CD® COUPLINGS ***FLOATING SHAFT***

The Composite Disc Floating Shaft Coupling is zero backlash and torsionally stiff, yet provides superior misalignment capacity. Additionally, the patented Composite Disc provides excellent support for the floating shaft component with very little radial loads on the connected equipment and bearings. Precision hardware and precise machining ensures smooth and accurate operation.

- Zero Backlash
- Torsionally Stiff
- Excellent for Reversing Loads
- Very Low Reaction Loads
- Available in both set screw and clamp style hubs

Available with or without keyway on clamp style hubs.

Performance Information

				Torsional Stiffness				Maximum Misalignments			A Hub				B Hub		Clamped Hub	
	Continuous Rated Torque	Maximum Rated Torque	Bse (Note 1) at 12" DBSE (at 300mm DBSE)	Factor Z	Factor Y	Factor Z1	Factor Y1	Angular (Note 2)	Parallel	Axial	Base Unit Wt. at 12" DBSE (Note 3) at 300mm DBSE)	Base Unit Inertia at 12" DBSE (Note 3) at 300mm DBSE)	Weight adder per inch of DBSE (per meter of DBSE)	Inertia adder inch of DBSE (per meter of DBSE)	Additional Weight for (each)	Additional Inertia for (each)	Additional Weight for (each) maximum	Additional Inertia for (each) maximum
	in.-lbs. (Nm)	in.-lbs. (Nm)	in. lbs./ deg. (Nm/ Radian)	in.-lbs./deg.	in.-lbs./deg.	(Nm/ Radian)	(Nm/ Radian)	Degrees	Inch/inch of DBSE (mm/Meter of DBSE)	Inch (mm)	Lb. (kg.)	Lb-in^2 (Kg Cm^2/ meter)	Lb./inch (kg./ meter)	Lb.-In^2 (Kg-Cm^2)	Lb. (kg.)	Lb.-In^2 (Kg-Cm^2)	Lb. (kg.)	Lb.-In^2 (Kg-Cm^2)
6F22 6F22C	270 (30)	540 (60)	516 (3,379)	0.05	0.84	(0.338)	(138)	2.5	0.022 (22)	0.060 (1.5)	2.00 (0.9)	0.86 (2.5)	0.054 (0.97)	0.012 (1.37)	0.04 (0.0)	0.09 (0.2)	0.32 (0.14)	0.15 (0.4)
6F26 6F26C	475 (53)	950 (106)	857 (5,589)	0.09	2.09	(0.559)	(344)	2.5	0.022 (22)	0.080 (2.0)	3.29 (1.5)	1.90 (5.6)	0.086 (1.54)	0.029 (3.40)	0.00 (0.0)	0.14 (0.4)	0.40 (0.18)	0.33 (1.0)
6F30 6F30C	800 (90)	1,600 (180)	1,246 (8,157)	0.13	2.09	(0.816)	(344)	2.5	0.022 (22)	0.100 (2.5)	4.19 (1.9)	3.44 (10.1)	0.086 (1.54)	0.029 (3.40)	0.25 (0.1)	0.48 (1.4)	0.65 (0.3)	0.77 (2.3)
6F37 6F37C	1,600 (181)	3,200 (362)	3,754 (24,439)	0.38	13.05	(2.444)	(2,146)	3	0.026 (26)	0.14 (3.6)	8.30 (3.8)	11.8 (34.5)	0.208 (3.73)	0.184 (21.2)	0.30 (0.1)	1.2 (3.4)	1.01 (0.5)	1.90 (5.6)
6F45 6F45C	2,500 (282)	5,000 (564)	7,215 (46,963)	0.72	25.57	(4.696)	(4,205)	3	0.026 (26)	0.18 (4.6)	13.2 (6.0)	28.2 (82.4)	0.254 (4.54)	0.360 (41.6)	0.42 (0.2)	2.7 (7.9)	1.01 (0.5)	4.6 (13.4)
6F52 6F52C	3,560 (402)	7,120 (804)	9,921 (64,571)	0.99	35.72	(6.457)	(5,874)	3	0.026 (26)	0.22 (5.6)	20.9 (9.5)	61.1 (179)	0.292 (5.22)	0.504 (58.2)	0.45 (0.2)	5.4 (15.8)	3.7 (1.7)	13.3 (38.8)
6F60 6F60C	6,350 (718)	12,700 (1,436)	15,749 (102,533)	1.58	53.3	(10.253)	(8,765)	3	0.026 (26)	0.26 (6.6)	28.2 (12.8)	109 (320)	0.333 (5.97)	0.751 (86.8)	1.5 (0.07)	14.6 (42.8)	5.0 (2.3)	15.4 (45.0)
6F67 6F67C	10,300 (1,164)	20,600 (2,328)	24,219 (157,561)	2.42	93.98	(15.756)	(15,454)	3	0.026 (26)	0.30 (7.6)	39.7 (18.0)	201 (587)	0.403 (7.21)	1.325 (153.0)	2.3 (1.0)	25.8 (75.5)	5.6 (2.5)	18.0 (52.6)

Note:1) For torsional stiffness (K, in.-lb./deg.) of units longer than 12", use the following formula,
where L=(DBSE-12) : K = ((ZxY) / ((LxZ) +Y)) x 10^4.
For torsional stiffness (K, Nm/Radian) of units longer than 300mm, use the following formula,
where L=(DBSE-300) : K = ((Z1 x Y1) / ((L x Z1) + Y1)) x 10^4.
Note:2) See page 13 regarding selection of coupling and misalignment capability.
Note:3) For weight and inertia of units longer than 12", subtract 12" from the DBSE (dimension C) and multiply by weight/inertia adders listed above.

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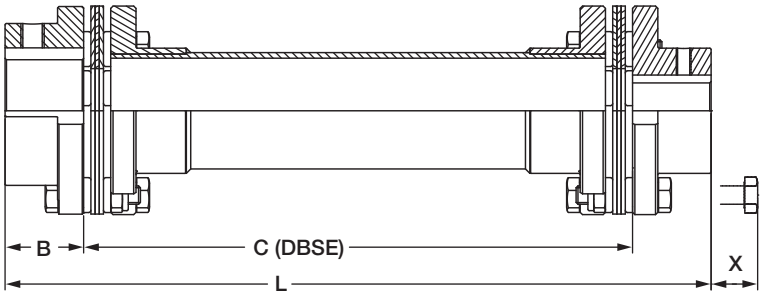
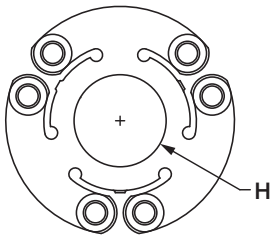
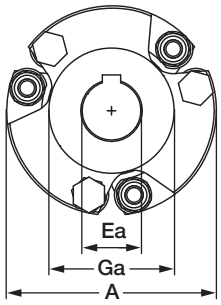
See the following page for maximum C Length and RPM data



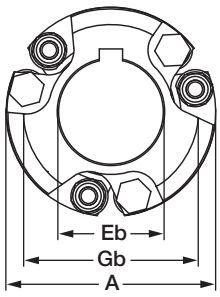


Flex Disc

Set Screw Style Hub

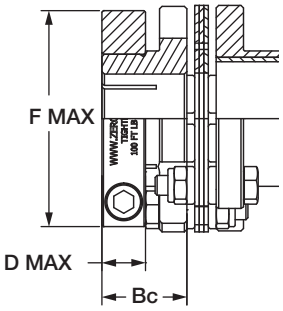


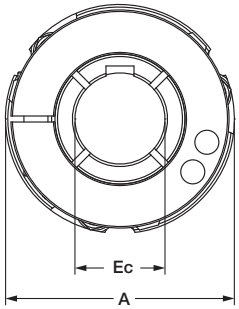
A Hub



B Hub

Clamp Style Hub





Dimensional Information

	A	B A & B Hub	Bc C Hub	D Max. C Hub	F Max. C Hub	Max Bore Set Screw Hub Ea A Hub	Max Bore Set Screw Hub Eb B Hub	Max Bore Clamp Hubs Ec C Hub w/kwy	Max Bore Clamp Hubs Ec C Hub w/o kwy	Ga A Hub	Gb B Hub	H	X	C min. (DBSE)
		Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)
6F22 6F22C	2.25 (57.2)	0.94 (23.8)	1.00 (25.4)	0.551 (14)	2.21 (56)	0.625 (16)	1.000 (26)	0.75 (20)	0.938 (25)	1.22 (31.0)	1.88 (47.6)	0.91 (23.1)	0.51 (13.0)	3.00 (76.2)
6F26 6F26C	2.59 (65.8)	1.06 (27.0)	1.06 (27.0)	0.551 (14)	2.36 (60)	0.750 (19)	1.250 (32)	1.00 (24)	1.188 (30)	1.50 (38.1)	2.16 (54.8)	1.00 (25.4)	0.39 (9.9)	3.00 (76.2)
6F30 6F30C	3.00 (76.2)	1.25 (31.8)	1.25 (31.8)	0.709 (18)	2.92 (74)	1.000 (25)	1.375 (35)	1.125 (30)	1.375 (35)	1.71 (43.4)	2.50 (63.5)	1.21 (30.7)	0.39 (9.9)	3.68 (93.7)
6F37 6F37C	3.75 (95.3)	1.44 (36.5)	1.44 (36.5)	0.748 (19)	3.71 (94)	1.250 (32)	1.813 (46)	1.500 (38)	1.875 (48)	2.19 (55.6)	3.13 (79.4)	1.51 (38.4)	0.68 (17.3)	4.5 (114.3)
6F45 6F45C	4.50 (114.3)	1.69 (42.9)	1.69 (42.9)	0.866 (22)	4.29 (109)	1.625 (42)	2.250 (60)	1.75 (45)	2.25 (55)	2.69 (68.3)	3.75 (95.3)	1.81 (46.0)	0.91 (23.1)	5.50 (139.7)
6F52 6F52C	5.25 (133.4)	1.94 (49.2)	1.94 (49.2)	0.984 (25)	4.92 (125)	1.875 (48)	2.625 (66)	2.25 (60)	2.625 (65)	3.31 (84.1)	4.38 (111.1)	2.10 (53.3)	0.73 (18.5)	6.5 (165.1)
6F60 6F60C	6.00 (152.4)	2.44 (61.9)	2.44 (61.9)	1.339 (34)	5.71 (145)	2.250 (60)	3.000 (76)	2.62 (70)	3.000 (75)	3.67 (93.2)	5.00 (127.0)	2.42 (61.5)	0.69 (17.5)	7.00 (178)
6F67 6F67C	6.75 (171.5)	2.75 (69.9)	2.75 (69.9)	1.339 (34)	6.50 (165)	2.625 (66)	3.375 (85)	2.875 (80)	3.50 (90)	4.29 (109.0)	5.63 (142.9)	2.72 (69.1)	0.41 (10.4)	8.00 (203)

- Dimension L is equal to (2x B) + C (C is the DBSE or span)
- Dimension C is always manufactured to application requirements
- "X" dimension is minimum bolt travel required beyond the hub to disassemble disc packs from the hubs.

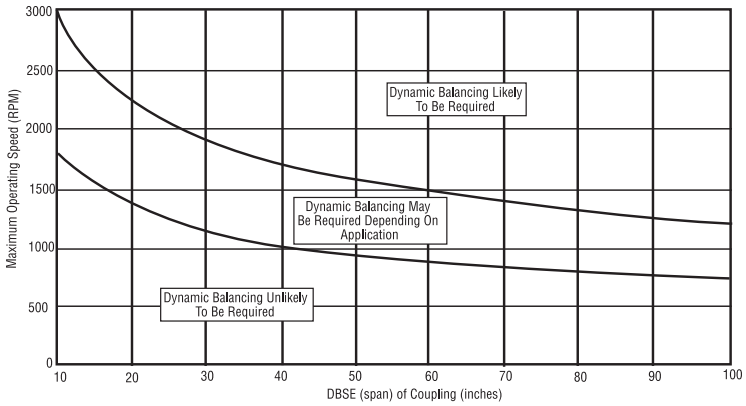
Table below shows lengths and speeds at which standard floating shaft couplings can operate while avoiding natural frequencies. Couplings at or near table values may require dynamic balancing. See below for balancing information. Should your application fall outside these parameters, consult factory. Special construction of the disc pack or floating shaft can increase speeds and/or maximum lengths. Refer to coupling misalignment information below.

Maximum Span C

	2,250 RPM	2,000 RPM	1,750 RPM	1,500 RPM	1,250 RPM	1,000 RPM	900 RPM	750 RPM	650 RPM	500 RPM
	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)
6F22 6F22C	46.9 (1,193)	49.8 (1,265)	53.2 (1,352)	57.5 (1,461)	63.0 (1,600)	70.4 (1,789)	74.2 (1,886)	81.3 (2,066)	87.4 (2,219)	99.6 (2,530)
6F26 6F26C	52.5 (1,332)	55.6 (1,413)	59.5 (1,511)	64.2 (1,632)	70.4 (1,787)	78.7 (1,998)	82.9 (2,107)	90.9 (2,308)	97.6 (2,479)	111.3 (2,826)
6F30 6F30C	52.5 (1,332)	55.6 (1,413)	59.5 (1,511)	64.2 (1,632)	70.4 (1,787)	78.7 (1,998)	82.9 (2,107)	90.9 (2,308)	97.6 (2,479)	111.3 (2,826)
6F37 6F37C	51.0 (1,295)	67.3 (1,709)	75.4 (1,915)	81.4 (2,068)	89.2 (2,266)	99.7 (2,533)	105.1 (2,670)	115.2 (2,925)	123.7 (3,142)	141.0 (3,582)
6F45 6F45C	59.5 (1,511)	79.2 (2,012)	84.9 (2,157)	91.7 (2,330)	100.5 (2,553)	112.4 (2,854)	118.4 (3,008)	129.7 (3,295)	139.4 (3,540)	158.9 (4,036)
6F52 6F52C	25.8 (655)	38.7 (983)	57.6 (1,463)	86.7 (2,202)	105.5 (2,681)	118.0 (2,997)	124.4 (3,159)	136.3 (3,461)	146.4 (3,718)	166.9 (4,239)
6F60 6F60C	33.2 (843)	49.0 (1,245)	71.8 (1,824)	103.0 (2,616)	112.8 (2,866)	126.1 (3,204)	133.0 (3,377)	145.7 (3,700)	156.5 (3,974)	178.4 (4,531)
6F67 6F67C	32.5 (826)	49.3 (1,252)	73.9 (1,877)	111.8 (2,840)	124.0 (3,150)	138.7 (3,522)	146.2 (3,713)	160.1 (4,067)	172.0 (4,369)	196.1 (4,981)

Dynamic Balancing Guidelines for CD Floating Shaft Couplings

The close tolerances used to manufacture CD Couplings in conjunction with the composite disc pack make CD Floating Shaft Couplings especially well suited to high speed and long span applications. Occasionally, the application may require dynamic balancing of the floating shaft coupling. See graph for general application guidelines.



Coupling Misalignment

In general, the misalignment capacity of CD Floating Shaft Couplings is related to the speed at which they operate and the mass of the floating shaft, which is governed by its diameter and length. The table to the right shows recommended maximum allowable angular misalignment:

By reducing the allowable misalignment (and therefore stresses in the discs) at higher operating speeds and longer DBSEs, the disc pack can better support and stabilize the floating shaft, which will result in longer coupling life, smoother operation, and less vibration to the connected equipment. Call us for application assistance.

DBSE (Distance "C")

	Up to 30"	30" - 60"	OVER 60"
To 500 RPM	3°	2.5°	2°
500–1,000 RPM	2.5°	2°	1.5°
1,000–1,500 RPM	2°	1.5°	1°
Above 1,500 RPM	1°	0.75°	0.50°

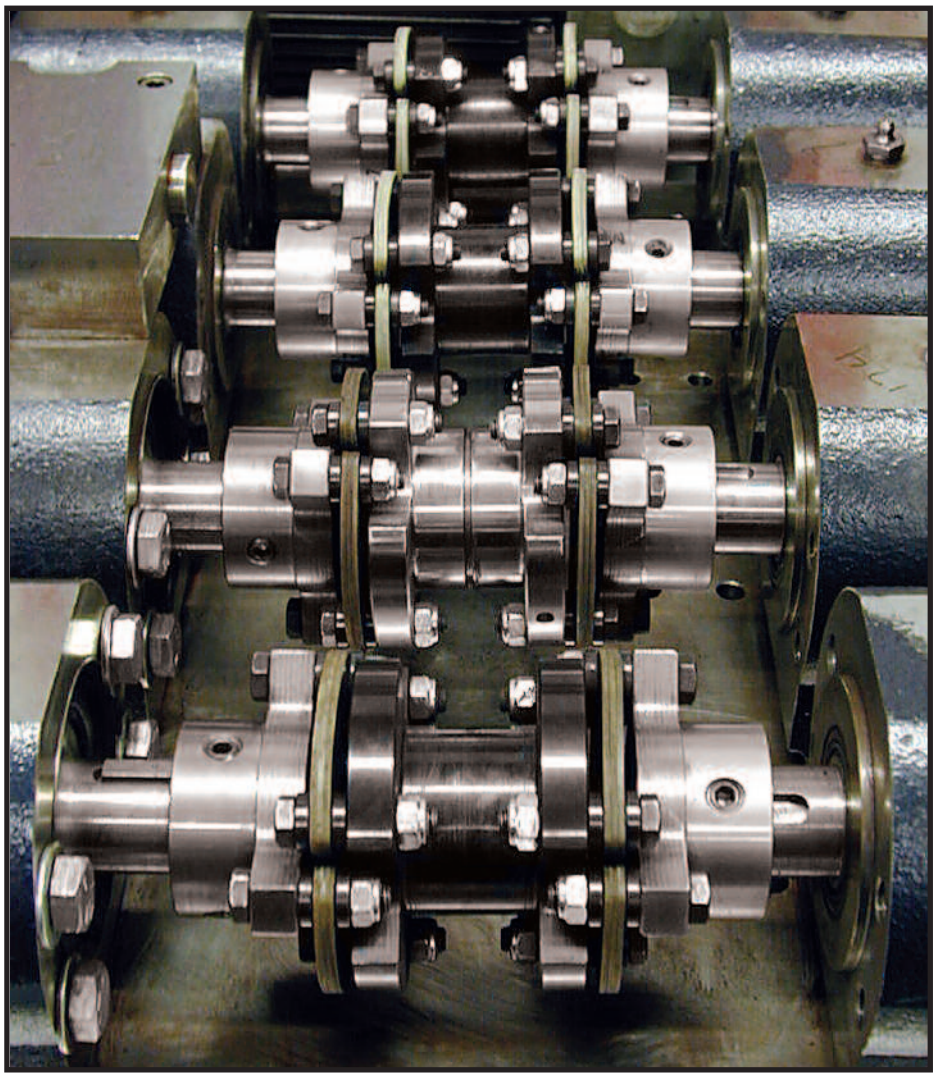
For long spans between motion components, special CD spacer or floating shaft couplings are the answer.

Any of the hub options (A, B and Clamp style) shown in this catalog are available.

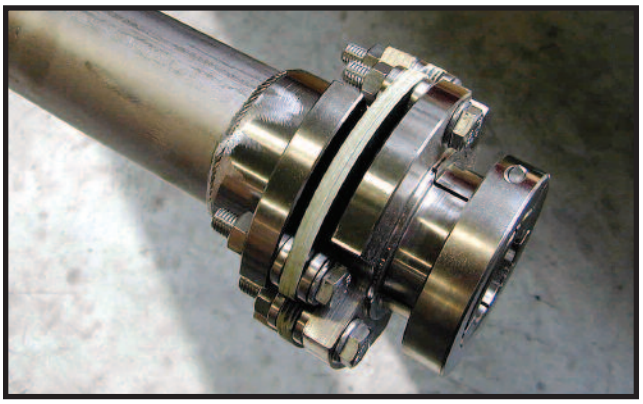
Special spacer materials are available including aluminum, steel, and stainless steel.

Special finishes to shaft and hub components are available including nickel plating, and others.

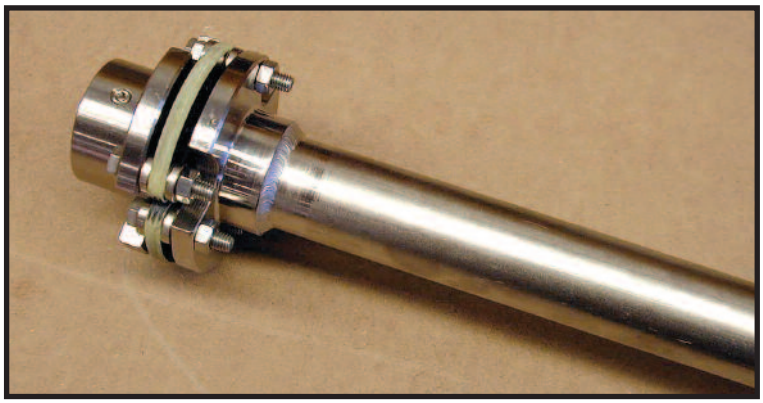
Call Zero-Max for recommendations.



Double Flex spacer couplings on test in the Zero-Max test lab. This system is designed to run continuously at high misalignment, subjecting the composite unitized disc packs to billions of flexural fatigue cycles.



Clamp style hubs on the Composite Disc Floating Shaft Coupling provide an effective and secure shaft engagement.



Nickel plated CD Floating Shaft Coupling provide effective corrosion protection.