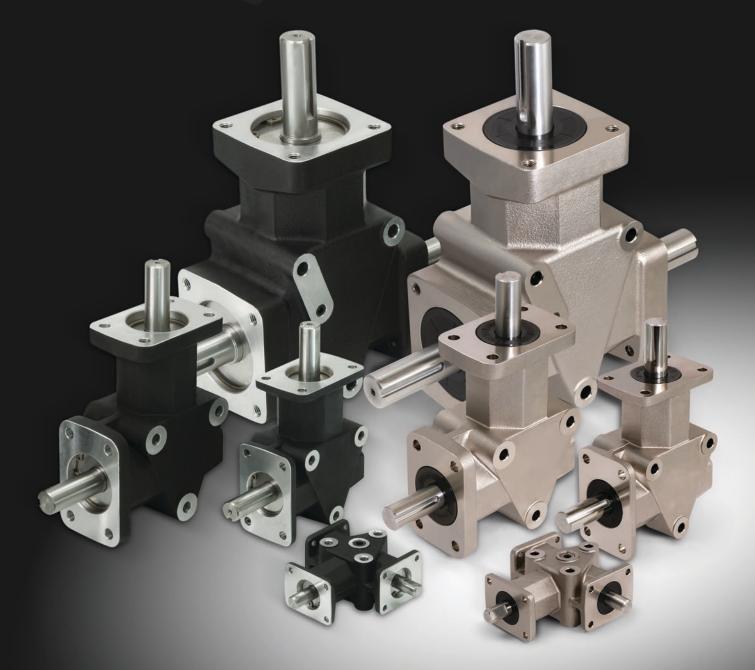


# Right Angle Crown Gear Drives Standard and IP65-Rated





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,



### **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

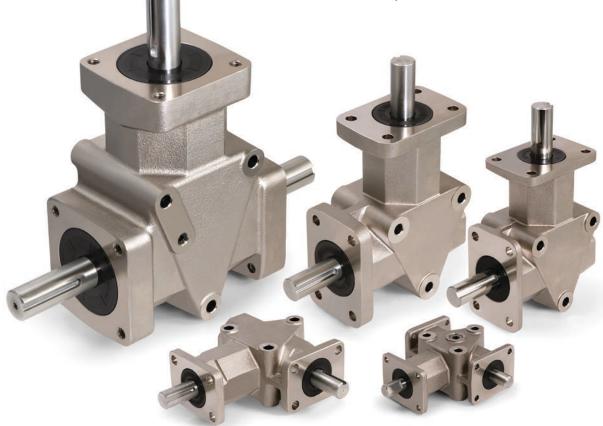
# New IP65-Rated Crown Right Angle Gear Drives

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.

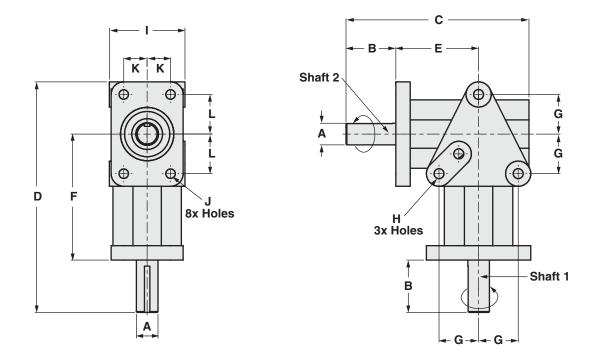
Like the standard Crown Drives, the IP65-Rated drives are available in 1:1 or 2:1 ratios, two and three-way configurations, and with shaft sizes of 3/8, 1/2, 5/8, and 3/4 inch diameters. Three-way units in 1:1 and 2:1 ratios are also available with 1 inch shafts. Counter-Rotating and custom shaft options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

2:1 Ratio

Standard Model	IP65* Model	Drive Type	A	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

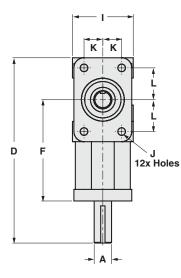
\*Dimensions before plating

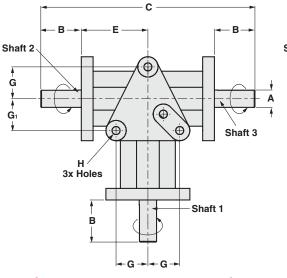
### **Keyway Dimensions**

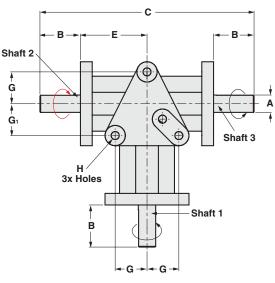
Units with $3/8$ inch dia. shafts $1/32$ <b>Flat</b> x $1/2$ long Units with $1/2$ inch dia. shafts $1/8 \times 1/16 \times 7/8$ Units with $5/8$ inch dia. shafts $3/16 \times 3/32 \times 13/8$	
Units with 5/8 inch dia. shafts3/16 x 3/32 x 1-3/8	

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**







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#### **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	Е	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	A	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 3/8 inch dia. shafts ..... 1/32 Flat x 1/2 long Units with 1/2 inch dia. shafts ......1/8 x 1/16 x 7/8 Units with 5/8 inch dia. shafts ..... 3/16 x 3/32 x 1-3/8 Units with 3/4 inch dia. shafts ..... 3/16 x 3/32 x 1-1/2 Units with 1 inch dia. shafts  $\dots 1/4 \times 1/8 \times 2$ 

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.

	C1388XX						
2 way :	1 to 1 : 3/	2 way :					
Angular	Rated	Rated	Angular	velocity			
velocity	Power	Torque	Shaft 1	Shaft 2			
RPM	H.P.	In. Lbs.	RPM	RPM			
100	0.04	25	100	50			
200	0.08	25	200	100			
300	0.12	25	300	150			
400	0.16	25	400	200			
500	0.20	25	500	250			
1000	0.38	24	1000	500			
2000	0.67	21	2000	1000			

### **Rated Horsepower & Torque Specifications**

**Rated Torque** 

Shaft 2

In. Lbs.

22

22

22

22

21

20

18

Shaft 1

In. Lbs.

11

11

11

11 10

10

9

**Rated Torque** 

Shaft 2

In. Lbs

68

68

68

68

68

64

58

Shaft 1

In. Lbs.

34

34

34

34

34

32

29

### 2-Way

Angular

velocity

RPM

100

200

300

400

500

1000

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

0.92

C1348XX : 2 to 1 : 3/8" shaft

Rated

Power

H.P.

0.02

0.04

0.06

0.07

0.09

0.16

0.30

/ay												
	C1568XX				C1548XX							
2 way : 1 to 1 : 1/2" shaft				2 way : 2 to 1 : 1/2" shaft								
Angular	Rated	Rated	Angular	velocity	Rated	Rated	Torque					
velocity	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

500

1000

2000

250

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

Rated

Torque

In. Lbs

189

177

171

167

167

147

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

21

20

18

10

10

9

Shaft 1

In. Lbs.

70

70

70

70

70

62

55

	C1088XX	[			
2 way :	2 way : 1 to 1 : 5/8" shaft				2 way :
Angular	Rated	Rated		Angular	velocity
velocity	Power	Torque		Shaft 1	Shaft 2
RPM	H.P.	In. Lbs.		RPM	RPM
100	0.16	101		100	50
200	0.32	101		200	100
300	0.47	99		300	150
400	0.62	98		400	200
500	0.75	95		500	250
1000	1.37	87		1000	500
2000	2.43	77		2000	1000

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

cycle basis.

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

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

2000 4.25 134 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 Rated velocity 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								

in. lbs. calculated on 1,000 cycle basis.

### 3-Way

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

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	velocity 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				

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

0.09

0.16

Rated Horsepower & Torque Specifications												
							3-W	/ay				
	C1578XX	[	C1508XX	(Counter	Rotating)			C1558XX				C1518XX
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 :					
A	Batal	Dutut		Datad	Dutit	Angular	velocity	Data	Rated	Rated Torque Angular veloc		velocity
Angular velocity	Rated Power	Rated Torque	Angular velocity	Rated Power	Rated Torque*	Shaft 1	Shaft 2	Rated Power	Shaft 1	Shaft 2	Shaft 1	Shafts 2 & 3
RPM	H.P.	In. Lbs.	RPM	H.P.	In. Lbs.	RPM	RPM	H.P.	In. Lbs.	In. Lbs.	RPM	RPM
100	0.07	46	100	0.08	50	100	50	0.03	20	39	100	50
200	0.14	46	200	0.16	50	200	100	0.06	20	39	200	100
300	0.22	46	300	0.25	50	300	150	0.09	20	39	300	150
400	0.29	46	400	0.33	50	400	200	0.13	20	39	400	200
500	0.36	45	500	0.41	50	500	250	0.16	20	39	500	250
1000	0.71	45	1000	0.75	47	1000	500	0.30	19	37	1000	500
2000	1.27	40	2000	1.37	43	2000	1000	0.54	17	34	2000	1000

### Rated Horsenower & Torque Specifications

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.

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

C1058XX

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

//////////ZERO-MAX

X (Counter Rotating) : 2 to 1 : 1/2" shaft

Rated

Power

H.P.

0.02

0.05

0.08

0.11

0.14

0.25

0.50

**Rated Torque** 

Shaft 1

In. Lbs.

16

16

16

16

16

15

15

Shafts

2 and 3'

In. Lbs.

32

32

32

32

32

30

30

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

	C1098XX	[	C1008XX (Counter Rotatin			
3 way :	1 to 1 : 5/	/8" shaft	3 way : 1 to 1 : 5/8" sh			
Angular velocity	Rated Power	Rated Torque	Angular velocity		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 toraue

that can be shared by both shafts at once.

3 way : 2 to 1 : 5/8" shaft Angular velocity Rated Torque Rated Power Shaft 1 Shaft 2 Shaft 1 Shaft 2 RPM RPM H.P. In. Lbs. In. Lbs. 100 50 0.06 34 68 200 100 34 0.11 68 300 150 34 68 0.16 0.22 400 200 34 68 500 250 0.27 34 68 32 1000 500 0.51 64 2000 1000 0.92 29 58

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

Angular

velocitv

**RPM** 

100

200

300

400

500

1000

2000

C1018XX (Counter Rotating)								
3 way : 2 to 1 : 5/8" shaft								
Angular	velocity	Rated	Rated	Torque				
Shaft 1	Shafts 2 & 3	Power	Shaft 1	Shafts 2 and 3*				
RPM	RPM	H.P.	In. Lbs.	In. Lbs.				
100	50	0.05	31	62				
200	100	0.08	30	60				
300	150	0.12	28	56				
400	200	0.18	28	56				
500	250	0.21	26	52				
1000	500	0.37	24	48				
2000	1000	0.75	23	46				

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

C8058XX

3 way : 2 to 1 : 1" shaft

Rated

Power

H.P.

0.38

0.75

1.00

1.33

1.67

3.24

5.75

**Rated Torque** 

Shaft 2

In. Lbs

472

472

420

420

420

408

362

Shaft 1

In. Lbs.

236

236

210

210

210

204

181

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

Angular velocity

Shaft 2

RPM

50

100

150

200

250

500

1000

Shaft 1

RPM

100

200

300

400

500

1000

2000

	C2098XX		C2058XX				
3 way : '	1 to 1 : 3/	/4" shaft	3 way : 2 to 1 : 3/4" shaft				
Angular	Rated	Rated	Angular	velocity	Rated	Rated Torqu	
velocity	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	0.30	189	100	50	0.11	70	140
200	0.56	177	200	100	0.22	70	140
300	0.81	171	300	150	0.33	70	140
400	1.06	167	400	200	0.44	70	140
500	1.33	167	500	250	0.55	70	140
1000	2.33	147	1000	500	0.99	62	124
2000	4.25	134	2000	1000	1.75	55	110

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.

C8038XX

3 way : 1 to 1 : 1" shaft

Rated

Power

H.P.

1.00

1.87

2.75

3.33

4.12

7.75

13.00

Rated

Torque

In. Lbs

630

591

578

525

520

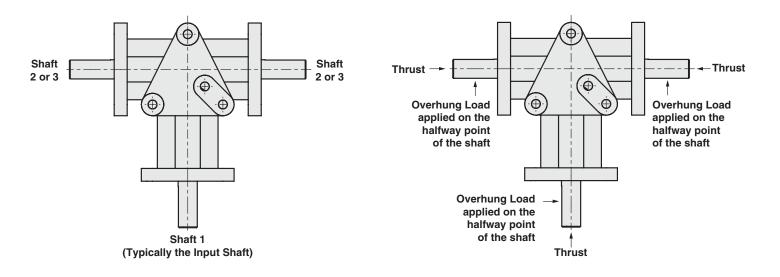
488

410

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

# **Crown Overhung Load and Thrust Capacity**

	Overhung Load Capacity (at mid-shaft)			Thrust Loa	d Capacity	Net Weight each				
Item Number	Sha	aft 1	Shafts	2 and 3	All S	hafts		ndard using	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



//////////ZERO-MAX

- 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:

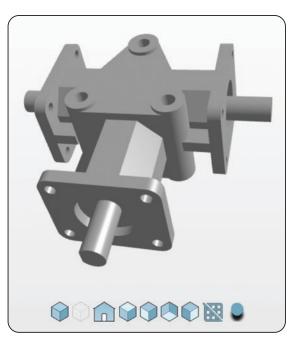
- Part numbers with "01" suffix: Standard housing, shafts with flats instead of keyways (3/8" shafts).
- Part numbers with "06" suffix: Standard housing, shafts with standard keyways (1/2", 5/8", 3/4" and 1" shafts).
- Part numbers with "02" suffix: IP65-Rated/Nickel-Plated Housing. 3/8" shafts have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



Zero-Max Configurable 3D CAD Downloads. **www.zero-max.com** 



## PRECISE. RELIABLE. ROBUST. AVAILABLE.



### CD<sup>®</sup> Couplings

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.



### Keyless Shaft Locking Devices

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.

### **Crown Gear Drives**

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<sup>®</sup> 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.



### Schmidt Offset Couplings

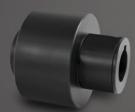
clamp-type mounting hubs.

misalignment capacity and keyless

Designed for demanding

servomotor applications. Zero backlash, high torsional stiffness, high speed design. Features flexible metal discs for high

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.



#### **Overload Safety Couplings**

Torque Tender<sup>®</sup> 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.



### Control-Flex Coupling

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





#### Roh'Lix<sup>®</sup> Linear Actuators

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.

### **OHLA®** Overhung Load Adaptors

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. The operation of the apparatus is products in the hands of customers or products on order not incorporating such changes seven though delivered after any such change. This warranty is in LIEU OF ALL OTHER WARRANTES, 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 OU SER'S OLE 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: Rotting equipment must be guarded. Also refer to OSHA specifications and recommendations. Tere-Max<sup>®</sup>, CD<sup>®</sup>, EIP<sup>®</sup>, ServoClass<sup>®</sup>, Torq-Tender<sup>®</sup>, Posi-Lok<sup>®</sup>, Roh'Lix<sup>®</sup>, and OHLA<sup>®</sup> are registered trademarks of Zero-Max, Inc. In U.S.A.

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