

THIS SURFACE SHALL BE  
CONCENTRIC WITH THD PD  
WITHIN .005 FIR.

VIEW AA

- BREAK EDGE  
.005 MAX RAD

NO FLAWS

A TO\_\_\_\_\_  
Y DEPTH

SEE VIEW AA

THREAD T  
MIL-S-7742

.030 R ON ALL  
CORNERS EXCEPT  
AS NOTED \_\_\_\_\_

THREAD T  
MIL-S-7742  
GAGE AS  
CONTINUOUS THD-

MARK PART NO.  
AND MFR IDENT  
PER AS478 CLASS C

• Note (c)

-CHAMFER P X 45° APPROX  
6 PLACES

**A TO Z DEPTH**

✓.020 R  
5 PLACES

SECTION THRU  
THE PROFILE

THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE.

**CUSTODIAN**  
USAF - AFSC  
Navy - BuInsp

**MILITARY STANDARD**

ELBOW, TUBE - A13 4135, BOSS, 45°

**MS9097(ASG)**

SHEET 1 OF 2

APPROVED 11 Apr 60 REVISED (A) 12 May 62

MS9097(ASG)

PART NO.	M MIN	N +.010 -.000	P	Q +.010	R RADIUS	S +.010	U RADIUS	V	W	X	Y +.010	Z +.010	APPROX WEIGHT LBS/EA
MS9097-08	.030	.187	.040-.070	.945	.325	1.375	.094	.688	.310	.430	1.023	1.406	.058
MS9097-09	.030	.203	.040-.070	.945	.355	1.375	.094	.750	.310	.440	1.023	1.406	.066
MS9097-10	.030	.219	.050-.080	1.083	.387	1.531	.094	.812	.350	.500	1.177	1.625	.085
MS9097-11	.030	.234	.050-.080	1.255	.435	1.734	.094	.938	.420	.500	1.364	1.859	.126
MS9097-12	.030	.234	.050-.080	1.255	.467	1.734	.094	1.000	.420	.500	1.364	1.859	.137
MS9097-14	.030	.234	.050-.080	1.440	.527	1.734	.125	1.125	.420	.500	1.534	1.859	.166
MS9097-16	.030	.234	.050-.080	1.450	.592	1.734	.125	1.250	.420	.500	1.544	1.859	.195
MS9097-18	.030	.234	.050-.080	1.574	.682	1.750	.125	1.438	.450	.600	1.699	1.921	.276
MS9097-20	.030	.234	.050-.080	1.574	.750	1.750	.125	1.625	.450	.600	1.699	1.921	.308
MS9097-24	.030	.234	.050-.080	1.762	.872	1.750	.125	1.812	.450	.600	1.855	1.921	.395
MS9097-28	.044	.234	.050-.080	1.949	1.062	1.969	.188	2.188	.500	.660	2.199	2.188	.678
MS9097-32	.044	.234	.050-.080	2.199	1.188	2.203	.250	2.438	.500	.790	2.480	2.422	.885

- (a) DIAMETER F SHALL BE FREE OF THREAD MARKS.  
(b) DIAMETER F SHALL BE CONCENTRIC WITH PD OF THREAD WITHIN .0025 FIR.  
(c) .040-.060 FOR -08 THRU -16 SIZES; .090-.150 FOR SIZES -18 AND LARGER SIZES.  
(d) ALL DIAMETERS SHALL BE CONCENTRIC WITHIN .010 FIR. UNLESS OTHERWISE SPECIFIED.  
(e) PARTING LINE MISMATCH .015 MAX.  
(f) E MIN WALL THICKNESS BETWEEN FORGED SURFACE AND HOLE A.

MATERIAL: ALUMINUM AMS 4135

FINISH: ANODIC TREATMENT AMS 2470.

SURFACE ROUGHNESS: AS 291. UNLESS

SURFACE ROUGHNESS: AS 291. UNLESS OTHERWISE SPECIFIED MACHINED SURFACES TO BE 125 MICRONS.  
PARTS SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645

PARTS SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645.  
BREAK CHAMF. EDGES .005" R. ALL OTHERS OTHERWISE SPECIFIED.

BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED.  
DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS  $\pm .015$ ,  
DIMENSIONS ARE TO SHARP CORNERS UNLESS OTHERWISE SPECIFIED.

DO NOT USE UNASSIGNED PART NUMBERS.  
AS, & AMS ARE SAE PUBLICATIONS.

THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAR.

**CUSTODIAN**  
USAF - AFSC  
Navy - Enlist

# MILITARY STANDARD

**MS9097(ASG)**

PROCUREMENT SPECIFICATION  
NONE

ELBOW, TUBE - AMS 4135, BOSS, 45°

SHEET 2 OF 2

APPROVED : 11 APR 60 REVISED ① 11 MAY 62