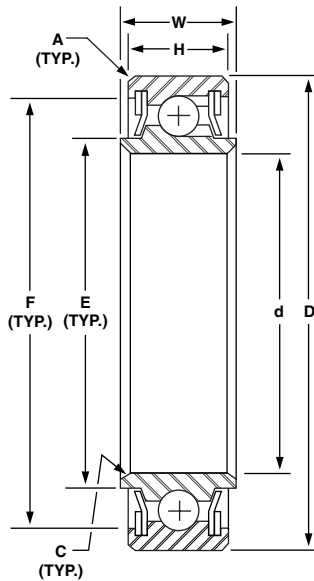




MKP--B Series (AS27642)



Full ball complement (no retainer)

Notes:

1. Rings and balls are manufactured from premium quality AISI 52100 chrome steel.
2. Operating temperature range: -65 to +250 °F.
3. All bearings include removable PTFE seals.
4. Bearings are lubricated with MIL-PRF-81322 grease, 80% minimum fill, unless otherwise specified.
5. External surfaces (except bore) are cadmium plated per AMS-QQ-P-416. All dimensions apply after plating.
6. Custom sizes, materials, tolerances, radial internal clearances, lubrication, plating, etc., are available upon request.
7. See "Airframe Part Numbering System" on page 5 for correct NHBB nomenclature.
8. All dimensions are in inches, unless otherwise specified.

Refer to the Qualifications and Manufacturing Schedule for a current list of the Precision Division's AS7949 qualifications and manufacturing capabilities.

MKP--B (AS27642) Precision Series — Qualified to SAE AS7949

NHBB BASIC P/N	MS27642-S DASH NO.	BORE d	O.D. D	RING WIDTH		BALL COMPLEMENT		RING SHOULDER DIAMETER		RING CHAMFER X 45°		LOAD RATINGS (LBS.)				APPROX. WEIGHT LBS.	MAX. STARTING TORQUE [^] OZ.-IN.
				OUTER H	INNER W	NO.	DIA.	OUTER F	INNER E	OUTER A	INNER C	STATIC		DYNAMIC RADIAL ⁺ RING ROTATION			
												RADIAL LIMIT	THRUST LIMIT	INNER	OUTER		
		+0.000 -0.005	+0.000 -0.010	+0.000 -0.005	+0.000 -0.0025			REF.	REF.	+0.015 -0.000	+0.015 -0.000	RADIAL LIMIT	AXIAL LIMIT			LBS.	OZ.-IN.
MKP16B	-16S	1.0000	1.7500 ⁽²⁾⁽³⁾	.375	.4370 ⁽³⁾	23	3/16	1.589	1.189	.024	.024	8085	3600	4260	3960	.14	5.0
MKP21B	-21S	1.3125	2.0625	.375	.4370 ⁽³⁾	28	3/16	1.912	1.512	.024	.024	9840	4400	4590	4290	.16	7.0
MKP23B	-23S	1.4375	2.1875	.375	.4370 ⁽³⁾	30	3/16	1.988	1.624	.024	.024	10500	4700	4650	4360	.17	9.0
MKP25B	-25S	1.5625	2.3125	.375	.4370 ⁽³⁾	32	3/16	2.108	1.743	.024	.024	11300	5000	4680	4420	.19	9.0
MKP29B	-29S	1.8125	2.5625	.375	.4370 ⁽³⁾	36	3/16	2.349	1.980	.024	.024	12700	5600	4760	4530	.21	14.0
MKP33B	-33S	2.0625	2.8125	.375	.4370 ⁽³⁾	41	3/16	2.647	2.278	.024	.024	14400	6400	4820	4630	.23	14.0
MKP37B	-37S	2.3125	3.0625	.375	.4370 ⁽³⁾	45	3/16	2.886	2.516	.024	.024	15800	7000	4880	4690	.26	20.0
MKP47B	-47S	2.9375	3.8750	.469	.5310 ⁽³⁾	45	15/64	3.609	3.149	.039	.039	24700	10900	6600	6390	.49	30.0
MKP49B	-49S	3.0625	4.0000	.469	.5310 ⁽³⁾	44	1/4	3.785	3.262	.039	.039	27500	12100	8150	7840	.53	32.0
MKP52B	-52S	3.2500 ⁽¹⁾	4.1875	.469	.5310 ⁽³⁾	46	1/4	3.914	3.444	.039	.039	28700	12600	8210	7880	.65	(4)
MKP56B	-56S	3.5000 ⁽¹⁾	4.4375	.469	.5310 ⁽³⁾	50	1/4	4.248	3.730	.039	.039	31200	13700	8240	7970	.70	(4)
MKP60B	-60S	3.7500 ⁽¹⁾	4.6875	.469	.5310 ⁽³⁾	53	1/4	4.505	3.987	.039	.039	33100	14600	8290	8010	.74	(4)
MKP64B	-64S	4.0000 ⁽¹⁾	4.9375	.469	.5310 ⁽³⁾	56	1/4	4.728	4.246	.039	.039	35000	15400	8350	8100	.78	(4)
MKP68B	-68S	4.2500 ⁽¹⁾	5.3125	.531	.5930 ⁽³⁾	53	9/32	5.060	4.516	.039	.039	41900	18400	10280	9900	.87	(4)
MKP72B	-72S	4.5000 ⁽¹⁾	5.5625	.531	.5930 ⁽³⁾	56	9/32	5.322	4.776	.039	.039	44300	19500	10330	10000	.92	(4)
MKP76B	-76S	4.7500 ⁽¹⁾	5.8125	.531	.5930 ⁽³⁾	59	9/32	5.594	5.045	.039	.039	46700	20500	10350	10050	1.00	(4)
MKP80B	-80S	5.0000 ⁽¹⁾	6.0625	.531	.5930 ⁽³⁾	61	9/32	5.786	5.242	.039	.039	48200	21200	10360	10090	1.04	(4)
MKP84B	-84S	5.2500 ⁽¹⁾	6.3125	.531	.5930 ⁽³⁾	64	9/32	6.048	5.504	.039	.039	50600	22300	10420	10120	1.09	(4)

Radial internal clearance: .0001 to .0005

(1) Bore (d) tolerance: +.0000 / -.0010

(2) O.D. (D) tolerance: +.0000 / -.0005

(3) Indicated parameters exceed MS27642-S requirements.

(4) Consult factory for torque estimate.

+Dynamic radial load ratings are for operation up to 250 °F. Reduce load ratings by 20% for 250 to 350 °F operation. Dynamic radial load ratings are based on an average life of 10,000 complete 90° cycles.

[^]Torque limits are for bearings lubricated with MIL-PRF-81322 grease. For bearings lubricated with MIL-PRF-23827, multiply torque limits by a factor of 1.2.