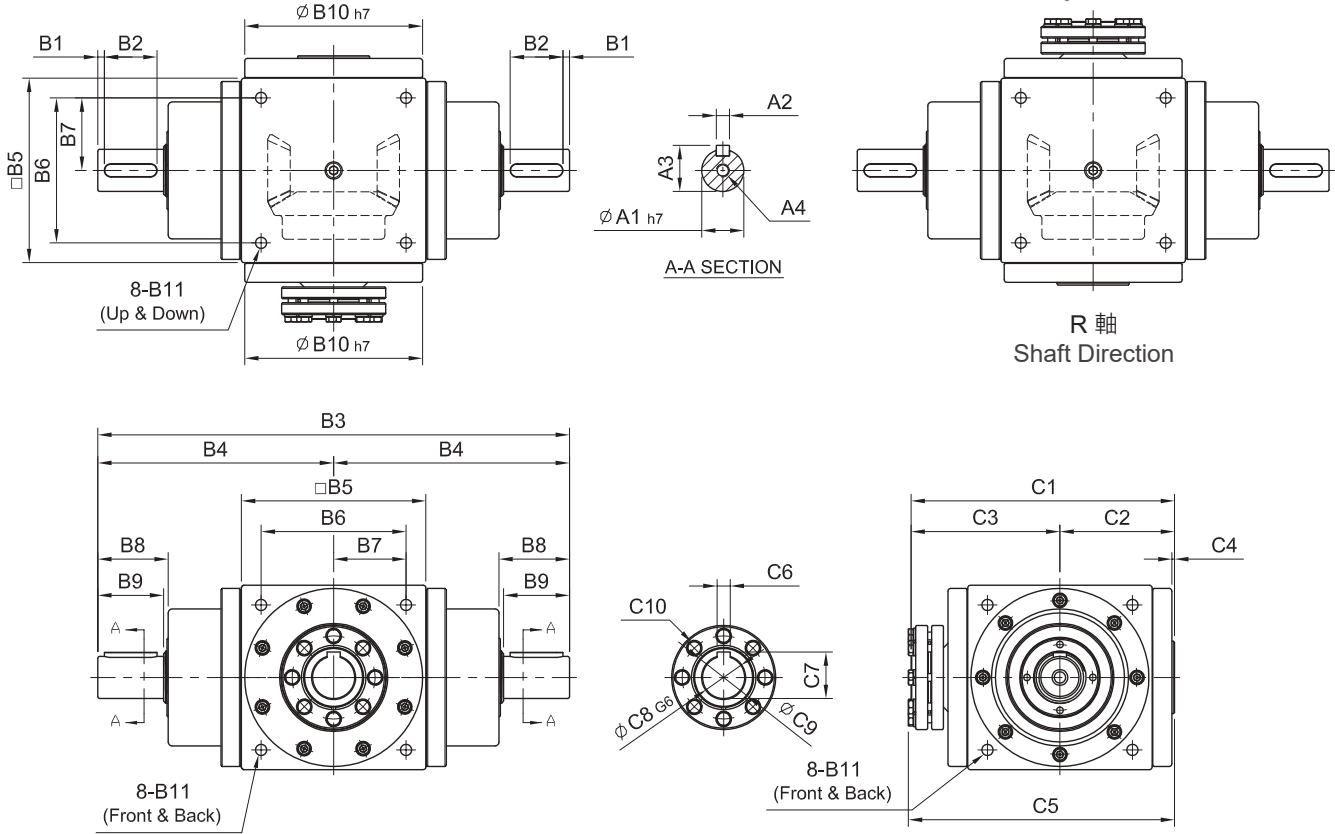
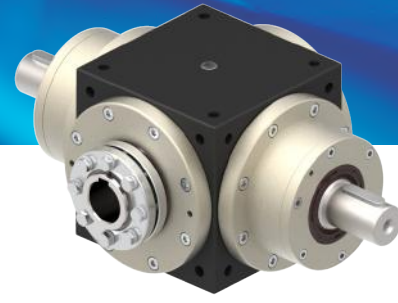


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
	A	A1	14	14	16	18	22	32	40
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	127.5	127.5	145.5	168.5	207	250	300	375
	B4	62.5	62.5	67.5	78.5	97	110	130	165
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	104	109	120	138	169	202	240	285
	C2	42	44.5	50	59	72	87	102	125
	C3	62	64.5	70	79	97	115	138	160
	C4	2	2	2	2	2	2	2	2
	C5	110	113	124	142	171	202	242	288
	C6	5	5	5	6	8	10	12	14
	C7	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
	C8	14	14	14	18	22	32	40	50
	C9	22	22	22	28	34	44	52	65
	C10	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık		2.1	2.1	2.8	4.9	8.59	15.5	25	53

ST-YN series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

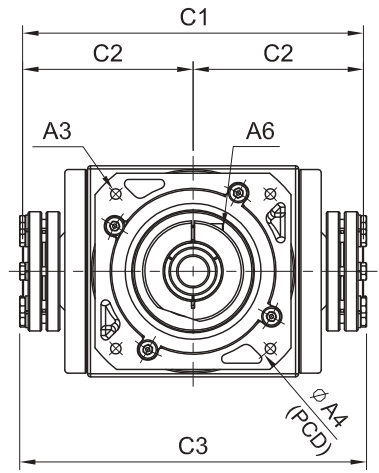
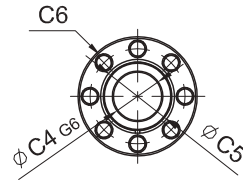
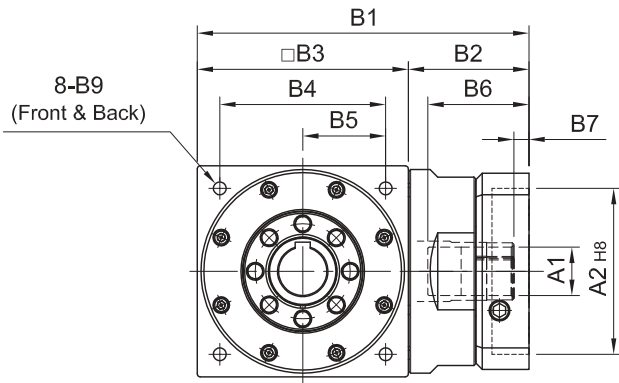
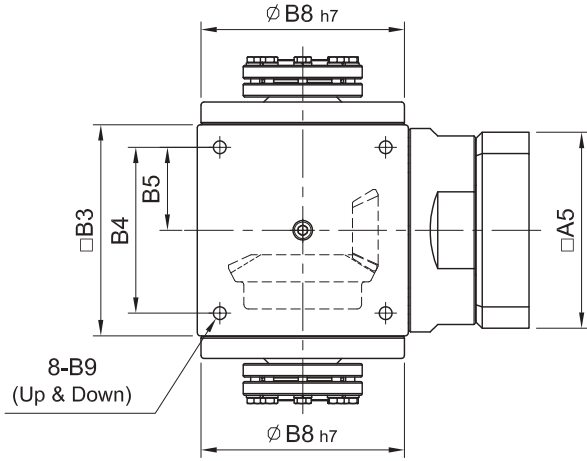


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	16	18	22	32	40	50
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	190	190	210	247	304	360	430	540
	B4	95	95	105	123.5	152	180	215	270
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	104	109	120	138	169	200	240	285
	C2	42	44.5	50	59	72	87	102	125
	C3	62	64.5	70	79	97	113	138	160
	C4	2	2	2	2	2	2	2	2
	C5	110	113	124	142	171	202	242	288
	C6	5	5	5	6	8	10	12	14
	C7	16.3	16.3	16.3	20.8	25.3	35.3	43.3	53.3
	C8	14	14	14	18	22	32	40	50
	C9	22	22	22	28	34	44	52	65
	C10	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık	2.85	2.85	3.6	6.2	11.5	18	28	57	

ST-FM series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

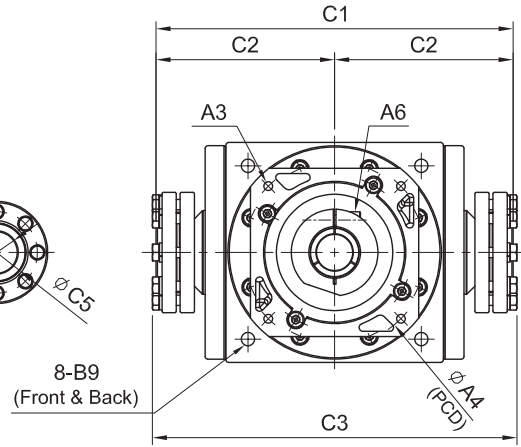
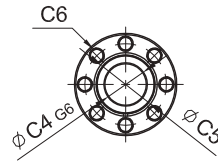
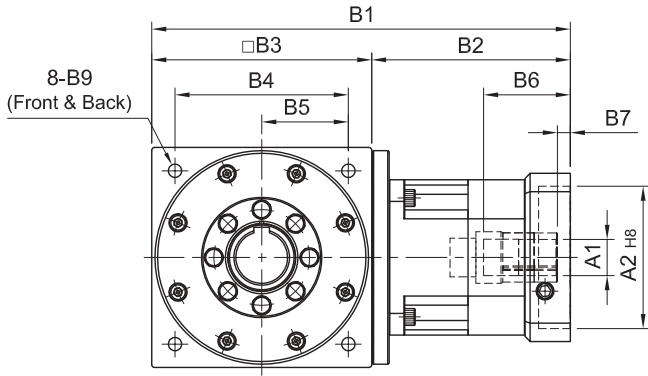
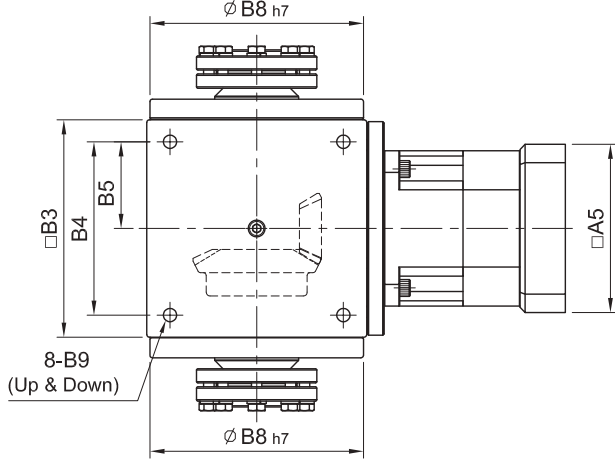


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
	A	A1	14	14	14	19·24	22·24	28·32	35
	A2	50·60·70	50·60·70	50·60·70	70·80·95·110	70·80·95·110	95·110·130	110·130·180	114.3·180·230
	A3	M4·M5·M6	M4·M5·M6	M4·M5·M6	M5·M6·M8	M5·M6·M8	M6·M8·M10	M8·M10·M12	M10·M12·M16
	A4	70·75·90	70·75·90	70·75·90	90·100·115·145	90·100·115·145	115·145·165	145·165·200	200·215·265
	A5	64·70·80	64·70·80	64·70·80	92·110·130	92·110·130	122·130·150	146·150·190	182·200·250
	A6	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	110	110	115	148·162	177·191	224	274	357
	B2	45	45	40	58·72	67·81	84	104	147
	B3	65	65	75	90	110	140	170	210
	B4	52	52	60	72	88	110	134	170
	B5	26	26	30	36	44	55	67	85
	B6	36	36	37	51·65.5	51·65.5	68	84.5	117
	B7	7	7	7	9·23.5	9·23.5	10	9.5	14
	B8	62	64	73	88	106	135	164	205
	B9	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	124	129	140	158	194	230	276	320
	C2	62	64.5	70	79	97	115	138	160
	C3	136	138	150	166	198	232	280	327
	C4	14	14	14	18	22	32	40	50
	C5	22	22	22	28	34	44	52	65
	C6	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık		1.7	1.7	2.4	4.3	7.1	14.9	24.5	46

ST-RM series / serileri

RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)

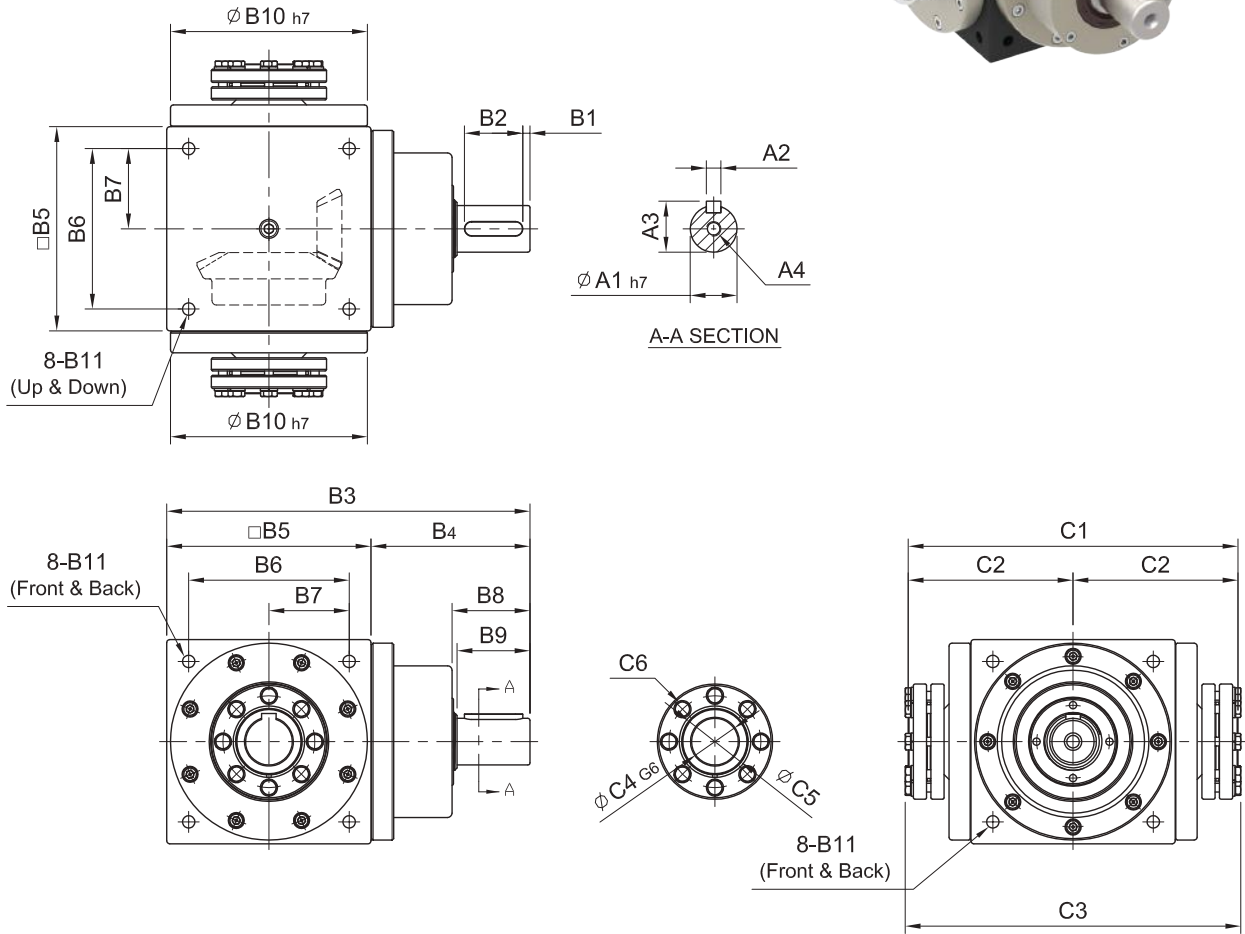


unit / birim: mm

	Model Code	65		75		90	110	140	170	210
		A	A1	8 · 11	8 · 11	14	14	(14) · 19	19 · 24	28 · 32
	A2	30 · 40 · 50	30 · 40 · 50	50 · 60 · 70	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	
	A3	M3 · M4 · M5	M3 · M4 · M5	M4 · M5 · M6	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	
	A4	46 · 60 · 63	46 · 60 · 63	70 · 75 · 90	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	
	A5	46 · 55	46 · 55	64 · 70 · 80	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	
	A6	M4 x P0.7	M4 x P0.7	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	
B	B1	132	137	137	165	(191) · 203	260	313	394	
	B2	67	62	62	75	(81) · 93	120	143	184	
	B3	65	75	75	90	110	140	170	210	
	B4	52	60	60	72	88	110	134	170	
	B5	26	30	30	36	44	55	67	85	
	B6	26	26	26	33.5	(33.5) · 45.5	59	67	85	
	B7	5	5	5	6	(6) · 10	9	10	10	
	B8	62	73	73	88	106	135	164	205	
	B9	M5 x P0.8	M6 x P1.0	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0	
C	C1	124	140	140	158	194	230	276	320	
	C2	62	70	70	79	97	115	138	160	
	C3	136	150	150	166	198	232	280	327	
	C4	14	14	14	18	22	32	40	50	
	C5	22	22	22	28	34	44	52	65	
	C6	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8	
Weight / Ağırlık		1.9	3.6	3.4	4.8	8.5	14.2	24	52	

ST-DM series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

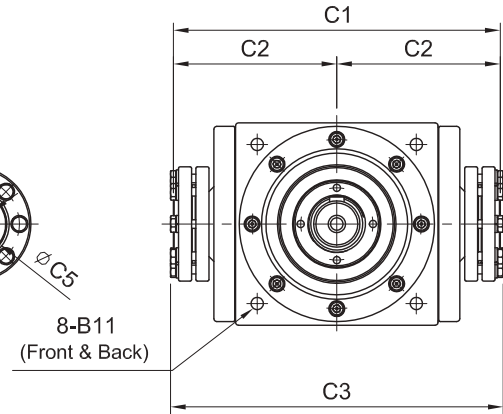
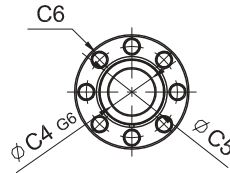
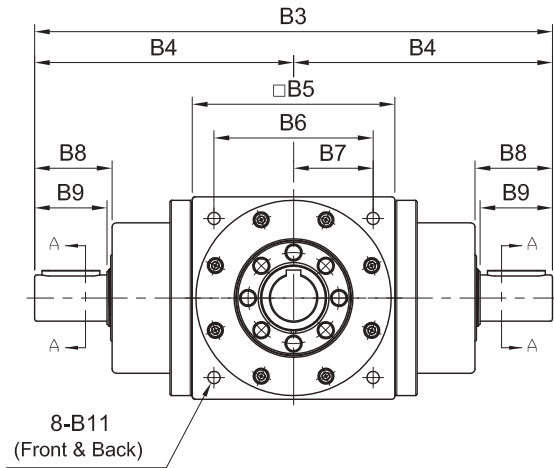
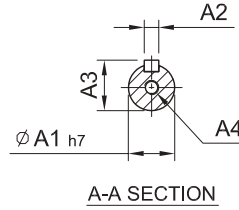
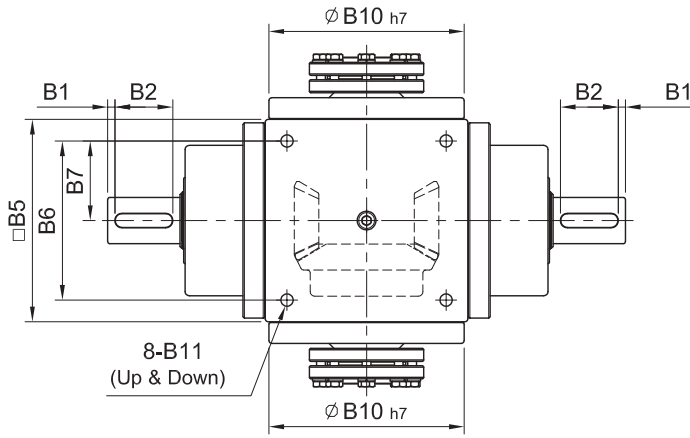
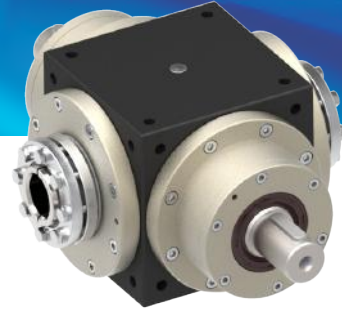


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
	A	A1	14	14	16	18	22	32	40
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	127.5	127.5	142.5	168.5	207	250	300	375
	B4	62.5	62.5	67.5	78.5	97	110	130	165
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	124	129	140	158	194	230	276	320
	C2	62	64.5	70	79	97	115	138	160
	C3	136	138	150	166	198	232	280	327
	C4	14	14	14	18	22	32	40	50
	C5	22	22	22	28	34	44	52	65
	C6	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık	2.1	2.1	2.8	4.9	8.59	15.5	25	53	

ST-YM series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

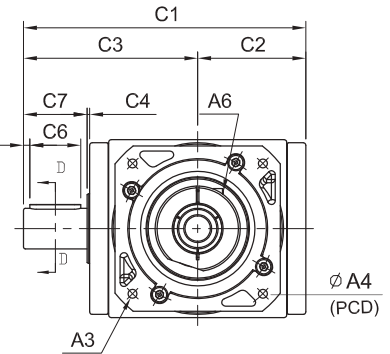
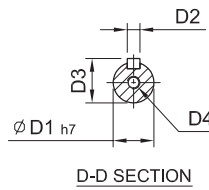
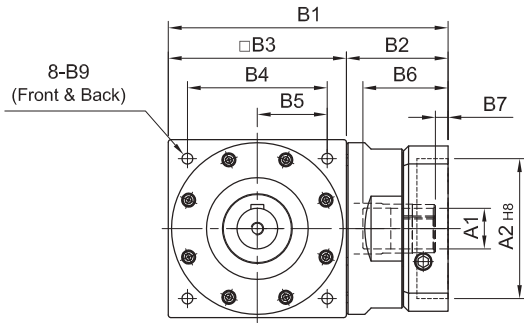
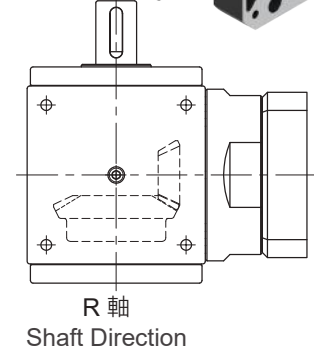
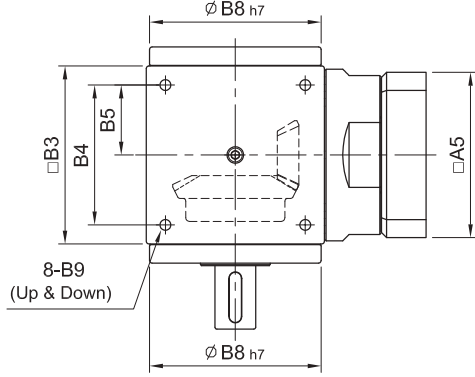
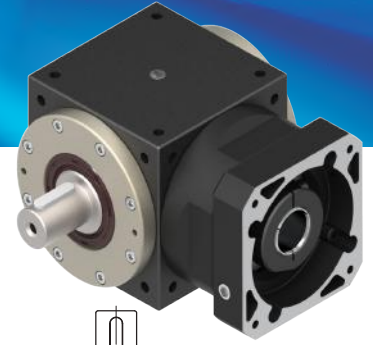


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210
	A							
A1	14	14	16	18	22	32	40	50
A2	5	5	5	6	6	10	12	14
A3	16	16	18	20.5	24.5	35	43	53.5
A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B								
B1	2.5	2.5	2.5	5	5	5	5	5
B2	15	15	25	25	30	40	50	65
B3	190	190	210	247	304	360	430	540
B4	95	95	95	123.5	152	180	215	270
B5	65	65	75	90	110	140	170	210
B6	52	52	60	72	88	110	134	170
B7	26	26	30	36	44	55	67	85
B8	22	22	32	38	43	53.5	64	77
B9	20	20	30	35	40	50	60	75
B10	62	64	73	88	106	135	164	205
B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C								
C1	124	129	140	158	194	230	276	320
C2	62	64.5	70	79	97	115	138	160
C3	136	138	150	166	198	232	280	327
C4	14	14	14	18	22	32	40	50
C5	22	22	22	28	34	44	52	65
C6	6-M6	6-M6	6-M6	6-M6	8-M6	8-M6	8-M8	8-M8
Weight / Ağırlık	2.85	2.85	3.6	6.2	11.5	18	28	57

ST-FS series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

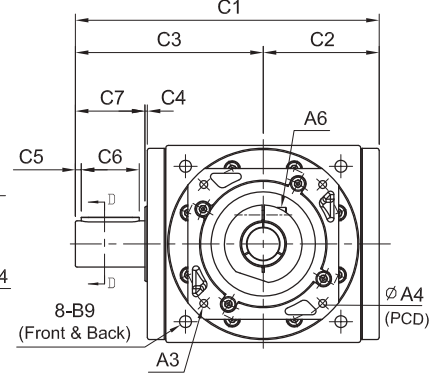
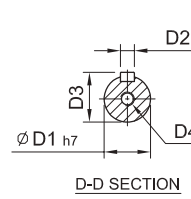
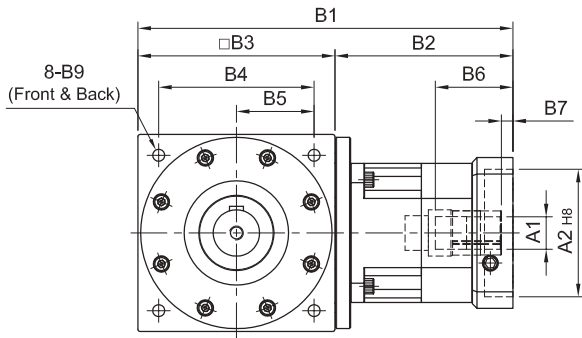
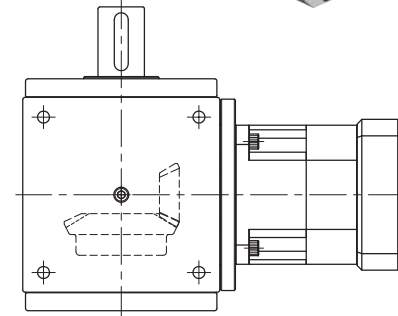
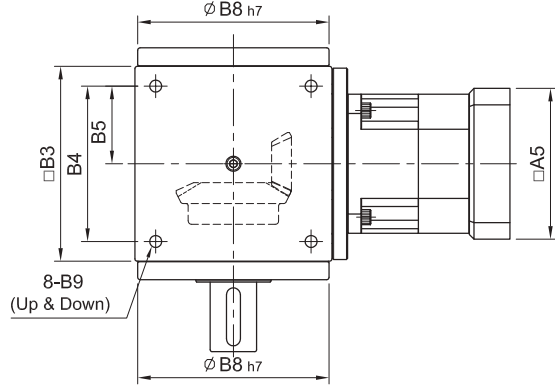
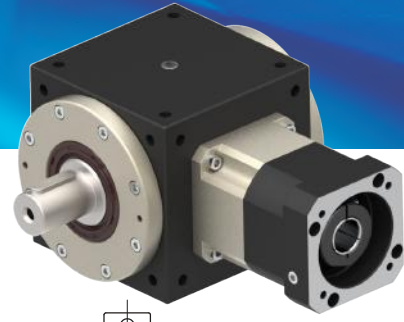


unit / birim: mm

	Model Code	65	65(1:1)	75	90	110	140	170	210
		A	A1	14	14	14	19·24	22·24	28·32
	A2	50·60·70	50·60·70	50·60·70	70·80·95·110	70·80·95·110	95,110,130	110,130,180	114.3·180·230
	A3	M4·M5·M6	M4·M5·M6	M4·M5·M6	M5·M6·M8	M5·M6·M8	M6·M8·M10	M8·M10·M12	M10·M12·M16
	A4	70·75·90	70·75·90	70·75·90	90·100·115·145	90·100·115·145	115·145·165	145·165·200	200·215·265
	A5	64·70·80	64·70·80	64·70·80	92·110·130	92·110·130	122·130·150	146·150·190	182·200·250
	A6	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	110	110	115	148·162	177·191	224	274	357
	B2	45	45	40	58·72	67·81	84	104	147
	B3	65	65	75	90	110	140	170	210
	B4	52	52	60	72	88	110	134	170
	B5	26	26	30	36	44	55	67	85
	B6	36	36	36	51·65.5	51·65.5	67	84.5	117
	B7	7	7	7	9·23.5	9·23.5	10	9.5	14
	B8	62	64	73	88	106	135	164	205
	B9	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	102	107	128	151	182	222	262	323
	C2	40	42.5	48	57	70	85	100	123
	C3	62	64.5	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
	C5	2.5	2.5	2.5	5	5	5	5	5
	C6	15	15	25	25	30	40	50	65
	C7	20	20	32	35	40	50	60	75
D	D1	14	14	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	16	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık		1.7	1.7	2.4	4.3	7.1	14.9	24.5	46

ST-RS series / serileri

RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)

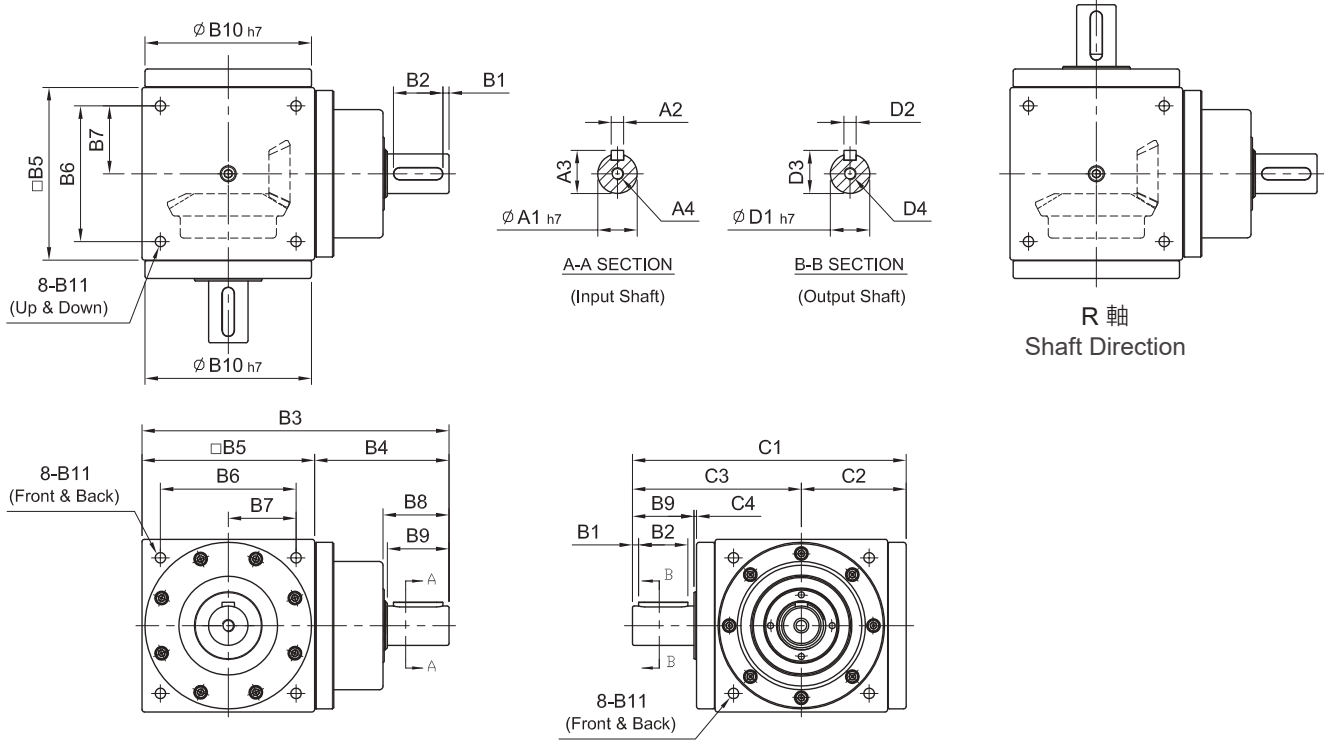
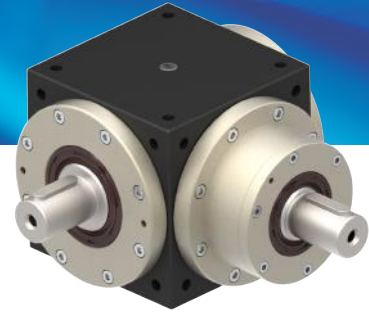


unit / birim: mm

Model Code	65	75	90	110	140	170	210	
	A	A1: 8 · 11 A2: 30 · 40 · 50 A3: M3 · M4 · M5 A4: 46 · 60 · 63 A5: 46 · 55 A6: M4 x P0.7	A1: 8 · 11 A2: 30 · 40 · 50 A3: M3 · M4 · M5 A4: 46 · 60 · 63 A5: 46 · 55 A6: M4 x P0.7	A1: 14 A2: 50 · 60 · 70 A3: M4 · M5 · M6 A4: 70 · 75 · 90 A5: 64 · 70 · 80 A6: M5 x P0.8	A1: 14 A2: 50 · 60 · 70 A3: M4 · M5 · M6 A4: 70 · 75 · 90 A5: 64 · 70 · 80 A6: M5 x P0.8	A1: 14 · 19 A2: 50 · 70 · 80 · 95 A3: M5 · M6 A4: 70 · 90 · 100 · 115 A5: 80 · 92 · 110 A6: M5 x P0.8	A1: 19 · 24 A2: 70 · 80 · 95 · 110 A3: M5 · M6 · M8 A4: 90 · 100 · 115 · 145 A5: 92 · 110 · 130 A6: M6 x P1.0	A1: 28 · 32 A2: 95 · 110 · 130 A3: M6 · M8 · M10 A4: 115 · 145 · 165 A5: 122 · 130 · 150 A6: M8 x P1.25
B	B1: 132 B2: 67 B3: 65 B4: 52 B5: 26 B6: 26 B7: 5 B8: 62 B9: M5 x P0.8	B1: 137 B2: 62 B3: 75 B4: 60 B5: 30 B6: 26 B7: 5 B8: 73 B9: M6 x P1.0	B1: 137 B2: 62 B3: 75 B4: 60 B5: 30 B6: 26 B7: 5 B8: 73 B9: M6 x P1.0	B1: 165 B2: 75 B3: 90 B4: 72 B5: 36 B6: 33.5 B7: 6 B8: 88 B9: M6 x P1.0	B1: 191 B2: 81 B3: 110 B4: 88 B5: 44 B6: 33.5 B7: 6 B8: 106 B9: M8 x P1.25	B1: 260 B2: 120 B3: 140 B4: 110 B5: 55 B6: 59 B7: 9 B8: 135 B9: M10 x P1.5	B1: 313 B2: 143 B3: 170 B4: 134 B5: 67 B6: 67 B7: 10 B8: 164 B9: M12 x P1.75	B1: 394 B2: 184 B3: 210 B4: 170 B5: 85 B6: 85 B7: 10 B8: 205 B9: M16 x P2.0
C	C1: 102 C2: 40 C3: 62 C4: 2 C5: 2.5 C6: 15 C7: 20	C1: 128 C2: 48 C3: 80 C4: 2 C5: 2.5 C6: 25 C7: 32	C1: 128 C2: 48 C3: 80 C4: 2 C5: 2.5 C6: 25 C7: 32	C1: 151 C2: 57 C3: 94 C4: 2 C5: 5 C6: 25 C7: 35	C1: 182 C2: 70 C3: 112 C4: 2 C5: 5 C6: 30 C7: 40	C1: 222 C2: 85 C3: 137 C4: 2 C5: 5 C6: 40 C7: 50	C1: 262 C2: 100 C3: 162 C4: 2 C5: 5 C6: 50 C7: 60	C1: 323 C2: 123 C3: 200 C4: 2 C5: 5 C6: 65 C7: 75
D	D1: 14 D2: 5 D3: 16 D4: M5 x P0.8	D1: 16 D2: 5 D3: 18 D4: M5 x P0.8	D1: 16 D2: 5 D3: 18 D4: M5 x P0.8	D1: 18 D2: 6 D3: 20.5 D4: M8 x P1.25	D1: 22 D2: 6 D3: 24.5 D4: M8 x P1.25	D1: 32 D2: 10 D3: 35 D4: M10 x P1.5	D1: 40 D2: 12 D3: 43 D4: M12 x P1.75	D1: 50 D2: 14 D3: 53.5 D4: M12 x P1.75
Weight / Ağırlık	1.9	3.6	3.4	4.8	8.5	14.2	24	52

ST-DS series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

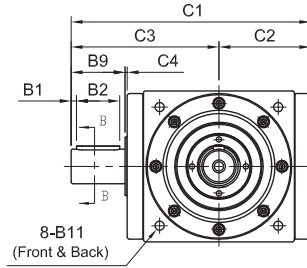
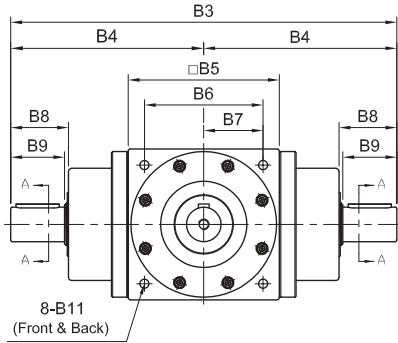
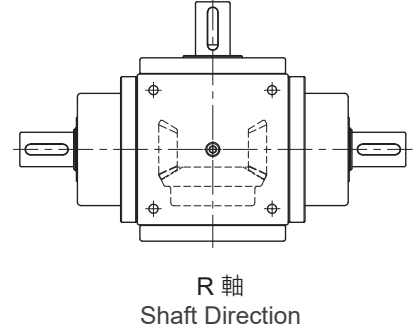
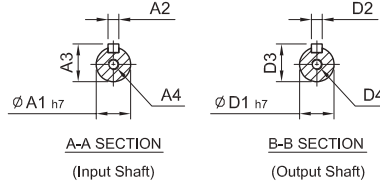
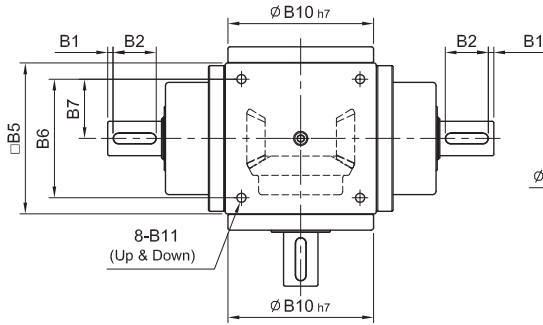
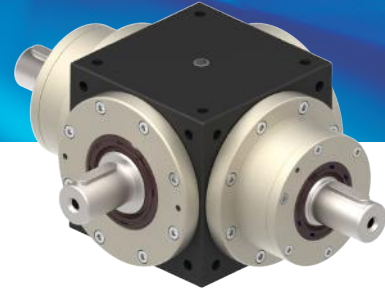


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	16	18	22	32	40	50
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	127.5	127.5	142.5	168.5	207	250	300	375
	B4	62.5	62.5	67.5	78.5	97	110	130	165
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	102	107	128	151	182	222	262	323
	C2	40	42.5	48	57	70	85	100	123
	C3	62	64.5	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
D	D1	14	14	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	16	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık	2.1	2.1	2.8	4.9	8.59	15.5	25	53	

ST-YS series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / kademe)

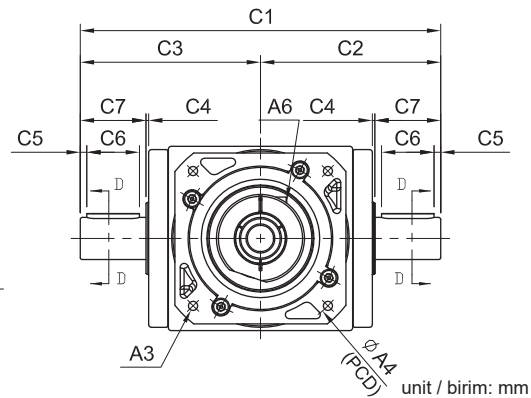
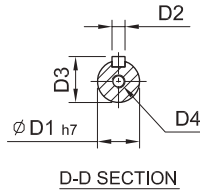
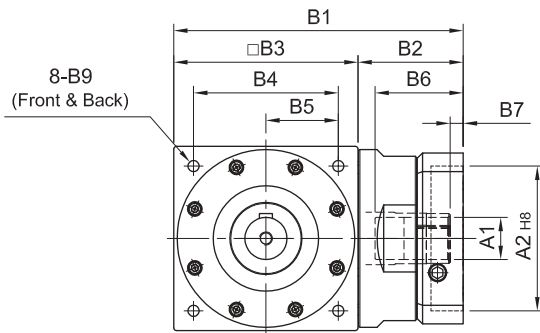
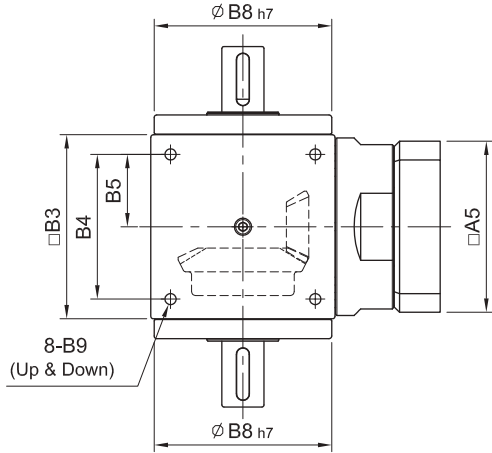
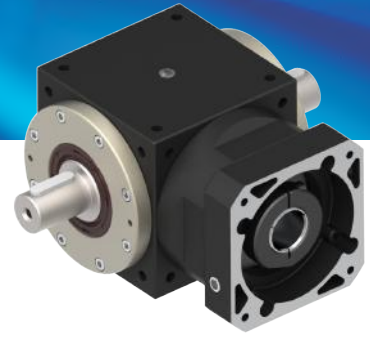


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210
A	A1	14	14	16	18	22	32	50
	A2	5	5	5	6	6	10	14
	A3	16	16	18	20.5	24.5	35	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5
	B2	15	15	25	25	30	40	65
	B3	190	190	210	247	304	360	430
	B4	95	95	105	123.5	152	180	215
	B5	65	65	75	90	110	140	170
	B6	52	52	60	72	88	110	134
	B7	26	26	30	36	44	55	67
	B8	22	22	32	38	43	53.5	64
	B9	20	20	30	35	40	50	60
	B10	62	64	73	88	106	135	164
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C	C1	102	107	128	151	182	222	323
	C2	40	42.5	48	57	70	85	100
	C3	62	64.5	80	94	112	137	200
	C4	2	2	2	2	2	2	2
D	D1	14	14	16	18	22	32	50
	D2	5	5	5	6	6	10	14
	D3	16	16	18	20.5	24.5	35	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75
Weight / Ağırlık	2.85	2.85	3.6	6.2	11.5	18	28	57

ST-FV series / serileri

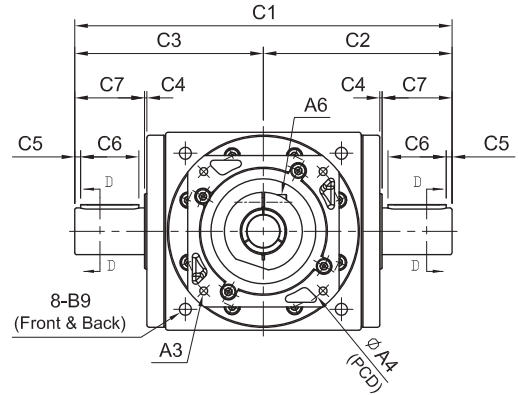
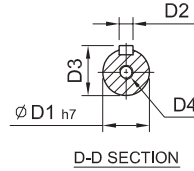
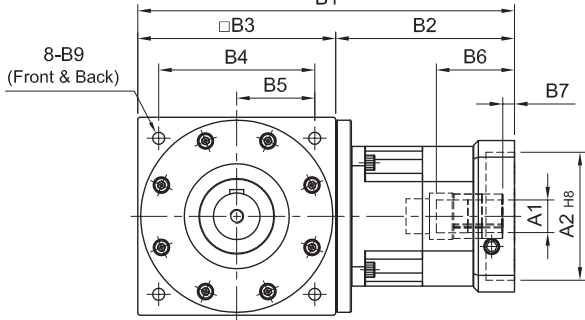
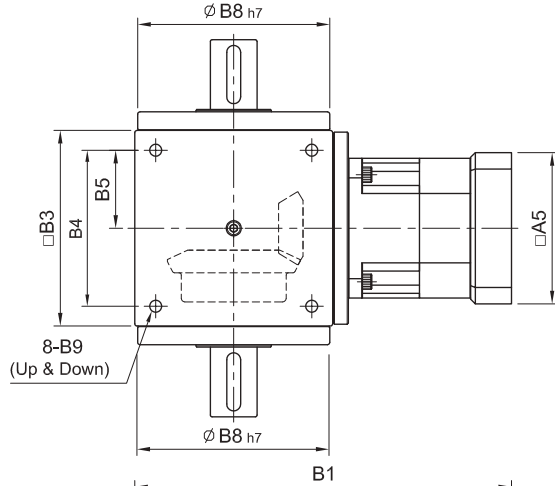
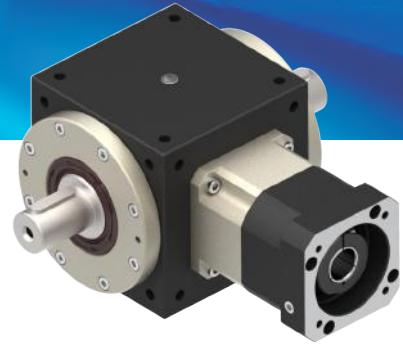
RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)



	Model Code	65	65(1:1)	75	90	110	140	170	210
		A	A1	14	14	14	19 · 24	22 · 24	28 · 32
	A2	50 · 60 · 70	50 · 60 · 70	50 · 60 · 70	70 · 80 · 95 · 110	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230
	A3	M4 · M5 · M6	M4 · M5 · M6	M4 · M5 · M6	M5 · M6 · M8	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M120	M10 · M12 · M16
	A4	70 · 75 · 90	70 · 75 · 90	70 · 75 · 90	90 · 100 · 115 · 145	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265
	A5	64 · 70 · 80	64 · 70 · 80	64 · 70 · 80	92 · 110 · 130	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250
	A6	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	110	110	115	148 · 162	177 · 191	224	274	357
	B2	45	45	40	58 · 72	67 · 81	84	104	147
	B3	65	65	75	90	110	140	170	210
	B4	52	52	60	72	88	110	134	170
	B5	26	26	30	36	44	55	67	85
	B6	36	36	36	51 · 65.5	51 · 65.5	67	84.5	117
	B7	7	7	7	9 · 23.5	9 · 23.5	10	9.5	14
	B8	62	64	73	88	106	135	164	205
	B9	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	124	129	160	188	224	274	324	400
	C2	62	64.5	80	94	112	137	162	200
	C3	62	64.5	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
	C5	2.5	2.5	2.5	5	5	5	5	5
	C6	15	15	25	25	30	40	50	65
	C7	20	20	32	35	40	50	60	75
D	D1	14	14	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	16	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık		1.7	1.7	2.4	4.3	7.1	14.9	24.5	46

ST-RV series / serileri

RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)

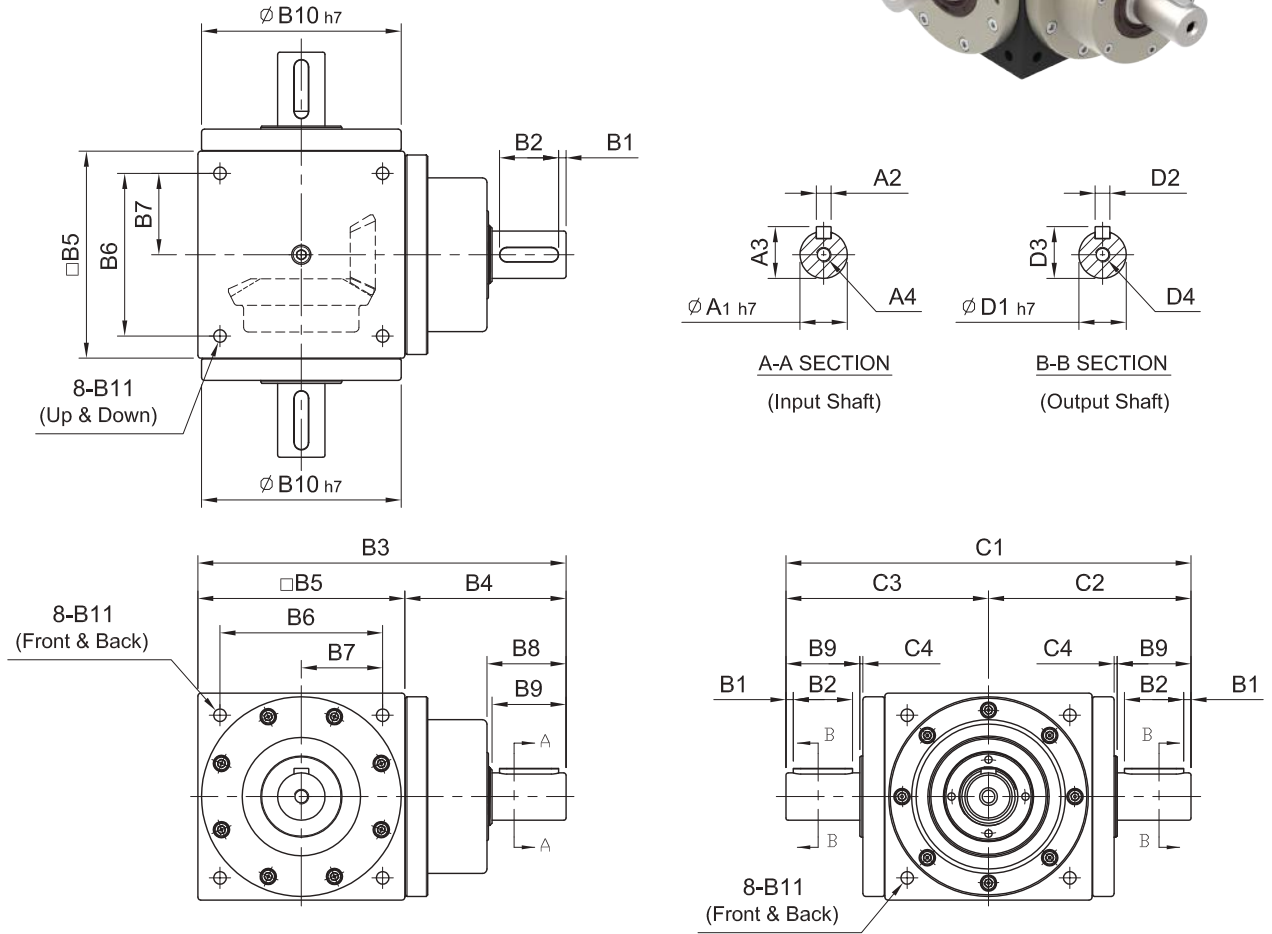


unit / birim: mm

	Model Code	65	75	90	110	140	170	210	
		A	A1	8 · 11	8 · 11	14	14	14 · 19	19 · 24
	A2	30 · 40 · 50	30 · 40 · 50	50 · 60 · 70	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180
	A3	M3 · M4 · M5	M3 · M4 · M5	M4 · M5 · M6	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12
	A4	46 · 60 · 63	46 · 60 · 63	70 · 75 · 90	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200
	A5	46 · 55	46 · 55	64 · 70 · 80	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190
	A6	M4 x P0.7	M4 x P0.7	M5 x P0.8	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B	B1	132	137	137	165	191	260	313	394
	B2	67	62	62	75	81	120	143	184
	B3	65	75	75	90	110	140	170	210
	B4	52	60	60	72	88	110	134	170
	B5	26	30	30	36	44	55	67	85
	B6	26	26	26	33.5	33.5	59	67	85
	B7	5	5	5	6	6	9	10	10
	B8	62	73	73	88	106	135	164	205
	B9	M5 x P0.8	M6 x P1.0	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	124	160	160	188	224	274	324	400
	C2	62	80	80	94	112	137	162	200
	C3	62	80	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
	C5	2.5	2.5	2.5	5	5	5	5	5
	C6	15	25	25	25	30	40	50	65
	C7	20	32	32	35	40	50	60	75
D	D1	14	16	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	18	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık		1.9	3.6	3.4	4.8	8.5	14.2	24	52

ST-DV series / serileri

RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)

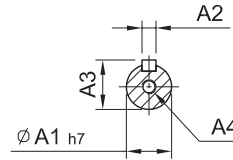
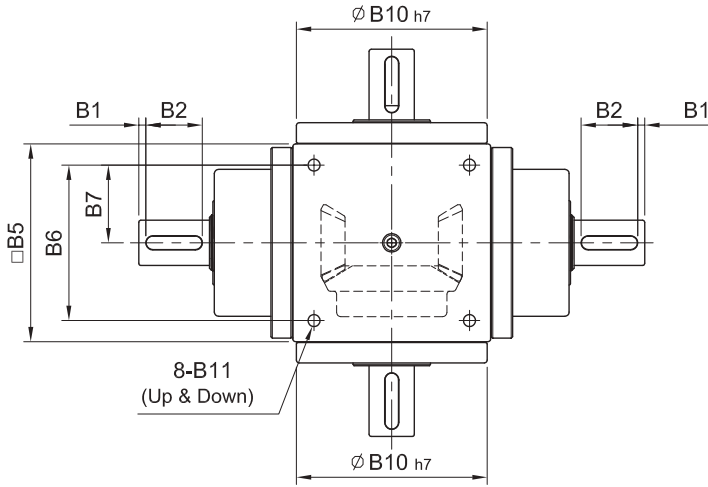
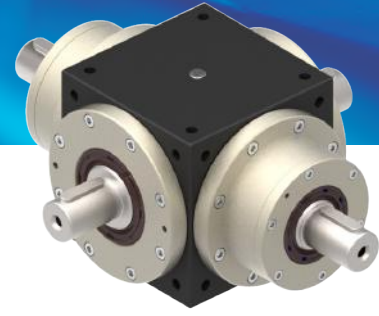


unit / birim: mm

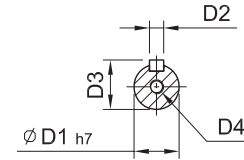
Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	16	18	22	32	40	50
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	127.5	127.5	142.5	168.5	207	250	300	375
	B4	62.5	62.5	67.5	78.5	97	110	130	165
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0	
C	C1	124	129	160	188	224	274	324	400
	C2	62	64.5	80	94	112	137	162	200
	C3	62	64.5	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
D	D1	14	14	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	16	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık	2.1	2.1	2.8	4.9	8.59	15.5	25	53	

ST-YV series / serileri

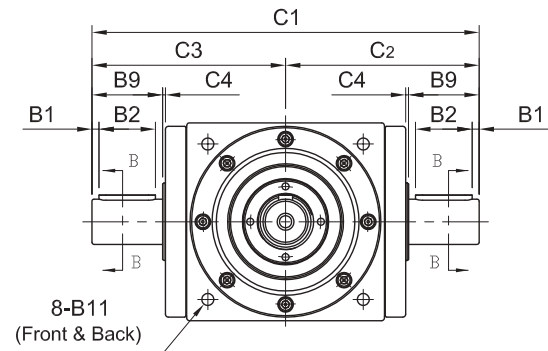
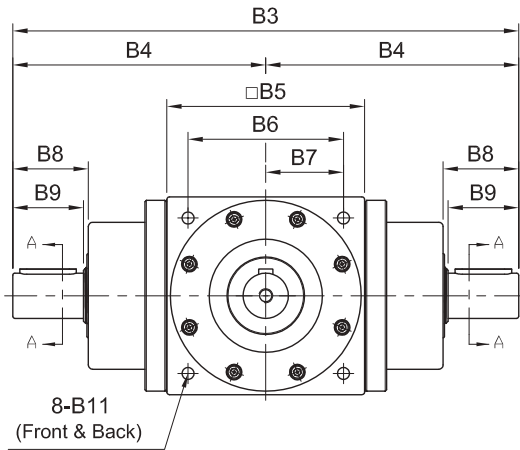
RATIO / ÇEVİRİM : 1.2.3.4.5 (1-Stage / Kademe)



A-A SECTION
(Input Shaft)



B-B SECTION
(Output Shaft)

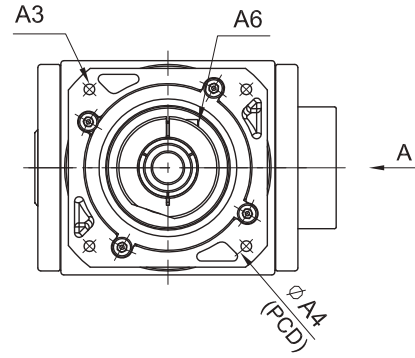
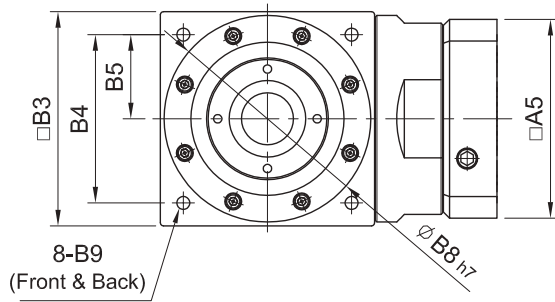
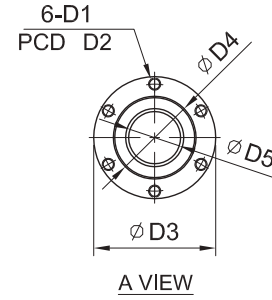
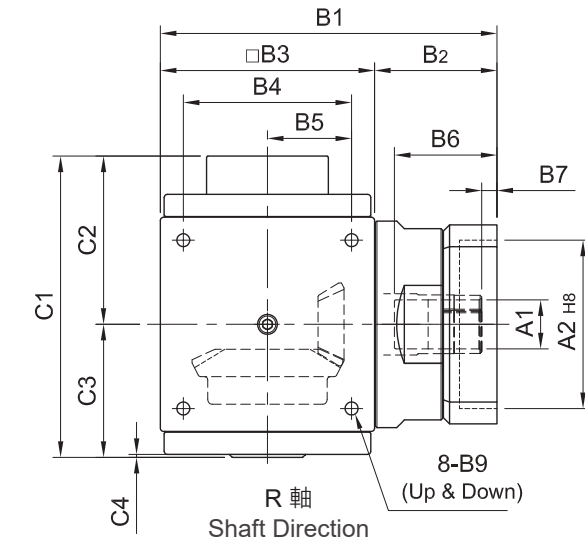
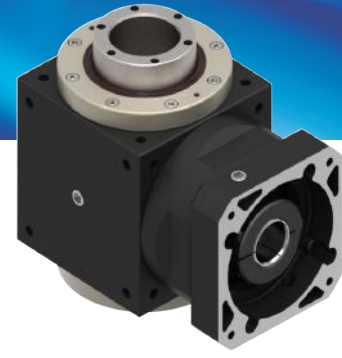


unit / birim: mm

Model Code	65	65(1:1)	75	90	110	140	170	210	
A	A1	14	14	16	18	22	32	40	50
	A2	5	5	5	6	6	10	12	14
	A3	16	16	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	2.5	2.5	2.5	5	5	5	5	5
	B2	15	15	25	25	30	40	50	65
	B3	190	190	210	247	304	360	430	540
	B4	95	95	105	123.5	152	180	215	270
	B5	65	65	75	90	110	140	170	210
	B6	52	52	60	72	88	110	134	170
	B7	26	26	30	36	44	55	67	85
	B8	22	22	32	38	43	53.5	64	77
	B9	20	20	30	35	40	50	60	75
	B10	62	64	73	88	106	135	164	205
	B11	M5 x P0.8	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	124	129	160	188	224	274	324	400
	C2	62	64.5	80	94	112	137	162	200
	C3	62	64.5	80	94	112	137	162	200
	C4	2	2	2	2	2	2	2	2
D	D1	14	14	16	18	22	32	40	50
	D2	5	5	5	6	6	10	12	14
	D3	16	16	18	20.5	24.5	35	43	53.5
	D4	M5 x P0.8	M5 x P0.8	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
Weight / Ağırlık	2.85	2.85	3.6	6.2	11.5	18	28	57	

ST-FP series / serileri

RATIO / ÇEVİRİM : 2.3.4.5 (1-Stage / Kademe)

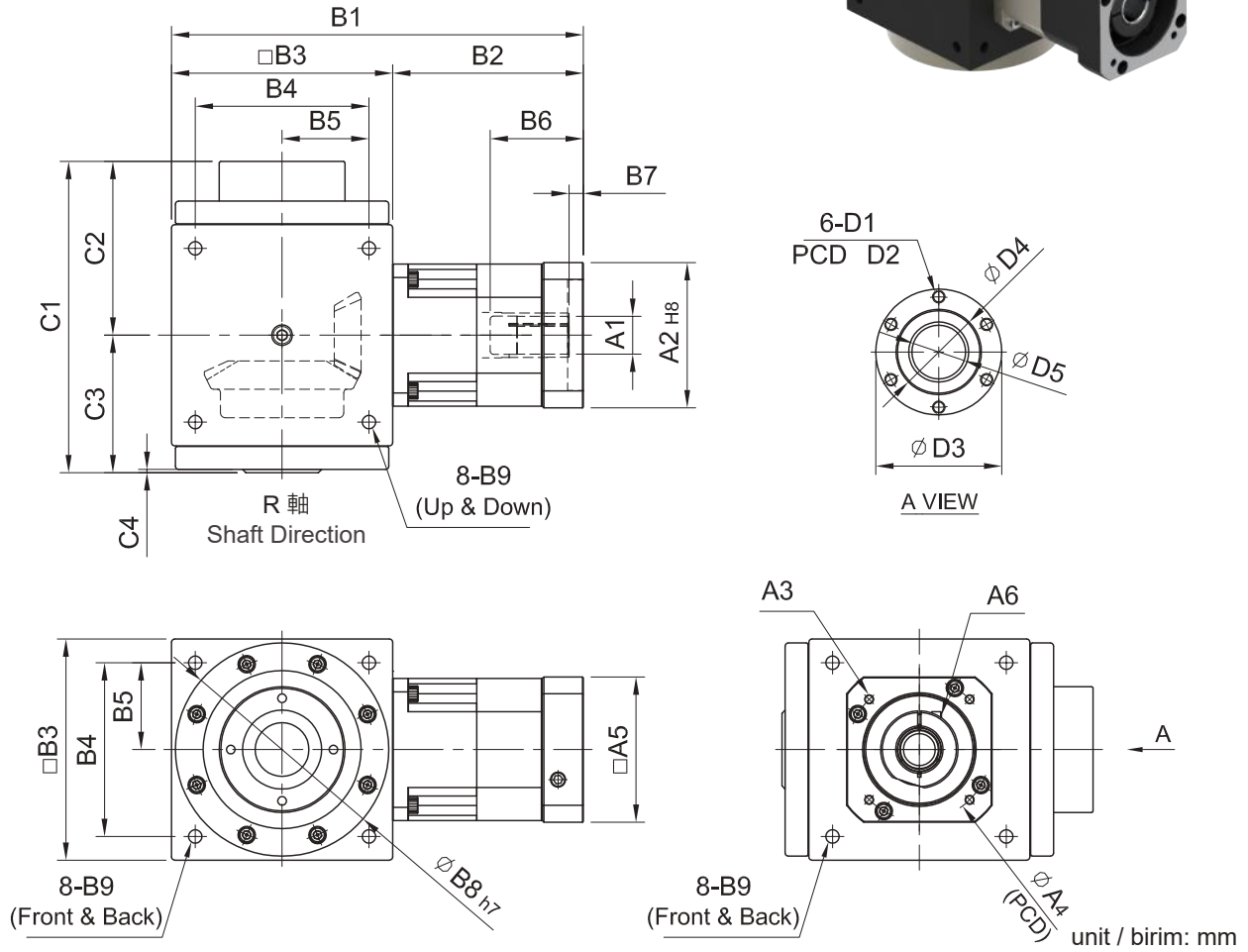
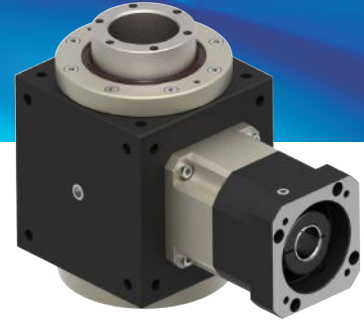


unit / birim: mm

Model Code	75	90	110	140	170	210	
A	A1	14	19 · 24	22 · 24	28 · 32	35	38 · 42 · 48 · 55
	A2	50 · 60 · 70	70 · 80 · 95 · 110	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230
	A3	M4 · M5 · M6	M5 · M6 · M8	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M120	M10 · M12 · M16
	A4	70 · 75 · 90	90 · 100 · 115 · 145	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265
	A5	64 · 70 · 80	92 · 110 · 130	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250
	A6	M5 x P0.8	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
B	B1	115	148 · 162	177 · 191	224	274	357
	B2	40	58 · 72	67 · 81	84	104	147
	B3	75	90	110	140	170	210
	B4	60	72	88	110	134	170
	B5	30	36	44	55	67	85
	B6	36	51 · 65.5	51 · 65.5	67	84.5	117
	B7	7	9 · 23.5	9 · 23.5	10	9.5	14
	B8	73	88	106	135	164	205
	B9	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	106	127	156	197	223	267
	C2	57	68	84	109	121	142
	C3	49	59	72	88	102	125
	C4	1.25	2	2	2	2.25	2.25
D	D1	M4 x P0.7	M5 x P0.8	M5 x P0.8	M8 x P1.25	M10 x P1.5	M10 x P1.5
	D2	36	40	45	70	77	84
	D3	41.7	46.7	57.7	79.7	89.7	99.7
	D4	26	30	36	54	58	64
	D5	15	18	22	34	38	42
Weight / Ağırlık	2.4	4.3	7.1	14.9	24.5	46	

ST-RP series / serileri

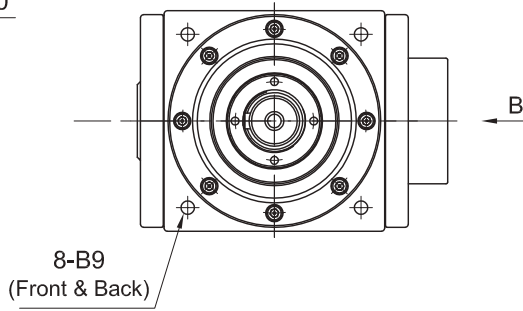
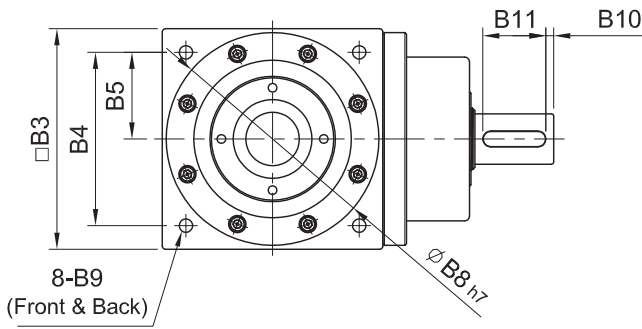
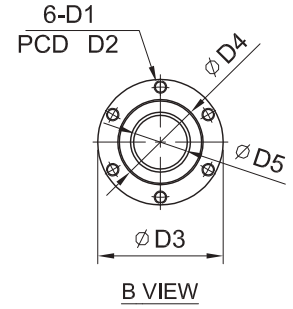
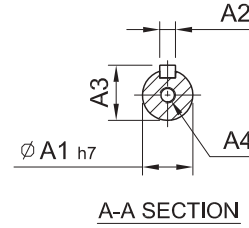
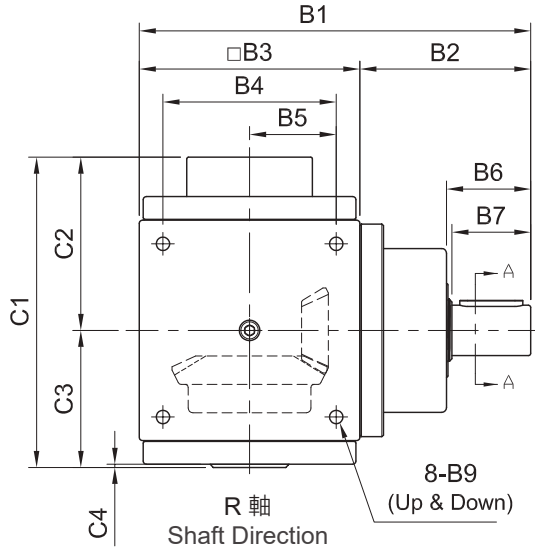
RATIO / ÇEVİRİM : 10.15.20.25.30.40.50 (2-Stage / Kademe)



Model Code	75	90	110	140	170	210	
A	A1	8 · 11	14	14 · 19	19 · 24	28 · 32	35
	A2	30 · 40 · 50	50 · 60 · 70	50 · 70 · 80 · 95	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180
	A3	M3 · M4 · M5	M4 · M5 · M6	M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12
	A4	46 · 60 · 63	70 · 75 · 90	70 · 90 · 100 · 115	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200
	A5	46 · 55	64 · 70 · 80	80 · 92 · 110	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190
	A6	M4 x P0.7	M5 x P0.8	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B	B1	137	165	191	260	313	394
	B2	62	75	81	120	143	184
	B3	75	90	110	140	170	210
	B4	60	72	88	110	134	170
	B5	30	36	44	55	67	85
	B6	26	33.5	33.5	59	67	85
	B7	5	6	6	9	10	10
	B8	73	88	106	135	164	205
	B9	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
C	C1	106	127	156	197	223	267
	C2	57	68	84	109	121	142
	C3	49	59	72	88	102	125
	C4	1.25	2	2	2	2.25	2.25
D	D1	M4 x P0.7	M5 x P0.8	M5 x P0.8	M8 x P1.25	M10 x P1.5	M10 x P1.5
	D2	36	40	45	70	77	84
	D3	41.7	46.7	57.7	79.7	89.7	99.7
	D4	26	30	36	54	58	64
	D5	15	18	22	34	38	42
Weight / Ağırlık	3.6	4.8	8.5	14.2	24	52	

ST-DP series / serileri

RATIO / ÇEVİRİM : 2.3.4.5 (1-Stage / Kademe)

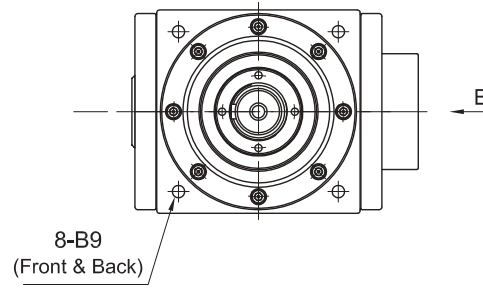
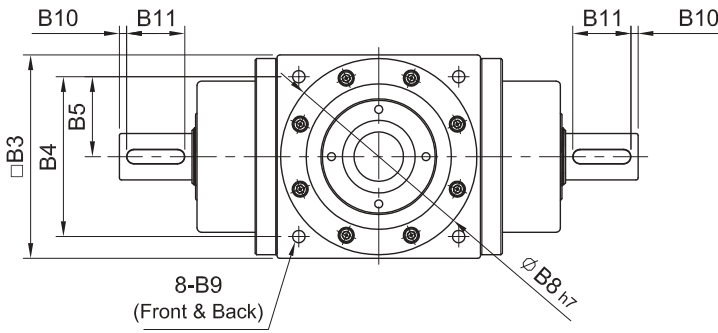
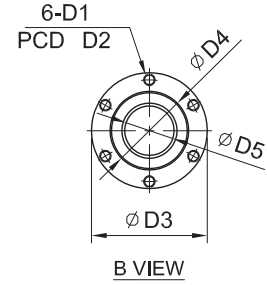
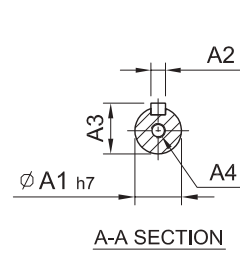
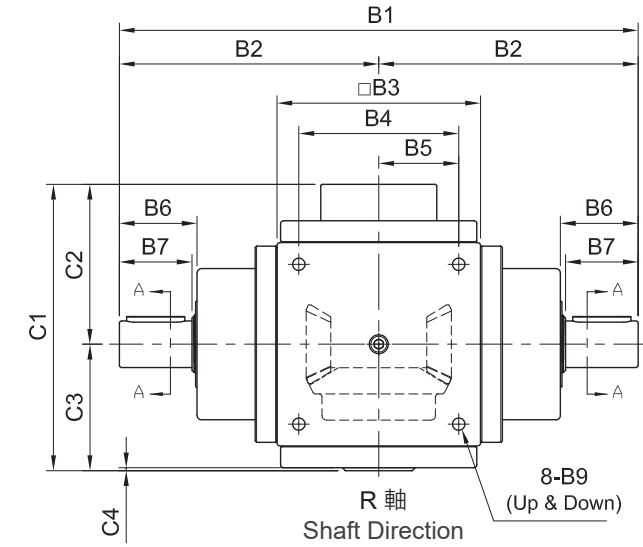


unit / birim: mm

Model Code	75	90	110	140	170	210	
A	A1	16	18	22	32	50	
	A2	5	6	6	10	14	
	A3	18	20.5	24.5	35	53.5	
	A4	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	142.5	169	207	250	300	375
	B2	67.5	79	97	110	130	165
	B3	75	90	110	140	170	210
	B4	60	72	88	110	134	170
	B5	30	36	44	55	67	85
	B6	32	38	43	53.5	64	77
	B7	30	35	40	50	60	75
	B8	73	88	106	135	164	205
	B9	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
	B10	2.5	5	5	5	5	5
	B11	25	25	30	40	50	65
C	C1	106	127	156	197	223	267
	C2	57	68	84	109	121	142
	C3	49	59	72	88	102	125
	C4	1.25	2	2	2	2.25	2.25
D	D1	M4 x P0.7	M5 x P0.8	M5 x P0.8	M8 x P1.25	M10 x P1.5	M10 x P1.5
	D2	36	40	45	70	77	84
	D3	41.7	46.7	57.7	79.7	89.7	99.7
	D4	26	30	36	54	58	64
	D5	15	18	22	34	38	42
Weight / Ağırlık	2.8	4.9	8.59	15.5	25	53	

ST-YP series / serileri

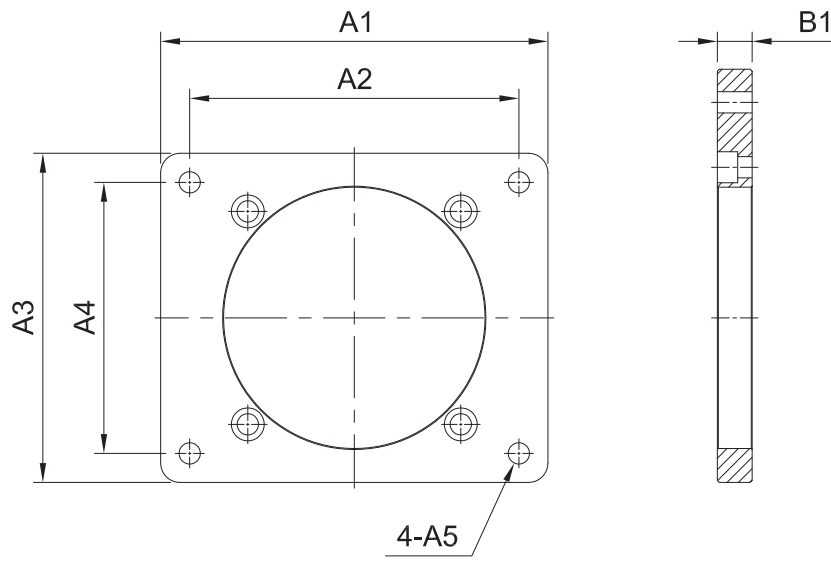
RATIO / ÇEVİRİM : 2.3.4.5 (1-Stage / Kademe)



unit / birim: mm

Model Code	75	90	110	140	170	210	
A	A1	16	18	22	32	40	50
	A2	5	6	6	10	12	14
	A3	18	20.5	24.5	35	43	53.5
	A4	M5 x P0.8	M8 x P1.25	M8 x P1.25	M10 x P1.5	M12 x P1.75	M12 x P1.75
B	B1	210	247	304	360	430	540
	B2	105	123.5	152	180	215	270
	B3	75	90	110	140	170	210
	B4	60	72	88	110	134	170
	B5	30	36	44	55	67	85
	B6	32	38	43	53.5	64	77
	B7	30	35	40	50	60	75
	B8	73	88	106	135	164	205
	B9	M6 x P1.0	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
	B10	2.5	5	5	5	5	5
	B11	25	25	30	40	50	65
C	C1	106	127	156	197	223	267
	C2	57	68	84	109	121	142
	C3	49	59	72	88	102	125
	C4	1.25	2	2	2	2.25	2.25
D	D1	M4 x P0.7	M5 x P0.8	M5 x P0.8	M8 x P1.25	M10 x P1.5	M10 x P1.5
	D2	36	40	45	70	77	84
	D3	41.7	46.7	57.7	79.7	89.7	99.7
	D4	26	30	36	54	58	64
	D5	15	18	22	34	38	42
Weight / Ağırlık	3.6	6.2	11.5	18	28	57	

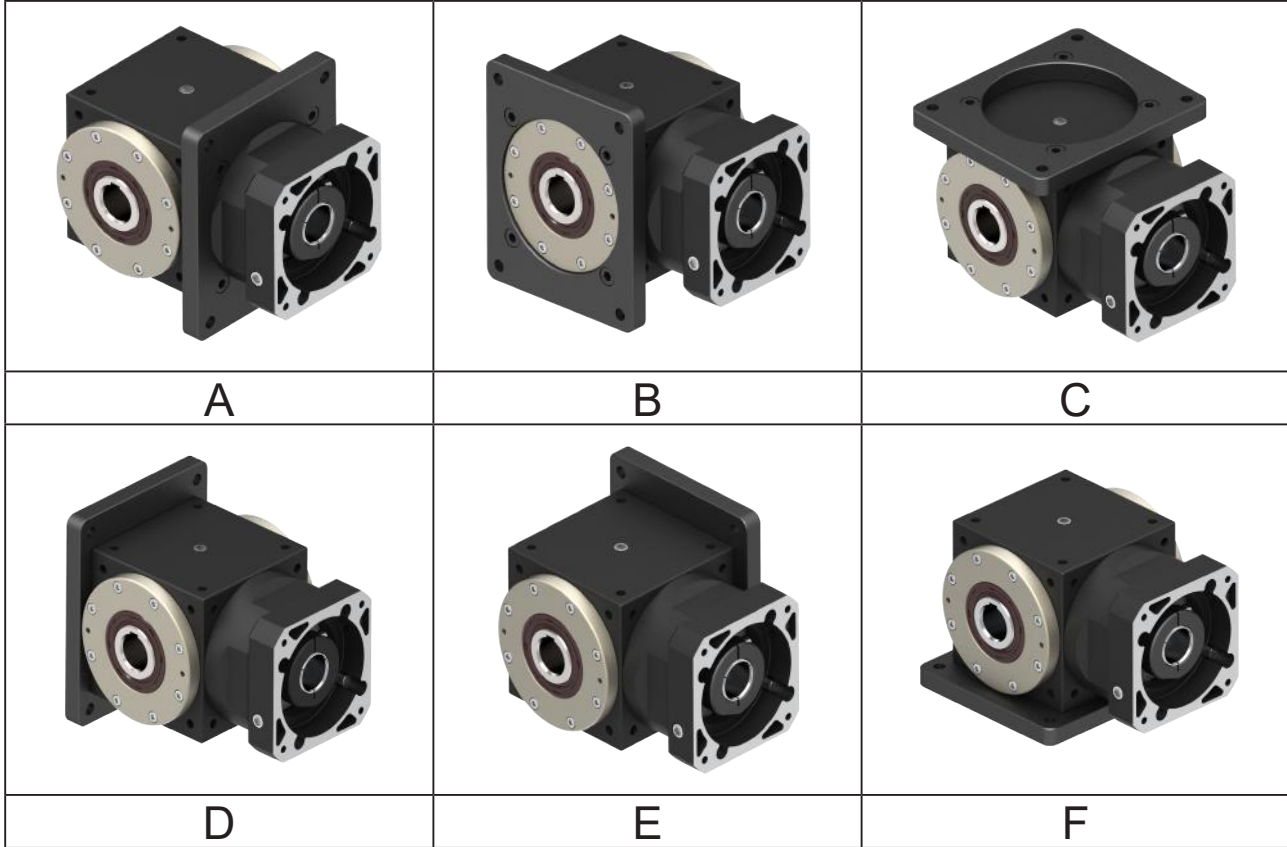
Fixing Plate / Bağlantı Plakası



unit / birim:mm

Model Code	65	75	90	110	140	170	210
	A						
A1	100	110	130	160	200	230	280
A2	85	95	110	135	170	200	240
A3	85	90	110	135	170	200	250
A4	70	75	90	110	140	170	210
A5	7	7	7	9	11	13	17
B							
B1	10	12	13	16	18	18	25

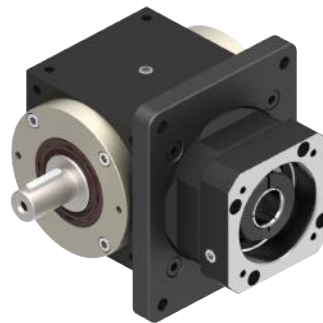
Selection Direction of Fixing Plate / Bağlantı Plakası Seçimi



Installation Example of Fixing Plate / Bağlantı Plakası Montajı

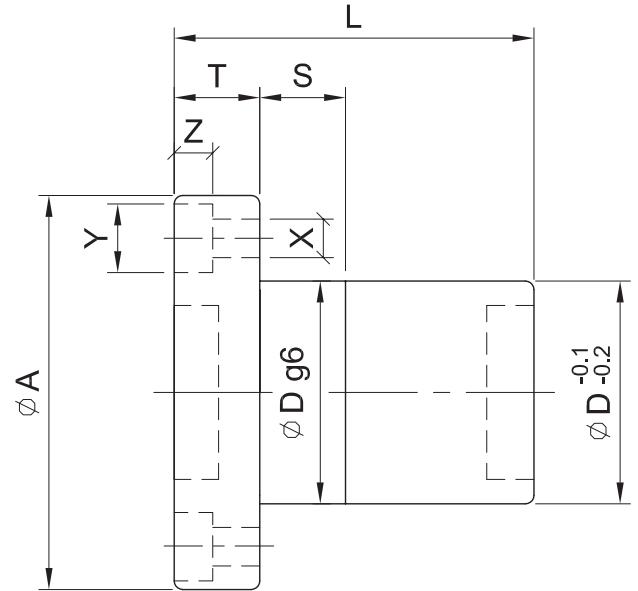
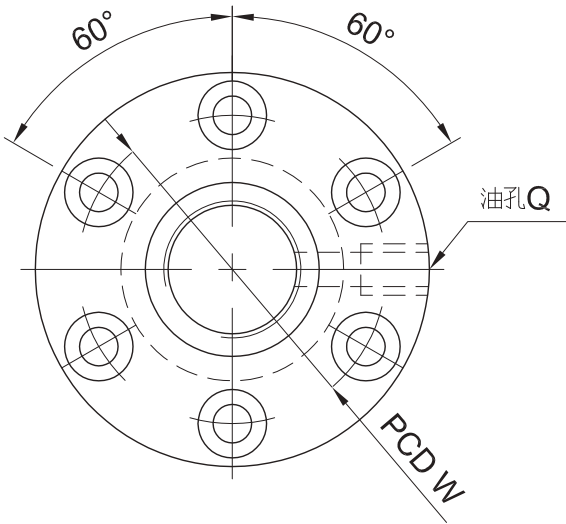


ST140-FPT-5 +
FP140-F



ST110-FSB-5 +
FP110-A

Reference Information of Ball Screw / Vidalı Mil Ölçüleri



Model	Screw Size / Vidalı Mil Çapı		Basic Rate Load (kgf) / Yük Kapasitesi		Nut / Somun		Flange / Flanş			FIT	Screw Bolt / Vida Ölçüsü			Oil Hole / Yağlama Deliği	Length / Boy
	O.D. / Mil Çapı	Lead / Hatve	Dynamic / Dinamik	Static / Statik	Dg6	L	A	T	W		S	X	Y		
75	14	5	720	1010	26	42	46	10	36	10	4.5	8	4.5	M6 x P1.0	≤ 500
90	16	6	980	1650	30	55	54	12	40	12	5.5	9.5	5.5	M6 x P1.0	≤ 800
110	20	10	860	1710	36	66	57	12	45	12	5.5	9.5	5.5	M6 x P1.0	≤ 1000
140	32	10	3340	7080	54	90	88	16	70	15	9	14	8.5	M8 x P1	≤ 1200
170	36	10	3600	8280	58	89	98	18	77	20	11	17.5	11	M8 x P1	≤ 1500
210	40	10	4670	11830	64	99	106	18	84	20	11	17.5	11	M8 x P1	≤ 1500