



AUROLA BEARING COMPANY

Aircraft Bearings Guidebook



The *Motion - Transfer* Specialists



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Introduction and General Information

In 1971 a new company entered the rod end and spherical bearing marketplace. Founded by a group of bearing professionals with backgrounds in all aspects of the rod end and spherical bearing industry, this new firm, Aurora Bearing Company, soon became a major force in the rod end industry. Aurora’s initial product offerings were geared toward the commercial/industrial marketplace. By the middle of the 1980’s Aurora Bearing’s total quality reputation was recognized by the aircraft airframe industry, and Aurora Bearing Company was solicited by the most prestigious airframe manufacturers to build products for them to their specifications. This prompted a decision to seriously enter the aircraft market, and by 1988 Aurora Bearing Company was soliciting aircraft business on a controlled basis only, in order to insure consistent customer satisfaction. These efforts resulted in a smooth and successful entry into the aircraft marketplace.

Today, Aurora Bearing Company produces standard and special spherical bearings, rod ends and bushings, for aircraft manufacturers, their subcontractors, and approved aerospace distributors. Aurora Bearing services unmanned aircraft, missiles, radars, kit planes, general aviation aircraft, commercial passenger aircraft, business jets, military aircraft, gyrocopters, helicopters and space exploration vehicles.

Aurora offers 6 standard series of Military Specification bearings. Rod End bearings approved for procurement to SAE-AS81935, Spherical Bearings approved to SAE-AS14101 through SAE-AS14104, and bushings approved to SAE-AS81934. All feature Aurora’s exclusive AT-3200 PTFE liner, fully approved to SAE-AS81820. Aurora General Aviation Rod Ends are manufactured under the same quality and SPC systems as the military approved bearings. Many have been approved to individual customer specifications and or standards. Dimensions and Configurations follow established industry conventions. Total traceabilities are maintained through manufacturing up to and including shipping.

In addition to the products in this guidebook, Aurora manufactures an extensive range of Rod End and Spherical Bearings to service markets from commercial economy through high performance motorsports. Information for these products and further technical information can be found in Aurora Commercial catalog 610, or on line at www.aurorabearing.com.

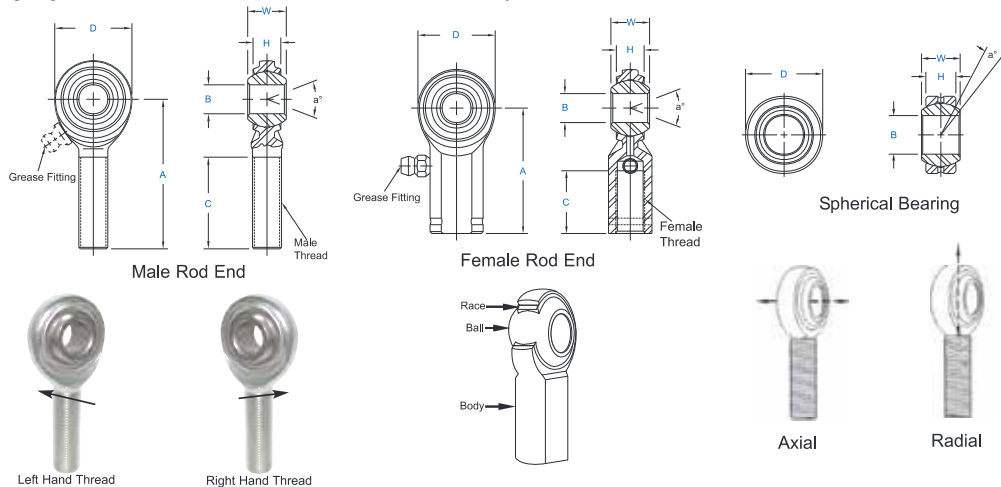


Key Terms Translation Guide



	English	French	German	Italian	Portugese	Spanish
	Aerospace	Aérospatial	Lufffahrt	Aerospaziale	Aeroespacial	Aeroespacial
	Aluminum	Aluminium	Aluminium	Alluminio	Aluminio	Aluminio
	Axial	Axiale	Axial	Assiali	Axial	Axial
	Ball	Bague interieure	Innenringe	Anello Interno	anel intero	Esfera
	Body	Corps	Gehaeuse	Testa	Corpo	cuerpo
A	Base to Center	base pour centrer longueur	Abstand, Unterseite zur Mitte	lunghezza, da base al centro	distância, base ao centro	altura, base a centro
B	Bore	Alesages	Bohrung	foro	Furo	agujero
	Commercial		Kommerziell	uso generico	Comercial	Comercial
	Chrome plate	chromage	verchromt	cromatura	Placa do cromo	cromado
D	Diameter	Diametre	Durchmesser	Diametro	Diametro	Diametro
	Female thread	Filetages Femelle	Innengewinde	Filettatura intera	Rosca Femea	rosca hembra
	Grease Fitting	Graisneur	Schmiernippel	Ingrassatore	lubrificador	lubricador
H	Head or Race Width	largeur de logement	Gehaeusebreite / Lagerschalenbreite	spessore testa / spessore boccola	largura externa do anel	anchura de la pista
	Industrial grade	Industriel	Industrie-Qualitaet	qualità industriale		Industrial
	Keyway	Rainure de Clavette	Keilnute	Scanalatura		cunero
	Left Hand	gauche	Links	sinistra	inversa	Rosca izquierda
	Load capacity	capacite de charges	belastbar	capacità di carico	Capacidade da carga	Capacidad de Carga
	Male thread	Filetages male	Aussengewinde	maschio filettato	Rosca macho	Rosca macho
	Military Specification	Spécifications Militaires	Militär-Vorschrift	Specifica Militare	Especificação Militar	Especificacion Militar
á	Misalignment	angulaires	Kippwinkel	ribaltamento	inclinacao	desalineamiento
	Race	Logement	Lagerschale	boccola / anello esterno	anel externo	Pista
	Radial	Radiale	Radial	Radiali	Radial	Radial
	Right Hand	Normes, Droite	Rechts	a destra	normal	Rosca Derecha
	Radial Static Load Capacity	charge statique	statische Tragzahl	Carico Statico	Capacidades de carga estatica	Carga radial maxima
	Rod end	Embouts	Gelenkkopf, pl. Gelenkkoefpe	Teste a Snodo	Terminais Rotulares	Cabezas de articulación
	Spherical bearing	Rotules	Gelenklager	Snodi Sferici	Rotulas	Rotula Esferica
	Stainless steel	Acier Inoxydable	Rostfrei	Acciaio inox	Aco inox	Acero inoxidable
	Steel	Acier	Stahl	Acciaio	Aco	Acero
	Thread	Filetage	Gewinde	Filettatura	Rosca	Rosca
C	Thread Length	longueur du filetage	Gewindelaenge	lunghezza del filetto	comprimento da rosca	Longitud de Rosca
W	Width of ball	largeur bille	Innenringbreite	spessore anello interno	largura interna do anel	anchura de la esfera

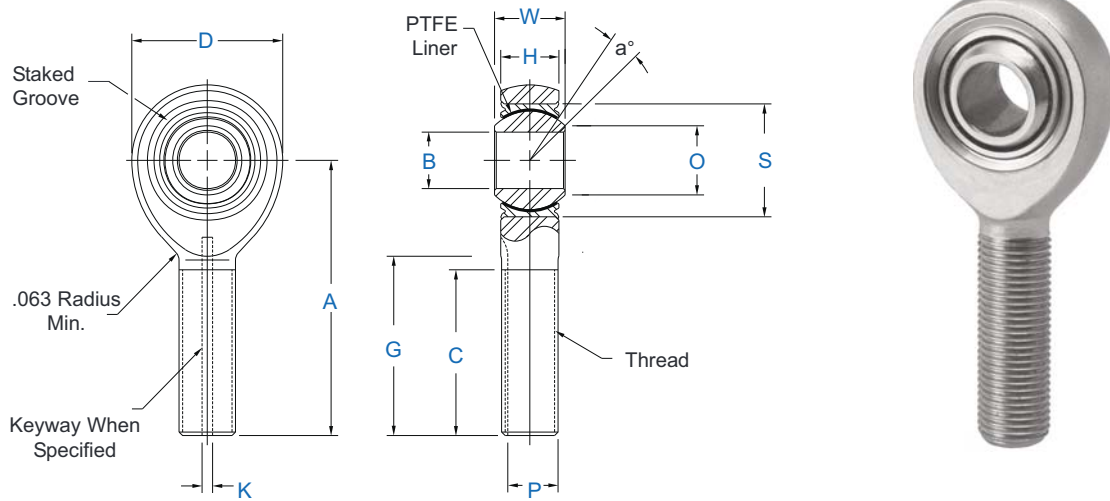
A guide to translate common rod end industry terms from English to noted language. This is a guide only. Consultation with appropriate language references is recommended for best accuracy.



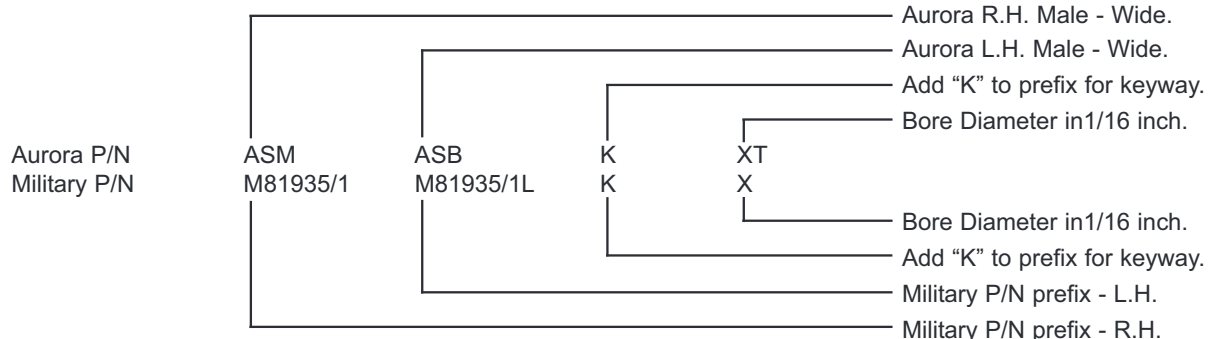


ASM-T & ASB-T MALE ROD ENDS

Aerospace Series AS81935/1 (Right Hand) & AS81935/1 (Left Hand)



MILITARY NO.		AURORA NO.		DIMENSIONS IN INCHES										
Right Hand	Left Hand	Right Hand	Left Hand	B +.0000 -.0005	W +.000 -.002	H ± .005	A ± .010	D ± .010	O Min.	S Max. Housing I.D.	Ball Dia. Ref.	G +.000 -.020	K +.005 -.000	P +.000 -.005
M81935/1-03	M81935/1-03L	ASM-3T	ASB-3T	.1900	.437	.337	1.562	.806	.300	.6250	.531	.980	.062	.268
M81935/1-04	M81935/1-04L	ASM-4T	ASB-4T	.2500	.437	.337	1.562	.806	.300	.6250	.531	.980	.062	.268
M81935/1-05	M81935/1-05L	ASM-5T	ASB-5T	.3125	.437	.327	1.875	.900	.360	.6875	.593	1.270	.062	.268
M81935/1-06	M81935/1-06L	ASM-6T	ASB-6T	.3750	.500	.416	1.938	1.025	.470	.8125	.687	1.235	.093	.319
M81935/1-07	M81935/1-07L	ASM-7T	ASB-7T	.4375	.562	.452	2.125	1.150	.540	.9062	.781	1.402	.093	.383
M81935/1-08	M81935/1-08L	ASM-8T	ASB-8T	.5000	.625	.515	2.438	1.337	.610	1.0000	.875	1.589	.093	.445
M81935/1-10	M81935/1-10L	ASM-10T	ASB-10T	.6250	.750	.577	2.625	1.525	.750	1.1875	1.062	1.683	.125	.541
M81935/1-12	M81935/1-12L	ASM-12T	ASB-12T	.7500	.875	.640	2.875	1.775	.850	1.3750	1.250	1.808	.125	.663
M81935/1-14	M81935/1-14L	ASM-14T	ASB-14T	.8750	.875	.765	3.375	2.025	1.000	1.6250	1.375	2.121	.156	.777
M81935/1-16	M81935/1-16L	ASM-16T	ASB-16T	1.0000	1.375	1.015	4.125	2.775	1.270	2.1250	1.875	2.464	.187	1.136





ASM-T & ASB-T MALE ROD ENDS

Aerospace Series AS81935/1 (Right Hand) & AS81935/1 (Left Hand)

Specifications	
BODY	4340 Alloy Steel (AMS-S-5000) Heat Treated Cadmium Plated
BALL	440C Stainless Steel (AMS 5630) Heat Treated
RACE	17-4 PH Stainless Steel (AMS 5643) Heat Treated
LINER	AT 3200 Bearing Liner, Permanently Bonded to Race I.D. Qualified to SAE-AS81820

C ± .031	Thread UNJF-3A	a° Misalign. Angle Min.	Approx. Brg. Wt. Lbs.	Ult. Static Radial Load Lbs.	Fatigue Load Lbs.	Axial Proof Load Lbs.	No Load Rotational Breakaway Torque* In-Lbs.		AURORA NO.		MILITARY NO.	
							Min.	Max.	Right Hand	Left Hand	Right Hand	Left Hand
.968	5/16-24	15	.072	2,360	1,470	1,000	.5	6	ASM-3T	ASB-3T	M81935/1-03	M81935/1-03L
.968	5/16-24	15	.072	4,860	2,380	1,000	.5	6	ASM-4T	ASB-4T	M81935/1-04	M81935/1-04L
1.187	5/16-24	14	.087	7,180	2,770	1,100	1	15	ASM-5T	ASB-5T	M81935/1-05	M81935/1-05L
1.187	3/8-24	8	.136	8,550	3,570	1,660	1	15	ASM-6T	ASB-6T	M81935/1-06	M81935/1-06L
1.281	7/16-20	10	.183	12,000	4,800	1,850	1	15	ASM-7T	ASB-7T	M81935/1-07	M81935/1-07L
1.468	1/2-20	9	.278	19,500	7,680	2,040	1	15	ASM-8T	ASB-8T	M81935/1-08	M81935/1-08L
1.562	5/8-18	12	.424	21,900	9,180	2,430	1	15	ASM-10T	ASB-10T	M81935/1-10	M81935/1-10L
1.687	3/4-16	13	.639	29,300	11,600	2,810	1	15	ASM-12T	ASB-12T	M81935/1-12	M81935/1-12L
2.000	7/8-14	6	.963	34,500	13,100	3,320	1	24	ASM-14T	ASB-14T	M81935/1-14	M81935/1-14L
2.343	1 1/4-12	12	2.546	80,300	30,400	4,340	1	24	ASM-16T	ASB-16T	M81935/1-16	M81935/1-16L

Temperature Range: -65°F - +325°F (-54°C - +163°C)

*No load rotational breakaway torque can be varied to meet specific application requirements.

Add letter "K" to prefix to designate keyway, Ex.: ASMK-6T

As applicable, keyway will conform to SAE-AS81935/1 or NAS 559.

All threads are rolled after heat treatment, and conform to UNJF-3A per AS 8879.

AT 3200 Bearing Liner System is qualified for procurement under SAE-AS81820.

Rod End Bearings listed are manufactured to conform to the dimensions, materials, and configurations of SAE-AS81935/1, and are approved for procurement under this specification.

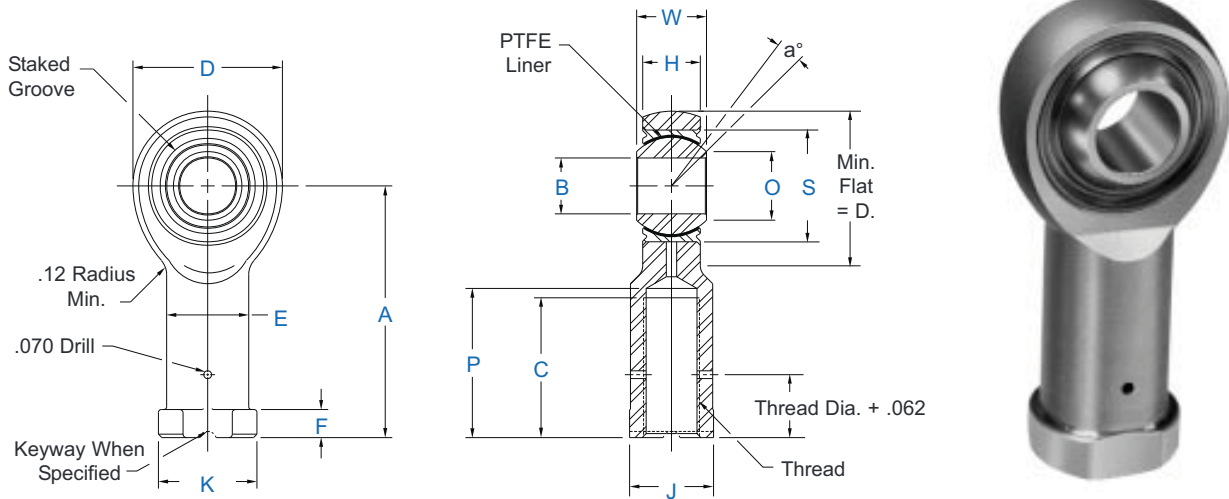
Stainless Steel bodies (not approved to military specs) as well as other non-standard material, dimensional or configuration specifications can be provided. Consult factory for additional information.

The Rod End Bearings listed are available (not approved to military specs) in non PTFE lined, metal on metal configuration, as well as with alternate Aurora Bearing PTFE liner systems. Consult factory.

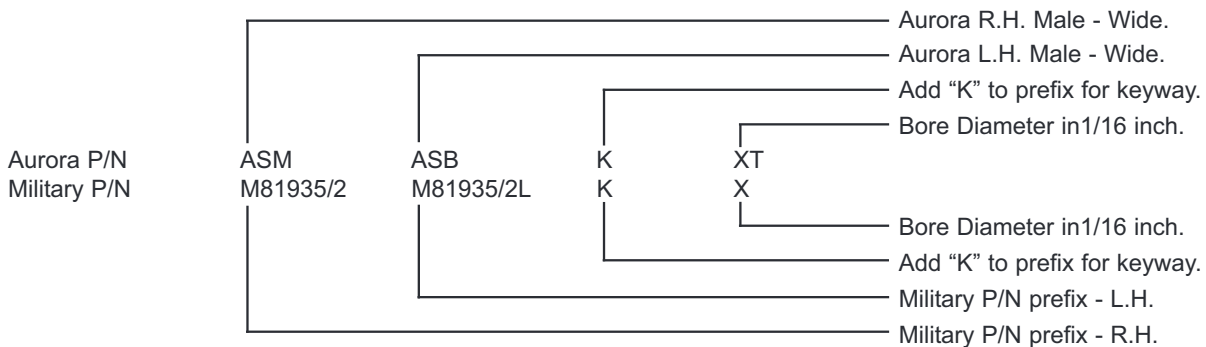


ASW-T & ASG-T FEMALE ROD ENDS

Aerospace Series AS81935/2 (Right Hand) & AS81935/2 (Left Hand)



MILITARY NO.		AURORA NO.		DIMENSIONS IN INCHES											
Right Hand	Left Hand	Right Hand	Left Hand	B +.0000 -.0005	W +.000 -.002	H ± .005	A ± .010	D ± .010	O Min.	S Max. Housing I.D.	E ± .010	K Ref. Dia.	J +.002 -.010	F +.010 -.062	Ball Dia. Ref.
M81935/2-03	M81935/2-03L	ASW-3T	ASG-3T	.1900	.437	.337	1.375	.806	.300	.6250	.422	.500	.437	.188	.531
M81935/2-04	M81935/2-04L	ASW-4T	ASG-4T	.2500	.437	.337	1.469	.806	.300	.6250	.422	.500	.437	.188	.531
M81935/2-05	M81935/2-05L	ASW-5T	ASG-5T	.3125	.437	.327	1.625	.900	.360	.6875	.485	.580	.500	.250	.593
M81935/2-06	M81935/2-06L	ASW-6T	ASG-6T	.3750	.500	.416	1.812	1.025	.470	.8125	.547	.660	.562	.250	.687
M81935/2-07	M81935/2-07L	ASW-7T	ASG-7T	.4375	.562	.452	2.000	1.150	.540	.9062	.610	.720	.625	.250	.781
M81935/2-08	M81935/2-08L	ASW-8T	ASG-8T	.5000	.625	.515	2.250	1.337	.610	1.0000	.735	.880	.750	.250	.875
M81935/2-10	M81935/2-10L	ASW-10T	ASG-10T	.6250	.750	.577	2.500	1.525	.750	1.1875	.860	1.020	.875	.375	1.062
M81935/2-12	M81935/2-12L	ASW-12T	ASG-12T	.7500	.875	.640	2.875	1.775	.850	1.3750	.985	1.160	1.000	.375	1.250
M81935/2-14	M81935/2-14L	ASW-14T	ASG-14T	.8750	.875	.765	3.375	2.025	1.000	1.6250	1.110	1.300	1.125	.500	1.375
M81935/2-16	M81935/2-16L	ASW-16T	ASG-16T	1.0000	1.375	1.015	4.125	2.775	1.270	2.1250	1.688	2.020	1.750	.563	1.875





ASW-T & ASG-T FEMALE ROD ENDS

Aerospace Series AS81935/2 (Right Hand) & AS81935/2 (Left Hand)

Specifications	
BODY	4340 Alloy Steel (AMS-S-5000) Heat Treated Cadmium Plated
BALL	440C Stainless Steel (AMS 5630) Heat Treated
RACE	17-4 PH Stainless Steel (AMS 5643) Heat Treated
LINER	AT 3200 Bearing Liner, Permanently Bonded to Race I.D. Qualified to SAE-AS81820

P Max.	C Min.	Thread UNJF-3B	a° Misalign. Angle Min.	Approx. Brg. Wt. Lbs.	Ult. Static Radial Load Lbs.	Fatigue Load Lbs.	Axial Proof Load Lbs.	No Load Rotational Breakaway Torque* In-Lbs.		AURORA NO.		MILITARY NO.	
								Min.	Max.	Right Hand	Left Hand	Right Hand	Left Hand
.875	.750	5/16-24	15	.080	2,360	1,470	1,000	.5	6	ASW-3T	ASG-3T	M81935/2-03	M81935/2-03L
.875	.750	5/16-24	15	.084	4,860	2,380	1,000	.5	6	ASW-4T	ASG-4T	M81935/2-04	M81935/2-04L
1.000	.875	3/8-24	14	.102	7,180	3,020	1,100	1	15	ASW-5T	ASG-5T	M81935/2-05	M81935/2-05L
1.125	1.000	3/8-24	8	.161	8,550	3,570	1,660	1	15	ASW-6T	ASG-6T	M81935/2-06	M81935/2-06L
1.250	1.125	7/16-20	10	.212	12,000	4,800	1,850	1	15	ASW-7T	ASG-7T	M81935/2-07	M81935/2-07L
1.375	1.250	1/2-20	9	.325	19,500	8,260	2,040	1	15	ASW-8T	ASG-8T	M81935/2-08	M81935/2-08L
1.500	1.375	5/8-18	12	.481	21,900	9,180	2,430	1	15	ASW-10T	ASG-10T	M81935/2-10	M81935/2-10L
1.750	1.625	3/4-16	13	.673	29,300	11,600	2,810	1	15	ASW-12T	ASG-12T	M81935/2-12	M81935/2-12L
2.062	1.875	7/8-14	6	.959	34,500	13,100	3,320	1	24	ASW-14T	ASG-14T	M81935/2-14	M81935/2-14L
2.312	2.125	1 1/4-12	12	2.717	80,300	30,400	4,340	1	24	ASW-16T	ASG-16T	M81935/2-16	M81935/2-16L

Temperature Range: -65°F - +325°F (-54°C - +163°C)

*No load rotational breakaway torque can be varied to meet specific application requirements.

Add letter "K" to prefix to designate keyway, Ex.: ASWK-6T

As applicable, keyway will conform to SAE-AS81935/3 or NAS 559.

All threads are rolled after heat treatment, and conform to UNJF-3A per AS 8879.

AT 3200 Bearing Liner System is qualified for procurement under SAE-AS81820.

Rod End Bearings listed are manufactured to conform to the dimensions, materials, and configurations of SAE-AS81935/2, and are approved for procurement under this specification.

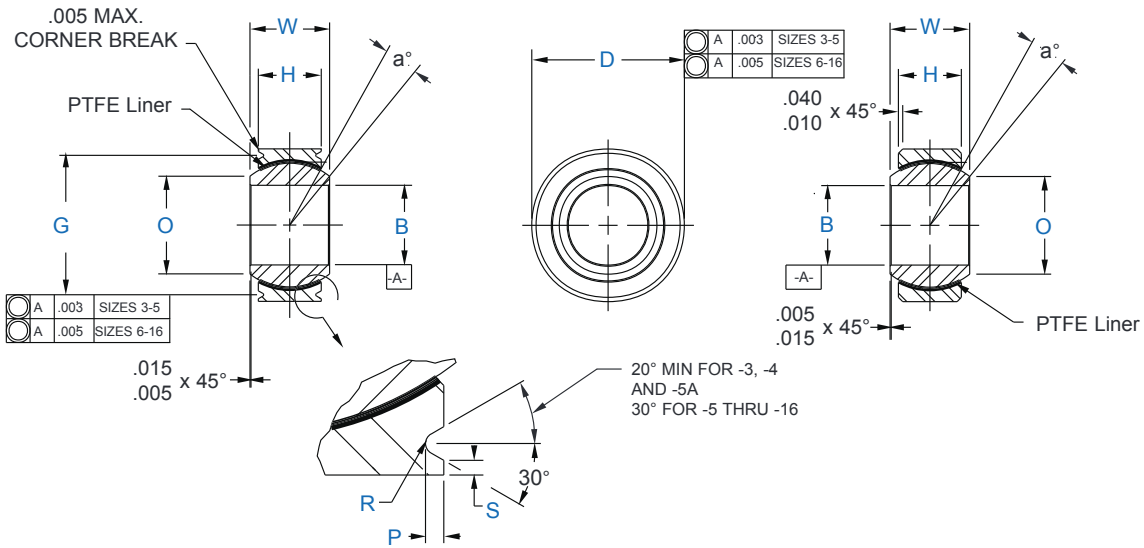
Stainless Steel bodies (not approved to military specs) as well as other non-standard material, dimensional or configuration specifications can be provided. Consult factory for additional information.

The Rod End Bearings listed are available (not approved to military specs) in non PTFE lined, metal on metal configuration, as well as with alternate Aurora Bearing PTFE liner systems. Consult factory.

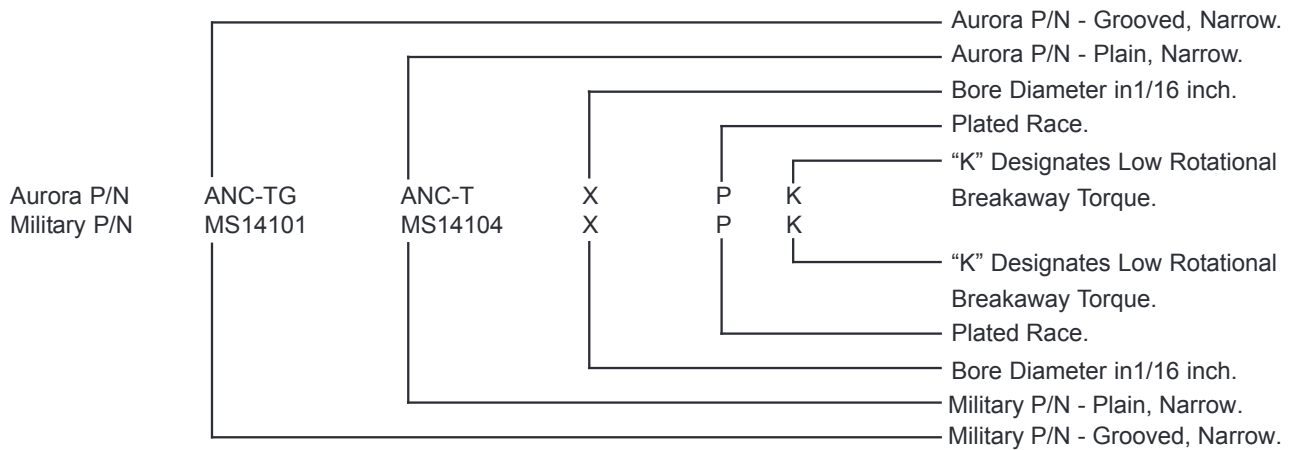


ANC-TG & ANC-T SPHERICAL BEARINGS

Narrow - Aerospace Series AS14101 (Grooved) & AS14104 (Plain)



MILITARY NO.		AURORA NO.		DIMENSIONS IN INCHES										
GROOVED	PLAIN	GROOVED	PLAIN	B + .0000 - .0005	D + .0000 - .0005	W + .000 - .002	H ±.005	O Min.	P + .000 - .010	S Min.	G + .000 - .008	R _± + .002 - .005	Ball Dia. Ref.	a°
MS14101-3	MS14104-3	ANC-3TG	ANC-3T	.1900	.5625	.281	.218	.293	.025	.010	.500	.010	.406	10
MS14101-4	MS14104-4	ANC-4TG	ANC-4T	.2500	.6562	.343	.250	.364	.025	.010	.594	.010	.500	10
MS14101-5†	MS14104-5	ANC-5TG†	ANC-5T	.3125	.7500	.375	.281	.419	.035	.020	.650	.010	.562	10
MS14101-6	MS14104-6	ANC-6TG	ANC-6T	.3750	.8125	.406	.312	.475	.035	.020	.712	.015	.625	9
MS14101-7	MS14104-7	ANC-7TG	ANC-7T	.4375	.9062	.437	.343	.530	.035	.020	.806	.015	.687	8
MS14101-8	MS14104-8	ANC-8TG	ANC-8T	.5000	1.0000	.500	.390	.600	.055	.020	.876	.015	.781	8
MS14101-9	MS14104-9	ANC-9TG	ANC-9T	.5625	1.0937	.562	.437	.670	.055	.020	.970	.015	.875	8
MS14101-10	MS14104-10	ANC-10TG	ANC-10T	.6250	1.1875	.625	.500	.739	.055	.020	1.063	.015	.968	8
MS14101-12	MS14104-12	ANC-12TG	ANC-12T	.7500	1.4375	.750	.593	.920	.055	.020	1.313	.015	1.187	8
MS14101-14	MS14104-14	ANC-14TG	ANC-14T	.8750	1.5625	.875	.703	.980	.055	.020	1.438	.015	1.312	8
MS14101-16	MS14104-16	ANC-16TG	ANC-16T	1.0000	1.7500	1.000	.797	1.118	.055	.020	1.626	.015	1.500	9



Absence of letter "P" indicates no plating on race. "E" designates Zinc-Nickel, "P" designates Zinc-Nickel or Cadmium.

Parts are available and approved to additional material specification options.
Consult factory for details



ANC-TG & ANC-T SPHERICAL BEARINGS

Narrow - Aerospace Series AS14101 (Grooved) & AS14104 (Plain)

Specifications	
BALL	440C Stainless Steel (AMS 5630) Heat Treated
RACE	17-4 PH Stainless Steel (AMS 5643) Heat Treated
LINER	AT 3200 Bearing Liner, Permanently Bonded to Race I.D. Qualified to SAE-AS81820



**GROOVED
SERIES**



**PLAIN
SERIES**

Bearing Fits												
Radial Lbs.	Axial Lbs.	Oscil- lating Load Lbs.	Standard Fit		"K" Fit		Approx. Brg. Wt. Lbs.	AURORA NO.		MILITARY NO.		
			No Load Rotational Breakaway Torque Max. In-Lbs.	No Load Rotational Breakaway Torque Max. In-Lbs.	Radial Clearance Max.	Axial Clearance Max.		GROOVED	PLAIN	GROOVED	PLAIN	
												.025 - 5.0
3,975	150	1,500	.025 - 5.0	0.5	.0007	.0028	.020	ANC-3TG	ANC-3T	MS14101-3	MS14104-3	
6,040	430	3,320	.025 - 5.0	0.5	.0007	.0028	.020	ANC-4TG	ANC-4T	MS14101-4	MS14104-4	
8,750	700	5,460	.025 - 8.0	1.0	.0007	.0028	.030	ANC-5TG†	ANC-5T	MS14101-5†	MS14104-5	
10,540	1,100	6,600	.025 - 8.0	1.0	.0007	.0028	.040	ANC-6TG	ANC-6T	MS14101-6	MS14104-6	
13,200	1,400	8,050	.025 - 8.0	1.0	.0007	.0028	.050	ANC-7TG	ANC-7T	MS14101-7	MS14104-7	
17,900	2,100	10,400	.025 - 8.0	1.0	.0007	.0028	.070	ANC-8TG	ANC-8T	MS14101-8	MS14104-8	
23,200	3,680	13,000	.025 - 8.0	1.0	.0007	.0028	.090	ANC-9TG	ANC-9T	MS14101-9	MS14104-9	
30,500	4,720	16,450	.025 - 8.0	1.0	.0007	.0028	.120	ANC-10TG	ANC-10T	MS14101-10	MS14104-10	
46,400	6,750	23,600	.025 - 8.0	1.0	.0007	.0028	.210	ANC-12TG	ANC-12T	MS14101-12	MS14104-12	
62,200	9,350	30,250	.025 - 12.0	2.0	.0010	.0040	.270	ANC-14TG	ANC-14T	MS14101-14	MS14104-14	
82,200	12,160	38,000	.025 - 12.0	2.0	.0010	.0040	.390	ANC-16TG	ANC-16T	MS14101-16	MS14104-16	

Temperature Range: -65°F - +325°F (-54°C - +163°C)

No load rotational breakaway torque can be varied to meet specific application requirements.

Standard fit bearings are void of any "radial" or "axial" clearance

AT 3200 Bearing Liner System is qualified for procurement under SAE-AS81820.

Spherical Bearings listed are manufactured to conform to the dimensions, materials, and configurations of SAE-AS14101 (Grooved) and SAE-AS14104 (Plain), and are approved for procurement under this specification.

Parts (not approved to military specs) in non-standard material, dimensional or configuration specifications can be provided. Consult factory for additional information.

The Spherical Bearings listed are available (not approved to military specs) in non PTFE lined, metal on metal configuration, as well as with alternate Aurora Bearing PTFE liner systems. Consult factory.

† 5TGA is available, identical to -5TG, with "G" = .660

‡ Sizes -3, -4, -5, -5A, "R" +005, -.010

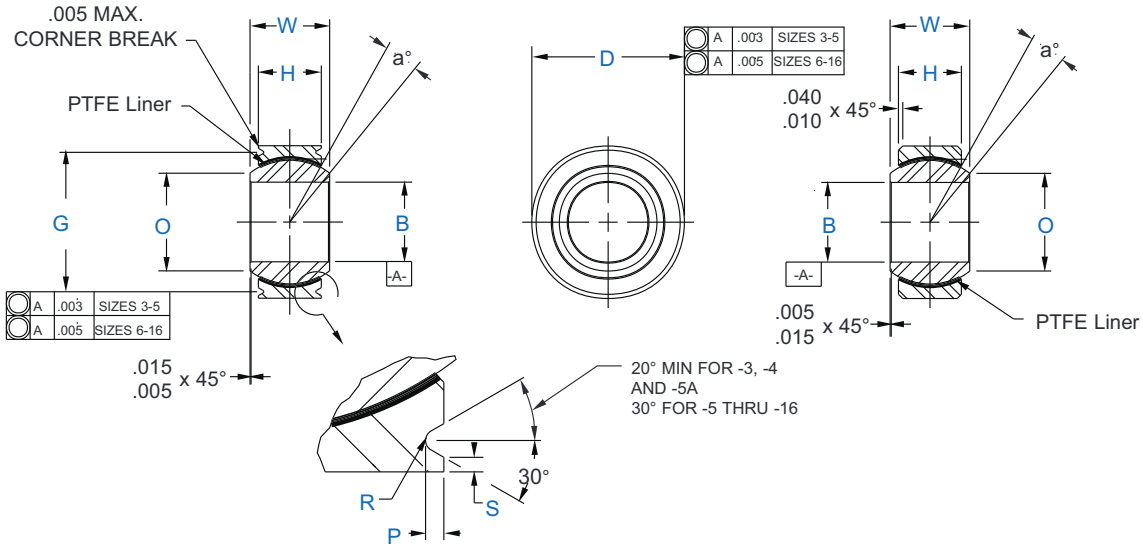
Oversize Outside Diameter (dimension "D") parts per Military spec. suffix "T" (+.010") and suffix "U" (+.020") are available. Add suffix "D1" to specify .010" oversize, "D2" to specify .020" oversize. Ex.: ANC-6TGD1 (AS14101-6T) or ANC-9TD2 (AS14104-9U).

Consult factory for full specifications. Weight calculations listed are valid for standard Outside Diameter parts only.

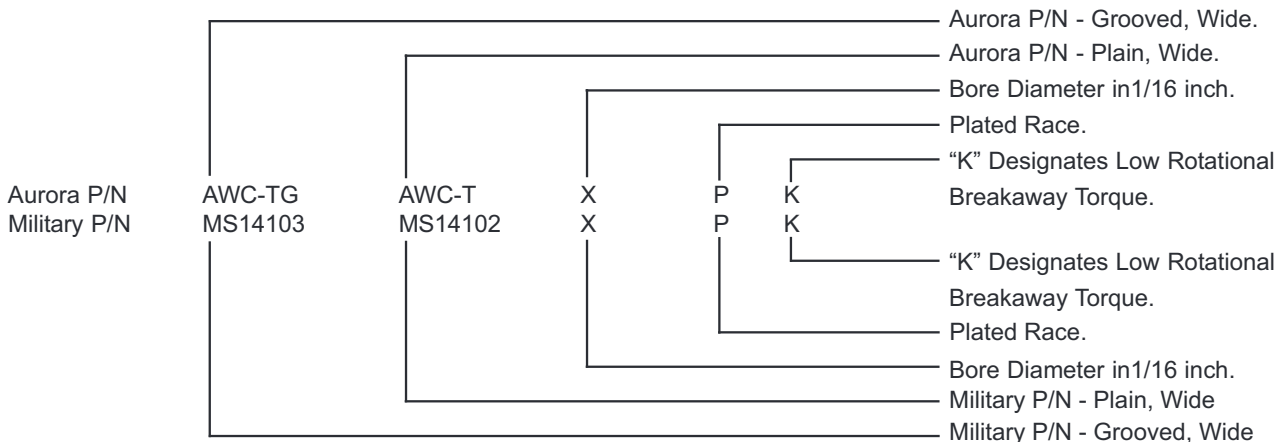


AWC-T & AWC-TG SPHERICAL BEARINGS

Wide - Aerospace Series AS14102 (Plain) & AS14103 (Grooved)



MILITARY NO.		AURORA NO.		DIMENSIONS IN INCHES										
GROOVED	PLAIN	GROOVED	PLAIN	B +.0000 -.0005	D +.0000 -.0005	W +.000 -.002	H ±.005	O Min.	P +.000 -.010	S Min.	G +.000 -.008	R ± +.002 -.005	Ball Dia. Ref.	a°
MS14103-3	MS14102-3	AWC-3TG	AWC-3T	.1900	.6250	.437	.327	.300	.025	.010	.563	.010	.531	15
MS14103-4	MS14102-4	AWC-4TG	AWC-4T	.2500	.6250	.437	.327	.300	.025	.010	.563	.010	.531	15
MS14103-5	MS14102-5	AWC-5TG	AWC-5T	.3125	.6875	.437	.317	.360	.025	.010	.625	.010	.593	14
MS14103-6	MS14102-6	AWC-6TG	AWC-6T	.3750	.8125	.500	.406	.466	.035	.020	.712	.015	.687	8
MS14103-7†	MS14102-7	AWC-7TG†	AWC-7T	.4375	.9375	.562	.442	.537	.035	.020	.837	.015	.781	10
MS14103-8	MS14102-8	AWC-8TG	AWC-8T	.5000	1.0000	.625	.505	.607	.035	.020	.900	.015	.875	9
MS14103-9	MS14102-9	AWC-9TG	AWC-9T	.5625	1.1250	.687	.536	.721	.035	.020	1.025	.015	1.000	10
MS14103-10	MS14102-10	AWC-10TG	AWC-10T	.6250	1.1875	.750	.567	.747	.035	.020	1.087	.015	1.062	12
MS14103-12	MS14102-12	AWC-12TG	AWC-12T	.7500	1.3750	.875	.630	.845	.055	.020	1.251	.015	1.250	13
MS14103-14	MS14102-14	AWC-14TG	AWC-14T	.8750	1.6250	.875	.755	.995	.055	.020	1.501	.015	1.375	6
MS14103-16	MS14102-16	AWC-16TG	AWC-16T	1.0000	2.1250	1.375	1.005	1.269	.055	.020	2.001	.015	1.875	12



Absence of letter "P" indicates no plating on race. "E" designates Zinc-Nickel, "P" designates Zinc-Nickel or Cadmium.

Parts are available and approved to additional material specification options.
 Consult factory for details



AWC-T & AWC-TG SPHERICAL BEARINGS

Wide - Aerospace Series AS14102 (Plain) & AS14103 (Grooved)

Specifications	
BALL	440C Stainless Steel (AMS 5630) Heat Treated
RACE	17-4 PH Stainless Steel (AMS 5643) Heat Treated
LINER	AT 3200 Bearing Liner, Permanently Bonded to Race I.D. Qualified to SAE-AS81820



**GROOVED
SERIES**



**PLAIN
SERIES**

Bearing Fits											
Radial Lbs.	Axial Lbs.	Oscil- lating Load Lbs.	Standard Fit		"K" Fit		Approx. Brg. Wt. Lbs.	AURORA NO.		MILITARY NO.	
			No Load Rotational Breakaway Torque Max. In-Lbs.	No Load Rotational Breakaway Torque Max. In-Lbs.	Radial Clearance Max.	Axial Clearance Max.		GROOVED	PLAIN	GROOVED	PLAIN
2,500	1,770	4,900	0.25 - 5.0	0.5	.0007	.0021	.031	AWC-3TG	AWC-3T	MS14103-3	MS14102-3
5,500	1,770	4,900	0.25 - 5.0	0.5	.0007	.0021	.031	AWC-4TG	AWC-4T	MS14103-4	MS14102-4
9,400	1,640	6,050	0.25 - 8.0	1.0	.0007	.0021	.035	AWC-5TG	AWC-5T	MS14103-5	MS14102-5
13,700	2,630	8,310	0.25 - 8.0	1.0	.0007	.0021	.060	AWC-6TG	AWC-6T	MS14103-6	MS14102-6
20,700	3,650	11,750	0.25 - 8.0	1.0	.0007	.0021	.080	AWC-7TG†	AWC-7T	MS14103-7†	MS14102-7
21,400	4,970	14,950	0.25 - 8.0	1.0	.0007	.0021	.100	AWC-8TG	AWC-8T	MS14103-8	MS14102-8
26,600	5,370	18,100	0.25 - 8.0	1.0	.0007	.0021	.135	AWC-9TG	AWC-9T	MS14103-9	MS14102-9
29,000	6,130	20,250	0.25 - 8.0	1.0	.0007	.0021	.160	AWC-10TG	AWC-10T	MS14103-10	MS14102-10
37,000	7,730	26,200	0.25 - 8.0	1.0	.0007	.0021	.240	AWC-12TG	AWC-12T	MS14103-12	MS14102-12
65,200	10,800	33,600	0.25 - 12.0	2.0	.0010	.0030	.350	AWC-14TG	AWC-14T	MS14103-14	MS14102-14
104,000	19,300	56,250	0.25 - 12.0	2.0	.0010	.0030	.970	AWC-16TG	AWC-16T	MS14103-16	MS14102-16

Temperature Range: -65°F - +325°F (-54°C - +163°C)

No load rotational breakaway torque can be varied to meet specific application requirements.

Standard fit bearings are void of any "radial" or "axial" clearance

AT 3200 Bearing Liner System is qualified for procurement under SAE-AS81820.

Spherical Bearings listed are manufactured to conform to the dimensions, materials, and configurations of SAE-AS14102 (Plain) and SAE-AS14103 (Grooved), and are approved for procurement under this specification.

Parts (not approved to military specs) in non-standard material, dimensional or configuration specifications can be provided. Consult factory for additional information.

The Spherical Bearings listed are available (not approved to military specs) in non PTFE lined, metal on metal configuration, as well as with alternate Aurora Bearing PTFE liner systems. Consult factory.

† 7TGA is available, identical to -7TG, with "D" = .9062" "G" = .808"

‡ Sizes -3, -4, -5, "R" +.005, -.010

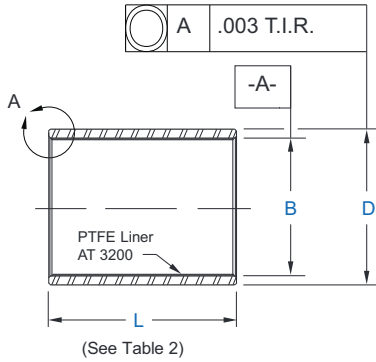
Oversize Outside Diameter (dimension "D") parts per Military spec. suffix "T" (+.010") and suffix "U" (+.020") are available. Add suffix "D1" to specify .010" oversize, "D2" to specify .020" oversize. Ex.: AWC-6TD1 (AS14102-6T) or AWC-9TGD2 (AS14103-9U).

Consult factory for full specifications. Weight calculations listed are valid for standard Outside Diameter parts only.



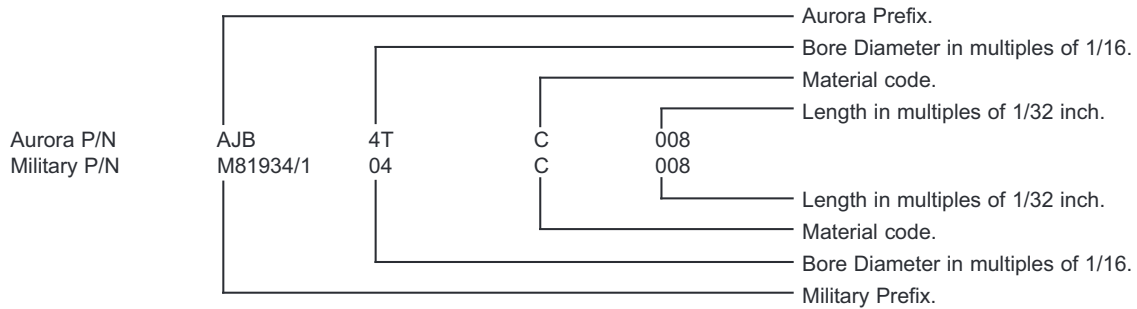
AJB-TA / -TC Straight Journal Bushings

SAE-AS81934/1



Specifications	
"A"	Aluminum Alloy QQ-A-200/3 or QQ-A-225/6 (2024T851 or 2024T8511), Chemical Film Treatment per MIL-C-5541
"C"	Corrosion Resistant Steel, AMS 5643 (17-4 PH) Condition H-1150 per MIL-H-6875, Passivated per QQ-P-35 (Cad, or Zinc-Nickel plate optional).
"T"	AT 3200 Bearing Liner System, Permanently Bonded to Bushing I.D. Qualified to SAE-AS81820

BUSHING NO.		DIMENSIONS IN INCHES			Weight* Lbs./Inch (Ref) L-1.00	
Aluminum	Stainless Steel	B +.0000 -.0010	D ± .0005	D +.0000 -.0005	Weight*	
					Alum.	CRES
AJB-4TA	AJB-4TC	.2515	.3760	.006	.016	
AJB-5TA	AJB-5TC	.3140	.4386	.007	.019	
AJB-6TA	AJB-6TC	.3765	.5012	.008	.022	
AJB-7TA	AJB-7TC	.4390	.5638	.009	.025	
AJB-8TA	AJB-8TC	.5015	.6265	.011	.028	
AJB-9TA	AJB-9TC	.5640	.6892	.012	.031	
AJB-10TA	AJB-10TC	.6265	.8142	.021	.056	
AJB-11TA	AJB-11TC	.6890	.8767	.022	.060	
AJB-12TA	AJB-12TC	.7515	.9393	.024	.065	
AJB-14TA	AJB-14TC	.8765	1.0645	.028	.075	
AJB-16TA	AJB-16TC	1.0015	1.1898	.031	.084	
AJB-18TA	AJB-18TC	1.1265	1.3148	.035	.094	
AJB-20TA	AJB-20TC	1.2515	1.4398	.038	.103	
AJB-22TA	AJB-22TC	1.3765	1.5648	.041	.113	
AJB-24TA	AJB-24TC	1.5015	1.7523	.062	.171	
AJB-26TA	AJB-26TC	1.6265	1.8773	.067	.183	
AJB-28TA	AJB-28TC	1.7515	2.0023	.071	.193	
AJB-32TA	AJB-32TC	2.0015	2.2523	.081	.222	

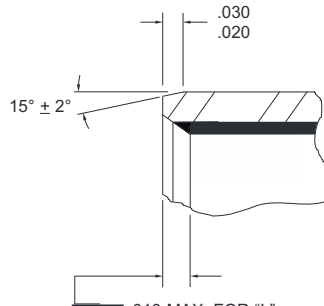


Example of weight calculation: AJB-16TA-008: (0.31 lb/in) x .250 = .078 lbs.



AJB-TA / -TC Straight Journal Bushings

SAE-AS81934/1



DETAIL A
 .010 MAX. FOR "L"
 .375 OR LESS
 .025 MAX FOR ALL
 OTHER LENGTHS.

TABLE 2A

DASH NO.	NOMINAL SIZE	Length L ^{+0.000} / _{-0.10}															
		.156	.187	.218	.250	.281	.312	.343	.375	.437	.500	.562	.625	.687	.750	.875	
-04	1/4	005	006	007	008	009	010	011	012	014							
-05	5/16	005	006	007	008	009	010	011	012	014	016	018					
-06	3/8	005	006	007	008	009	010	011	012	014	016	018	020	022			
-07	7/16	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	
-08	1/2	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	
-09	9/16	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	
-10	5/8	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028	
-11	11/16				008	009	010	011	012	014	016	018	020	022	024	028	
-12	3/4				008	009	010	011	012	014	016	018	020	022	024	028	
-14	7/8				008	009	010	011	012	014	016	018	020	022	024	028	
-16	1				008	009	010	011	012	014	016	018	020	022	024	028	
-18	1 1/8						010	011	012	014	016	018	020	022	024	028	
-20	1 1/4								012	014	016	018	020	022	024	028	
-22	1 3/8								012	014	016	018	020	022	024	028	
-24	1 1/2								012	014	016	018	020	022	024	028	
-26	1 5/8										016	018	020	022	024	028	
-28	1 3/4										016	018	020	022	024	028	
-32	2										016	018	020	022	024	028	

TABLE 2B

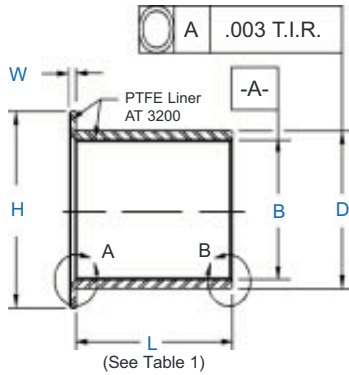
DASH NO.	NOMINAL SIZE	Length L ^{+0.000} / _{-0.10}															
		1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	2.750	3.000	
-04	1/4																
-05	5/16																
-06	3/8																
-07	7/16																
-08	1/2																
-09	9/16	032	036														
-10	5/8	032	036	040	044												
-11	11/16	032	036	040	044	048	052										
-12	3/4	032	036	040	044	048	052										
-14	7/8	032	036	040	044	048	052										
-16	1	032	036	040	044	048	052	056	060								
-18	1 1/8	032	036	040	044	048	052	056	060								
-20	1 1/4	032	036	040	044	048	052	056	060	064	068						
-22	1 3/8	032	036	040	044	048	052	056	060	064	068						
-24	1 1/2	032	036	040	044	048	052	056	060	064	068	072	076	080	088		
-26	1 5/8	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	
-28	1 3/4	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	
-32	2	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	

Stainless Steel parts (suffix "C") are available Cadmium plated (Suffix "P") or Zinc – Nickel plated (Suffix "E").
 Ex.: AJB-4TC-008P or AJB-4TC-008E. Consult factory for full specifications.
 Oversize Outside Diameter (dimension "D") parts per Military spec. suffix "T" (+.010") and suffix "U" (+.020") are available.
 Add suffix "D1" to specify .010" oversize, "D2" to specify .020" oversize. Ex.: AJB-4TC-008D1 or AJB-4TC-008D2.
 Consult factory for full specifications. Weight calculations listed are valid for standard Outside Diameter parts only.



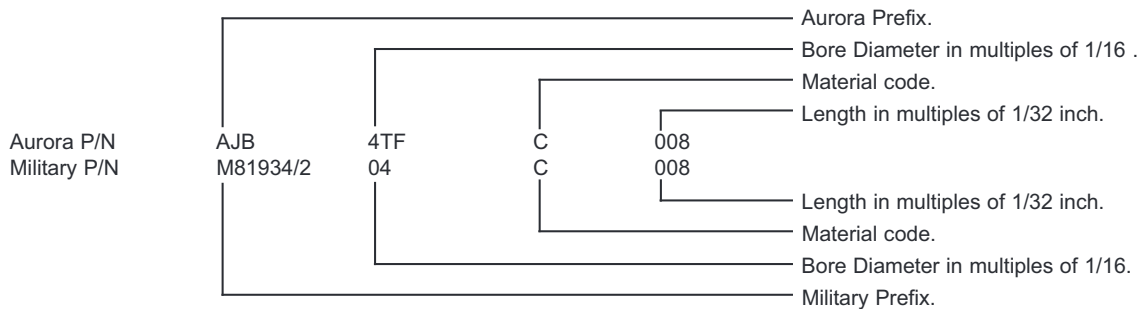
AJB-TFA / -TFC Flanged Journal Bushings

SAE-AS81934/2



Specifications	
"A"	Aluminum Alloy QQ-A-200/3 or QQ-A-225/6 (2024T851 or 2024T8511), Chemical Film Treatment per MIL-C-5541
"C"	Corrosion Resistant Steel, AMS 5643 (17-4 PH) Condition H-1150 per MIL-H-6875, Passivated per QQ-P-35 (Cad, or Zinc-Nickel plate optional).
"T"	AT 3200 Bearing Liner System, Permanently Bonded to Bushing I.D. Qualified to SAE-AS81820

BUSHING NO.		DIMENSIONS IN INCHES					Weight*		Flange Weight Lbs. (Ref)	
Aluminum	Stainless Steel	B +.0000 -.0010	D ± .0005	D +.0000 -.0005	H + .000 - .020	W + .000 - .005	Lbs./Inch (Ref) L-1.00		Alum. CRES	
							Alum.	CRES	Alum.	CRES
AJB-4TFA	AJB-4TFC	.2515	.3760	.750	.0625	.006	.016	.002	.006	
AJB-5TFA	AJB-5TFC	.3140	.4386	.812	.0625	.007	.019	.003	.007	
AJB-6TFA	AJB-6TFC	.3765	.5012	.875	.0625	.008	.022	.003	.007	
AJB-7TFA	AJB-7TFC	.4390	.5638	.937	.0625	.009	.025	.003	.008	
AJB-7TFA-1	AJB-7TFC-1	.4390	.5638	.745	.0625	.009	.025	.003	.008	
AJB-8TFA	AJB-8TFC	.5015	.6265	1.000	.0625	.011	.028	.003	.009	
AJB-9TFA	AJB-9TFC	.5640	.6892	1.125	.0625	.012	.031	.004	.011	
AJB-10TFA	AJB-10TFC	.6265	.8142	1.250	.0625	.021	.056	.005	.014	
AJB-11TFA	AJB-11TFC	.6890	.8767	1.375	.0625	.022	.060	.006	.016	
AJB-12TFA	AJB-12TFC	.7515	.9393	1.500	.0625	.024	.065	.007	.020	
AJB-14TFA	AJB-14TFC	.8765	1.0645	1.625	.0625	.028	.075	.008	.022	
AJB-16TFA	AJB-16TFC	1.0015	1.1898	1.750	.0625	.031	.084	.009	.024	
AJB-18TFA	AJB-18TFC	1.1265	1.3148	1.875	.0937	.035	.094	.015	.041	
AJB-20TFA	AJB-20TFC	1.2515	1.4398	2.000	.0937	.038	.103	.016	.045	
AJB-22TFA	AJB-22TFC	1.3765	1.5648	2.125	.0937	.041	.113	.017	.048	
AJB-24TFA	AJB-24TFC	1.5015	1.7523	2.250	.0937	.062	.171	.018	.051	
AJB-26TFA	AJB-26TFC	1.6265	1.8773	2.375	.0937	.067	.183	.020	.055	
AJB-28TFA	AJB-28TFC	1.7515	2.0023	2.500	.0937	.071	.193	.021	.058	
AJB-32TFA	AJB-32TFC	2.0015	2.2523	2.750	.0937	.081	.222	.023	.065	



Example of weight calculation: AJB-16TFA-016:
 Sleeve Weight: (0.31 lb/in) x .500 = .0155 lbs
 Flange weight = .009 lbs
 Total weight = .0245 lbs



AJB-TFA / -TFC Flanged Journal Bushings

SAE-AS81934/2

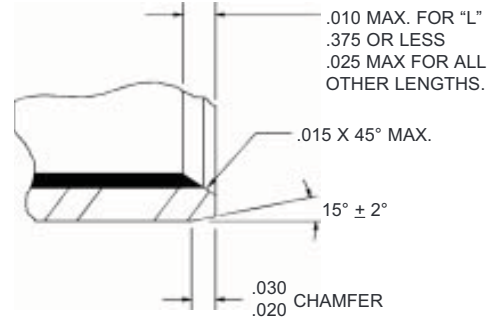
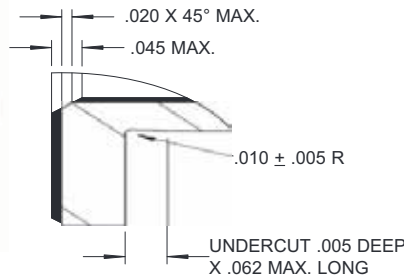


TABLE 1A

DETAIL A

DETAIL B

DASH NO.	NOMINAL SIZE	Length L ^{+0.000} / _{-0.010}																	
		.156	.187	.218	.250	.281	.312	.343	.375	.437	.500	.562	.625	.687	.750	.875			
-04	1/4	005	006	007	008	009	010	011	012	014									
-05	5/16	005	006	007	008	009	010	011	012	014	016	018							
-06	3/8	005	006	007	008	009	010	011	012	014	016	018	020	022					
-07	7/16	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028			
-08	1/2	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028			
-09	9/16	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028			
-10	5/8	005	006	007	008	009	010	011	012	014	016	018	020	022	024	028			
-11	11/16				008	009	010	011	012	014	016	018	020	022	024	028			
-12	3/4				008	009	010	011	012	014	016	018	020	022	024	028			
-14	7/8				008	009	010	011	012	014	016	018	020	022	024	028			
-16	1				008	009	010	011	012	014	016	018	020	022	024	028			
-18	1 1/8						010	011	012	014	016	018	020	022	024	028			
-20	1 1/4								012	014	016	018	020	022	024	028			
-22	1 3/8									012	014	016	018	020	022	024	028		
-24	1 1/2										012	014	016	018	020	022	024	028	
-26	1 5/8											016	018	020	022	024	028		
-28	1 3/4												016	018	020	022	024	028	
-32	2													016	018	020	022	024	028

TABLE 1B

DASH NO.	NOMINAL SIZE	Length L ^{+0.000} / _{-0.010}															
		1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	2.750	3.000	
-04	1/4																
-05	5/16																
-06	3/8																
-07	7/16																
-08	1/2																
-09	9/16	032	036														
-10	5/8	032	036	040	044												
-11	11/16	032	036	040	044	048	052										
-12	3/4	032	036	040	044	048	052										
-14	7/8	032	036	040	044	048	052										
-16	1	032	036	040	044	048	052	056	060								
-18	1 1/8	032	036	040	044	048	052	056	060								
-20	1 1/4	032	036	040	044	048	052	056	060	064	068						
-22	1 3/8	032	036	040	044	048	052	056	060	064	068						
-24	1 1/2	032	036	040	044	048	052	056	060	064	068	072	076	080	088		
-26	1 5/8	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	
-28	1 3/4	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	
-32	2	032	036	040	044	048	052	056	060	064	068	072	076	080	088	096	

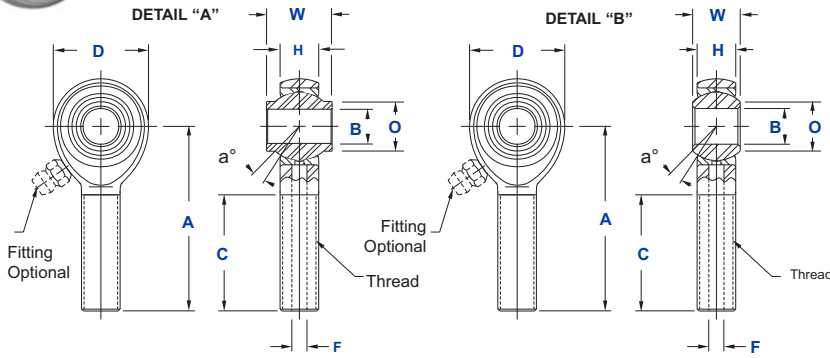
Stainless Steel parts (suffix "C") are available Cadmium plated (Suffix "P") or Zinc – Nickel plated (Suffix "E").
 Ex.: AJB-4TFC-008P or AJB-4TFC-008E. Consult factory for full specifications.

Oversize Outside Diameter (dimension "D") parts per Military spec. suffix "T" (+.010") and suffix "U" (+.020") are available.
 Add suffix "D1" to specify .010" oversize, "D2" to specify .020" oversize. Ex.: AJB-4TFC-008D1 or AJB-4TFC-008D2.
 Consult factory for full specifications. Weight calculations listed are valid for standard Outside Diameter parts only.



GMM-M & GMB-M (MALE) and GMW-M & GMG-M (FEMALE) SERIES ROD ENDS

General Aviation - Precision



Specifications	
Body	Carbon Steel protective coated for corrosion resistance.
Ball	Alloy steel, Heat treated, Hard Chrome Plated (QQ-C-320, Class 2).
Race	Carbon Steel, Protective Coated for Corrosion Resistance.

Units are traceable and magnetic particle inspected after assembly.
Load ratings apply only to rod ends without grease fittings. For load ratings with grease fittings, please consult our engineering department.

Rod End No.		DIMENSIONS IN INCHES										a°	Ultimate	Approx.	
AURORA Part No.	Heim Part No.	Ball Shoulder Configuration	B +.0015 -.0005	W +.000 -.005	H ±.005	A ±.015	D ±.010	Shoulder Dia. Ref.	Ball Dia. Ref.	C Min.	F Drilled Hole Dia Ref.	Thread UNF-3A	Misalign. Angle	Radial Static Load Capacity	Brg. Wt. Lbs.
GMM-3M-470	M34-14M	See Detail "A"	.1900	.437	.281	1.562	.750	.315	.500	.969	-	1/4-28	17	2,158	.05
GMM-3M-570	MD35-14M	See Detail "A"	.1900	.437	.328	1.375	.875	.315	.500	.750	.113	5/16-24	10	2,823	.07
GMM-3M-670	MD36-14M	See Detail "A"	.1900	.437	.328	1.375	.750	.315	.500	.750	.113	3/8-24	10	2,850	.08
GMM-3M-680	MD36-16M	See Detail "B"	.1900	.500	.375	1.812	.833	.319	.593	1.062	.136	3/8-24	18	3,269	.09
GMM-4M-470	M44-14M	See Detail "B"	.2500	.437	.304	1.562	.812	.353	.562	.969	-	1/4-28	18	2,158	.07
GMM-4M-675	MD46-15M	See Detail "B"	.2500	.484	.335	2.312	.875	.395	.625	1.500	.136	3/8-24	18	3,160	.11
GMM-4M-680	MD46-16M	See Detail "B"	.2500	.500	.335	2.062	.875	.375	.625	1.500	.159	3/8-24	21	2,985	.10

Units are supplied without grease fittings. When grease fittings are required, specify by adding suffixes as designated.

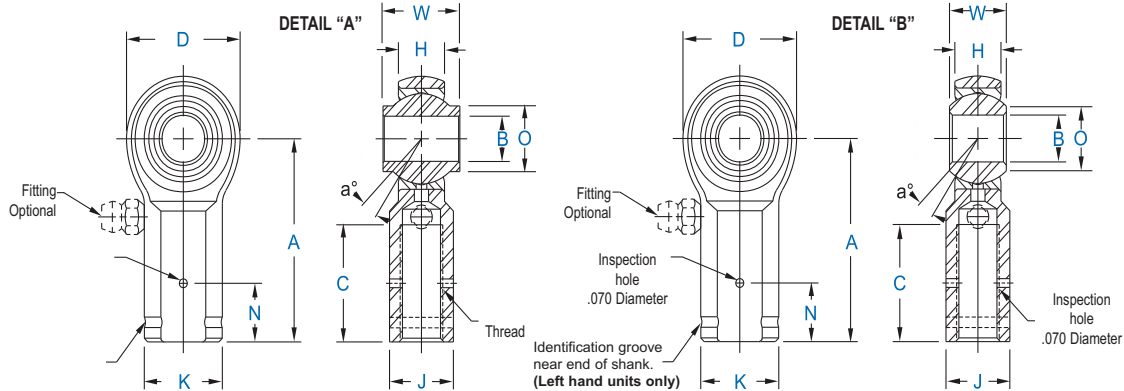
Z Zerk type fitting

Ex: GMM-3MZ-470

F Flush type fitting

Ex: GMM-3MF-470

For left hand thread use the letter "B" in the prefix Ex: GMB-3M-470



Rod End No.		DIMENSIONS IN INCHES												a°	Ultimate	Approx.	
AURORA Part No.	Heim Part No.	Ball Shoulder Configuration	B +.0015 -.0005	W +.000 -.005	H ±.005	A ±.015	D ±.010	K ±.010	J ±.010	N ±.005	O Shoulder Dia. Ref.	Ball Dia. Ref.	C +.062 -.031	Thread UNF-3B	Misalign. Angle	Radial Static Load Capacity	Brg. Wt. Lbs.
GMW-3M-470	F34-14M	See Detail "A"	.1900	.437	.328	1.375	.750	.468	.375	.312	.315	.500	.750	1/4-28	10	2,881	.06
GMW-3M-471	F347-14M	See Detail "A"	.1900	.437	.328	1.062	.750	.375	-	-	.315	.500	.437	1/4-28	10	2,881	.05
GMW-3M-480	F34-16M	See Detail "A"	.1900	.500	.375	1.375	.812	.468	.375	.312	.312	.562	.750	1/4-28	15	3,152	.08
GMW-3M-570	F35-14M	See Detail "A"	.1900	.437	.328	1.375	.750	.500	.437	.312	.315	.500	.750	5/16-24	10	2,881	.07
GMW-4M-470	F44-14M	See Detail "B"	.2500	.437	.304	1.375	.812	.468	.437	.312	.353	.562	.750	1/4-28	18	2,950	.08
GMW-4M-595	F45-19M	See Detail "A"	.2500	.593	.406	1.469	.938	.500	.437	.312	.485	.687	.844	5/16-24	10	3,359	.10

Units are supplied without grease fittings. When grease fittings are required, specify by adding suffixes as designated.

Z Zerk type fitting

Ex: GMW-3MZ-470

F Flush type fitting

Ex: GMW-3MF-470

For left hand thread use the letter "G" in the prefix Ex: GMG-3M-470



MAJOR SPECIFICATION APPROVALS

For approval status to manufacturer specifications not listed, consult factory

MILITARY SPECIFICATIONS

AS14101	AS81935/1	AS81934/1
AS14102	AS81935/2	AS81934/2
AS14103		
AS14104		

BOEING SPECIFICATIONS

BACB10A	BACB10FH	BACB10HP	BACB10Y	60B10009
BACB10AB	BACB10FJ	BACB10HR	BACB10Z	60B10024
BACB10AG	BACB10GB	BACB10J	10-60516	60B50350
BACB10CL	BACB10GC	BACB10JA	10-60545	60B50351
BACB10CN	BACB10GD	BACB10JT	10-60779	60B80103
BACB10ER	BACB10HM	BACB10W	60B00180	S012T235
BACB10ES	BACB10HN	BACB10X	60B10007	S012T237
				162T4005

AIRBUS SPECIFICATIONS

ABS0569	ABS0570	ABS0571
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LOCKHEED SPECIFICATIONS

	<u>F-16</u>		<u>F-22</u>
C11653	C631	C7537	5VR40007
C20308	C633	C7546	5VR50103
C2959	C657	C7547	
C347	C658	C7937	
C555	C7504	C806	

F-35

JSFE03	JSFE17	JSFE31	JSFE46	JSFE61
JSFE04	JSFE19	JSFE32	JSFE47	JSFE62
JSFE05	JSFE20	JSFE34	JSFE48	JSFE63
JSFE09	JSFE22	JSFE35	JSFE50	JSFE65
JSFE11	JSFE23	JSFE36	JSFE51	JSFE67
JSFE12	JSFE24	JSFE37	JSFE52	JSFM23
JSFE13	JSFE25	JSFE39	JSFE53	JSFM62
JSFE14	JSFE26	JSFE43	JSFE55	JSFM62
JSFE15	JSFE27	JSFE44	JSFE57	JSFM64
JSFE16	JSFE28	JSFE45	JSFE59	

TEXTRON AVIATION

CESSNA SPECIFICATIONS

S1104	S2321	S3313
S1105	S2409	S3315
S1106	S2410	S3415
S1107	S2426	S3469
S1108	S2901	S3482
S1581	S2902	S3963
S1819	S3057	S3985
S1820	S3058	S4306
S1823	S3059	0841211
S1866	S3060	0841212
S2009	S3071	7061315
S2015	S3212	7062210
S2022	S3264	7062301
S2049	S3266	

BEECHCRAFT SPECIFICATIONS

131553
131554
131765
131766
131881



Military Specifications Interchange Guide

Mil Spec	Aurora	AMPEP	FJG	Heim	Heim	Kamatics
AS14101	ANC-TG	11BNG	FMGN	NRRG	NEG	KR-CNG
AS14102	AWC-T	11BWZ	FMGB	WRR	WE	KR-CW
AS14103	AWC-TG	11BWG	FMGB-M	WRRG	WEG	KR-CWG
AS14104	ANC-T	11BNZ	FMGS	NRR	NE	KR-CN
AS81934/1	AJB-TA/TC	13BAZ/13BSZ	FBPA	PBRR	PBE	KRJ
AS81934/2	AJB-TFA/TFC	13BAF/13BSF	FBFA	FBRR	FBE	KRJ-UD
AS81935/1	ASM-T	12BMR	REM W M	MXJRR-AS	ME	KR-M
AS81935/2	ASW-T	12BFR	REF W M	FXJRR-AS	FE	KR-F
Mil Spec	NHBB	NMB	Rose	RBC/TDI	SARMA	Southwest
AS14101	ADB V(L)	HT-V	RNDG	NTG	XRE	SWKN-400
AS14102	ADW (L)	WHT	RWD	WT	XRL R	SWKR-401
AS14103	ADW V(L)	WHT-V	RWDG	WTG	XRL	SWKR-400
AS14104	ADB (L)	HT	RND	NT	XRL R	SWKN-401
AS81934/1	AD	AJ	BPD	06-382, 06-282	BPA	MBAA , MBSS
AS81934/2	ADLF	AJF	BFD	07-382, 07-282	BFA	MBAAF, MBSSF
AS81935/1	ADNE J	ANM		MT	UMJ/XRL	SWRKM-500
AS81935/2	AND J	ANF		FT	UFL/XRL	SWRKF-500

This is a guide, not a definitive interchange. Consult relevant manufacturers literature for full part numbers and specifications.

This does not imply current approval to listed specifications. Consult manufacturer or current Qualified for Procurement List for manufacturer and part number approval status

Aurora PTFE Liner Specifications

Liner Designation	AT1400	AT2100	AT2300	AT3200
Construction	PTFE/Dacron Laminate	PTFE/Fiberglass Weave	PTFE/Dacron Weave	PTFE/Nomex Laminate
Thickness (in.)	.011 - .013	.010 - .012	.013 - .015	.014 - .016
Temperature (°F)	-65° to 350°	-65° to 250°	-65° to 250°	-65° to 350°
Static Limit Load	80,000 PSI	60,000 PSI	60,000 PSI	80,000 PSI
Stiffness	Medium to High	Medium	Low	Medium to High
Typical Performance	37,500 PSI @±25° & 10-20 cpm .0045 wear max.@ 25,000 cycles	25,000 PSI @±25° & 10-20 cpm .0060 wear max.@ 5,000 cycles	Contact Aurora Engineering Department	37,500 PSI @±25° & 10-20 cpm .0045 wear max.@ 25,000 cycles
Dynamic Capabilities	Light to heavy, unidirectional or alternating loads. Low speed, intermittent to continuous misalignment, intermittent to continuous oscillation.	Light unidirectional loads. Low speed, intermittent to continuous misalignment, intermittent to continuous oscillation	Light to medium, alternating or reversing loads. Medium to High speed, intermittent to continuous misalignment, intermittent to continuous oscillation.	Light to heavy, unidirectional or alternating loads. Low speed, intermittent to continuous misalignment, intermittent to continuous oscillation.
Comments	Good multi-purpose system	Excellent stick-slip properties Usually recommended for high splash or underwater applications	Excellent stick-slip properties Good vibratory conditions	Highest performance characteristics for all applications Qualified to SAE-AS81820

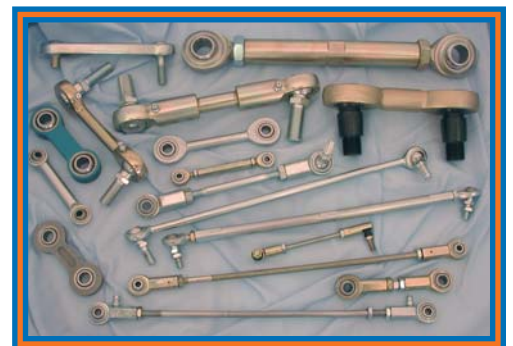
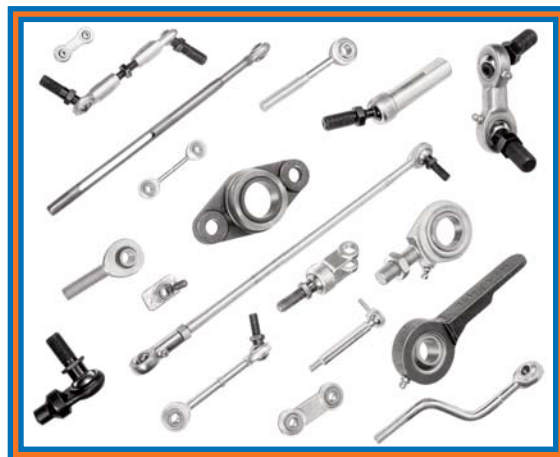


Additional Products

In addition to the products featured in this publication, Aurora Bearing Company features the most diverse range of commercial and high performance rod end and spherical bearings in the industry. From economy commercial to high performance bearings for motorsports, Aurora has product solutions for the most demanding motion transfer needs. Sizes from 1/8" to 2", metric 3 - 30mm available. Further, many of these product lines are available with full traceability and/or magnetic particle inspection for aerospace applications, and are frequently used as such in the aerospace industry.



Beyond the Aurora standard Aircraft and Commercial catalog offerings, Aurora Bearing has the capability to design, engineer, and manufacture special bearings and linkage assemblies. Illustrated below is just a sample of items produced for aerospace (L) and commercial industrial (C & R) customers.



For further information on Aurora products, including access to CAD drawings, see www.aurorabearing.com



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