

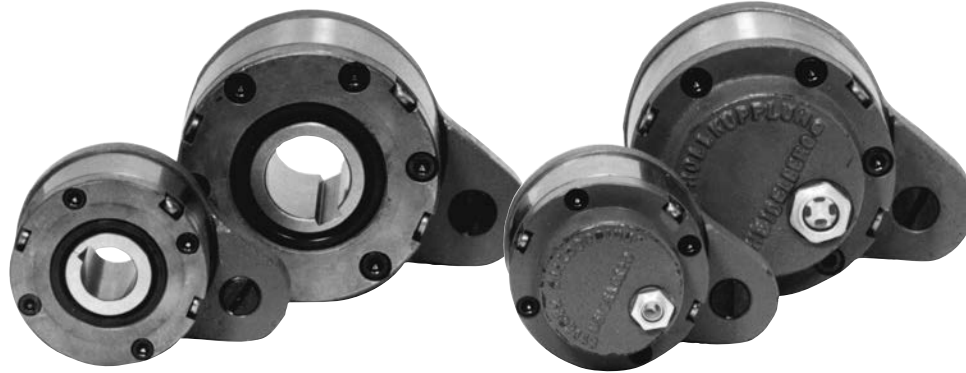
Modular “Building Block” Clutches

GFR..F2F3, GFR..F3F4

Backstopping Ball Bearing Supported, Ramp & Roller Clutches

GFR..F2F3

GFR..F3F4



Models GFR..F2F3/F3F4 are ramp & roller type clutches, self contained, sealed and bearing supported, using two 160 Series bearings.

They use the GFR base module. Units must be oil lubricated before use if they are shipped disassembled and, in any case, for the F3F4 combination.

These cover combinations are primarily used as backstops.

The F3 cover acts as a torque arm and has an integrated restraining bolt. The restraining bolt should go into a slot in a fixed part of the machine. The restraining bolt must have a radial clearance of 1% of the bolt’s diameter. The torque arm and bearings must not be rigidly mounted.

F2 and F4 covers are used to enclose the unit. They are equipped with 3 screws for oil filling, drain and level.

If using cover type F4, the shaft end plate and its screw must be sealed to avoid oil leakage through the keyway.

Covers are easily removed, allowing for on site selection of rotation direction.

If requested, units can be shipped assembled and lubricated for the F2F3 combination.

For Indexing Applications:

Maximum number indexes per minute is 350.

This clutch is designed for oil lubrication. For grease lubrication, reduce the maximum overrunning speed to 50% of listed value.

Specifications

Size	Torque Capacity lb.ft. (Nm)	Overrunning Speed	Shipping Weight lb. (kg)
		Max. RPM Inner Race	
12	41 (55)	3,100	3.09 (1.4)
15	92 (125)	2,800	3.97 (1.8)
20	134 (181)	2,400	5.07 (2.3)
25	213 (288)	1,600	7.50 (3.4)
30	369 (500)	1,300	9.92 (4.5)
35	535 (725)	1,200	12.35 (5.6)
40	756 (1025)	850	18.74 (8.5)
45	830 (1125)	740	19.62 (8.9)
50	1,568 (2125)	580	28.22 (12.8)
55	1,937 (2625)	550	35.72 (16.2)
60	2,583 (3500)	530	42.56 (19.3)
70	4,244 (5750)	500	51.82 (23.5)
80	6,273 (8500)	480	70.56 (32)
90	10,701 (14500)	450	104.08 (47.2)
100	14,760 (20000)	350	167.58 (76)
130	23,063 (31250)	250	242.55 (110)
150	51,660 (70000)	200	471.87 (214)

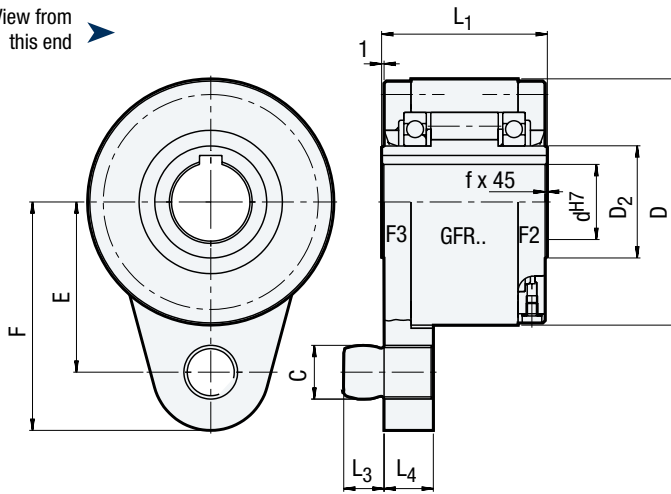
Note: When ordering, please specify direction of rotation.

Modular “Building Block” Clutches

GFR..F2F3, GFR..F3F4

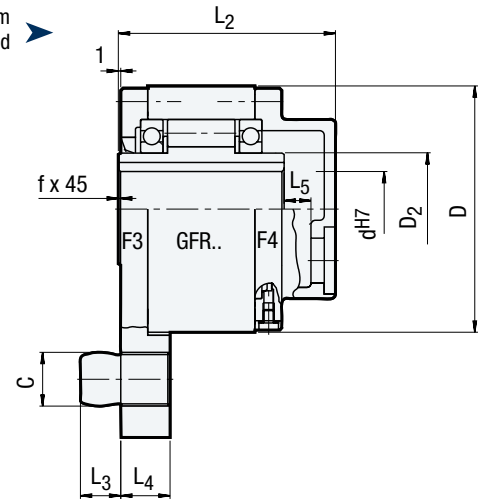
GFR..F2F3

View from
this end



GFR..F3F4

View from
this end



Dimensions inches (mm)

Size	d ^{H7}	D	D ₂	C	L ₁	L ₂	L ₃	L ₄	F	E	L ₅	f
12	0.47 (12)	2.44 (62)	0.79 (20)	0.39 (10)	1.65 (42)	2.52 (64)	0.39 (10)	0.51 (13)	2.32 (59)	1.73 (44)	0.24 (6)	0.02 (0.5)
15	0.59 (15)	2.68 (68)	0.98 (25)	0.39 (10)	2.05 (52)	3.07 (78)	0.39 (10)	0.51 (13)	2.44 (62)	1.85 (47)	0.39 (10)	0.03 (0.8)
20	0.79 (20)	2.95 (75)	1.18 (30)	0.47 (12)	2.24 (57)	3.23 (82)	0.43 (11)	0.59 (15)	2.83 (72)	2.13 (54)	0.39 (10)	0.03 (0.8)
25	0.98 (25)	3.54 (90)	1.57 (40)	0.63 (16)	2.36 (60)	3.35 (85)	0.55 (14)	0.71 (18)	3.31 (84)	2.44 (62)	0.39 (10)	0.04 (1)
30	1.18 (30)	3.94 (100)	1.77 (45)	0.63 (16)	2.68 (68)	3.74 (95)	0.55 (14)	0.71 (18)	3.62 (92)	2.68 (68)	0.39 (10)	0.04 (1)
35	1.38 (35)	4.33 (110)	1.97 (50)	0.79 (20)	2.91 (74)	4.02 (102)	0.71 (18)	0.98 (25)	4.02 (102)	2.99 (76)	0.47 (12)	0.04 (1)
40	1.57 (40)	4.92 (125)	2.17 (55)	0.79 (20)	3.39 (86)	4.53 (115)	0.71 (18)	0.98 (25)	4.41 (112)	3.35 (85)	0.47 (12)	0.06 (1.5)
45	1.77 (45)	5.12 (130)	2.36 (60)	0.98 (25)	3.39 (86)	4.53 (115)	0.87 (22)	0.98 (25)	4.72 (120)	3.54 (90)	0.47 (12)	0.06 (1.5)
50	1.97 (50)	5.91 (150)	2.76 (70)	0.98 (25)	3.70 (94)	4.84 (123)	0.87 (22)	0.98 (25)	5.31 (135)	4.02 (102)	0.47 (12)	0.06 (1.5)
55	2.17 (55)	6.30 (160)	2.95 (75)	1.26 (32)	4.09 (104)	5.43 (138)	0.98 (25)	1.18 (30)	5.59 (142)	4.25 (108)	0.59 (15)	0.08 (2)
60	2.36 (60)	6.69 (170)	3.15 (80)	1.26 (32)	4.49 (114)	5.79 (147)	0.98 (25)	1.18 (30)	5.71 (145)	4.41 (112)	0.59 (15)	0.08 (2)
70	2.76 (70)	7.48 (190)	3.54 (90)	1.50 (38)	5.28 (134)	6.61 (168)	1.18 (30)	1.38 (35)	6.89 (175)	5.31 (135)	0.63 (16)	0.10 (2.5)
80	3.15 (80)	8.27 (210)	4.13 (105)	1.50 (38)	5.67 (144)	7.01 (178)	1.18 (30)	1.38 (35)	7.28 (185)	5.71 (145)	0.63 (16)	0.10 (2.5)
90	3.54 (90)	9.06 (230)	4.72 (120)	1.97 (50)	6.22 (158)	7.56 (192)	1.57 (40)	1.77 (45)	8.07 (205)	6.10 (155)	0.63 (16)	0.12 (3)
100	3.94 (100)	10.63 (270)	5.51 (140)	1.97 (50)	7.17 (182)	8.54 (217)	1.57 (40)	1.77 (45)	9.06 (230)	7.09 (180)	0.63 (16)	0.12 (3)
130	5.12 (130)	12.20 (310)	6.30 (160)	2.68 (68)	8.35 (212)	9.84 (250)	2.17 (55)	2.36 (60)	10.55 (268)	8.07 (205)	0.71 (18)	0.12 (3)
150	5.91 (150)	15.75 (400)	7.87 (200)	2.68 (68)	9.69 (246)	11.26 (286)	2.17 (55)	2.36 (60)	12.80 (325)	10.04 (255)	0.79 (20)	0.16 (4)

Note: For bore and keyseat information see page 99.