



NEEDLE ROLLER BEARINGS

DRAWN CUP ROLLER CLUTCH AND BEARING ASSEMBLIES INCH SERIES

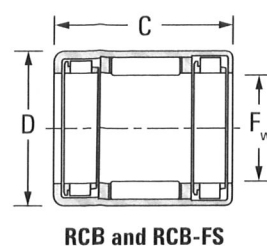
- Clutch and bearing assembly engages when the housing is rotated relative to shaft in direction of arrow marking (← LOCK), as labeled on cup.
- Shaft raceway and housing bore diameters that are necessary for proper mounting and operation are listed on the opposite page.
- Proper inspection requires use of ring gage and bore plug gage(s). See the inspection section on page B-3-9.
- Full details on installation are given on page B-3-8.

- Type RCB clutch and bearing assemblies have springs integrally molded with the cage to position the rollers for lockup.

Type RCB-FS clutch and bearing assemblies have stainless steel springs inserted into the molded cage to position the rollers for lockup.



The mounted clutch and bearing assembly engages when the housing is rotated relative to the shaft in the direction of the arrow marking (← LOCK) stamped on the cup.



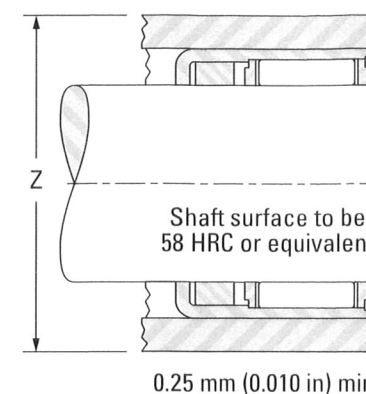
RCB and RCB-FS

Shaft Diameter	F _w	D	C -0.25 mm -0.010 in	Clutch and Bearing Designations		Torque Rating	Minimum O.D. of Steel Housing for Rated Torque	Load Ratings ⁽²⁾		Fatigue Load Limit C _u
				With Stainless Steel Springs	With Integral Springs			Dynamic	Static	
mm in	mm in	mm in	mm in			N-m lbf-in	Z	C	C ₀	kN
9.525 0.3750	9.53 0.375	15.88 0.625	22.23 0.875	RCB-061014-FS ⁽¹⁾	RCB-061014	5.45 48.2	22.4 0.88	6.01 1350	4.89 1100	0.800
12.700 0.5000	12.70 0.500	19.05 0.750	22.23 0.875	RCB-081214-FS ⁽¹⁾	RCB-081214	8.85 78.3	27.9 1.1	7.12 1600	6.49 1460	1.05
15.875 0.6250	15.88 0.625	22.23 0.875	25.40 1.000	RCB-101416-FS ⁽¹⁾	RCB-101416	16.8 149	30.5 1.2	8.05 1810	8.14 1830	1.35
19.050 0.7500	19.05 0.750	25.40 1.000	25.40 1.000	RCB-121616-FS ⁽¹⁾	RCB-121616	23.3 206	35.6 1.4	8.90 2000	9.79 2200	1.60
25.400 1.0000	25.40 1.000	33.35 1.313	27.00 1.063	RCB-162117-FS ⁽¹⁾	RCB-162117	49.6 439	48.3 1.9	15.4 3460	17.6 3960	2.85

⁽¹⁾ Suffix "-FS" is not always stamped on the clutch cup. Type RCB-FS with stainless steel springs are always readily identified by RED clutch cage.

⁽²⁾ Load ratings are based on a minimum raceway hardness of 58 HRC or equivalent.

⁽³⁾ Indicates the number of relative rotations allowed when the shaft idles.



Overrun Limiting Speed Rating for Rotating Shaft ⁽³⁾	Gaging			
	Ring Gage	Clutch Locking Plug	Clutch Overrun and Bearing Go Plug	B I
min ⁻¹	mm in	mm in	mm in	
18000	15.888 0.6255	9.512 0.3745	9.553 0.3761	
17000	19.063 0.7505	12.687 0.4995	12.728 0.5011	
14000	22.238 0.8755	15.862 0.6245	15.903 0.6261	
12000	25.387 0.9995	19.012 0.7485	19.053 0.7501	
8700	33.325 1.3120	25.362 0.9985	25.403 1.0001	