

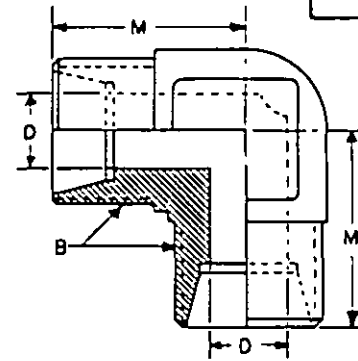
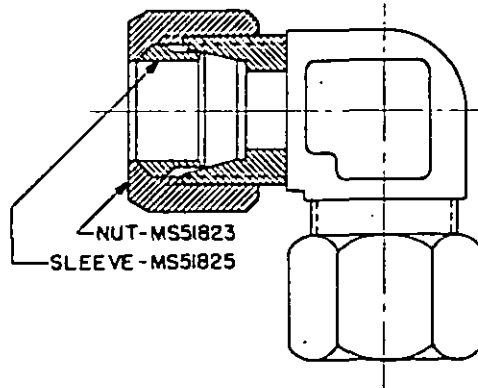
User Activities:  
Army - AV  
Navy - OS, MC

Review Activities:  
Army - AT, CL, ME  
Air Force - B2  
DLA - CS

(E)

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FED. SUP. CLASS  
4730

TABLE I

DASH NUMBER		TUBE O.D. NOM	B STRAIGHT THREAD CLASS 2A	D DIA DRILL	M
ASSY	*BODY				
1	21	1/8	5/16-24UNF	0.093	0.77
2	22	3/16	3/8-24UNF	0.125	0.83
3	23	1/4	7/16-20UNF	0.203	0.89
4	24	5/16	1/2-20UNF	0.234	0.95
5	25	3/8	9/16-18UNF	0.281	1.05
6	26	1/2	3/4-16UNF	0.422	1.25
7	27	5/8	7/8-14UNF	0.500	1.42
8	28	3/4	1-1/16-12UN	0.656	1.58
9	29	7/8	1-3/16-12UN	0.718	1.62
10	30	1	1-5/16-12UN	0.875	1.73
11	31	1-1/4	1-5/8-12UN	1.093	1.89
12	32	1-1/2	1-7/8-12UN	1.344	2.02
13	33	2	2-1/2-12UN	1.813	2.45

FOR NOTES SEE SHEET 2.

(E) Denotes change

P.A. Other Cust 99	AR	TITLE		MILITARY STANDARD	
		ELBOW, TUBE, 90°, FLARELESS TYPE, HYDRAULIC		MS51820	
PROCUREMENT SPECIFICATION MIL-F-18966		SUPERSEDES		SHEET 1 OF 2	
		CNH17 in part			

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

4730-0886

APPROVED 29 DEC 1967 REVISED 30 DEC 1970 22 NOV 1974 13 MAY 77 17 JUNE 1982 (E) 30 JULY 1987

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## NOTES:

1. **MATERIAL:** Steel, carbon in accordance with procurement specification.  
Steel, corrosion-resisting in accordance with procurement specification.
2. **PROTECTIVE COATING:** Cadmium plated in accordance with procurement specification.  
Zinc plated in accordance with procurement specification.  
Phosphate coating in accordance with procurement specification.  
Passivation treatment in accordance with procurement specification.
3. **DIMENSIONS AND TOLERANCES:** Dimensions and tolerances not shown shall be in accordance with the SAE Standard for Flareless Tube Fittings (SAE J514).
4. **THREADS:** Threads shall be in accordance with Screw-Thread Standard for Federal Services, FED-STD-H28.
5. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number and (for complete assembly) the applicable MS51825 sleeve style designator.
  - A. For complete assembly (with nuts and sleeves), cadmium plated, use the MS number, plus the assembly dash number and the sleeve style designator. Example: MS51820-1A or MS51820-1B.
  - B. For the body only, cadmium plated, use the MS number and the body dash number. Example: MS51820-21.
  - C. For zinc coating add "Z" and (for complete assembly) the sleeve style designator to the dash number. Example: MS51820-1ZA or MS51820-1ZB or MS51820-21Z.
  - D. For phosphate coating add "P" and (for complete assembly) the sleeve style designator to the dash number. Example: MS51820-1PA or MS51820-1PB or MS51820-21P.
  - E. For corrosion-resisting steel add "SS" and (for complete assembly) the sleeve style designator to the dash number. Example: MS51820-1SSA or MS51820-1SSB or MS51820-21SS.
6. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
7. Reference documents shall be of the issue in effect on date of invitations for bid.
8. The illustration is for identification and is not intended to restrict designs or shapes not dimensioned.
9. After 22 NOV 1974, bodies will be used for production only and SHALL NOT be stocked for maintenance. Existing stock of bodies should be used until depleted.
10. CAUTION: The following data is furnished for the purpose of new design only and is not intended to imply interchangeability.

- MS51820 will replace MS39207 for new design after approval date on this document. Table II below gives reference data for coordination of equivalent tube sizes, in both compression and hydraulic type elbows. Assembly replacement is authorized.

TABLE II (FOR INFORMATION ONLY)  
ASSEMBLY EQUIVALENCY

PART NUMBER		PART NUMBER		PART NUMBER	
COMPRESSION	HYDRAULIC	COMPRESSION	HYDRAULIC	COMPRESSION	HYDRAULIC
MS39207-1	MS51820-1	MS39207-5	MS51820-5	MS39207-9	MS51820-9
-2	-2	-6	-6	-10	-10
-3	-3	-7	-7	-11	-11
-4	-4	-8	-8	-12	-12

P.A. AR Other Cont 99	TITLE  ELBOW, TUBE, 90°, FLARELESS TYPE, HYDRAULIC	MILITARY STANDARD  MS51820
PROCUREMENT SPECIFICATION MIL-F-18866	SUPSEDES: CNHX7 in part	SHEET 2 OF 2

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

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APPROVED 29 DEC 1967

REVISED 30 DEC 1970 FOR CHANGES SEE SHEET 1 FOR CHANGES SEE SHEET 2

30 July 1987

User Activities:  
Army - AV  
Navy - OS, MCReview Activities:  
Army - AT, CL, ME  
Air Force - 82  
DLA - CS

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