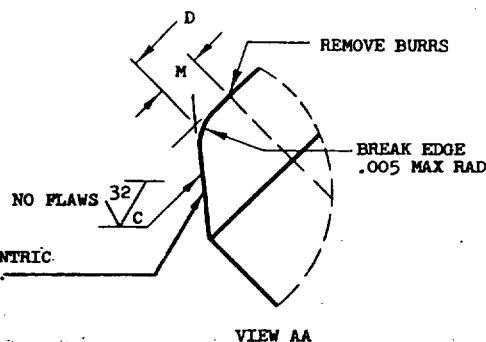
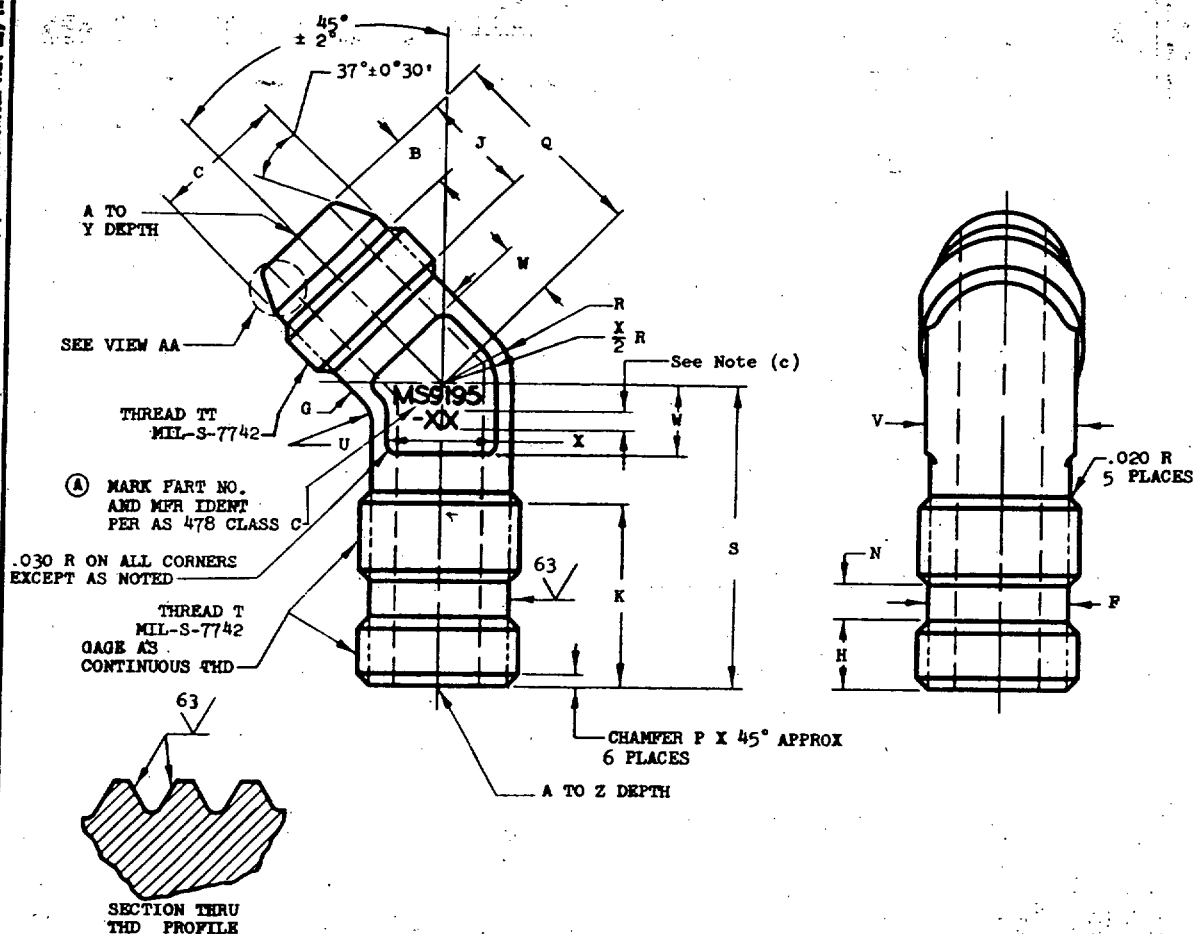


MS9195 (ASG)



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



- (a) DIAMETER F SHALL BE FREE OF THREAD MARKS.  
(b) DIAMETER F SHALL BE CONCENTRIC WITH PD OF THREAD WITHIN .0025 FIR.  
(c) .020-.040 FOR -.02, -.03, AND -.04 SIZES; .040-.060 FOR -.05 THRU -.16 SIZES; .090-.150 FOR -.18 & LARGER SIZES.  
(d) ALL DIAMETERS SHALL BE CONCENTRIC WITHIN .010 FIR, UNLESS OTHERWISE SPECIFIED.  
(e) PARTING LINE MISMATCH .015 MAX.  
(f) MIN WALL THICKNESS BETWEEN FORGED SURFACE AND HOLE A.  
STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE.

**CUSTOMER**

USAF - APSC  
Navy - Builders

**PROCUREMENT SPECIFICATION**  
**NOTE**

# MILITARY STANDARD

ELBOW, TUBE - AMS 5646, BOSS, 45°

**MS9195 (ASG)**

**SHEET 1 OF 2**

APPROVED 11 Apr 60  
REVISED (A) 11 MAY 62

**MS9195(ASG)**

MATERIAL: CORROSION RESISTANT STEEL AMS 5646, FORGING.  
 CREATING: FINISHED PARTS SHALL BE DEGREASED AND IMPERSED FOR NOT LESS THAN 20 MINUTES IN A SOLUTION OF 1 VOLUME OF NITRIC ACID (3F OR 1.42) AND 9 VOLUMES OF WATER AT ROOM TEMPERATURE.  
 SURFACE ROUGHNESS: AS 291. UNLESS OTHERWISE SPECIFIED MACHINED SURFACES TO BE 125 MICROINCHES.

PARTS SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645.

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

PART NO.	E	NOM TUBE OD	THREAD T	SIZE	THREAD TT			A DIA	B	C DIA	D DIA	F DIA	G DIA
					MAJOR DIA	PD	MINOR DIA MAX						
MS9195-02	.040	.125	3125-24UNF-3A	3125-24UNS	.3023-.3095	.2797-.2824	.2584	.058-.065	.144	.245	.132	.250	.240
MS9195-03	.050	.168	375-24UNF-3A	375-24UNS	.3648-.3720	.3420-.3449	.3209	.121-.128	.144	.307	.195	.312	.300
MS9195-04	.050	.250	4375-20UNF-3A	4375-20UNS	.4264-.4345	.3989-.4020	.3732	.168-.175	.160	.359	.242	.364	.350
MS9195-05	.050	.312	500-20UNF-3A	500-20UNS	.4889-.4970	.4613-.4645	.4357	.230-.237	.160	.421	.304	.426	.415
MS9195-06	.050	.375	5625-18UNF-3A	5625-18UNS	.5508-.5595	.5200-.5234	.4913	.293-.301	.165	.476	.368	.481	.470
MS9195-07	.060	.438	625-18UNF-3A	625-18UNS	.6133-.6220	.5824-.5859	.5538	.355-.363	.165	.539	.430	.544	.535
MS9195-08	.080	.500	750-16UNF-3A	750-16UNS	.7376-.7470	.7026-.7064	.6703	.387-.395	.229	.654	.462	.660	.650
MS9195-09	.090	.562	8125-16UNF-3A	8125-16UNS	.8095-.8175	.7653-.7689	.7328	.434-.442	.229	.716	.509	.722	.710
MS9195-10	.090	.625	875-14UNF-3A	875-14UNS	.8617-.8720	.8256-.8256	.7844	.480-.488	.255	.767	.555	.773	.765
MS9195-11	.100	.688	1000-12UNF-3A	1000-12UNS	.9856-.9970	.9385-.9429	.8948	.542-.552	.304	.875	.619	.882	.870
MS9195-12	.100	.750	10625-12UNF-3A	10625-12UNS	1.0481-1.0595	1.0012-1.0054	.9573	.604-.614	.304	.938	.681	.935	.925
MS9195-13	.100	.875	11875-12UNF-3A	11875-12UNS	1.1731-1.1845	1.1261-1.1304	1.0823	.729-.739	.304	1.062	.806	1.070	1.055
MS9195-14	.120	1.000	13125-12UNF-3A	13125-12UNS	1.2981-1.3095	1.2511-1.2554	1.2073	.839-.851	.312	1.188	.918	1.155	1.185
MS9195-15	.140	1.125	1500-12UNF-3A	1500-12UNS	1.4856-1.4970	1.4381-1.4429	1.3948	.948-.960	.312	1.375	1.027	1.382	1.365
MS9195-16	.150	1.250	1625-12UNF-3A	1625-12UNS	1.6106-1.6220	1.5635-1.5679	1.5198	1.073-1.086	.363	1.500	1.153	1.507	1.495
MS9195-17	.160	1.500	1875-12UNF-3A	1875-12UNS	1.8606-1.8720	1.8134-1.8179	1.7698	1.307-1.320	.374	1.750	1.387	1.756	1.745
MS9195-18	.210	1.750	2250-12UNF-3A	2250-12UNS	2.2356-2.2470	2.1884-2.1929	2.1448	1.542-1.557	.447	2.125	1.652	2.131	2.120
MS9195-19	.210	2.000	2500-12UNF-3A	2500-12UNS	2.4856-2.4970	2.4429-2.4483	2.3948	1.776-1.791	.457	2.375	1.886	2.381	2.370

PART NO.	H	J	K	M	N	P	Q	R	S	U	V	W	X	Y	Z	APPROX WEIGHT LBS/EA
MS9195-02	.208	.317	.682	.030	.125	.020-.050	.608	.120	1.000	.062	.250	.160	.200	.639	1.032	.024
MS9195-03	.208	.346	.682	.030	.131	.020-.050	.608	.150	1.000	.062	.312	.160	.220	.639	1.032	.033
MS9195-04	.250	.398	.748	.030	.140	.030-.060	.717	.175	1.094	.062	.375	.200	.270	.748	1.122	.047
MS9195-05	.250	.398	.748	.030	.140	.030-.060	.717	.205	1.094	.062	.438	.200	.330	.748	1.122	.059
MS9195-06	.278	.398	.813	.030	.156	.040-.070	.779	.235	1.219	.094	.500	.250	.330	.826	1.250	.085
MS9195-07	.278	.398	.813	.030	.172	.040-.070	.779	.267	1.219	.094	.562	.250	.330	.826	1.250	.085
MS9195-08	.312	.489	.903	.030	.187	.040-.070	.945	.325	1.375	.094	.688	.310	.430	1.023	1.406	.163
MS9195-09	.312	.489	.903	.030	.203	.040-.070	.945	.355	1.375	.094	.750	.310	.440	1.023	1.406	.187
MS9195-10	.357	.585	1.018	.030	.219	.050-.080	1.083	.382	1.531	.094	.812	.350	.500	1.177	1.625	.238
MS9195-11	.417	.663	1.122	.030	.234	.050-.080	1.255	.435	1.734	.094	.938	.420	.500	1.364	1.859	.356
MS9195-12	.417	.663	1.122	.030	.234	.050-.080	1.255	.467	1.734	.094	1.000	.420	.500	1.364	1.859	.385
MS9195-13	.417	.663	1.122	.030	.234	.050-.080	1.440	.527	1.734	.125	1.125	.420	.500	1.534	1.859	.467
MS9195-14	.417	.710	1.122	.030	.234	.050-.080	1.440	.592	1.734	.125	1.250	.420	.500	1.534	1.859	.549
MS9195-15	.417	.720	1.122	.030	.234	.050-.080	1.450	.662	1.750	.125	1.438	.450	.500	1.699	1.921	.778
MS9195-16	.417	.767	1.122	.030	.234	.050-.080	1.574	.750	1.750	.125	1.625	.450	.600	1.699	1.921	.871
MS9195-17	.417	.767	1.122	.030	.234	.050-.080	1.574	.872	1.750	.125	1.812	.450	.600	1.855	1.921	1.115
MS9195-18	.417	.889	1.122	.030	.234	.050-.080	1.762	1.062	1.969	.168	2.168	.500	.660	2.199	2.188	1.912
MS9195-19	.417	1.017	1.205	.044	.234	.050-.080	1.949	1.188	2.203	.250	2.438	.500	.750	2.480	2.422	2.497
MS9195-20	.417	1.142	1.320	.044	.234	.050-.080	2.199	1.188	2.203	.250	2.438	.500	.750	2.480	2.422	2.497

FED. SUP. CL.  
4730

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

CUSTODIANS Navy - BuWeps USAF - AFSC	OTHER INT. A - B - C - D - E - F - G - H - I - J - K - L - M - N - O - P - Q - R - S - T - U - V - W - X - Y - Z -	<b>MILITARY STANDARD</b>  ELBOW, TUBE - AMS 5646, BOSS, 45°	<b>MS9195(ASG)</b>
PROCUREMENT SPECIFICATION NONE	SUPERSEDES:	SHEET 2 OF 2	