Drive Couplings

- Flexible Double Loop
- Flexible Jaw (Spider)
- Nylon Sleeve Gear Coupling

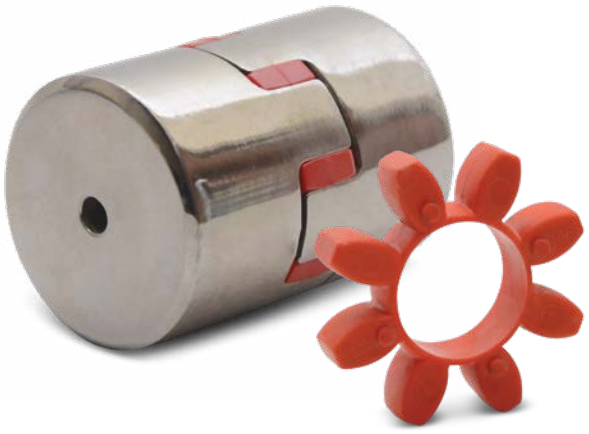
General purpose couplings for light power drives.

Flex-G

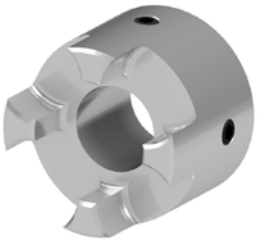
Flexible Jaw Coupling

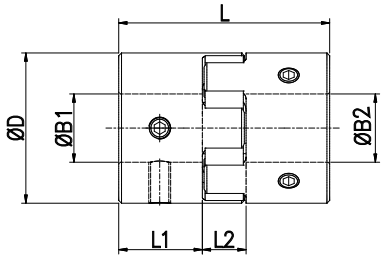
Huco Flexible Jaw Couplings utilize the flexibility and resilience of a polyurethane element between aluminium hubs. This combination allows high torque to be transmitted with little or no backlash, even where there is significant angular and/or parallel misalignment.

- Zero / Low backlash
- Rated up to 7200Nm Torque
- Choice of 4 polyurethane elements

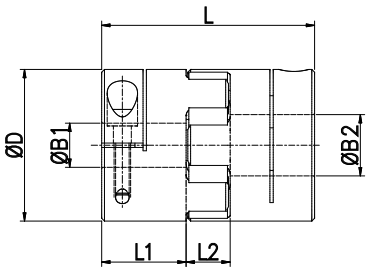


Set Screw Hubs

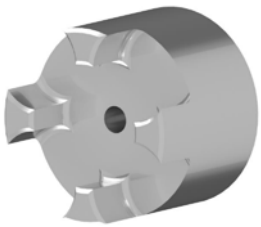


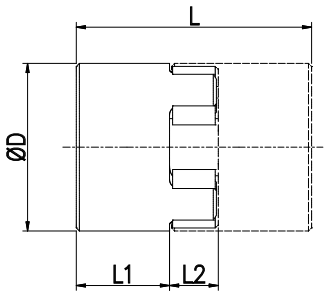


Thro' Clamp Hubs



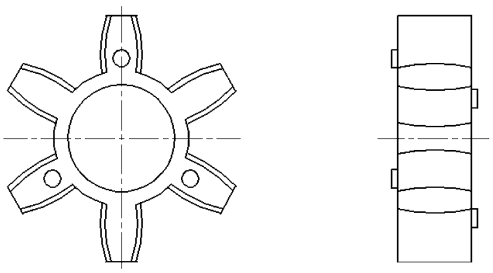
Pilot Hubs





User-adaptable for special needs e.g. fitting within tubes. Blank hubs are supplied centered with no provision for fastening. External dimensions identical with blind hubs.

Elements



Polyurethane elements are available with three hardness levels; hard, standard and soft which exhibit different operating characteristics. Other features of polyurethane are:

- Resistance to oils, grease and many solvents
- Good atmospheric and chemical resistance
- Excellent shock and vibration damping

Aluminium Flexible Jaw Coupling

DIMENSIONS & ORDER CODES

Coupling Size	Set Screw Hubs	Clamping Style	Pilot Hub	ØD in. (mm)	L in. (mm)	L1 in. (mm) ①	L2 in. (mm)	ØB1 min in. (mm)	ØB1 max in. (mm) ⑥	Fasteners			Industry Reference Size	Moment of inertia kgm2 x 10-8 ③	Mass kg x 10-3 ③	Soft (Blue)	Med (White)	Hard (Red)	Hi Temp (Green)
										Screw	Torque lb.-in. (Nm)	Wrench in. (mm)							
	COUPLING REF															ELEMENT REF			
14	802.14	803.14	800.14	0.55 (14.0)	0.87 (22.0)	0.28 (7.0)	0.31 (8.0)	0.12 (3.0)	0.25 (6.35)	M3 M2.5	4.8 (0.9) 21.5 (1.3)	0.06 (1.5) 0.1 (2.5)	7	18.4	7	804.14	805.14	806.14	-
20	802.20	803.20	800.20	0.79 (20.0)	1.18 (30.0)	0.39 (10.0)	0.39 (10.0)	0.16 (4.0)	0.35 (9.0)	M3 M3	4.8 (0.9) 21.5 (2.4)	0.06 (1.5) 0.1 (2.5)	9	106	17	804.20	805.20	806.20	-
30	802.30	803.30	800.30	1.18 (30.0)	1.38 (35.0)	0.43 (11.0)	0.51 (13.0)	0.24 (6.0)	0.55 (14.0)	M4 M3	20 (2.2) 21.5 (2.4)	0.08 (2.0) 0.1 (2.5)	14	606	51	804.30	805.30	806.30	-
40	802.40	803.40	800.40	1.57 (40.0)	2.60 (66.0)	0.98 (25.0)	0.63 (16.0)	0.31 (8.0)	0.79 (20.0)	M5 M4	40 (4.6) 50 (5.6)	0.1 (2.5) 0.12 (3.0)	19/24	4230	108	804.40	805.40	806.40	810.40
55	802.55	803.55	800.55	0.55 (14.0)	2.97 (75.4)	1.56 (29.5)	0.31 (16.4)	0.39 (10.0)	1.18 (30.0)	M8 M6	159.3 (18.0) 407.1 (46.0)	0.16 (4.0) 0.24 (6.0)	24/32	19000	311	804.55	805.55	806.55	810.55
65	802.65	803.65	800.65	2.55 (64.8)	3.53 (89.7)	1.40 (35.6)	0.73 (18.5)	0.47 (12.0)	1.23 (32.0)	M8 M8	159.3 (18.0) 407.1 (46.0)	0.16 (4.0) 0.24 (6.0)	28/38	59000	543	804.65	805.65	806.65	810.65
80	802.80	803.80	800.80	3.15 (80.0)	4.5 (114.3)	1.78 (45.1)	0.95 (24.1)	0.63 (16.0)	1.77 (45.0)	M8 M8	159.3 (18.0) 407.1 (46.0)	0.16 (4.0) 0.24 (6.0)	38/45	80000	892	804.80	805.80	806.80	810.80
95	-	-	800.95	3.74 (95.0)	5.0 (127.0)	2.0 (50.8)	1.02 (25.9)	0.63 (16.0)	2.17 (55.0)	-	-	-	42/55	433800	2130	804.95	805.95	806.95	810.95
105	-	-	800.105	4.13 (105.0)	5.5 (140.0)	2.27 (57.7)	1.10 (27.9)	0.63 (16.0)	2.32 (59.0)	-	-	-	48/60	742600	2918	-	805.105	806.105	810.105

PERFORMANCE AT 68ºF (20ºC)

Coupling Size	Spider Rigidity Duo ⑦	Misalignment		Speed R.P.M Nm	Torsional ⑤		Backlash Free Torque lb.-in. (Nm)	Torque Nominal lb.-in. (Nm) ④	Torque Max lb.-in. (Nm)	KW @ 1800 RPM
		Angular deg	Radial in. (mm)		Rate deg/Nm	Stiffness Nm/rad				
14	80 Blue	2	.003 (0.10)	40000	6.7	8.5	0.22	5.93 (0.67)	11.9 (1.34)	0.1
	92 White				3.9	14.7		9.91 (1.12)	19.8 (2.24)	0.2
	98 Red				2.29	25		16.8 (1.90)	33.6 (3.80)	0.4
20	80 Blue	2	.006 (0.15)	28000	3.37	17	0.45	15.9 (1.80)	31.9 (3.60)	0.4
	92 White				2.05	28		25.9 (2.93)	53.1 (6.00)	0.6
	98 Red				1.22	47		42.9 (4.85)	85.9 (9.70)	1.0
30	80 Blue	2	.008 (0.20)	19000	1.24	71	1.00	35.0 (3.95)	69.9 (7.90)	0.7
	92 White				0.40	143		64.9 (7.33)	129.2 (14.60)	1.4
	98 Red				0.25	228		109.8 (12.40)	219.5 (24.80)	2.4
40	80 Blue	2	.015 (0.38)	14000	0.34	170	2.40	42.9 (4.85)	85.9 (9.70)	0.9
	92 White				0.17	344		86.7 (9.80)	173.5 (19.60)	1.9
	98 Red				0.10	573		147.8 (16.70)	295.5 (33.40)	3.3
	64 Green				0.08	716		185.0 (20.90)	370.0 (41.80)	4.0
55	80 Blue	0.9	.009 (0.22)	10600	0.063	904	4.25	155.7 (17.6)	300.9 (34.0)	3.2
	92 White				0.027	2147		299.2 (33.8)	609.8 (68.9)	6.4
	98 Red				0.015	3729		493.9 (55.8)	1053.2 (119.0)	11.2
	64 Green				0.012	4661		660.3 (74.6)	1319.6 (149.1)	14.2
65	80 Blue	0.9	0.010 (0.25)	8500	0.025	2260	11.5	406.3 (45.9)	813.4 (91.9)	9.0
	92 White				0.011	5198		839.9 (94.9)	1672.8 (189.0)	18.0
	98 Red				0.006	9492		1407.3 (159.0)	2823.4 (319.0)	30.0
	64 Green				0.005	11865		1770.1 (200.0)	3540.3 (400.0)	38.0
80	80 Blue	1.0	0.011 (0.28)	7100	0.014	4068	23	822.2 (92.9)	1628.5 (184)	17.9
	92 White				0.006	9944		1672.8 (189)	3354.4 (379)	35.8
	98 Red				0.002	29041		2867.6 (324)	5744.1 (649)	61.2
	64 Green				0.0016	36300		3584.6 (405)	7169.1 (810)	76.1
95	80 Blue	1.0	0.012 (0.30)	6000	0.0098	5825	32.5	1150.6 (130)	2301.2 (260)	24.6
	92 White				0.0040	14250		2336.6 (264)	4690.9 (530)	50.0
	98 Red				0.0013	44500		3982.8 (450)	7956.8 (899)	85.0
	64 Green				0.0010	55625		4956.4 (560)	9912.8 (1120)	105.9
105	92 White	1.1	0.016 (0.40)	5600	0.0035	16500	38	2743.7 (310)	5452.1 (616)	58.2
	98 Red				0.0010	57500		4637.8 (524)	9293.3 (1050)	99.2
	64 Green				0.0008	71875		5797.2 (655)	11585.6 (1309)	123.8

① Maximum permissable hub penetration

② Maximum recommended tightening torque

③ Values apply to complete couplings with max. bores

④ Nominal Torque. Select a size where Nominal Torque exceeds application torque x service factor (***see page 4)***

⑤ Values apply at 50% nominal torque, measured shaft to shaft with largest standard bores

⑥ Hubs can be provided with keyways or 'D' bores

⑦ Spider Durometer is shore 'A' hardness
(810 Type is shore 'D' hardness)

Materials & Finishes

Hub sizes 14 - 30: Al. Alloy 6026LF or L168
Hub sizes 40 - 105: Al Alloy L168 or Cast Aluminium LM9
Elements: Polyurethane
Fastener: Alloy steel, black oiled

Temperature Range

-40ºF to +176ºF (-40ºC to +80ºC)
810 Type: -29ºF to 230ºF (-34ºC to 110ºC)

For short durations up to 212ºF (100ºC)
810 Type: 266ºF (130ºC)

STANDARD BORES

ØB1, ØB2 +0.0012/ -0 (+0.03mm/-0mm)																
Coupling Size	**(3)**	**1/8"**	**(4)**	**3/16"**	**(5)**	**(6)**	**1/4"**	**(8)**	**3/8"**	**(10)**	**(12)**	**1/2"**	**(14)**	**(15)**	**5/8"**	**(16)**
14	•	•	•	•	•	•	•									
20			•	•	•	•	•									
30						•	•	•	•	•	•	•	•			
40								•	•	•	•	•	•	•	•	•
55 - 80	MANUFACTURED TO ORDER ONLY. PLEASE ENQUIRE															
Bore ref.	14	16	18	19	20	22	24	28	31	32	35	36	38	40	41	42

Steel Flexible Jaw Coupling

DIMENSIONS & ORDER CODES

Coupling Size	Pilot Hub	ØD in. (mm)	L in. (mm)	L1 in. (mm) ①	L2 in. (mm)	Pilot Bore Dia in. (mm)	ØB1 Min in. (mm) (Recommended)	ØB1 ⑥ Max in. (mm) (Recommended)	Moment of inertia kgm2 x 10-8 ③	Industry Reference Size	Mass kg x 10-3 ③	Soft (Blue)	Med (White)	Hard (Red)	Hi Temp (Green)
												ELEMENT REF			
40	800.40.00ST	1.6 (39.8)	2.6 (66.0)	1.0 (25.0)	0.6 (16.0)	-	0.3 (8.0)	0.8 (20.0)	26800	19/24	0.49	804.40	805.40	806.40	810.40
55	800.55.00ST	2.2 (55.0)	3.0 (75.4)	1.2 (29.5)	0.6 (16.4)	-	0.4 (10.0)	1.2 (30.0)	95300	24/32	1.12	804.55	805.55	806.55	810.55
65	800.65.00ST	2.6 (64.8)	3.5 (89.7)	1.4 (35.6)	0.7 (18.5)	-	0.5 (12.0)	1.3 (32.0)	206600	28/38	1.74	804.65	805.65	806.65	810.65
80	800.80.00ST	3.1 (80.0)	4.5 (114.3)	1.8 (45.1)	0.9 (24.1)	0.44 (11.1)	0.6 (16.0)	1.8 (45.0)	629200	38/45	3.77	804.80	805.80	806.80	810.80
95	800.95.00ST	3.7 (95.0)	5.0 (127.0)	2.0 (50.8)	1.0 (25.9)	0.48 (12.2)	0.6 (16.0)	2.2 (55.0)	1254900	42/55	5.97	804.95	805.95	806.95	810.95
105	800.105.00ST	4.1 (105.0)	5.5 (140.0)	2.3 (57.7)	1.1 (27.9)	0.48 (12.2)	0.6 (16.0)	2.3 (59.0)	2147200	48/60	8.25	-	805105	806.105	810.105
120	800.120.00ST	4.7 (120.1)	6.3 (160.0)	2.6 (65.0)	1.2 (30.0)	0.63 (15.9)	0.8 (20.0)	2.8 (70.0)	4100000	55/70	12.28	-	805.120	806.120	810.120
135	800.135.00ST	5.3 (135.1)	7.3 (184.9)	2.9 (74.9)	1.4 (35.1)	0.98 (24.9)	1.2 (30.0)	2.9 (74.0)	7840000	65/75	17.77	-	805.135	806.135	-
160	800.160.00ST	6.3 (160.0)	8.3 (210.1)	3.4 (85.6)	1.6 (40.1)	0.98 (24.9)	1.2 (30.0)	3.5 (89.0)	42945000	75/90	27.70	-	805.160	806.160	-
200	800.200.00ST	7.9 (200.1)	9.6 (245.1)	3.9 (100.1)	1.8 (45.0)	1.48 (37.6)	1.6 (40.0)	3.9 (100.0)	160460000	100/110	51.36	-	805.200	806.200	-

PERFORMANCE AT 68ºF (20ºC)

Coupling Size	Spider Rigidity Duo ⑦	Misalignment Angular deg	Misalignment Radial in. (mm)	Speed R.P.M Nm	Torsional ⑤ Rate deg/Nm	Torsional ⑤ Stiffness Nm/rad	Backlash Free Torque lb.-in. (Nm)	Torque Nominal lb.-in. (Nm) ④	Torque Max lb.-in. (Nm)	KW @ 1800 RPM
40	80 Blue	2	0.015 (0.38)	14000	0.34	170	21.24 (2.40)	42.93 (4.85)	85.85 (9.70)	0.9
	92 White				0.17	344		86.73 (9.80)	173.47 (19.60)	1.9
	98 Red				0.10	573		147.8 (16.70)	295.6 (33.40)	3.3
	64 Green				0.08	716		184.98 (20.90)	370.0 (41.80)	4.0
55	80 Blue	0.9	0.009 (0.22)	10600	0.063	904	37.62 (4.25)	155.8 (17.6)	300.9 (34.0)	3.2
	92 White				0.027	2147		299.2 (33.8)	609.8 (68.9)	6.4
	98 Red				0.015	3729		493.9 (55.8)	1053.2 (119.0)	11.2
	64 Green				0.012	4661		660.3 (74.6)	1319.6 (149.1)	14.2
65	80 Blue	0.9	0.010 (0.25)	8500	0.025	2260	101.78 (11.5)	406.2 (45.9)	813.4 (91.9)	9.0
	92 White				0.011	5198		839.9 (94.9)	1672.8 (189.0)	18.0
	98 Red				0.006	9492		1407.3 (159.0)	2823.4 (319.0)	30.0
	64 Green				0.005	11865		1770.1 (200.0)	3540 (400.0)	38.0
80	80 Blue	1.0	0.011 (0.28)	7100	0.014	4068	203.57 (23)	823 (93)	1629 (184)	17.9
	92 White				0.006	9944		1673 (189)	3354 (379)	35.8
	98 Red				0.002	29041		2868 (324)	5744 (649)	61.2
	64 Green				0.0016	36300		3585 (405)	7169 (810)	76.1
95	80 Blue	1.0	0.012 (0.30)	6000	0.0098	5825	387.65 (32.5)	1151 (130)	2301 (260)	24.6
	92 White				0.0040	14250		2337 (264)	4691 (530)	50.0
	98 Red				0.0013	44500		3983 (450)	7957 (899)	85.0
	64 Green				0.001	55625		4956 (560)	9913 (1120)	105.9
105	92 White	1.1	0.012 (0.40)	5600	0.0035	16500	336.33 (38)	2744 (310)	5452 (616)	58.2
	98 Red				0.0010	57500		4638 (524)	9293 (1050)	99.2
	64 Green				0.0008	71875		5797 (655)	11586 (1309)	123.8
120	92 White	1.1	0.012 (0.40)	4750	0.0028	20666	442.54 (50)	3620 (409)	7249 (819)	76.8
	98 Red				0.0007	77000		6054 (684)	12117 (1369)	129.1
	64 Green				0.0006	96250		7293 (824)	14604 (1650)	155.2
135	92 White	1.2	0.012 (0.40)	4250	0.0023	24830	681.52 (77)	5532 (625)	11063 (1250)	117.9
	98 Red				0.0006	96500		8311 (939)	16631 (1879)	176.8
160	92 White	1.2	0.020 (0.5)	3550	0.0018	31773	1389.57 (157)	11320 (1279)	22649 (2559)	241.0
	98 Red				0.0004	129000		16993 (1920)	33978 (3839)	361.8
200	92 White	1.2	0.020 (0.5)	3550	0.0013	42882	2610.97 (295)	21242 (2400)	42484 (4800)	452.8
	98 Red				0.0003	181000		31863 (3600)	63717 (7199)	678.9

① Maximum permissable hub penetration

② Maximum recommended tightening torque

③ Values apply to complete couplings with max. bores

④ Nominal Torque. Select a size where Nominal Torque exceeds application torque x service factor (***see page 4)***

⑤ Values apply at 50% nominal torque, measured shaft to shaft with largest standard bores

⑥ Hubs can be provided with keyways or 'D' bores

⑦ Spider Durometer is shore 'A' hardness (810 Type is shore 'D' hardness)

Materials & Finishes

Hub sizes 40 - 65: Sintered Steel
Hub size 80 - 200: Steel 1045HR
Elements: Polyurethane
Fastener: Alloy steel, black oiled

Temperature Range

-40ºF to +176ºF (-40ºC to +80ºC)
810 Type: -29ºF to 230ºF (-34ºC to 110ºC)

For short durations up to 212ºF (100ºC)
810 Type: 266ºF (130ºC)

Flexible Jaw Coupling Selection Procedure

Drive shaft _____
Drive keyway _____
Driven shaft _____
Driven keyway _____

KW _____
RPM _____
Temperature _____
Starts/HR _____

STEP 1: Using the formula below calculate the nominal torque (Tn) of your application

Tn = (KW X 9548) / RPM (Nm)

STEP 2: Using the tables below select the service factors that best suit your application. After your selection calculate your service factor (S) by using the formula below.

S= S1 X S2 X S3

STEP 3: Select a Guardian curved jaw coupling which has a nominal torque (Tkn) on page 2 equal to or greater than the nominal torque (Tn) value calculated in step 1 multiplied by the service factor (S) as shown below.

Tkn > Tn X S

STEP 4: Verify the maximum permissible torque (Tkmax) which should be greater than or equal to the system peak torque (Stmax) multiplied by the temperature service factor (S2) as shown below.

Tkmax > Stmax X S2

STEP 5: Verify the system speed is less than the maximum speed rating listed on page 2.

STEP 6: Verify the system misalignment with the rated misalignment of the coupling on page 4.

STEP 7: Verify min/max bore sizes of the selected coupling to the shaft sizes in your system. Also verify that dimensionally the coupling will fit in the envelop of the system.

APPLICATION SERVICE FACTORS (S1)

Application	Service Factor (S1)
Uniform operation (small driven masses) i.e. Hydraulic pumps/motors, centrifugal fans	1.00
Uniform operation (medium driven masses) i.e. Axial piston pumps, mixers, blowers, conveyors, screw compressors	1.20
Non-uniform operation (medium driven masses) i.e. Shredders, generators, paper mills, conveyors, spinning machines, winches	1.50
Non-uniform operation (medium driven masses with light stock) i.e. Centrifuges, compression pumps, chain conveyors, concrete mixers, cable cars	1.60
Non-uniform operation (heavy driven masses with large stock) i.e. piston pumps, extruders, presses, rotary boring machines, hammer mills	1.80
Non-uniform operation (heavy driven masses with extreme shock) i.e. Reciprocating Compressors, Stone Crushers, Chippers	2.50

TEMPERATURE SERVICE FACTORS (S2)

Temperature F° (C°)	-20.0/80.1 (-28.9/26.7)	100.0 (37.8)	140 (60)	174.9 (79.4)
Service Factor S2	1.00	1.20	1.40	1.80

STARTS PER HOUR SERVICE FACTORS (S3)

Starts/Hr	100	200	400	600
Service Factor S3	1.00	1.20	1.40	1.80

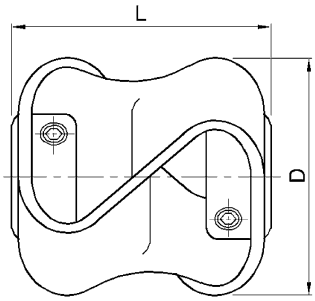
DEFINITION OF TERMS

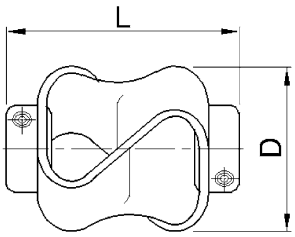
Term	Definition
Tn	Nominal torque of the system to be transmitted by the coupling
HP	Horsepower of the engine/motor
RPM	Driven speed of the application
S	Total service factor of the system
S1	Application service factor of the system
S2	Temperature service factor of the system
S3	Number of starts per hour service factor of the system
Tkn	Continuous nominal torque of the coupling
Tkmax	Maximum torque of the coupling
Stmax	Peak torque of the system to be transmitted by the coupling

These service factors are for general guidance only and are complimentary to customers knowledge of their own equipment. For further assistance in selecting a coupling please contact Huco.

Flex-P

Double Loop Flexible Coupling





DIMENSIONS & ORDER CODES

Size	Steel screws	Stainless steel screws	Dimensions					Fasteners		
	Order Code		Max Diameter in. (mm)	Length L in. (+/- 1.0 mm)	Bore length in. (mm)	Max Bores mm	Mass kg x 10-3	Size	Torque lb.-in. (Nm)	A/F in. (mm)
10	047.10 -	- 049.10	1.06 (27)	1.06 (27)	0.31 (7.9)	9.53	25	M3	8.3 (0.9) 2.8 (0.3)	0.17 (1.5)
20	047.20 -	- 049.20	1.89 (48)	1.89 (48)	0.50 (12.7)	12.7	92	M4	19 (2.2) 17 (2.0)	0.23 (2.0)
30	047.30 -	- 049.30	2.13 (54)	2.17 (55)	0.63 (16.0)	16.0	124	M5	40 (4.6) 18 (2.1)	0.28 (2.5)
40	047.40 -	- 049.40	2.20 (56)	2.20 (56)	0.63 (16.0)	16.0	136	M6	67 (7.6) 32 (3.7)	0.34 (3.0)

PERFORMANCE

Size	Max Torque 1 lb.-in. (Nm)	Max Torque 2 lb.-in. (Nm)	max misalignment/displacement		
			Angular deg	Radial in. (mm)	Axial in. (+/- mm)
10	4.43 (0.5)	7.08 (0.8)	10	0.10 (2.6)	0.18 (4.5)
20	15.9 (1.8)	26.6 (3)	15	0.13 (3.2)	0.30 (7.5)
30	44.3 (5)	70.8 (8)	15	0.13 (3.2)	0.33 (8.5)
40	88.5 (10)	159.3 (18)	15	0.13 (3.2)	0.43 (11)

Torque 1 = torque at maximum displacement
Torque 2 = torque at 1 deg. angular, 2mm axial and 0.5mm radial displacement

Materials & Finishes

Hubs: Stainless Steel 304 [1.4301] natural finish
Flexing Element: Hytrel
Fastener: 047 Type: Alloy steel, black oiled
049 Type: Stainless steel

Temperature Range

-40ºF to +212ºF (–40°C to +100°C)

Maximum Rotational Speed

3000 rev/min

STANDARD BORES*

Sizes indicated in parenthesis are metric (mm).

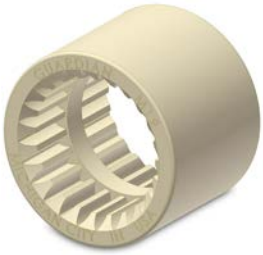
Size	ØB1, ØB2 +0.002/ -0 (+0.05mm/-0mm)																
	(3)	1/8"	(4)	3/16"	(5)	(6)	1/4"	5/16"	(8)	3/8"	(10)	(12)	1/2"	(14)	(15)	5/8"	(16)
10	●	●	●	●	●	●	●	●	●	●							
20						●	●	●	●	●	●	S	S				
30										●	●	●	●	S	S	S	S
40										●	●	●	●	S	S	S	S
Bore Ref	14	16	18	19	20	22	24	27	28	31	32	35	36	38	40	41	42

* Couplings with dissimilar bores are non-standard
S = Plain bore only, keyway no permissible size 10

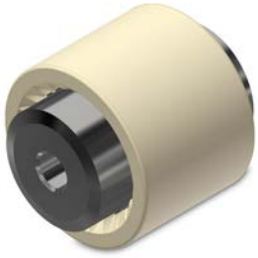
Flexible Coupling

420 HUB

423 SLEEVE



425 TYPE



COUPLING SELECTION

Size	Nominal Torque lb.-in. (Nm)	Max.Torque lb.-in. (Nm)	Kw H.P. @ 1750 RPM	Kw H.P. @ 1140 RPM	Max. RPM
14	85.9 (9.7)	266 (30)	1.86	1.11	14000
19	138.1 (15.6)	425 (48)	2.76	1.86	11800
24	172.6 (19.5)	531 (60)	3.35	2.38	10600
28	389.4 (44)	1195 (135)	7.8	5.2	8500
32	513.3 (58)	1593 (180)	10.8	7	7500
38	690.4 (78)	2124 (240)	16.4	9.3	6700
42	867.4 (98)	2655 (300)	17.8	11.9	6000
48	1212.6 (137)	3717 (420)	22	16.4	5600
65	3292.5 (372)	10090 (1140)	67	44	4000

1. Nominal torque ratings allow for 180°F (82°C) ambient, full misalignment and/or maximum RPM.
2. Starting torque and braking loads should not exceed listed maximum torque.
3. Intermittent, transient peak loads should not exceed three times nominal torque.
4. Applications with uniform loading, well-aligned shafts, and low speeds will allow for operation at maximum torque levels.
5. Larger Sizes 80 and 100 available on request

ORDER CODES

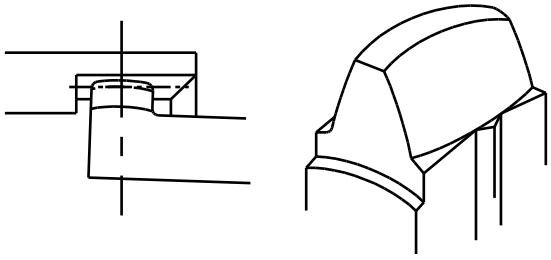
Pilot Hub Only	Sleeve Only	Complete Coupling Pilot Bores	Complete Coupling Finished Bores * +0.0012/ -0 (+0.03mm/-0mm)
420.14040.00	423.14040	425.14040.0000	428.14040
420.19048.00	423.19048	425.19048.0000	428.19048
420.24052.00	423.24052	425.24052.0000	428.24052
420.28066.00	423.28066	425.28066.0000	428.28066
420.32076.00	423.32076	425.32076.0000	428.32076
420.38083.00	423.38083	425.38083.0000	428.38083
420.42092.00	423.42392	425.42092.0000	428.42092
420.48100.00	423.48100	425.48100.0000	428.48100
420.65140.00	423.65140	425.65140.0000	428.65140

* See page 5 for bore codes

Double Crowned Tooth Gear Coupling

Double crowned tooth design provides free axial movement, low friction and minimum stress during misalignment. Designs are available with up to 0.37 in. (9.5 mm) axial travel.

- Large contact area to provide low contact pressure and to reduce stress of shaft misalignment.
- Load distributed near the center of the tooth for maximum strength.
- Low friction for a smooth flow of power without the need for lubrication — maintenance free.
- Free axial movement of the coupling parts to compensate for shaft thermal changes and future alignment problems.



Nylon Sleeves, Steel Hubs

Molded nylon sleeve with high torsional stiffness, free from any internal frictional losses or heat build-up. A torsionally stiff coupling with minimum backlash.

Nylon and steel components allow high ambient temperature operation without lubrication or maintenance. Continuous operating ambients in the ranges between (-) 13°F and (+) 180°F ([-] 25°C and [+] 82°C). Heat stabilized polyamide available for temperatures up to (+) 250°F ([+] 121°C).

Nylon sleeves resistant to dirt, moisture, most chemicals and petroleum products. No lubrication, seals or retainers to maintain. Easy clean-up and visual inspection.

Compact and lightweight design with high torque and low inertia. Minimum shaft gap for close-coupled applications.

Precision molded concentric sleeve and hubs for high speed applications. No bolts, pins, flanges or protrusions to affect balance or safety. Smooth exterior surface.

Blind Assembly

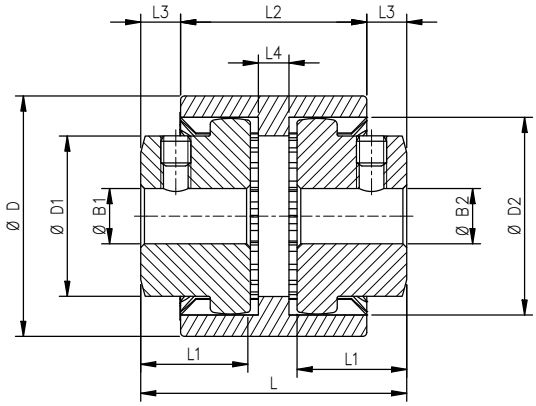
Suitable for assembly in both horizontal and vertical positions. Blind assembly with slip-together components for easy inspection and adjustment without disassembly.

Directly interchangeable with a range of industry standard designs

Nylon Sleeve Gear

Flexible Coupling

428 TYPE



DIMENSIONS & PERFORMANCE

Size	D in. (mm)	L in. (mm)	D1 in. (mm)	D2 in. (mm)	L1 in. (mm)	L2 in. (mm)	L3 in. (mm)	L4 in. (mm)	Fastening			Pilot Bore Dia in. (mm)	Bores B1 & B2 in. (mm)			Mass kg x 10-3		No. of Teeth
									Fastener	Fastener Torque lb.-in. (Nm)	A/F		Min Bore	Max Plain Bore	Max Keyways Bore	Pilot Hub	Sleeve	
14	1.6 (40.0)	1.8 (45.0)	1.0 (25.4)	1.3 (33.0)	67.6 (19.8)	98.2 (36.8)	38.5 (3.6)	40.6 (4.8)	M5	40.7 (4.6)	2.5	40.3 (4.6)	41 (5)	61 (16)	61 (16)	74	22	20
19	1.9 (48.3)	2.0 (49.8)	2.0 (51.8)	1.1 (28.9)	71.2 (21.8)	98.2 (36.8)	43.5 (6.4)	44.8 (7.1)	M6	67.3 (7.6)	3.0	48.9 (9.4)	50 (10)	66 (19)	66 (19)	116	33	24
24	2.1 (52.1)	2.1 (52.6)	1.4 (36.0)	1.8 (44.7)	70.3 (21.3)	105.1 (40.6)	43.5 (6.4)	49.8 (9.9)	M6	67.3 (7.6)	3.0	48.9 (9.4)	50 (10)	75 (24)	72 (22)	156	33	28
28	2.6 (65.5)	3.2 (80.5)	2.0 (50.0)	2.1 (53.8)	96.1 (35.6)	114.3 (45.7)	63.5 (17.5)	48.9 (9.4)	M6	67.3 (7.6)	3.0	43.2 (6.2)	54 (12)	82 (28)	82 (28)	396	72	34
32	3.0 (76.2)	3.1 (80.0)	2.0 (50.0)	2.5 (62.7)	96.1 (35.6)	119.8 (48.8)	60.8 (16.0)	48.0 (8.9)	M8	159.3 (18.0)	4.0	52.9 (11.6)	54 (12)	86 (30)	86 (30)	519	95	40
38	3.3 (82.6)	3.1 (80.0)	2.3 (58.4)	2.7 (68.6)	96.1 (35.6)	118.9 (48.3)	61.7 (16.5)	48.0 (8.9)	M8	159.3 (18.0)	4.0	51.8 (11.0)	54 (12)	100 (38)	100 (38)	670	103	44
42	3.6 (91.2)	3.4 (85.3)	2.6 (64.8)	3.1 (77.7)	114.3 (45.7)	122 (50.0)	65.3 (18.5)	48.4 (9.1)	M8	159.3 (18.0)	4.0	51.8 (11.0)	54 (12)	104 (40)	104 (40)	900	124	50
48	3.9 (98.6)	3.9 (99.3)	2.7 (67.8)	3.1 (77.7)	158.2 (70.1)	120.2 (49.0)	86.9 (30.5)	46.2 (7.9)	M10	318.6 (36.0)	5.0	51.8 (11.0)	54 (12)	118 (48)	111 (44)	1391	177	50
65	5.6 (142.0)	5.5 (140.0)	3.8 (96.5)	4.3 (110.0)	194 (90.0)	199.2 (92.9)	95.2 (35.1)	54.0 (12.2)	M10	318.6 (36.0)	5.0	N/A	55 (13)	149 (65)	140 (60)	3996	462	42

Assembly Notes: 1. Dimension "L1" is fully compressed. For best misalignment characteristics, 0.06in. (1.6mm) gap per hub is recommended.

ALIGNMENT TOLERANCES

Axial Displacement	Angular Misalignment	Parallel Offset	Recommended Hub Spacer Gap
±1.0"	1°/hub	.4/hub	1.6/hub