

MIL-STD-1514(USAF)

17 MARCH 1971

MILITARY STANDARD

**FITTINGS, TETRAFLUOROETHYLENE HOSE
HIGH TEMPERATURE, HIGH PRESSURE (3000 PSI)
HYDRAULIC AND PNEUMATIC
CLASSIFICATION OF DEFECTS**



FSC 4730

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DEPARTMENT OF THE AIR FORCE

Fittings, Tetrafluoroethylene Hose
High Temperature, High Pressure (3000 PSI)
Hydraulic and Pneumatic
Classification of Defects

MIL-STD-1514

1. This standard has been approved by the Air Force. Use of this standard by activities under cognizance of the Air Force shall be mandatory, effective on date of issue.

2. Recommended corrections, additions, or deletions should be addressed to Aeronautical Systems Division, Directorate of Engineering Standards, ATTN: FTZSS, Wright-Patterson AFB, O 45433.

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FITTINGS, TETRAFLUOROETHYLENE HOSE, HIGH TEMPERATURE, HIGH PRESSURE (3000 PSI) HYDRAULIC AND PNEUMATIC, CLASSIFICATION OF DEFECTS

1. SCOPE This standard covers the classification of defects for fittings covered by MIL-F-83296.

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issue in effect on date of invitation for bids or requests for proposal, form a part of this standard to the extent specified herein:

STANDARDS

Military

MS27616	Adapter Assembly, Flared, Straight, Tube to Hose - with Swivel Nut
MS27617	Adapter Assembly, Flared, 45° Elbow, Tube to Hose - with Swivel Nut
MS27618	Adapter Assembly, Flared, 90° Elbow, Tube to Hose - with Swivel Nut
MS27619	Nipple Sub-Assembly, Flared, Straight - with Swivel Nut
MS27620	Elbow Sub-Assembly, Flared, 45° Swivel Nut
MS27621	Elbow Sub-Assembly, Flared, 90°, Swivel Nut
MS27622	Socket, Hose Coupling
MS27623	Sleeve, Hose Coupling
MS27624	Union, Nipple
MS27625	Wire, Retainer
MS27626	Nipple, Flared, Tube to Hose- Swivel Nut
MS27627	Elbow, Flared, Tube to Hose - 90°, Swivel Nut
MS27628	Elbow, Flared, Tube to Hose - 45°, Swivel Nut
MS27629	Adapter Assembly, Flareless, Straight, Tube to Hose - with Swivel Nut
MS27630	Adapter Assembly, Flareless, 45° Elbow, Tube to Hose - with Swivel Nut
MS27631	Adapter Assembly, Flareless, 90° Elbow, Tube to Hose - with Swivel Nut

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MS27632	Nipple Sub-Assembly, Flareless, Straight - with Swivel Nut
MS27633	Elbow Sub-Assembly, Flareless, 45° with Swivel Nut
MS27634	Elbow Sub-Assembly, Flareless, 90° with Swivel Nut
MS27635	Nipple, Flareless, Tube to Hose - Swivel Nut
MS27636	Elbow, Flareless, Tube to Hose - 90° with Swivel Nut
MS27637	Elbow, Flareless, Tube to Hose - 45° with Swivel Nut

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

MS	Inspection for Defects		
	Major	Minor	Spotcheck
MS27616 thru MS27621	All component parts inspected and accepted to applicable defect classification.	Swivel action of wire-on components. Wire not properly assembled into wire hole.	
MS27629 thru MS27634	Correct components	Mutilations and general workmanship. Threads may be class 2B after proof pressure test.	
MS27622	Material Thread finish Gage point "AI" & "R" Thread size "I" Min thread depth "PG" Proper dry blast of threads as applicable	External diameter "E" and "H" Over-all length "A" Internal dia "M" Internal dia "S" Internal dia "AZ" Burrs, corner breaks, radii, form angles, and general workmanship	Angle "U" External length "B" External length "C" External dia "D" External dia "F" External dia "G" Hex size "J" Location of ID ring "K". Radius "L" Max thread depth "p"

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MS	Inspection for Defects		
	Major	Minor	Spotcheck
MS27623	Material Finish on area "AX" Chamfer dia "D" Serration dia "F" Gage point "J-B" Gage point "U-Z" 0.006R on crest of serrations. Proper application of dry film on area "AX"	Over-all length "A" External dia "C" Internal dia "E" Internal dia "G" Internal depth "p" External dia "H-K" Width-shoulder "R" Burrs, corner breaks radii, form angles and general workmanship. Discoloration due to heat treat shall not be cause for rejection.	Chamfer location "W-AK" Angle loc "Y-AF" Angle loc "Z-AC" Angle loc "AA-AJ" Angle loc "AB-AH" Angle loc "AD-AE" Internal length "AW" Internal length "AY" Serration depth "S" Rockwell hardness Angle "AB" Serration locations "M" & "N" Gage point "Y-AA" External lgt "AC" External lgt "AD" ID groove on OD
MS27624	Material Thread size "T" * Internal dia "p" Wire groove loc "M" Proper application of dry film in areas "X-Y"	Over-all length "A" External lgt "B" External dia "E" Thd relief dia "K" Wire hole dia "V" Wire hole loc "W" Wire groove dia "R" Thread size "T" Min lgt thread Major thd dia "G" Burrs, corner breaks and general workmanship	Width of thread Relief "C" Ext dia "D" & "F" Ext dia "H" Hex size "L" 30° wire hole loc angle. Wire groove width "X" Wire groove radius ID groove depth "AC" and location "AD"

* To be checked prior to application of dry film lubricant.

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MS	Inspection for Defects		
	Major	Minor	Spotcheck
MS27625	Material Finish on radius "E"	Over-all length "A" Diameter "C" Concentricity of radius "E" to dia "B" Burrs, gen finish straightness of wire Dry-film, passivation.	Diameter "B" Length "D" Radius "E"
MS27626	Material Finish on 45° sealing surface. Thread finish Radius "V" Thread size "T" * Proper dry film application in areas "X, Y & Z" Ext dia "J"	Ext length "A-B" Major thd dia "M" Thd relief dia "P" Int diam "S" Ext length "D" Min thd length Ext dia "AA" Burrs, corner break and general workmanship.	Hex size "C" Width thd relief "E" 45° ext angle Ext dia "K" Ext dia "p" Concentric within "B" dim Ext length "L" Angle "R" Ext length "W" ID groove depth "AC"& loc "AB" Ext dia "AD"
MS27627 MS27628	Material Finish on 45° Sealing surface. Radius "M" 45° Sealing angle Ext dia "J" Ext dia "C"	Drop dimn "R" Ext length "p" Wire groove dia "F" Int dia "N"	Wire groove loc "D" Ext length "B" Wire groove wdt "C" Ext length "A & S" Ext dia "H" Radius "L" Angle "K" Ext length "E"
MS27635	Material Finish on 45° sealing surface Thread finish Radius "V" Thd size "T" *	Ext lengths "A-B" Major thd dia "M" Thd relief dia "F" Int dia "S" Ext length "D" Min thd length Ext dia "AA"	Hex size "C" Width thd relief "E" 45° ext angle Ext dia "K" Ext dia "p" Concentric within "B" dim

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MS	Inspection for Defects		
	Major	Minor	Spotcheck
MS27637 MS27637	Proper dry film application in areas "X, Y & Z" Material Finish on 45° sealing surface Radius "M" 45° sealing surface External dia "J" External dia "G"	Burrs, corner break, and general workmanship. Drop dimension "R" Ext length "p" Wire groove dia "F" Internal dia "N"	Ext length "L" Angle "R" Ext length "W" ID groove depth "AC" and loc "AB" Ext dia "AD" Wire groove loc "D" External length "B" Wire groove wdt "C" External length "A & S" Ext dia "H" Radius "L" Angle "K" Ext length "E"

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