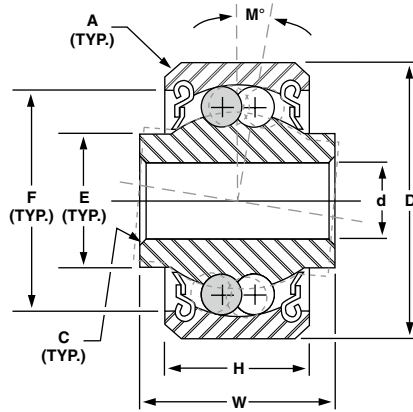




DSP- (AS27643) / MDSP- Series



Full ball complement (no retainers)

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-P416. 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.

DSP- (AS27643) — Qualified to SAE AS7949

NHBB BASIC P/N	MS27643 DASH NO.	BORE d	O.D. D	RING WIDTH		MIS-ALIGNMENT ANGLE† M°	BALL COMPLEMENT		RING SHOULDER DIAMETER		RING CHAMFER X 45°		LOAD RATINGS (LBS.)				APPROX. WEIGHT	MAX. STARTING TORQUE*	MIN. SEAL BREAKOUT TORQUE*
				OUTER H	INNER W		NO.	DIA.	OUTER F	INNER E	OUTER A	INNER C	STATIC		DYNAMIC RADIAL+ RING ROTATION				
													RADIAL LIMIT	AXIAL LIMIT	INNER	OUTER			
		+0.0000 -0.0010	+0.0000 -0.0010	+0.000 -0.005	+0.000 -0.005				REF.	REF.	+0.015 -0.000	+0.015 -0.000					LBS.	OZ.-IN.	LBS.-IN.
DSP3	-3	.1900	.7774	.392	.500	±10	24	1/8	.611	.307	.022	.005	1420	200	1420	1220	.04	1.0	8.0
DSP4	-4	.2500	.9014	.464	.687	±10	30	1/8	.740	.432	.032	.005	1780	300	1780	1600	.06	1.0	12.0
DSP5	-5	.3125	1.2500	.656	.812	±10	28	3/16	1.004	.515	.032	.015	3740	600	3740	3300	.16	3.0	28.0
DSP6	-6	.3750	1.4375	.750	.937	±10	28	7/32	1.169	.567	.032	.015	5100	800	4980	4370	.24	4.0	45.0
DSP8	-8	.5000	1.6875	.812	1.000	±10	30	1/4	1.399	.776	.044	.015	7120	1000	6340	5570	.36	5.0	60.0
DSP10	-10	.6250	1.9375	.937	1.125	±10	30	9/32	1.590	.872	.044	.015	9000	1300	7780	6860	.53	6.0	78.0

Radial internal clearance: .0000 to .0010

MDSP- Precision Series

NHBB BASIC P/N	BORE d	O.D. D	RING WIDTH		MIS-ALIGNMENT ANGLE† M°	BALL COMPLEMENT		RING SHOULDER DIAMETER		RING CHAMFER X 45°		LOAD RATINGS (LBS.)				APPROX. WEIGHT	MAX. STARTING TORQUE*	MIN. SEAL BREAKOUT TORQUE*	
			OUTER H	INNER W		NO.	DIA.	OUTER F	INNER E	OUTER A	INNER C	STATIC		DYNAMIC RADIAL+ RING ROTATION					
												RADIAL LIMIT	AXIAL LIMIT	INNER	OUTER				
		+0.0000 -0.0003	+0.0000 -0.0004	+0.000 -0.005	+0.0000 -0.0025				REF.	REF.	+0.015 -0.000	+0.015 -0.000					LBS.	OZ.-IN.	LBS.-IN.
MDSP3	.1900	.7774	.392	.5000	±10	24	1/8	.611	.307	.022	.005	1420	200	1420	1220	.04	1.0	8.0	
MDSP4	.2500	.9014	.464	.6870	±10	30	1/8	.740	.432	.032	.005	1780	300	1780	1600	.06	1.0	12.0	
MDSP5	.3125	1.2500	.656	.8120	±10	28	3/16	1.004	.515	.032	.015	3740	600	3740	3300	.16	3.0	28.0	
MDSP6	.3750	1.4375	.750	.9370	±10	28	7/32	1.169	.567	.032	.015	5100	800	4980	4370	.24	4.0	45.0	
MDSP8	.5000	1.6875	.812	1.0000	±10	30	1/4	1.399	.776	.044	.015	7120	1000	6340	5570	.36	5.0	60.0	
MDSP10	.6250	1.9375	.937	1.1250	±10	30	9/32	1.590	.872	.044	.015	9000	1300	7780	6860	.53	6.0	78.0	

Radial internal clearance: .0002 to .0005

†Maximum misalignment angle the bearing can accommodate in either direction.

+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.

*Minimum torque required to dislodge seals.