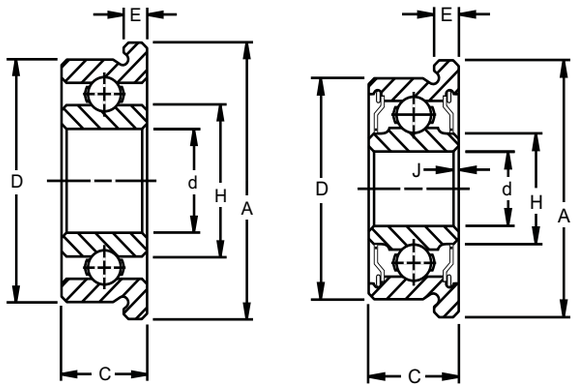
FLANGED SERIES

CYLINDRICAL O.D.

- Four sizes offered in flanged construction.
- Integral shoulders for mounting in through-bored housings.
- Straight outside diameters.
- Interchangeable with corresponding unflanged sizes.
- Available with double shields.
- Electric motor quality for applications where quietness is required.



Open Type — Shielded Type

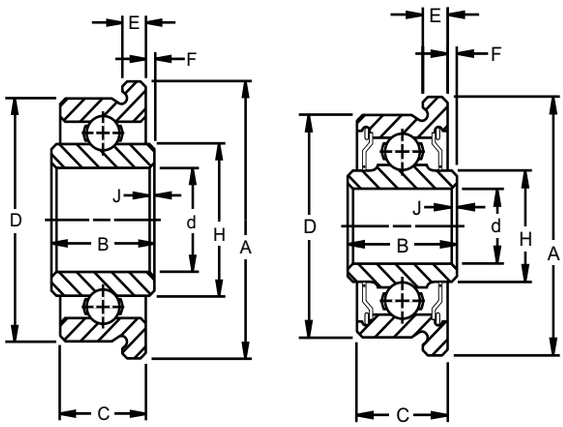
DIMENSIONS – TOLERANCES

Bearing Number		Bore d		chamfer J x 45°		Outside Diameter D		Width C		Inner Ring Shoulder		Flange A		E		Shielded Type Overall Width		H		Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E [2]	
		+0.000 mm -0.008 mm		+0.25 mm -0.00 mm		+0.000 mm -0.010 mm		+0.00 mm -0.13 mm		H		+0.13 mm -0.05 mm		±0.05 mm		+0.00 mm -0.13 mm									
		+0.0000″ -0.0003″		+0.010″ -0.000″		+0.000″ -0.0004"		+0.000″ -0.005″		Min.		+0.005″ -0.002″		±0.002″		+0.000″ -0.005″		Min.							
open	shielded*	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
F33K3	F33KDD3	3.175	0.1250	0.30	0.012	9.525	0.3750	3.96	0.156	5.13	0.202	11.18	0.440	0.76	0.030	3.96	0.156	4.65	0.183	0.005	0.01	212	48	710	160
F33K5	F33KDD5	4.762	0.1875	0.30	0.012	12.700	0.5000	3.96	0.156	6.86	0.270	14.35	0.565	1.07	0.042	4.98	0.196	6.30	0.248	0.005	0.01	490	110	1430	325
FS1K7	FS1KDD7[1]	6.350	0.2500	0.30	0.012	15.875	0.6250	4.98	0.196	8.86	0.349	17.53	0.690	1.07	0.042	4.98	0.196	8.43	0.332	0.005	0.01	560	125	1630	365
FS3K	FS3KDD[1]	9.525	0.3750	0.41	0.016	22.225	0.8750	5.56	0.219	13.13	0.517	24.61	0.969	1.57	0.062	7.14	0.281	12.06	0.475	0.009	0.02	1400	310	3650	830

[1] Also available in stainless steel. To specify, add prefix "A" before bearing number.
[2] Based on 10^6 revolutions of calculated fatigue life.
* Also available with two contact seals. To specify, replace "KDD" in part number with "PP".

TAPERED O.D.

- F Flanged series has shoulders integral with the bearings for mounting in through-bored housings.
- Used where compactness is essential or where it is not desirable to machine housing shoulders.
- All sizes in series have tapered outside diameters and are available with double shields.
- Suitable applications include precision instruments, packaging machinery and motion picture projectors.
- Several sizes in the series are manufactured in both standard bearing-quality, chromium-alloy, high-carbon steel and stainless steel (stainless steel specified by suffix "A").
- Electric motor quality where quietness is required.



Open Type — Shielded Type

DIMENSIONS – TOLERANCES

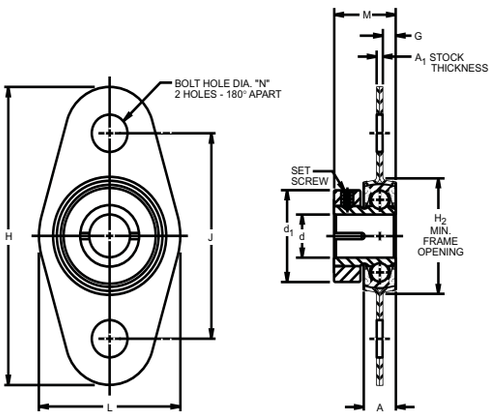
Bearing Number		Bore d		chamfer J x 45°		Outside Diameter D		Inner Width B		Ring Widths Inner Project F		Inner H[3]		Outer Width C		Taper Per Foot		Flange A		E		Wt.		Static Load Rating C_0		Extended Dynamic Load C_E[4]	
		+0.008 mm -0.00 mm		+0.025 mm -.00 mm		+0.000 mm -0.10 mm		±0.3 mm		±0.13 mm				+.00 mm -0.10 mm				+0.13 mm -0.05 mm		±0.05 mm							
		+0.0003″ -0.0000″		+0.010″ -0.000″		+0.000″ -0.0004"		±0.010"		-0.005″		Min.		+0.000" -0.004″				+0.005″ -0.002″		±0.002"							
open	shielded	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
F2[1]	—	4.762	0.1875	0.25	0.010	11.130	0.4382	4.80	0.189	0.41	0.016	6.93	0.273	4.14	0.163	2.03	0.080	12.70	0.500	1.07	0.042	0.005	0.01	465	106	1160	260
—	F2DD-2	3.175	0.1250	0.25	0.010	9.534	0.3757	4.77	0.188	0.38	0.015	4.60	0.181	4.14	0.163	1.90	0.075	11.13	0.438	0.94	0.037	0.005	0.01	212	48	710	160
F3	—	4.762	0.1875	0.25	0.010	14.305	0.5632	5.54	0.218	0.38	0.015	6.93	0.273	4.95	0.195	2.03	0.080	15.88	0.625	1.07	0.042	0.005	0.01	490	110	1430	325
—	F3DD	4.762	0.1875	0.25	0.010	14.305	0.5632	6.35	0.250	0.38	0.015	6.22	0.245	5.74	0.226	1.73	0.068	15.88	0.625	1.07	0.042	0.005	0.01	490	110	1430	325
F4	F4DD	6.350	0.2500	0.25	0.010	15.893	0.6257	6.35	0.250	0.38	0.015	8.41	0.331	5.74	0.226	1.73	0.068	17.45	0.687	1.07	0.042	0.005	0.01	560	125	1630	365
F5	F5DD[2]	7.938	0.3125	0.25	0.010	17.480	0.6882	6.35	0.250	0.38	0.015	10.41	0.410[2]	5.74	0.226	1.73	0.068	19.05	0.750	1.07	0.042	0.005	0.01	865	196	2400	540

[1] Full type, no retainer. Not suggested for speeds over 500 RPM.
[2] H dimension is 9.68 mm (.381") for F5DD.
[3] Land dimension of the inner ring.
[4] Based on 10^6 revolutions of calculated fatigue life.

BALL BEARINGS

ST FLANGETTE UNIT

- Pressed steel housed units designed for light-duty applications.
- Available in shaft sizes from 6.35 mm - 12.7 mm ($^1/_4$ to $^1/_2$ inch).
- Designed to simplify mounting on side plate or frame-type housings.
- Two identical steel stampings house a clamp-type bearing with a spherical O.D. outer ring.
- Spherical inside surface of each stamping mates with the spherical O.D. of the bearing, providing initial self-alignment at mounting.
- Offers features of basic clamp-type bearing.
- Available with sealed or shielded construction.
- Radial load capacity is 25 percent of basic bearing's dynamic load rating at 33.3 RPM.
- Inspected to ABEC-1 tolerances, except bore.
- Suggested shaft tolerance: Nominal bore size to -.0005 in. resulting in .000 in. to .001 in. loose-shaft fit.



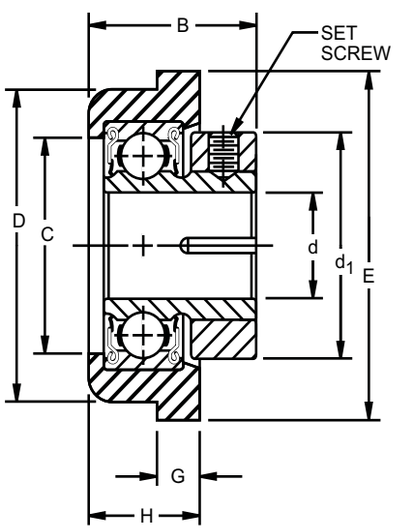
Unit Number	Bore** d +0.13 mm -0.000 mm +0.0005" -0.0000"		A		d1		H2		M		G		A1		H		L		J		N		Set-screw Thread*	Max. Radial Unit Load	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		N	lbs.
S1PPB7-3 ST	6.350	0.2500	5.556	7/32	14.287	9/16	19.844	25/32	10.922	0.430	2.007	0.079	0.683	0.0269	45.244	1 25/32	22.225	7/8	30.956	1 7/32	0.219	7/32	4-40	312	70
S3PPB15 ST	7.937	0.3125	7.144	9/32	19.844	25/32	27.781	13/32	14.275	0.562	2.718	0.107	0.836	0.0329	53.181	2 3/32	30.163	1 13/16	38.894	1 17/32	0.219	7/32	8-36	668	150
S5PPB2 ST	12.700	0.5000	7.937	5/16	23.019	29/32	32.544	19/32	15.875	0.625	3.048	0.120	0.912	0.0359	59.531	2 11/32	36.512	1 17/16	45.244	1 25/32	0.219	7/32	8-36	980	220

* All setscrews are hex socket oval point, six fluted socket setscrews available upon request. Setscrews with fused plastic patch available at added cost.

**Bore tolerance applies prior to collar assembly.

RTF-RUBBER TIRE FLANGE HOUSED UNIT

- Synthetic, conductive elastomer of Durometer hardness 80-85 facilitates mounting of standard cylindrical O.D. bearings in side plate of frame-type housings.
- Generous taper on entrance corner of rubber cartridge simplifies insertion of unit into side panel, assuring reasonable squareness of bearings when fully mounted.
- Bearing is positioned by integral flange of the rubber cartridge.
- Resiliency of elastomer accommodates wider than the standard suggested housing bore tolerance.
- Greater flexibility in adjusting to minor shaft and/or housing alignment.
- Helps reduce airborne noise and structural vibration.
- Additional advantages are similar to features of basic clamp-type bearing design.
- Due to deflection characteristics of the elastomer, radial and thrust ratings for the RTF Series are 10 percent of the basic bearing's dynamic load rating at 33.3 RPM.



Unit Number	Bore** d +0.13 mm -0.000 mm +0.0005" -0.0000"		D RTF O.D. ±0.13 mm ±0.005"		D HSG Bore ±0.13 mm ±0.005"		C		d1		E		B		G		H		Set-screw Thread*	Max. Radial Unit Load	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		N	lbs.
S1PP73RTF	6.350	0.2500	19.355	0.762	19.050	0.750	13.494	17/32	14.287	9/16	22.225	7/8	11.906	15/32	1.984	5/64	7.541	19/64	4-40	116	26
S3PP16RTF	7.937	0.3125	27.280	1.074	26.975	1.062	19.050	3/4	19.844	25/32	30.956	17/32	15.875	5/8	3.969	5/32	10.319	13/32	8-36	258	58
S3PP4RTF	9.525	0.3750	27.280	1.074	26.975	1.062	19.050	3/4	19.844	25/32	30.956	17/32	15.875	5/8	3.969	5/32	10.319	13/32	8-36	258	58
S5PP2RTF	12.700	0.5000	35.255	1.388	34.925	1.375	25.400	1	23.019	29/32	38.894	1 17/32	17.859	45/64	3.969	5/32	11.906	15/32	8-36	392	88

* All setscrews are hex socket oval point, six fluted socket setscrews available upon request. Setscrews with fused plastic patch available at added cost.

**Bore tolerance applies prior to collar assembly.