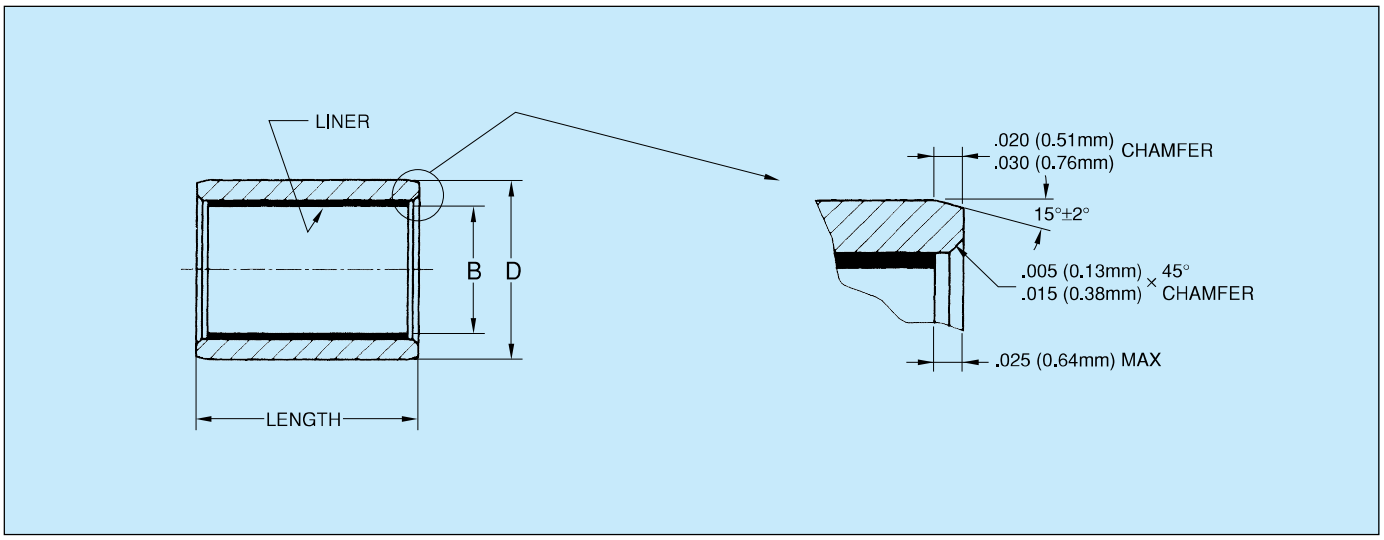
8 rue du Puits Rochefort Z.I. de Montmartre,
42100 Saint-Étienne, FRANCE
+33-(0)4 77 49 36 36



LENGTH (Tolerance + .000,-.010)
(+0.00, -0.25mm)

mm	6.35	7.14	7.94	8.73	9.52	11.11	12.70	14.29	15.88	17.46	19.05	22.22	25.40	28.58	31.75	34.92	38.10	41.28	44.45	47.62	50.80	53.98	57.15	60.32	63.50	69.85	76.20
Bore Code	1/4	9/32	5/16	11/32	3/8	7/16	1/2	9/16	5/8	11/16	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3
04	08	09	10	11	12	14																					
05	08	09	10	11	12	14	16	18																			
06	08	09	10	11	12	14	16	18	20	22																	
07	08	09	10	11	12	14	16	18	20	22	24	28															
08	08	09	10	11	12	14	16	18	20	22	24	28															
09	08	09	10	11	12	14	16	18	20	22	24	28	32	36													
10	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44											
11	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
12	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
14	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
16	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60							
18			10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60							
20					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68					
22					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68					
24					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	
26							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	
28							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	96
32							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	96

MS P/N Prefix
Bore Diameter in Multiples of 1/16 inches (2 Digits)
Material Code: (A = Aluminum, C = CRES 410)
Length Code in Multiples of 1/32 Inches (3 Digits)

MS P/N MS21240 - XX X XXX

NMB P/N AJ XX X XX

Length Code in Multiples of 1/32 Inches (2 Digits)
Material Code: (A = Aluminum, C = CRES 410)
Bore Diameter in Multiples of 1/16 inches (2 Digits)
NMB P/N Prefix

AJF-A, AJF-C

Journal, Flanged - Teflon Lined
**MS21241

Temperature: Operating temperature range -65° to 250°F. (-54° to 121°C)
Concentricity tolerance between B and D diameters shall not exceed .003" (0.08mm) FIM

MATERIALS

Material Code	Journal	Liner
AJF-A	Aluminum Alloy AMS-QQ-A-225/9 or AMS-QQ-A-200/11. Finish Anodized per MIL-A-8625,	*Teflon/Fabric Bonded to bore and flange face. No lub. required.
AJF-C	CRES 410 H.T. to 27-32 HRC	*Teflon/Fabric Bonded to bore and flange face. No lub. required.

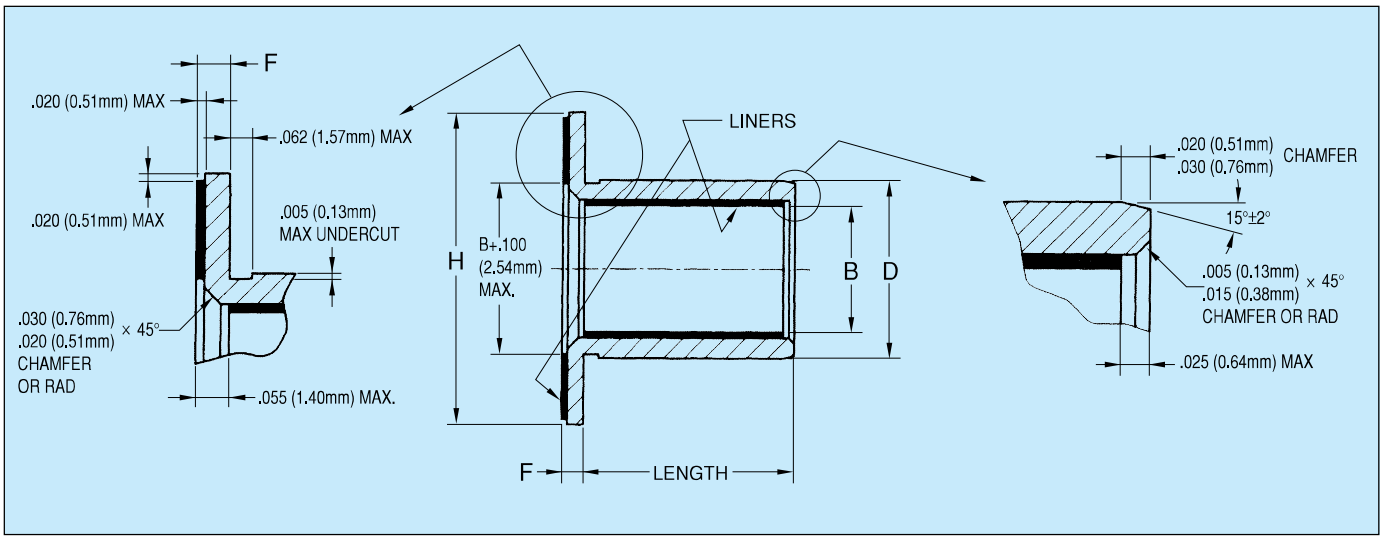
NMB Part Number	(B) Bore Diameter		(D) Outside Diameter ALUM.		(D) Outside Diameter CRES		(H) Flange Diameter		(F) Flange Thickness		Sleeve Weight Lbs./In. (Ref.) L = 1.000 (25.4mm) ALUM.		Sleeve Weight Lbs./In. (Ref.) L = 1.000 (25.4mm) CRES		Flange Weight Lbs. (Ref.) ALUM.		Flange Weight Lbs. (Ref.) CRES	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lb/in	g/mm	lb/in	g/mm	lb/in	g/mm	lb/in	g/mm
MS21241 Flanged	+.0000 -.0010	+0.000 -0.025	+.0005 -.0005	+0.013 -0.013	+.0000 -.0005	+0.000 -0.013	+.000 -.020	+0.000 -0.508	+.000 -.005	+0.000 -0.127								
AJF04	.2515	6.388	.3760	9.550	.3760	9.550	.750	19.050	.0625	1.588	.009	0.16	.024	0.43	.003	0.05	.007	0.12
AJF05	.3140	7.976	.4386	11.140	.4386	11.140	.812	20.625	.0625	1.588	.011	0.20	.028	0.50	.003	0.05	.007	0.12
AJF06	.3765	9.563	.5012	12.730	.5012	12.730	.875	22.225	.0625	1.588	.012	0.21	.032	0.57	.003	0.05	.007	0.12
AJF07	.4390	11.151	.5638	14.321	.5638	14.321	.937	23.800	.0625	1.588	.013	0.23	.036	0.64	.003	0.05	.008	0.14
AJF08	.5015	12.738	.6265	15.913	.6265	15.913	1.000	25.400	.0625	1.588	.015	0.27	.041	0.73	.004	0.07	.010	0.18
AJF09	.5640	12.326	.6892	17.506	.6892	17.506	1.125	28.575	.0625	1.588	.017	0.30	.047	0.84	.004	0.07	.011	0.20
AJF10	.6265	15.913	.8142	20.681	.8142	20.681	1.250	31.750	.0625	1.588	.027	0.48	.075	1.34	.005	0.09	.011	0.25
AJF11	.6890	17.501	.8767	22.268	.8767	22.268	1.375	34.925	.0625	1.588	.030	0.54	.084	1.50	.007	0.12	.020	0.36
AJF12	.7515	19.088	.9393	23.858	.9393	23.858	1.500	38.100	.0625	1.588	.034	0.61	.093	1.66	.009	0.16	.023	0.41
AJF14	.8765	22.263	1.0645	27.038	1.0645	27.038	1.625	41.275	.0625	1.588	.038	0.68	.104	1.86	.009	0.16	.025	0.45
AJF16	1.0015	25.438	1.1898	30.221	1.1898	30.221	1.750	44.450	.0625	1.588	.043	0.77	.118	2.11	.010	0.18	.027	0.48
AJF18	1.1265	28.613	1.3148	33.396	1.3148	33.396	1.875	47.625	.0937	2.380	.051	0.91	.142	2.54	.014	0.25	.041	0.73
AJF20	1.2515	31.788	1.4398	36.571	1.4398	36.571	2.000	50.800	.0937	2.380	.058	1.04	.161	2.88	.018	0.32	.050	0.89
AJF22	1.3765	34.963	1.5648	39.746	1.3648	39.746	2.125	53.975	.0937	2.380	.063	1.13	.175	3.13	.019	0.34	.053	0.95
AJF24	1.5015	38.138	1.7523	44.508	1.7523	44.508	2.250	57.150	.0937	2.380	.081	1.45	.233	4.16	.019	0.34	.054	0.96
AJF26	1.6265	41.313	1.8773	47.638	1.8773	47.683	2.375	60.325	.0937	2.380	.090	1.61	.249	4.45	.020	0.36	.056	1.00
AJF28	1.7515	44.488	2.0023	50.858	2.0023	50.858	2.500	63.500	.0937	2.380	.099	1.77	.272	4.86	.023	0.41	.064	1.14
AJF32	2.0015	50.838	2.2523	57.208	2.2523	57.206	2.750	69.850	.0937	2.380	.111	1.98	.306	5.46	.026	0.46	.072	1.29

Shaft and Housing Information

For optimum performance with lined journal bearings, considerable care must be exercised in the design of housings and shafts. For extreme applications involving dissimilar materials, elevated temperatures, or extreme loads, contact NMB Engineering for application recommendations. The adjacent table applies to normal conditions.

	Shaft	Housing
Diameter	B -.0010" (0.025mm) to -.0020" (0.051mm)	D -.0006" (0.015mm) to -.0011" (0.028mm)
Taper and Roundness	Not to exceed .0005" (0.013mm)	Not to exceed .0005" (0.013mm)
Finish	8 RHR(0.2µmRa) Polished or honed after grind	
Hardness	50 HRC MIN	

* A trademark of E.I. duPont de Nemours & Co., Inc.
** MIL-B-8943 (MS21241) was superseded to AS81934/2



LENGTH (Tolerance + .000,-.010)
(+0.00, -0.25mm)

mm	6.35	7.14	7.94	8.73	9.52	11.11	12.70	14.29	15.88	17.46	19.05	22.22	25.40	28.58	31.75	34.92	38.10	41.28	44.45	47.62	50.80	53.98	57.14	60.32	63.05	69.85	76.20
Bore Code	1/4	9/32	5/16	11/32	3/8	7/16	1/2	9/16	5/8	11/16	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3
04	08	09	10	11	12	14																					
05	08	09	10	11	12	14	16	18																			
06	08	09	10	11	12	14	16	18	20	22																	
07	08	09	10	11	12	14	16	18	20	22	24	28															
08	08	09	10	11	12	14	16	18	20	22	24	28															
09	08	09	10	11	12	14	16	18	20	22	24	28	32	36													
10	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44											
11	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
12	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
14	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52									
16	08	09	10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60							
18			10	11	12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60							
20					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68					
22					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68					
24					12	14	16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	
26							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	96
28							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	96
32							16	18	20	22	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	88	96

MS P/N Prefix
Bore Diameter in Multiples of 1/16 inches (2 Digits)
Material Code: (A = Aluminum, C = CRES 410)
Length Code in Multiples of 1/32 Inches (3 Digits)

***MS P/N MS21241 - XX X XXX**

NMB P/N AJ XX X XX

Length Code in Multiples of 1/32 Inches (2 Digits)
Material Code: (A = Aluminum, C = CRES 410)
Bore Diameter in Multiples of 1/16 inches (2 Digits)
NMB P/N Prefix

AHJ-A, AHJ-C

Journal, Plain - Teflon Lined
AS81934/1

Static limit load: Alum., 50000 psi × B(L - .10) = lbs.
Alum., 344N/mm² × B(L - 2.54) = N (N);
CRES, 78500 psi × B(L - .10) = lbs.
CRES, 541 N/mm² × B(L - 2.54) = N (N)
Dynamic Capacity: 37500 × B (L - .10) = lbs.
Temperature: Operating temperature range -65° to 325°F. (-54° to 163°)
Concentricity tolerance between B and D diameters shall not exceed .003" (0.08mm) FIM
Bearings listed in table are approved for procurement to AS81934 and M81934/1.

MATERIALS

Materials Code	Journal	Liner
AHJ-A	Aluminum Alloy 2024 T851 or 2024-T8511 per AMS-QQ-A-225/6 or AMS-QQ-A 200/3. Finish Anodized per MIL-A-8625, Type I or II or Alodined per MIL-C-5541	*Teflon/Fabric Bonded to bore no lub. requied.
AHJ-C	CRES 17-4PH/AMS 5643 H.T. to Condition H-1150 Passivated	*Teflon/Fabric Bonded to bore no lub. requied.

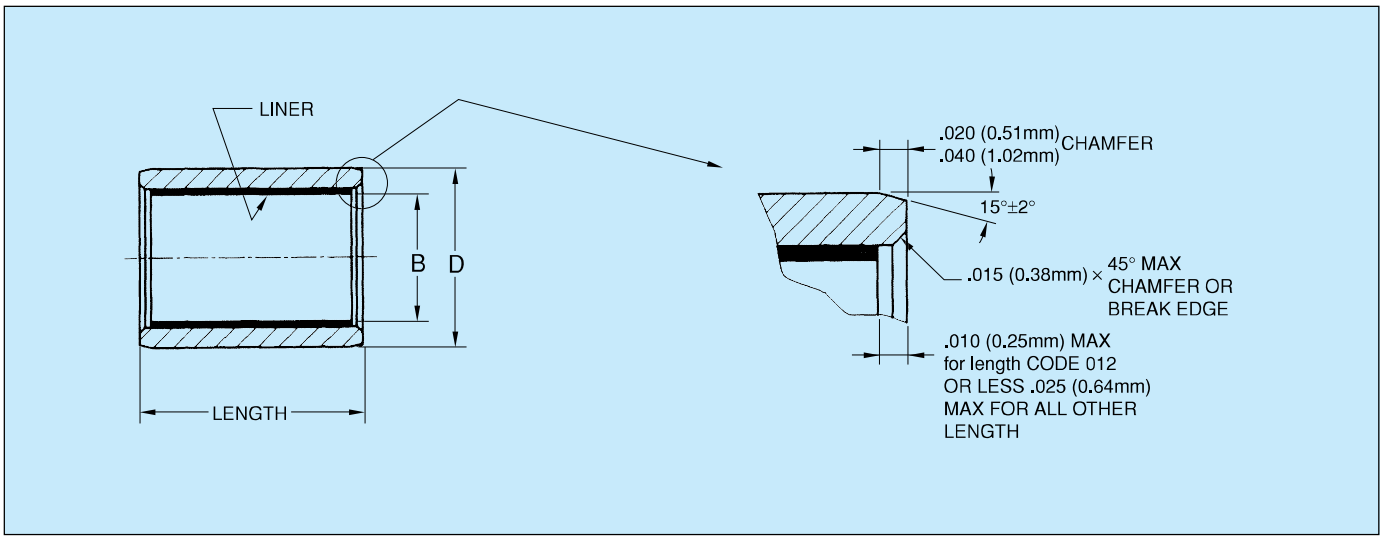
NMB Part Number	(B) Bore Diameter		(D) Outside Diameter ALUM.		(D) Outside Diameter CRES		Weight Lbs./In. (Ref.) L = 1,000 (25.4mm) ALUM.		Weight Lbs./In. (Ref.) L = 1,000 (25.4mm) CRES	
	Inch	mm	Inch	mm	Inch	mm	lb/in	g/mm	lb/in	g/mm
M81934/1	+.0000	+0.000	+.0005	+0.013	+.0000	+0.000				
Plain	-.0010	-0.025	-.0005	-0.013	-.0005	-0.013				
AHJ04	.2515	6.388	.3760	9.550	.3760	9.550	.006	0.11	.016	0.29
AHJ05	.3140	7.976	.4386	11.140	.4386	11.140	.007	0.12	.019	0.34
AHJ06	.3765	9.563	.5012	12.730	.5012	12.730	.008	0.14	.022	0.39
AHJ07	.4390	11.151	.5638	14.321	.5638	14.321	.009	0.16	.025	0.45
AHJ08	.5015	12.738	.6265	15.913	.6265	15.913	.011	0.20	.028	0.50
AHJ09	.5640	14.326	.6892	17.506	.6892	17.506	.012	0.21	.031	0.55
AHJ10	.6265	15.913	.8142	20.681	.8142	20.681	.021	0.38	.056	1.00
AHJ11	.6890	17.501	.8767	22.268	.8767	22.268	.022	0.39	.060	1.07
AHJ12	.7515	19.088	.9393	23.858	.9393	23.858	.024	0.43	.065	1.16
AHJ14	.8765	22.263	1.0645	27.038	1.0645	27.038	.028	0.50	.075	1.34
AHJ16	1.0015	25.438	1.1898	30.221	1.1898	30.221	.031	0.55	.084	1.50
AHJ18	1.1265	28.613	1.3148	33.396	1.3148	33.396	.035	0.62	.094	1.68
AHJ20	1.2515	31.788	1.4398	36.571	1.4398	36.571	.038	0.68	.103	1.84
AHJ22	1.3765	34.963	1.5648	39.746	1.5648	30.746	.041	0.73	.113	2.02
AHJ24	1.5015	38.138	1.7523	44.508	1.7523	44.508	.062	1.11	.171	3.05
AHJ26	1.6265	41.313	1.8773	47.638	1.8773	47.683	.067	1.20	.183	3.27
AHJ28	1.7515	44.488	2.0023	50.858	2.0023	50.858	.071	1.27	.196	3.50
AHJ32	2.0015	50.838	2.2523	57.208	2.2523	57.208	.081	1.45	.222	3.96

Shaft and Housing Information

For optimum performance with lined journal bearings, considerable care must be exercised in the design of housings and shafts. For extreme applications involving dissimilar materials, elevated temperatures, or extreme loads, contact NMB Engineering for application recommendations. The adjacent table applies to normal conditions.

	Shaft	Housing
Diameter	B -.0010" (0.025mm) to -.0020" (0.051mm)	D -.0006" (0.015mm) to -.0011" (0.028mm)
Taper and Roundness	Not to exceed .0005" (0.013mm)	Not to exceed .0005" (0.013mm)
Finish	8 RHR (0.2µmRa) Polished or honed after grind	
Hardness	50 HRC MIN	

* A trademark of E.I, duPont de Nemours & Co., Inc.



LENGTH (Tolerance + .000,-.010)
(+0.00, -0.25mm)

mm	3.96	4.75	5.54	6.35	7.14	7.92	8.71	9.52	11.10	12.70	14.27	15.88	17.45	19.05	22.22	25.40	28.58	31.75	34.92	38.10	41.28	44.45	47.62	50.80	53.98	57.14	60.32	63.50	69.85	76.20
Bore Code	.156	.187	.218	.250	.281	.312	.343	.375	.437	.500	.562	.625	.687	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.395	2.500	2.750	3.000
04	005	006	007	008	009	010	011	012	014																					
05	005	006	007	008	009	010	011	012	014	016	018																			
06	005	006	007	008	009	010	011	012	014	016	018	020	022																	
07	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028															
08	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028															
09	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	032	036													
10	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044											
11				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
12				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
14				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
16				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060							
18						010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060							
20								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068					
22								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068					
24								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	
26										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096
28										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096
32										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096

AHJF-A, AHJF-C

Journal, Flanged - Teflon Lined
AS81934/2

Static limit load: Alum., 50000 psi × B(L + F - .13) = lbs.
Alum.,344N/mm² × B(L + F - 3.30) = N (N);
CRES, 78500 psi × B(L + F - .13) = lbs.
CRES, 541 N/mm² × B(L + F - 3.30) = N (N)
Dynamic Capacity: 37500 × B(L + F - .13) = lbs.
Temperature: Operating temperature range -65° to 325°F. (-54° to 163°)
Concentricity tolerance between B and D diameters shall not exceed .003 (0.08mm) FIM
Bearings listed in table are approved for procurement to AS81934 and M81934/2.

MATERIALS

Materials Code	Journal	Liner
AHJF-A	Aluminum Alloy 2024 T851 or 2024-T8511 per AMS-QQ-A-225/6 or AMS-QQ-A 200/3. Finish Anodized per MIL-A-8625, Type I or II or Alodined per MIL-C-5541	*Teflon/Fabric Bonded to bore and flange face. No lub. required.
AHJF-C	CRES 17-4PH/AMS 5643 H.T. to Condition H-1150 Passivated	*Teflon/Fabric Bonded to bore and flange face. No lub. required.

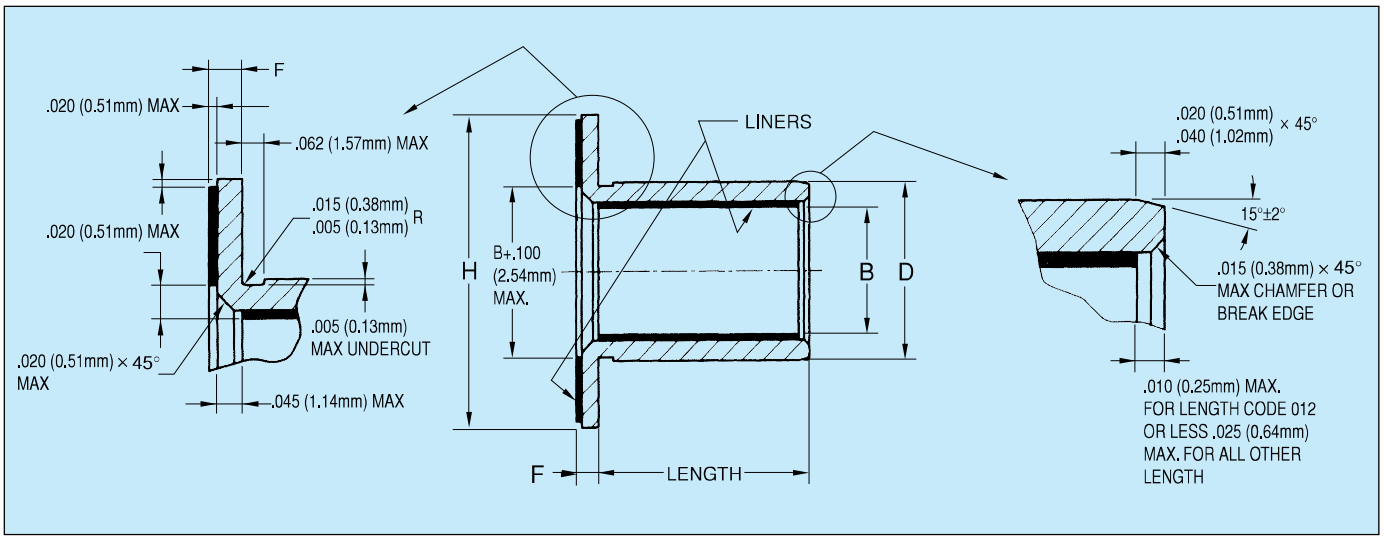
NMB Part Number	(B) Bore Diameter		(D) Outside Diameter ALUM.		(D) Outside Diameter CRES		(H) Flange Diameter		(F) Flange Thickness		Sleeve Weight Lbs./In. (Ref.) L = 1.000 (25.4mm) ALUM.		Sleeve Weight Lbs./In. (Ref.) L = 1.000 (25.4mm) CRES		Flange Weight Lbs. (Ref.) ALUM.		Flange Weight Lbs. (Ref.) CRES	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lb/in	g/mm	lb/in	g/mm	lb/in	g/mm	lb/in	g/mm
MIL-B-81934/2	+.0000	+0.000	+.0005	+0.013	+.0000	+0.000	+.000	+0.000	+.000	+0.000								
Flanged	-.0010	-0.025	-.0005	-0.013	-.0005	-0.013	-.020	-0.508	-.005	-0.127								
AHJF04	.2515	6.388	.3760	9.550	.3760	9.550	.750	19.050	.0625	1.587	.006	0.11	.016	0.29	.002	0.04	.006	0.11
AHJF05	.3140	7.976	.4386	11.140	.4386	11.140	.812	20.625	.0625	1.588	.007	0.12	.019	0.34	.003	0.05	.007	0.12
AHJF06	.3765	9.563	.5012	12.730	.5012	12.730	.875	22.225	.0625	1.588	.008	0.14	.022	0.39	.003	0.05	.007	0.12
AHJF07	.4390	11.151	.5638	14.321	.5638	14.321	.937	22.800	.0625	1.588	.009	0.16	.025	0.45	.003	0.05	.008	0.14
AHJF08	.5015	12.738	.6265	15.913	.6265	15.913	1.000	25.400	.0625	1.588	.011	0.20	.028	0.50	.003	0.05	.009	0.16
AHJF09	.5640	14.326	.6892	17.506	.6892	17.506	1.125	28.575	.0625	1.588	.012	0.21	.031	0.55	.004	0.07	.011	0.20
AHJF10	.6265	15.913	.8142	20.681	.8142	20.681	1.250	31.750	.0625	1.588	.021	0.38	.056	1.00	.005	0.09	.014	0.25
AHJF11	.6890	17.501	.8767	22.268	.8767	22.268	1.375	34.925	.0625	1.588	.022	0.39	.060	1.07	.006	0.11	.016	0.29
AHJF12	.7515	19.088	.9393	23.858	.9393	23.858	1.500	38.100	.0625	1.588	.024	0.43	.065	1.16	.007	0.13	.020	0.36
AHJF14	.8765	22.263	1.0645	27.038	1.0645	27.038	1.625	41.275	.0625	1.588	.028	0.50	.075	1.34	.008	0.14	.022	0.39
AHJF16	1.0015	25.438	1.1898	30.221	1.1898	30.221	1.750	44.450	.0625	1.588	.031	0.55	.084	1.50	.009	0.16	.024	0.43
AHJF18	1.1265	28.613	1.3148	33.396	1.3148	33.396	1.875	47.625	.0937	2.380	.035	0.62	.094	1.68	.015	0.27	.041	0.73
AHJF20	1.2515	31.788	1.4398	36.571	1.4398	36.571	2.000	50.800	.0937	2.380	.038	0.68	.103	1.84	.016	0.29	.045	0.80
AHJF22	1.3765	34.963	1.5648	39.746	1.3648	39.746	2.125	53.975	.0937	2.380	.041	0.73	.113	2.02	.017	0.30	.048	0.86
AHJF24	1.5015	38.138	1.7523	44.508	1.7523	44.508	2.250	57.150	.0937	2.380	.062	1.11	.171	3.05	.018	0.32	.051	0.91
AHJF26	1.6265	41.313	1.8773	47.638	1.8773	47.683	2.375	60.325	.0937	2.380	.067	1.20	.183	3.27	.020	0.36	.055	0.98
AHJF28	1.7515	44.488	2.0023	50.858	2.0023	50.858	2.500	63.500	.0937	2.380	.071	1.27	.196	3.50	.021	0.38	.058	1.04
AHJF32	2.0015	50.838	2.2523	57.208	2.2523	57.208	2.750	69.850	.0937	2.380	.081	1.45	.222	3.96	.023	0.41	.065	1.16

Shaft and Housing Information

For optimum performance with lined journal bearings, considerable care must be exercised in the design of housings and shafts. For extreme applications involving dissimilar materials, elevated temperatures, or extreme loads, contact NMB Engineering for application recommendations. The adjacent table applies to normal conditions.

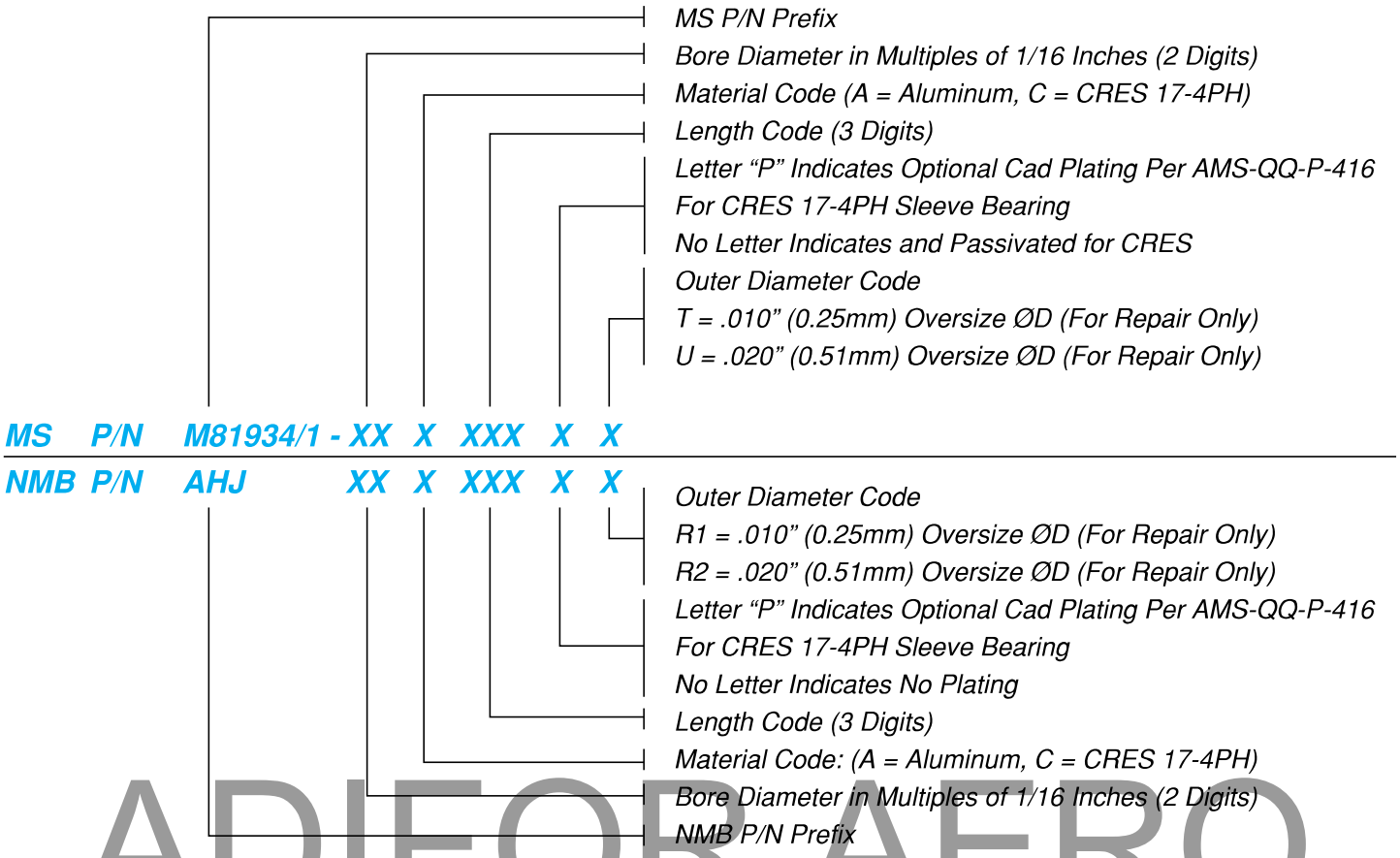
	Shaft	Housing
Diameter	B -.0010 (0.025mm) to -.0020 (0.051mm)	D -.0006 (0.015mm) to -.0011 (0.028mm)
Taper and Roundness	Not to exceed .0005 (0.013mm)	Not to exceed .0005 (0.013mm)
Finish	8 RHR MAX (0.2µmRa MAX) Polished or honed after grind	
Hardness	50 HRC MIN	

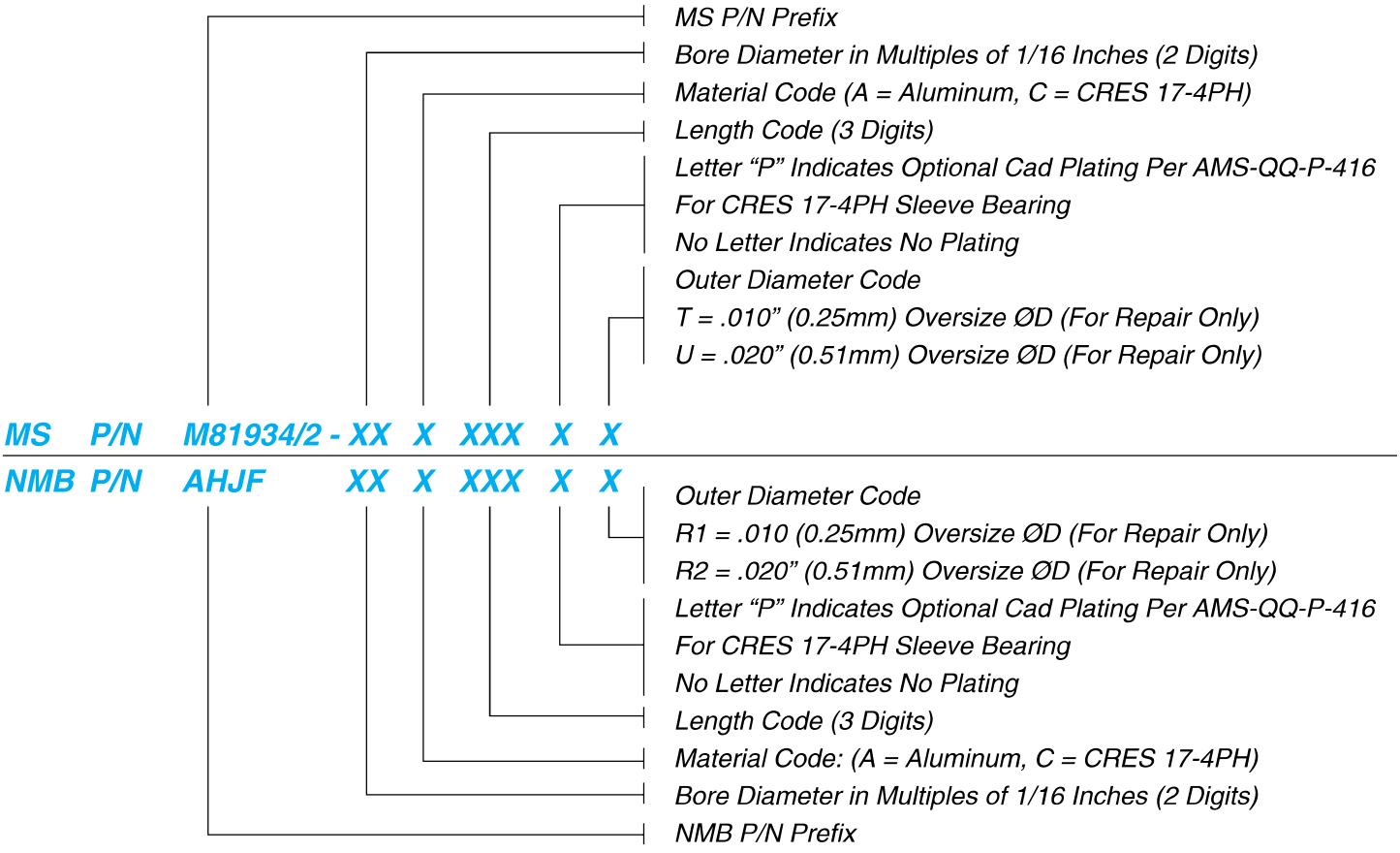
* A trademark of E.I, duPont de Nemours & Co., Inc.



LENGTH (Tolerance + .000,-.010)
(+0.00, -0.25mm)

mm	3.96	4.75	5.54	6.35	7.14	7.92	8.71	9.52	11.10	12.70	14.27	15.88	17.45	19.05	22.22	25.40	28.58	31.75	34.92	38.10	41.28	44.45	47.62	50.80	53.98	57.14	60.32	63.50	69.85	76.20
Bore Code	.156	.187	.218	.250	.281	.312	.343	.375	.437	.500	.562	.625	.687	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.395	2.500	2.750	3.000
04	005	006	007	008	009	010	011	012	014																					
05	005	006	007	008	009	010	011	012	014	016	018																			
06	005	006	007	008	009	010	011	012	014	016	018	020	022																	
07	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028															
08	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028															
09	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	032	036													
10	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044											
11				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
12				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
14				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052									
16				008	009	010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060							
18						010	011	012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060							
20								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068					
22								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068					
24								012	014	016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	
26										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096
28										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096
32										016	018	020	022	024	028	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096


MS P/N Prefix
Bore Diameter in Multiples of 1/16 Inches (2 Digits)
Material Code (A = Aluminum, C = CRES 17-4PH)
Length Code (3 Digits)
Letter "P" Indicates Optional Cad Plating Per AMS-QQ-P-416
For CRES 17-4PH Sleeve Bearing
No Letter Indicates and Passivated for CRES
Outer Diameter Code
T = .010" (0.25mm) Oversize ØD (For Repair Only)
U = .020" (0.51mm) Oversize ØD (For Repair Only)
MS P/N M81934/1 - XX X XXX X X
NMB P/N AHJ XX X XXX X X
Outer Diameter Code
R1 = .010" (0.25mm) Oversize ØD (For Repair Only)
R2 = .020" (0.51mm) Oversize ØD (For Repair Only)
Letter "P" Indicates Optional Cad Plating Per AMS-QQ-P-416
For CRES 17-4PH Sleeve Bearing
No Letter Indicates No Plating
Length Code (3 Digits)
Material Code: (A = Aluminum, C = CRES 17-4PH)
Bore Diameter in Multiples of 1/16 Inches (2 Digits)
NMB P/N Prefix


MS P/N Prefix
Bore Diameter in Multiples of 1/16 Inches (2 Digits)
Material Code (A = Aluminum, C = CRES 17-4PH)
Length Code (3 Digits)
Letter "P" Indicates Optional Cad Plating Per AMS-QQ-P-416
For CRES 17-4PH Sleeve Bearing
No Letter Indicates No Plating
Outer Diameter Code
T = .010" (0.25mm) Oversize ØD (For Repair Only)
U = .020" (0.51mm) Oversize ØD (For Repair Only)
MS P/N M81934/2 - XX X XXX X X
NMB P/N AHJF XX X XXX X X
Outer Diameter Code
R1 = .010 (0.25mm) Oversize ØD (For Repair Only)
R2 = .020" (0.51mm) Oversize ØD (For Repair Only)
Letter "P" Indicates Optional Cad Plating Per AMS-QQ-P-416
For CRES 17-4PH Sleeve Bearing
No Letter Indicates No Plating
Length Code (3 Digits)
Material Code: (A = Aluminum, C = CRES 17-4PH)
Bore Diameter in Multiples of 1/16 Inches (2 Digits)
NMB P/N Prefix

OVERSIZE BEARING DIMENSIONS (OUTSIDE DIMENSION)

M81934/1. M81934/2

DASH No	Nominal Bore Size	1st Oversize (.010) ØD	2nd Oversize (.020) ØD
-04	.2500 (6.350mm)	.3860 (9.804mm)	.3960 (10.058mm)
-05	.3125 (7.938mm)	.4486 (11.394mm)	.4586 (11.648mm)
-06	.3750 (9.525mm)	.5112 (12.984mm)	.5212 (13.238mm)
-07	.4375 (11.112mm)	.5738 (14.575mm)	.5838 (14.829mm)
-08	.5000 (12.700mm)	.6365 (16.167mm)	.6465 (16.421mm)
-09	.5625 (14.288mm)	.6992 (17.760mm)	.7092 (18.014mm)
-10	.6250 (15.875mm)	.8242 (20.935mm)	.8342 (21.189mm)
-11	.6875 (17.462mm)	.8867 (22.522mm)	.8967 (22.776mm)
-12	.7500 (19.050mm)	.9493 (24.112mm)	.9593 (24.366mm)
-14	.8750 (22.225mm)	1.0745 (27.292mm)	1.0845 (27.546mm)
-16	1.0000 (25.400mm)	1.1998 (30.475mm)	1.2098 (30.729mm)
-18	1.1250 (28.575mm)	1.3248 (33.650mm)	1.3348 (33.904mm)
-20	1.2500 (31.750mm)	1.4498 (36.825mm)	1.4598 (37.079mm)
-22	1.3750 (34.925mm)	1.5748 (40.000mm)	1.5848 (40.254mm)
-24	1.5000 (38.100mm)	1.7623 (44.762mm)	1.7723 (45.016mm)
-26	1.6250 (41.275mm)	1.8873 (47.937mm)	1.8973 (48.191mm)
-28	1.7500 (44.450mm)	2.0123 (51.112mm)	2.0223 (51.366mm)
-32	2.0000 (50.800mm)	2.2623 (57.462mm)	2.2723 (57.716mm)

Specification Compliance

Plating, Coating, and Surface Treatment	
Alodine	MIL-C-5541
Anodize (Chromic)	MIL-A-8625 TypeI Class I
Anodize (Sulphuric)	MIL-A-8625 TypeII Class I
Anodize (Hard)	MIL-A-8625 TypeIII Class I
Cadmium	AMS-QQ-P-416 Type I Class 3 (Races)
Cadmium (Supplementary Chromate Treatment)	AMS-QQ-P-416 Type II Class 2 (Bodies)
Cadmium (Vacuum Deposited)	MIL-C-8837
Chromium	AMS-QQ-C-320 Class 2 (.0002" to .0005" thickness)
Chromium	AMS2406
Nickel (Electroless)	MIL-C-26074
Nickel (Electrodeposited)	QQ-N-290
Passivate	AMS 2700
Silver	AMS 2410
Zinc (Chromate Primer)	TT-P-1757 and MIL-P-8585
Heat Treatment	
Steel, Alloy and Stainless	AMS-H-6875 AMS2759
Aluminum	AMS-H-6088
Beryllium Copper	AMS-H-7199
Non-Destructive Testing	
Fluorescent Penetrant	ASTM E1417
Magnetic Particle	ASTM E1444
Ultrasonic	MIL-I-8950
Quality Control	
Quality Program Requirements	MIL-Q-9858
Inspection System Requirements	MIL-I-45208
Calibration System Requirements	MIL-C-45662
Sampling Procedures and Tables for Inspection by Attributes	ANSI/ASQC Z1.4
Machining	
Threads, Rolled or Turned	AS-8879 and MIL-S-7742
Marking and Packaging	
Commercial Packaging	MIL-STD-1188
Military Packaging	MIL-STD-129
Marking	MIL-STD-130
Preservation	MIL-P-116

INCH/METRIC CONVERSION FACTORS

INCH FRACT.	INCH DECIMAL	mm	INCH FRACT.	INCH DECIMAL	mm	INCH FRACT.	INCH DECIMAL	mm	INCH FRACT.	INCH DECIMAL	mm
	.00004	0.001	17/64	.2656	6.747		.6693	17.000		1.3780	35.000
	.0004	0.010		.2756	7.000	43/64	.6719	17.066		1.4173	36.000
	.0010	0.025	9/32	.2812	7.142	11/16	.6875	17.462	1 1/2	1.5000	38.100
	.0020	0.051	19/64	.2969	7.541	45/64	.7031	17.859		1.5354	39.000
	.0030	0.076	5/16	.3125	7.938		.7086	18.000		1.5748	40.000
	.0039	0.100		.3150	8.000	23/32	.7187	18.255		1.6535	42.000
	.0050	0.127	21/64	.3281	8.334	47/64	.7344	18.654	1 3/4	1.7500	44.450
	.0098	0.250	11/32	.3438	8.733		.7480	19.000		1.7717	45.000
	.0100	0.254		.3543	9.000	3/4	.7500	19.050		1.8898	48.000
1/64	.0156	0.396	23/64	.3594	9.129	49/64	.7656	19.445		1.9685	50.000
1/32	.0312	0.793	3/8	.3750	9.525	25/32	.7812	19.842	2	2.000	50.800
	.0394	1.000	25/64	.3906	9.921		.7874	20.000		2.0472	52.000
3/64	.0469	1.191		.3937	10.000	51/64	.7969	20.241		2.1654	55.000
	.0591	1.500	13/32	.4062	10.317	13/16	.8125	20.638		2.2047	56.000
1/16	.0625	1.588	27/64	.4219	10.716		.8268	21.000	2 1/4	2.2500	57.150
5/64	.0781	1.984		.4331	11.000	53/64	.8281	21.034		2.3622	60.000
	.0787	2.000	7/16	.4375	11.112	27/32	.8437	21.430	2 1/2	2.5000	63.500
3/32	.0937	2.380	29/64	.4531	11.509	55/64	.8594	21.829		2.5197	64.000
	.0984	2.500	15/32	.4687	11.905		.8661	22.000	2 3/4	2.7500	69.850
	.1000	2.540		.4724	12.000	7/8	.8750	22.225		2.8346	72.000
7/64	.1094	2.779	31/64	.4844	12.304	57/64	.8906	22.621		2.9528	75.000
	.1181	3.000	1/2	.5000	12.700		.9055	23.000	3	3.0000	76.200
1/8	.1250	3.175		.5118	13.000	29/32	.9062	23.017		3.1496	80.000
	.1378	3.500	33/64	.5156	13.096	59/64	.9219	23.416	3 1/4	3.2500	82.550
9/64	.1406	3.571	17/32	.5312	13.492	15/16	.9375	23.812	3 1/2	3.5000	88.900
5/32	.1562	3.967	35/64	.5469	13.891		.9449	24.000		3.5433	90.000
	.1575	4.000		.5512	14.000	61/64	.9531	24.209	3 3/4	3.7500	95.250
11/64	.1719	4.366	9/16	.5625	14.288	31/32	.9687	24.605		3.9370	100.000
	.1772	4.500	37/64	.5781	14.684		.9843	25.000	4	4.0000	101.600
3/16	.1875	4.762		.5906	15.000	63/64	.9844	25.004	4 1/4	4.2500	107.950
	.1969	5.000	19/32	.5937	15.080	1	1.0000	25.400		4.3307	110.000
13/64	.2031	5.159	39/64	.6094	15.479		1.0630	27.000	4 1/2	4.5000	114.300
7/32	.2188	5.558	5/8	.6250	15.875		1.1024	28.000		4.7244	120.000
15/64	.2344	5.954		.6299	16.000		1.1811	30.000	4 3/4	4.7500	120.650
	.2362	6.000	41/64	.6406	16.271	1 1/4	1.2500	31.750	5.	5.0000	127.000
1/4	.2500	6.350	21/32	.6562	16.667		1.2992	33.000	5 1/2	5.5000	139.700

INCH/METRIC CONVERSION FACTORS

inches	× 25.4	= Millimeters	Pounds	× 0.4536	= Kilograms
Millimeters	× 0.03937	= Inches	Kilograms	× 2.2046	= Pounds
Sq. Inches	× 6.4515	= Sq. Centimeters	Lbs. Per In.^{2}	× 0.689	= N per cm^2
Sq. Centimeters	× 0.155	= Sq. inches	N per cm^2	× 1.45	= Lbs. Per In.^{2}

Pounds (Force) × 4.448 = Newtons
Newtons × 0.2248 = Pounds (Force)
Temperatuer Conversion (Approximate)
Degrees C = (Degrees F-32) (.5556)
Degress F = (Degrees C) (1.8) +32

Inch/Metric conversion on this catalog is in accordance with JIS Z 8401.

NMB PART NUMBERING SYSTEM

This page is presented as an overall guide to the NMB Catalog Part Numbering System.
Where conflict or exceptions appear to occur, use callouts specified on the individual product pages.

SPHERICAL BEARINGS

PART NUMBER EXAMPLE:

ABW 12 V SS GA X -123

( ) ( ) ( ) ( ) ( ) ( )- ( )

- BEARING SERIES PREFIX
- BALL BORE DIA. CODE IN 1/16 INCH INCREMENT
- V DENOTES STAKING GROOVE ON RACE FACES
- MATERIALS
  - SS CRES RACE/52100 BALL, CHROME PLTD.¯
  - CR CRES RACE/440 C BALL
  - CRPL CRES RACE/440 C BALL, CHROME PLTD.¯
  - *-501 ALUM. BR. RACE, CAD. PLTD. 52100 BALL, CHROME PLTD.¯
- LUBE PROVISIONS
  - G LUBE GROOVES & LUBE HOLES IN RACE
  - A LUBE GROOVES & LUBE HOLES IN BALL
  - GA LUBE GROOVES & LUBE HOLES IN BOTH BALL & RACE
- CLEARANCES
  - (NO SUFFIX).002" (0.05mm) RADIAL CLEARANCE MAX.
  - X .0005" (0.01mm) MAX. RADIAL CLEARANCE
  - Y .0008" (0.02mm) MAX. RADIAL CLEARANCE
- DRYFILM
  - -1 DRY FILM ON RACE I.D.
  - -2 DRY FILM ON BALL I.D.
  - -3 DRY FILM ON BALL SPH. DIA.

* When -501 suffix is applied it should follow all other suffixes except dry film. Example: ABW 8VGAX-501-123.
¯ Chrome plate callout as specified on standard 52100 & 440C balls applies to sph. dia. & ends only. Ball bores are plated only upon special request.

ROD END BEARINGS

PART NUMBER EXAMPLE:

ARH L 12 E CR J X FN W - 123

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) - ( )

- ROD END SERIES PREFIX
- L LEFT HAND THREAD (NO SUFFIX) RIGHT HAND THD.
- BALL BORE DIA. CODE IN 1/16 INCH INCREMENTS
- E MALE ROD END (NO SUFFIX) DENOTES FEMALE ROD END
- MATERIALS (SIMILAR TO SPHERICAL CALLOUTS, BUT SEE INDIVIDUAL PRODUCT PAGES FOR EXCEPTIONS TO ABOVE AND FOR ROD END BODY MATERIAL CALLOUTS)
- THREAD FORM
  - J "J" FORM THREAD PER MIL-S-8879
  - (NO SUFFIX) STD. THREAD PER MIL-S-7742
- CLEARANCES (SAME AS SPHERICALS)
- LUBRICATOR
  - F ZERK TYPE LUBE FITTING
  - FN FLUSH TYPE LUBE FITTING
- KEYWAY
  - W KEYWAY PER NAS 559
- DRY FILM (SAME AS SPHERICALS)