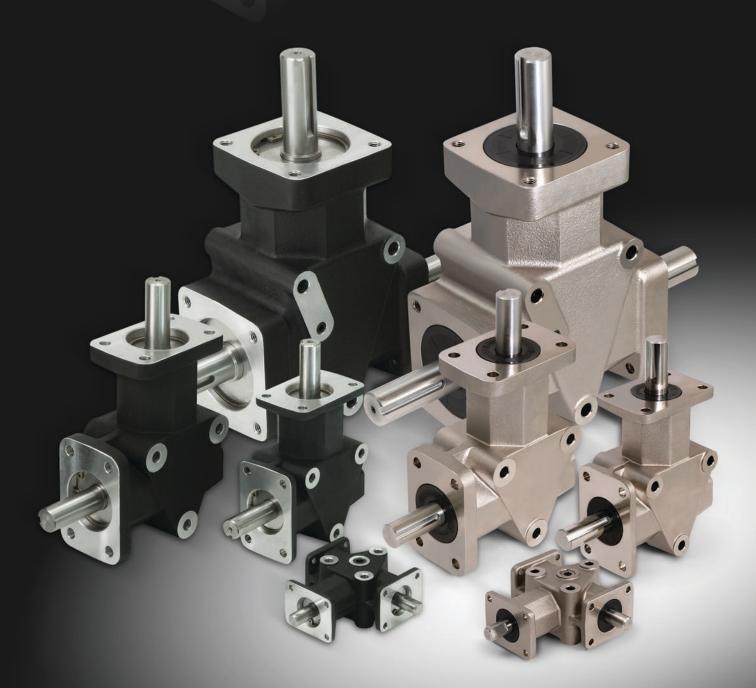


Right Angle Crown Gear Drives Standard and IP65-Rated

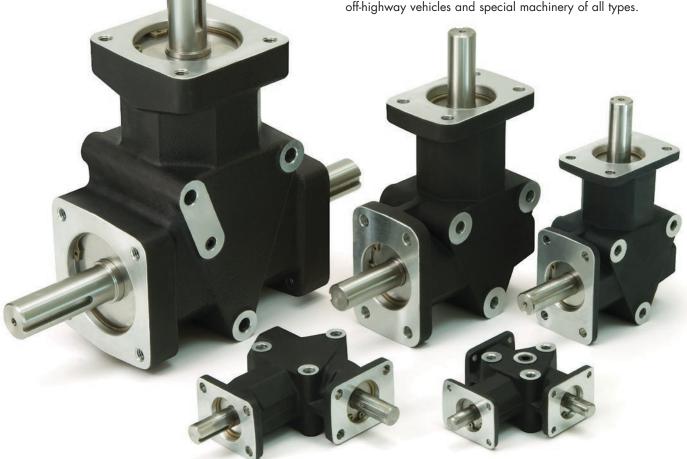


Crown two and three-way right angle gear drives transmit power with quiet, dependable spiral bevel gears.

Crown right angle gear drives feature hardened spiral bevel gears and non-magnetic stainless steel shafts. They are compact and feature multiple mounting options. The fully enclosed design ensures that internal gears can't get out of alignment, jam up or become contaminated by debris. All Crown right angle units feature a cast aluminum housing designed for maximum strength and heat dissipation. The standard units feature a premium grade grease (-50°C to +120°C; -58°F to +248°F) formulation that provides lifetime lubrication.

The drives are available with shafts of 3/8, 1/2, 5/8 and 3/4 inch diameter in two and three-way units with both 1:1 and 2:1 ratios. Three-way units in 1:1 and 2:1 ratios are available with 1 inch shafts. A wide variety of custom shafts are available including squared, splined, extended, shortened, stepped, and other designs as needed.

Applications include printing and packaging machines, off-highway vehicles and special machinery of all types.



Features

Benefits

Double sealed bearings	Holds lubrication in, keeps dirt out
Precision hardened and ground ball bearings	Smooth, quiet, long operating life
Non-magnetic stainless steel shafts	Corrosion resistant, durable
Aluminum alloy housing	Light weight, high strength and heat dissipation
Many standard types and sizes, plus special shafts	Get the exact model that fits your application needs
Multiple mounting positions/Any orientation	Simplifies design considerations
Proven design	Proven in thousands of applications for over 60 years

//////////ZERO-MAX®

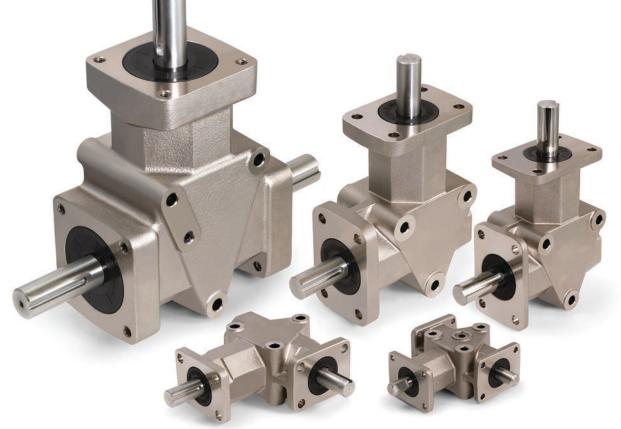
New IP65-Rated Crown Right Angle Gear Drives

Zero-Max also offers a complete line of **IP65-Rated** Crown Drives for applications that need Ingress Protection and/ or **Corrosion Resistance** – such as food-related or other applications requiring frequent washdowns.

The IP65-Rated Crown Drives feature a special housing and **shaft seals** for added environmental protection. They were tested at an independent laboratory to obtain the IP65-Rating for both dust and water jet protection. The **Nickel-Plated Housing** and non-magnetic **stainless steel shafts** also help to prevent corrosion in harsh environments.

The IP65-Rated Crown drives also feature a premium H1 rated **food-grade grease** (-20°C to +120°C; -4°F to +248°F) that provides lifetime lubrication in many applications. The standard NBR covered shaft seals are rated for operation between -40°C to +100°C (-40°F to +212°F), with brief periods up to +120°C (+248°F) allowed. Contact the factory for extreme temperature range requirements.

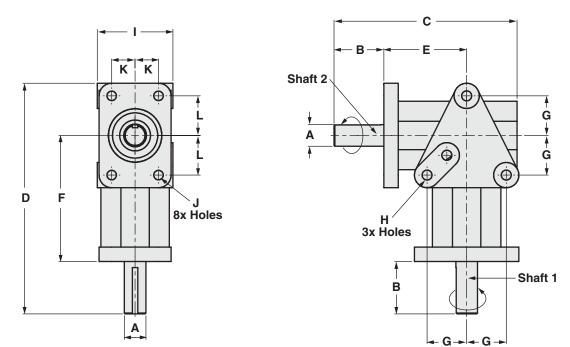
Like the standard Crown Drives, the IP65-Rated drives are available in 1:1 or 2:1 ratios, two and three-way configurations, and with shaft sizes of 3/8, 1/2, 5/8, and 3/4 inch diameters. Three-way units in 1:1 and 2:1 ratios are also available with 1 inch shafts. Counter-Rotating and custom shaft options are also available.



Features

Benefits

Nickel-Plated aluminum alloy housing	Corrosion resistant, light weight
Non-magnetic stainless steel shafts	Corrosion resistant, durable
Shaft seals	Provides IP65 protection
Double sealed bearings	Holds lubrication in, keeps dirt out
Precision hardened and ground ball bearings	Smooth, quiet, long operating life
Food grade grease (H1 rated)	Meets requirements of many food processing applications
Many standard types and sizes, plus special shafts	Get the exact model that fits your application needs
Multiple mounting positions/Any orientation	Simplifies design considerations
Proven design	Crown drives are proven in thousands of applications for over 60 years



Dimensions

1:1 Ratio

Standard Model	IP65* Model	Drive Type	А	В	с	D	E	F	G	н	I	J	к	L
C138801	C138802	2-Way	0.375	0.63	3.16	3.66	1.41	2.19	0.66	0.221 dia.	1.50	0.166 dia.	0.50	0.66
C156806	C156802	2-Way	0.500	1.00	4.38	4.94	1.88	2.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C108806	C108802	2-Way	0.625	1.50	4.88	6.19	2.00	3.25	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C208806	C208802	2-Way	0.750	1.75	6.38	7.94	2.88	4.38	1.38	0.344 dia.	2.63	0.328 dia.	0.81	1.38

*Dimensions before plating

Standard Model	IP65* Model	Drive Type	Α	В	с	D	Е	F	G	н	I	J	к	L
C134801	C134802	2-Way	0.375	0.63	3.16	3.66	1.41	2.19	0.66	0.221 dia.	1.50	0.166 dia.	0.50	0.66
C154806	C154802	2-Way	0.500	1.00	4.38	4.94	1.88	2.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C104806	C104802	2-Way	0.625	1.50	4.88	6.19	2.00	3.25	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C204806	C204802	2-Way	0.750	1.75	6.38	7.94	2.88	4.38	1.38	0.344 dia.	2.63	0.328 dia.	0.81	1.38

2:1 Ratio

*Dimensions before plating

Keyway Dimensions

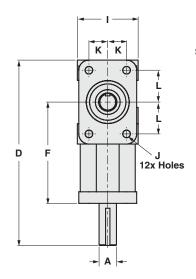
Units with	3/8	inch	dia.	shafts	ι
Units with	1/2	inch	dia.	shafts	ι
Units with	5/8	inch	dia.	shafts3/16 x 3/32 x 1-3/8	

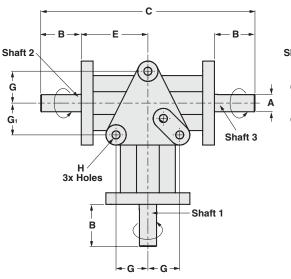
Units with 3/4 inch dia. shafts3/16 \times 3/32 \times 1-1/2 Units with 1 inch dia. shafts1/4 \times 1/8 \times 2

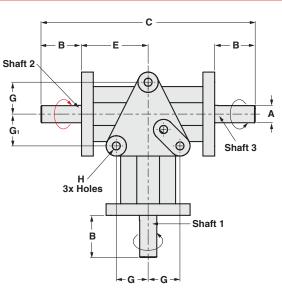
The right to make engineering refinements on all products is reserved. Dimensions and other details subject to change. When dimensions are critical, detailed drawings should be obtained from the factory. Dimensions are in inches.

Three-Way & Counter-Rotating Crown Gear Drives

zero-max.com







Three-Way Crown Gear Drives Only

To obtain opposite shaft rotation for shafts 2 & 3 as shown, install (invert) Crown Drive with grease plug down.

Counter-Rotating Crown Gear Drives Only

Shafts 2 & 3 rotate as shown.

Dimensions 1:1 Ratio

Standard Model	IP65* Model	Drive Type	A	В	с	D	E	F	G	G1	н	I	J	к	L
C139801	C139802	3-Way	0.375	0.63	4.06	3.66	1.41	2.19	0.66	0.66	0.221 dia.	1.50	0.166 dia.	0.50	0.66
C130801	C130802	Counter	0.375	0.63	4.06	3.66	1.41	2.19	0.66	0.66	0.221 dia.	1.50	0.166 dia.	0.50	0.66
C157806	C157802	3-Way	0.500	1.00	5.75	4.94	1.88	2.88	0.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C150806	C150802	Counter	0.500	1.00	5.75	4.94	1.88	2.88	0.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C109806	C109802	3-Way	0.625	1.50	7.00	6.19	2.00	3.25	1.13	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C100806	C100802	Counter	0.625	1.50	7.00	6.19	2.00	3.25	1.13	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C209806	C209802	3-Way	0.750	1.75	9.25	7.94	2.88	4.38	1.38	1.38	0.344 dia.	2.63	0.328 dia.	0.81	1.38
C803806	C803802	3-Way	1.000	2.75	12.00	11.00	3.25	6.00	1.75	2.75	0.406 dia.	4.00	3/8-16**	1.50	1.50

*Dimensions before plating

**Tapped hole, 0.81" deep

2:1 Ratio

Standard Model	IP65* Model	Drive Type	А	В	с	D	Е	F	G	G₁	н	I	J	к	L
C135801	C135802	3-Way	0.375	0.63	4.06	3.66	1.41	2.19	0.66	0.66	0.221 dia.	1.50	0.166 dia.	0.50	0.66
C155806	C155802	3-Way	0.500	1.00	5.75	4.94	1.88	2.88	0.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C151806	C151802	Counter	0.500	1.00	5.75	4.94	1.88	2.88	0.88	0.88	0.281 dia.	1.75	0.265 dia.	0.56	0.81
C105806	C105802	3-Way	0.625	1.50	7.00	6.19	2.00	3.25	1.13	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C101806	C101802	Counter	0.625	1.50	7.00	6.19	2.00	3.25	1.13	1.13	0.281 dia.	2.13	0.265 dia.	0.69	1.13
C205806	C205802	3-Way	0.750	1.75	9.25	7.94	2.88	4.38	1.38	1.38	0.344 dia.	2.63	0.328 dia.	0.81	1.38
C805806	C805802	3-Way	1.000	2.75	12.00	11.00	3.25	6.00	1.75	2.75	0.406 dia.	4.00	3/8-16**	1.50	1.50

*Dimensions before plating

**Tapped hole, 0.81" deep

Keyway Dimensions

		Units with 3/4 inch dia. shafts 3/16 x 3/32 x 1-1/2 Units with 1 inch dia. shafts1/4 x 1/8 x 2
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The right to make engineering refinements on all products is reserved. Dimensions and other details subject to change. When dimensions are critical, detailed drawings should be obtained from the factory. Dimensions are in inches.

Rated Horsepower & Torque Specifications

2-Way

2 way Angula velocit

xx	C1388X			
3/8	1 to 1 : 3	2 way : 1 to 1 : 3	/8" shaft	
d I	Rated	Angular Rated	Rated	Α
er T	Power	velocity Power	Torque	S
1	H.P.	RPM H.P.	In. Lbs.	F
Ļ	0.04	100 0.04	25	
3	0.08	200 0.08	25	
2	0.12	300 0.12	25	
6	0.16	400 0.16	25	
)	0.20	500 0.20	25	
3	0.38	1000 0.38	24	
,	0.67	2000 0.67	21	1

				Ζ-ν	•							
	C1348XX											
	2 way : 2	2 to 1 : 3/	/8" shaft									
ngular	velocity	Rated	Rated	Torque								
Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2								
RPM	RPM	H.P.	In. Lbs.	In. Lbs.								
100	50	0.02	11	22								
200	100	0.04	11	22								
300	150	0.06	11	22								
400	200	0.07	11	22								
500	250	0.09	10	21								
1000	500	0.16	10	20								
2000	1000	0.30	9	18								

ay												
	C1568XX			C1548XX								
2 way : '	1 to 1 : 1/	2" shaft		2 way : 2	2 to 1 : 1/	'2" shaft						
Angular	Rated	Rated	Angular	velocity	Rated	Rated [·]	Torque					
elocity	Power	Torque	Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2					
RPM	H.P.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.					
100	0.07	46	100	50	0.03	20	39					
200	0.14	46	200	100	0.06	20	39					
300	0.22	46	300	150	0.09	20	39					
400	0.29	46	400	200	0.13	20	39					
500	0.36	45	500	250	0.16	20	39					
1000	0.71	45	1000	500	0.30	19	37					
2000	1.27	40	2000	1000	0.54	17	34					

Angular velocity

Shaft 2

RPM

50

100

150

200

250

500

1000

Shaft 1

RPM

100

200

300

400

500

1000

2000

Ultimate static torque 160 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 60 in. lbs. calculated on 1,000 cycle basis.

C1048XX

2 way : 2 to 1 : 5/8" shaft

Rated

Power

H.P.

0.06

0.11

0.16

0.22

0.27

0.51

Angular velocity

Shaft 2

RPM

50

100

150

200

250

500

Shaft 1

RPM

100

200

300

400

500

1000

Ultimate static torque 275 in. lbs. calculated on 1,000 cycle basis.

C2088XX

2 way : 1 to 1 : 3/4" shaft

Rated

Power

H.P.

0.30

0.56

0.81

1.06

1.33

2.33

4.25

Rated

Torque

In. Lbs.

189

177

171

167

167

147

134

Angular

velocity

RPM

100

200

300

400

500

1000

2000

Ultimate static torque 130 in. lbs. calculated on 1,000 cycle basis.

C2048XX

2 way : 2 to 1 : 3/4" shaft

Rated

Power

H.P.

0.11

0.22

0.33

0.44

0.55

0.99

1.75

Rated Torque

Shaft 2

In. Lbs.

140

140

140

140

140

124

110

Shaft 1

In. Lbs.

70

70

70

70

70

62

55

	C1088XX							
2 way : 1	1 to 1 : 5/	/8" shaft						
Angular Rated Rated velocity Power Torque								
RPM	H.P.	In. Lbs.						
100	0.16	101						
200	0.32	101						
300	0.47	99						
400	0.62	98						
500	0.75	95						
1000	1.37	87						
2000	2.43	77						

Ultimate static torque 610 in. lbs. calculated on 1,000 cycle basis.

2000 1000 0.92 29 Ultimate static torque 210 in. lbs. calculated on 1,000 cycle basis.

Rated Torque

Shaft 2

In. Lbs

68

68

68

68

68

64

58

Shaft 1

In. Lbs.

34

34

34

34

34

32

Ultimate static torque 1400 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 540 in. lbs. calculated on 1,000 cycle basis

C1398XX											
	3 way : 1 to 1 : 3/8" shaft										
Angular Rated Power Torque											
RPM	H.P.	In. Lbs.									
100	0.04	25									
200	0.08	25									
300	0.12	25									
400	0.16	25									
500	0.20	25									
1000	0.38	24									
2000	0.67	21									

Ultimate static torque 160 in. lbs. calculated on 1,000 cycle basis.

C1308XX (Counter Rotating)										
3 way : 1 to 1 : 3/8" shaft										
Angular Rated Power Rated Torque*										
RPM	H.P.	In. Lbs.								
100	0.05	32								
200	0.10	32								
300	0.14	29								
400	0.18	28								
500	0.22	28								
1000	0.42	26								
2000	0.75	24								

Ultimate static torque 170 in. lbs. calculated on 1,000 cycle basis. *This is the maximum torque that can be shared by both shafts at once.

	C1358XX												
	3 way : 2 to 1 : 3/8" shaft												
Angular	velocity	Rated	Rated	Torque									
Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2									
RPM	RPM	H.P.	In. Lbs.	In. Lbs.									
100	50	0.02	11	22									
200	100	0.04	11	22									
300	150	0.06	11	22									
400	200	0.07	11	22									
500	250	0.09	10	21									
1000	500	0.16	10	20									
2000	1000	0.30	9	18									

Ultimate static torque 60 in. lbs. calculated on 1,000 cycle basis.



Rated Horsepower & Torque Specifications

	3-Way														
	C1578XX	(C1508XX	(Counter	Rotating)			C1558XX	((C1518XX	(Counter	Rotating	1)
3 way : '	1 to 1 : 1/	/2" shaft	3 way :	1 to 1 : 1	/2" shaft		3 way : :	2 to 1 : 1	/2" shaft			3 way : :	2 to 1 : 1/	2" shaft	
Angular	Datad	Datad	Angular	Datad	Rated	Angular	velocity	Rated	Rated	Torque	Angular	velocity	Rated	Rated	Torque
Angular velocity	Rated Power	Rated Torque	Angular velocity	Rated Power	Torque*	Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2	Shaft 1	Shafts 2 & 3	Power	Shaft 1	Shafts 2 and 3*
RPM	H.P.	In. Lbs.	RPM	H.P.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.
100	0.07	46	100	0.08	50	100	50	0.03	20	39	100	50	0.02	16	32
200	0.14	46	200	0.16	50	200	100	0.06	20	39	200	100	0.05	16	32
300	0.22	46	300	0.25	50	300	150	0.09	20	39	300	150	0.08	16	32
400	0.29	46	400	0.33	50	400	200	0.13	20	39	400	200	0.11	16	32
500	0.36	45	500	0.41	50	500	250	0.16	20	39	500	250	0.14	16	32
1000	0.71	45	1000	0.75	47	1000	500	0.30	19	37	1000	500	0.25	15	30
2000	1.27	40	2000	1.37	43	2000	1000	0.54	17	34	2000	1000	0.50	15	30

Ultimate static torque 275 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 330 in. lbs. calculated on 1,000 cycle basis. *This is the maximum torque

that can be shared by both shafts at once.

	C1098XX		C1008XX	(Counter	Rotating)		
3 way :	1 to 1 : 5/	/8" shaft	3 way :	1 to 1 : 5/	o 1 : 5/8" shaft		
Angular velocity	Rated Power	Rated Torque	Angular velocity	Rated Power	Rated Torque*		
RPM	H.P.	In. Lbs.	RPM	H.P.	In. Lbs.		
100	0.16	101	100	0.17	107		
200	0.32	101	200	0.30	95		
300	0.47	99	300	0.45	94		
400	0.62	98	400	0.60	94		
500	0.75	95	500	0.75	94		
1000	1.37	87	1000	1.37	87		
2000	2.43	77	2000	2.50	79		

Ultimate static torque 610 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 630 in. lbs. calculated on 1,000 cycle basis.

*This is the maximum torque that can be shared by both shafts at once.

Ultimate static torque 130 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 210 in. lbs. calculated on 1,000 cycle basis.

3 way : 2 to

Shaft 2

RPM

50

100

150

200

250

500

1000

Angular velocity

Shaft 1

RPM

100

200

300

400

500

1000

2000

Ultimate static torque 116 in. lbs. calculated on 1,000 cycle basis.

*This is the maximum torque that can be shared by both shafts (2 and 3) at once.

Rated Torque

Shafts

2 and 3'

In. Lbs

62

60

56

56

52

								_
	C1058XX			(C1018XX	(Counter	Rotating)
	2 to 1 : 5/	/8" shaft			3 way : 2	2 to 1 : 5/	/8" shaft	
,	Dotod	Rated [*]	Torque	Angular	velocity	Deted	Rated	To
	Rated Power	Shaft 1	Shaft 2	Shaft 1	Shafts 2 & 3	Rated Power	Shaft 1	2
	H.P.	In. Lbs.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	I
	0.06	34	68	100	50	0.05	31	
	0.11	34	68	200	100	0.08	30	
	0.16	34	68	300	150	0.12	28	
	0.22	34	68	400	200	0.18	28	
	0.27	34	68	500	250	0.21	26	
	0.51	32	64	1000	500	0.37	24	
	0.92	29	58	2000	1000	0.75	23	

24 48 23 46 2000 1000 | 0.75

Ultimate static torque 192 in. lbs. calculated on 1,000 cycle basis.

*This is the maximum torque that can be shared by both shafts (2 and 3) at once.

	C2098XX	(C2058XX	ζ			C8038XX		C8058XX					
3 way : 1	3 way : 1 to 1 : 3/4" shaft			3 way : :	2 to 1 : 3/	/4" shaft		3 way :	1 to 1 : 1	I" shaft		3 way :	2 to 1 : 1	I" shaft		
Angular	Rated	Rated	Angular	velocity	Rated	Rated	Torque	Angular	Rated	Rated	Rated Torque	Angular	velocity	Rated	Rated	Torque
velocity	Power	Torque	Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2	velocity	Power			Shaft 1	Shaft 2	Power	Shaft 1	Shaft 2
RPM	H.P.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.	RPM	H.P.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.	
100	0.30	189	100	50	0.11	70	140	100	1.00	630	100	50	0.38	236	472	
200	0.56	177	200	100	0.22	70	140	200	1.87	591	200	100	0.75	236	472	
300	0.81	171	300	150	0.33	70	140	300	2.75	578	300	150	1.00	210	420	
400	1.06	167	400	200	0.44	70	140	400	3.33	525	400	200	1.33	210	420	
500	1.33	167	500	250	0.55	70	140	500	4.12	520	500	250	1.67	210	420	
1000	2.33	147	1000	500	0.99	62	124	1000	7.75	488	1000	500	3.24	204	408	
2000	4.25	134	2000	1000	1.75	55	110	2000	13.00	410	2000	1000	5.75	181	362	

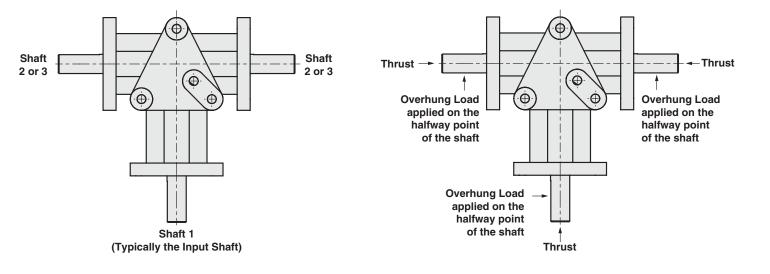
Ultimate static torque 1400 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 540 in. lbs. calculated on 1,000 cycle basis.

Ultimate static torque 5100 in. lbs. calculated on 1,000 cycle basis. Ultimate static torque 2170 in. lbs. calculated on 1,000 cycle basis.

Crown Overhung Load and Thrust Capacity

	Overhun	g Load Ca	pacity (at r	nid-shaft)	Thrust Loa	d Capacity		Net We	ight each		
Item Number	Sha	aft 1	Shafts	2 and 3	All S	hafts		Standard Housing		IP65 / Ni-Plated Housing	
	Pounds	Newtons	Pounds	Newtons	Pounds	Newtons	Pounds	Kilograms	Pounds	Kilograms	
C1008XX	50.00	222.41	33.00	146.79	80.00	355.86	3.25	1.47	3.35	1.52	
C1018XX	50.00	222.41	34.00	151.24	80.00	355.86	3.25	1.47	3.35	1.52	
C1048XX	50.00	222.41	50.00	222.41	100.00	444.82	2.75	1.25	2.82	1.28	
C1058XX	50.00	222.41	50.00	222.41	100.00	444.82	3.00	1.36	3.10	1.41	
C1088XX	50.00	222.41	50.00	222.41	100.00	444.82	2.75	1.25	2.82	1.28	
C1098XX	50.00	222.41	50.00	222.41	100.00	444.82	3.00	1.36	3.10	1.41	
C1308XX	25.00	111.21	16.00	71.17	40.00	177.93	0.87	0.39	0.90	0.41	
C1348XX	25.00	111.21	25.00	111.21	50.00	222.41	0.75	0.34	0.77	0.35	
C1358XX	25.00	111.21	25.00	111.21	50.00	222.41	0.85	0.39	0.88	0.40	
C1388XX	25.00	111.21	25.00	111.21	50.00	222.41	0.75	0.34	0.77	0.35	
C1398XX	25.00	111.21	25.00	111.21	50.00	222.41	0.85	0.39	0.88	0.40	
C1508XX	35.00	155.69	24.00	106.76	56.00	249.10	2.13	0.97	2.21	1.00	
C1518XX	35.00	155.69	24.00	106.76	56.00	249.10	2.13	0.97	2.21	1.00	
C1548XX	35.00	155.69	35.00	155.69	70.00	311.38	1.75	0.79	1.80	0.82	
C1558XX	35.00	155.69	35.00	155.69	70.00	311.38	2.00	0.91	2.08	0.95	
C1568XX	35.00	155.69	35.00	155.69	70.00	311.38	1.75	0.79	1.80	0.82	
C1578XX	35.00	155.69	35.00	155.69	70.00	311.38	2.00	0.91	2.08	0.95	
C2048XX	100.00	444.82	100.00	444.82	200.00	889.64	6.50	2.95	6.80	3.09	
C2058XX	100.00	444.82	100.00	444.82	200.00	889.64	7.00	3.18	7.45	3.39	
C2088XX	100.00	444.82	100.00	444.82	200.00	889.64	6.50	2.95	6.80	3.09	
C2098XX	100.00	444.82	100.00	444.82	200.00	889.64	7.00	3.18	7.45	3.39	
C8038XX	160.00	711.72	160.00	711.72	320.00	1423.43	18.0	8.16	18.7	8.51	
C8058XX	160.00	711.72	160.00	711.72	320.00	1423.43	18.0	8.16	18.7	8.51	



1. Determine Your Preferred Input/Output Ratio. Standard ratios are 1:1 and 2:1. It is also possible to use a step up ratio of 1:2 by using shaft #2 as the input shaft on 2:1 units. (See drawings on pages 3-4).

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- 2. Designate Which Shafts Are To Be Input And Output Shafts. This step is especially important to determine that no shaft will turn faster than 2000 RPM. If shaft #2 in the 2:1 ratio models is selected as the input shaft, it can turn at a maximum of 1000 RPM. In the 1:1 ratio models it makes no difference. However, the choice in either case will affect your mounting.
- 3. Choose Drive Type. Use either 2-way or 3-way configuration.
- 4. Choose Style. Determine if Standard Models or IP65 Ingress Protection / Nickel-Plated Model is desired.
- 5. Select The Correct Model Number. On pages 3–4, select the correct model number; note that units with 3/8 inch shafts have flats and units with 1/2, 5/8, 3/4 and 1 inch shafts have standard keyways. Also note that 1 inch shaft models are available in 3-way type only.
- 6. Be Certain That The Designated Output Shaft Has A Torque Capacity Greater Than Your Applications Load. Consult the tables on the pages 5-6, and be sure to apply the service factors from the chart below.
- 7. If modifications of shafts and/or housings are required for your application, send a drawing and a description of the application to the factory.

NOTE:

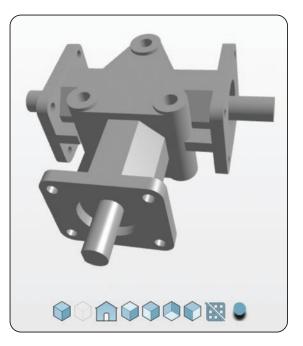
- Part numbers with "01" suffix: Standard housing, shafts with flats instead of keyways (3/8" shafts).
- Part numbers with "06" suffix: Standard housing, shafts with standard keyways (1/2", 5/8", 3/4" and 1" shafts).
- Part numbers with "02" suffix: IP65-Rated/Nickel-Plated Housing. 3/8" shafts have flats, all others have keyways.

The Service Factors listed below will cover most usual applications. Applications dealing with single and multi-cylinder internal combustion engines, extreme repetitive shock loads and high energy loads are not covered. For additional information, please contact the factory.

Determine	Determine Duration of Service	Driven Machine Load Classifications						
Prime Mover	Determine Duration of Service	Uni-form	Mod. Shock	Heavy Shock				
	Occasional 1/2 hr. /day	1.00	1.00	1.25				
Electric Motor,	Intermittent 3 hrs/day	1.00	1.00	1.50				
Steam Turbine or Hydraulic Motor	Over 3 hrs. up to 10 hrs/day	1.00	1.25	1.75				
	Over 10 hrs/day	1.25	1.50	2.00				



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PRECISE. RELIABLE. ROBUST. AVAILABLE.



High-performance couplings that outperform and outlast bellows and steel disc designs. The unique design of the composite disc enables the CD Couplings to withstand punishing applications and deliver high precision performance. Fully Customizable.



ETP[®] keyless connections and Posi-Lok[®] keyless bushings provide quick, easy and accurate assembly of mounted shaft components. Both inch and metric bore sizes are available from stock.



Designed for demanding servomotor applications. Zero backlash, high torsional stiffness, high speed design. Features flexible metal discs for high misalignment capacity and keyless clamp-type mounting hubs.



Designed to handle high amounts (up to 17") of parallel shaft offset with constant angular velocity. Standard models with torque capacities up to 459,000 in-lbs and extensive custom capabilities.

Torque Tender[®] Couplings provide reliable overload protection in any mechanical power transmission system. Full selection of styles and sizes with set-point torque ranges from 3 to 3,000 in-lbs.



Zero backlash couplings designed for encoder and instrumentation type applications. Features high misalignment capacity, constant velocity, and an electrically isolated hub design.





Available in 5-sizes, 3 configurations, and with 1:1 and 2:1 ratios. High quality AGMA class 10 spiral bevel gears. Stainless steel shafts and either black anodized or IP65-Rated nickelplated aluminum housing.

Easy to install and maintenance free. Zero-Max® Drives offer infinitely variable speeds from 0 rpm to 1/4 of input rpm. 5 models with torque ranges from 12 in-lbs to 200 in-lbs.

Simple conversion of rotary motion into precise linear motion. Available in five models and multiple configurations. Roh'Lix actuators have thrust ratings from 5 to 200 lbs. All models feature built-in overload protection.



Designed to protect hydraulic motors and pumps from radial/axial loads and to provide additional seal protection. 11 models available for mounts from SAE A to SAE F. Fully customizable.

Warranty. Zero-Max, Inc. the manufacturer, warrants that for a period of 12 months from date of shipment it will repair, or at its option, replace any new apparatus which proves defective in material or workmanship, or which does not conform to applicable drawings and specifications approved by the manufacturer. All repairs and replacements shall be F.O.B. factory. All claims must be made in writing to the manufacturer. In no event and under no circumstances shall manufacturer be liable for (a) damages in shipment; (b) failures or damages due to misuse, abuse, improper installation or abnormal conditions of temperature, dirt, water or corrosives; (c) failures due to operation, intentional or otherwise, above rated capacities, and (d) non-authorized expenses for removal, inspection, transportation, repair or rework. Nor shall manufacturer ever be liable for consequential and incidental damages, or in any amount greater than the purchase price of the apparatus. The apparatus are right to discontinue models or to change specifications at any time without notice. No discontinuance or change shall create any liability on the part of Zero-Max, Inc. in respect to its products in the hands of customers or products on order not incorporating such changes even though delivered after any such change. • This warranty is in LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING (BUT NOT LIMITED TO) ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE TERMS OF THIS WARRANTY CONSTITUTE ALL BUYER'S OR USER'S OSUE AND EXCLUSIVE REMEDY, AND ARE IN LIEU OF ANY RIGHT TO RECOVER FOR NEGLIGENCE, BREACH OF WARRANTY, STRICT TORT LIABILITY OR UPON ANY OTHER THEORY. Any legal proceedings arising out of the sale or use of this apparatus must be commenced within 18 months of the date of purchase. CAUTION: Rotating equipment must be guarded. Also refer to OSHA specifications and recommendations. • Zero-Max®, CD®, ETP®, ServoClass®, Torq-Tender®, Posi-Lok®, Roh'Lix®, and OHLA® are registered trademarks of Zero-Max, Inc. In U.S.A.

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