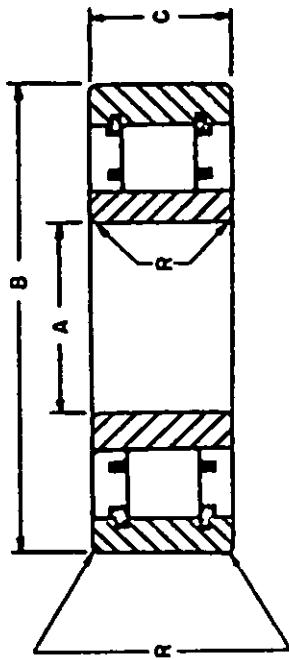


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THE CENTER RADII OR CHAMFER OR BOTH
SIZES OF THE BEARING AND CLEARANCE
BUSHING AND LOCATING FILLET RADII LISTED



PART NO	FLIN	INSIDE DIA	OUTSIDE DIA	THICK	SHFT L HOLE/SH FILLET RADII	IND	MAX	MIN	RELOC-BEAR SHFT DIA	SHFT	HOUSING	INTERNAL CLEARANCE IND		STATIC LOAD RATING	ROTATIONAL LIMITING SPEC	EST. WEIGHT	LB
												MAX	MIN				
4310075 - 1	17	.6623	.40	1.5748	.12	.4724	.025	.04	1.44	.040	.040	1.67	1.62	1.6	1400	7450	.12
4310075 - 2	17	.6623	.47	1.6504	.14	.5312	.040	.06	1.62	.040	.040	1.62	1.60	1.60	1500	5650	.12
4310075 - 3	20	.7874	.52	2.0472	.15	.5906	.040	.05	1.22	.040	.040	1.60	1.50	1.50	1500	5500	.17
4310075 - 4	23	.8843	.52	2.4472	.15	.5936	.040	.06	1.63	.040	.040	1.63	1.50	1.50	1500	5100	.15
4310075 - 5	25	.9243	.62	2.4009	.17	.6693	.040	.07	2.20	.040	.040	1.64	1.50	1.50	1500	5100	.16
4310075 - 6	30	1.1811	.62	2.4402	.16	.6239	.040	.14	2.24	.040	.040	1.65	1.50	1.50	2200	4650	.17
4310075 - 7	30	1.1811	.72	2.6346	.19	.7480	.040	.16	2.52	.040	.040	1.66	1.50	1.50	2200	4250	.16
4310075 - 8	35	1.3790	.72	2.6246	.17	.5933	.040	.16	2.61	.040	.040	1.66	1.50	1.50	2200	3750	.15
4310075 - 9	35	1.3780	.80	3.1406	.21	.6268	.060	.17	2.83	.060	.060	1.67	1.50	1.50	2200	3700	.15
4310075 - 10	40	1.5749	.60	3.1426	.18	.7087	.040	.17	2.68	.040	.040	1.68	1.50	1.50	2200	3550	.16
4310075 - 11	40	1.5748	.80	3.3433	.23	.9055	.060	.18	3.10	.060	.060	1.69	1.50	1.50	2200	3550	.17
4310075 - 12	45	1.7717	.85	3.3465	.19	.7420	.040	.20	3.06	.060	.060	1.70	1.50	1.50	2200	3550	.16
4310075 - 13	45	1.7717	.90	3.0370	.25	.9043	.060	.20	3.34	.060	.060	1.71	1.50	1.50	2200	3550	.16
4310075 - 14	50	1.9605	.90	4.3307	.27	.0830	.030	.22	2.42	.030	.030	1.72	1.50	1.50	2200	3700	.17
4310075 - 15	55	2.1654	.100	3.3370	.21	.8270	.060	.25	3.52	.060	.060	1.73	1.50	1.50	2200	3750	.17
4310075 - 16	65	2.1654	.120	4.7244	.29	1.1417	.060	.25	4.25	.060	.060	1.74	1.50	1.50	2200	3750	.18
4310075 - 17	60	2.3822	.110	4.3307	.22	.8861	.060	.25	3.73	.060	.060	1.75	1.50	1.50	2200	3550	.17
4310075 - 18	60	2.3822	.130	5.1101	.31	1.2255	.060	.28	4.61	.060	.060	1.76	1.50	1.50	2200	3550	.18
4310075 - 19	65	2.5591	.120	4.7244	.23	.0015	.010	.30	4.32	.0015	.0015	1.77	1.50	1.50	2200	3700	.18
4310075 - 20	65	2.5591	.140	5.5110	.33	1.2992	.060	.31	5.05	.060	.060	1.78	1.50	1.50	2200	3750	.19
4310075 - 21	70	2.7559	.125	4.9213	.24	.9449	.060	.31	4.50	.060	.060	1.79	1.50	1.50	2200	3750	.19
4310075 - 22	70	2.7559	.150	5.3053	.35	1.3780	.060	.32	5.36	.060	.060	1.80	1.50	1.50	2200	3750	.20
4310075 - 23	75	3.0258	.130	5.1111	.25	.9243	.060	.32	4.68	.060	.060	1.81	1.50	1.50	2200	3750	.20
4310075 - 24	75	3.0258	.160	6.2056	.37	1.4567	.060	.37	5.67	.060	.060	1.82	1.50	1.50	2200	3750	.20
4310075 - 25	90	3.1468	.140	5.5110	.26	1.0236	.060	.38	5.05	.060	.060	1.83	1.50	1.50	2200	3750	.20
4310075 - 26	90	3.1468	.170	6.6929	.32	1.5354	.060	.39	6.02	.060	.060	1.84	1.50	1.50	2200	3750	.20
4310075 - 27	C5	3.3465	.150	5.9053	.35	1.0224	.060	.40	5.40	.060	.060	1.85	1.50	1.50	2200	3750	.20
4310075 - 28	85	3.3465	.180	7.0565	.41	1.6142	.100	.40	6.38	.100	.100	1.86	1.50	1.50	2200	3750	.20
4310075 - 29	90	3.5433	.160	6.2032	.30	1.1811	.060	.45	5.76	.060	.060	1.87	1.50	1.50	2200	3750	.20
4310075 - 30	90	3.5433	.190	7.4003	.43	1.6923	.100	.45	6.73	.100	.100	1.88	1.50	1.50	2200	3750	.20
4310075 - 31	65	3.7402	.170	5.9229	.32	1.2258	.060	.46	6.12	.060	.060	1.89	1.50	1.50	2200	3750	.20
4310075 - 32	65	3.7402	.200	7.0740	.45	1.7717	.100	.46	6.34	.100	.100	1.90	1.50	1.50	2200	3750	.20
4310075 - 33	100	3.0370	.180	7.0036	.34	1.3316	.060	.46	6.40	.060	.060	1.91	1.50	1.50	2200	3750	.20

APPROVED 8 APR 1950 REVISED

P.A. NO.	TITLE
Other Cast	BEARING, ROLLER, CYLINDRICAL, SINGLE ROW OF ROLLERS, CYLINDRICAL INNER RING, TWO ROLLER RETAINING SNAP RINGS, OR OUTER RING, NON-LOCATING.
GGO USAF	MILITARY STANDARD
PROCUREMENT SPECIFICATION FF-3-195	MS 19075
SUPERSEDES:	SHEET OF 3

FED. SUP CLASS
3110

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MS PART NO	FLIN	INSIDE DIA	A	B	OUTSIDE DIA	C	R	SHAFT & HOUSING FILLET RADIUS	RECOMMENDED DIAMETER		INTERNAL RADIAL CLEARANCE .0001 INCH	BASIC DYNAMIC LOAD RATING	BASIC STATIC LOAD RATING	RECOMMENDED LIMITING SPEED	EST. WEIGHT LBS
									SHOULDER SHAFT	HOUSING					
MS19075 - 34	100	5.3370	215	8.4646	47	1.8504	.100	4.53	7.62	12	.32	61500	45500	1300	19.50
MS19075 - 35	105	4.1339	190	7.4803	35	1.4173	.050	4.77	6.84	14	.35	38000	30000	1250	16.32
MS19075 - 36	105	4.1339	225	8.6583	49	1.9291	.100	5.05	7.97	14	.35	68700	52400	1250	22.95
MS19075 - 37	110	4.3307	200	7.8740	38	1.4861	.080	5.01	7.20	14	.35	45000	34000	1300	11.31
MS19075 - 38	110	4.3307	240	9.4480	50	1.8885	.100	5.37	8.50	14	.35	79100	60300	1150	27.38
MS19075 - 39	120	4.7244	215	8.4646	40	1.5748	.080	5.47	7.14	14	.35	42500	37500	1250	14.70
MS19075 - 40	120	4.7244	280	10.2362	55	2.1554	.100	5.82	9.21	14	.35	813400	71100	3750	35.00
MS19075 - 41	130	5.1181	280	11.0236	59	2.2535	.120	6.32	9.11	16	.45	110000	90100	300	43.25
MS19075 - 42	130	5.1181	320	12.5984	65	2.5591	.120	11.34							60.00

P.A. NORD
Other Cust
ORD USAF

TITLE
BEARINGS, ROLLER, CYLINDRICAL, SINGLE ROW OF ROLLERS,
CYLINDRICAL INNER RING, TWO ROLLER RETAINING SNAP RINGS
ON OUTER RING, NON-LOCATING.

PROCUREMENT SPECIFICATION
FF-B-185

SUPERSEDES:

MILITARY STANDARD

MS 19075

SHEET 2 OF 3

APPROVED 30 APR 1953 REVISED

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TOLERANCES: STANDARD Grade (TOLERANCES IN .0001 Inch)

INNER RING			
CORE IN - 1/8	OVER INCL.	A MIN	RADIAL FLANGE OVER OUTER INCL.
0	-10	-3	0
10	-10	-3	0
10	20	-4	0
20	50	-5	0
20	80	-6	0
20	120	-6	10
20	160	-10	10
20	200	-12	15
100	315	-15	20
100	400	-15	25

MATERIAL:

HARDNESS:

DIMENSIONS:

LUBRICATION:

BASIC DYNAMIC LOAD RATING:

RATING LIFE (HOURS):

BASIC STATIC LOAD RATING;

OPERATING TEMPERATURE;

LIMITING RPM:

NOTES:

OUTER RING			
OVER IN	OVER INCL.	0	RADIAL FLANGE OVER OUTER INCL.
0	0	0	0
10	10	10	10
10	20	20	20
20	50	50	50
20	80	80	80
20	120	120	120
20	160	160	160
20	200	200	200
100	315	315	315
100	400	400	400

RINGS AND ROLLERS: ALLOY STEEL, FED. STD. 68 STEEL No. 60, 4320, 4620, 8620 or E52100. CASE CARBON STEEL (One piece sleeve).

RINGS AND ROLLERS: 60 RC. to 65 RC.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.

THE IDENTIFYING NUMBER DOES NOT INCLUDE LUBRICATION.

BASIC DYNAMIC LOAD RATING IS THAT CONSTANT STATIONARY RADIAL LOAD WHICH A GROUP OF APPARENTLY IDENTICAL BEARINGS WITH STATIONARY CENTER RING CAN ENDURE FOR A RATING LIFE OF ONE MILLION REVOLUTIONS OF THE INNER RING.

Rating life is the number of hours at some constant speed of the inner ring that 50 per cent of a group of apparently identical bearings will complete or exceed before the first evidence of fatigue develops.

The magnitude of the approximate rating life in hours, H , is found from the formula:

$$H = \frac{15642}{\frac{R}{A}} \left(\frac{P}{C} \right)^{\frac{10}{3}}$$

where
 P = STATIC DYNAMIC LOAD RATING
 C = EQUIVALENT LOAD (COMBINED RADIAL AND SHORT LOCATION LOAD)
 R = REVOLUTIONS PER MINUTE

AVERAGE LIFE IS APPROXIMATELY FIVE TIMES THE RATING LIFE.

BASIC STATIC LOAD RATING:

RECOMMENDED OPERATING TEMPERATURE NOT TO EXCEED 250 DEGREES FAHRENHEIT.

LIMITING RPM IS THE RECOMMENDED BASIC DESIGN SPEED FOR NORMAL OPERATING CONDITIONS OF OPERATE, LUBRICATION AND STATIONARY.

(a) RECOMMENDED DOCUMENTATION SHEET IS APPROVED ON DATE OF INVITATION FOR BID.

(b) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS APPROVED HEREIN.

(c) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS APPROVED HEREIN.

MILITARY STANDARD
MS 19075

SHEET 3 OF 3

P.A. NO. 10 Other Class OD USAF	TITLE BEARINGS, ROLLER, CYLINDRICAL, SINGLE ROW OF ROLLERS, CYLINDRICAL INNER RING, TWO ROLLER RETAINING CHAP RINGS ON OUTER RING, NON-LOCATING.
PROCUREMENT SPECIFICATION FF-S-185	SUPERSEDED