

INCH-POUND

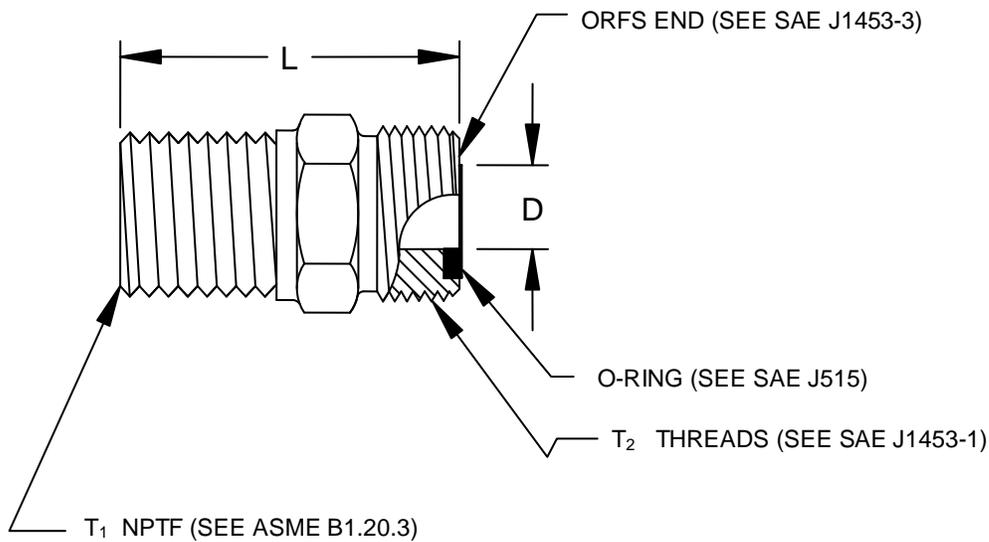
MIL-DTL-32372/1
5 December 2011

DETAIL SPECIFICATION SHEET

FITTING, ADAPTER, STRAIGHT, HYDRAULIC AND PNEUMATIC,
NPTF MALE TO ORFS MALE

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and
MIL-DTL-32372.



Dash size	Tube OD nom. inches (mm)	T ₁ NPTF ASME B1.20.3	T ₂ ORFS SAE J1453-1	D Inside dimension inches (mm)	L +/- .030 inches (mm)
-4	.2500 (6.35)	1/4 - 18	9/16 - 18	.172 +/- .003 (4.4)	1.220 (31.0)
-6	.3750 (9.53)	1/4 - 18	11/16 - 16	.297 +/- .004 (7.5)	1.430 (36.3)
-8	.5000 (12.7)	1/2 - 14	13/16 - 16	.391 +/- .004 (9.9)	1.530 (38.9)
-10	.6250 (15.88)	1/2 - 14	1 - 14	.484 +/- .004 (12.3)	1.890 (48.0)
-12	.7500 (19.05)	3/4 - 14	1-3/16 - 12	.609 +/- .005 (15.5)	2.060 (52.3)
-16	1.0000 (25.40)	1-7/16 - 12	1-7/16 - 12	.844 +/- .005 (21.4)	2.300 (58.4)
-20	1.2500 (31.75)	1-11/16 - 12	1-11/16 - 12	1.078 +/- .005 (27.4)	2.450 (62.2)
-24	1.5000 (38.10)	1-1/2 - 11 - 1/2	2 - 12	1.312 +/- .010/- .005 (33.3)	2.660 (67.6)

FIGURE 1. Fittings, hydraulic and pneumatic, NPTF to ORFS, straight male adapter.

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Break all sharp edges and remove all burrs and slivers.
4. Dimensions and tolerances not shown shall be in accordance with ASME B1.20.3 for NPTF end and SAE J1453-1 for ORFS end.

FIGURE 1. Fittings, hydraulic and pneumatic, NPTF to ORFS, straight male adapter – Continued.

REQUIREMENTS

Fitting configuration and dimensions shall be as specified on figure 1.

Materials and finishes shall be in accordance with MIL-DTL-32372.

Material and Finish designators. Material and Finish designators shall be as specified in table I. All platings shall be capable of meeting a minimum of 96 hours salt spray test in accordance with ASTM B117. The fittings shall show no evidence of corrosion after 96 hours of salt spray. Fluid passages, other openings, and internal threads shall not be subject to the plating thickness requirement and may have bare areas provided they are protected with a light film of oil.

TABLE I. Material and chemical finish identification codes and chemical finish reference specifications.

Part or Identifying Number (PIN) code material/plating finish	Material	Plating finish
Blank	Steel	Cadmium plating in accordance with SAE AMS-C-81562, type II, class 3 or SAE AMS-QQ-P-416, type II, class 2. ^{1/}
CN		Cadmium plating in accordance with SAE AMS-C-81562, type II, class 3 or SAE AMS-QQ-P-416, type II, class 2 with NAVAIR trivalent chromium pretreatment (TCP) in accordance with MIL-DTL-81706, type 2, class 1A.
E		NAVAIR TCP in accordance with MIL-DTL-81706, type 2, class 1A.
F	Steel	Zinc plate (finish J, P, or R) with NAVAIR TCP in accordance with MIL-DTL-81706, type 2, class 1 A.
H	Steel	Aluminum-nickel in accordance with ASTM F1136, grade 3, NC.
J	Steel	Zinc-nickel in accordance with SAE AMS2417, type 1.
M	Nickel-copper alloy UNS N04400	No additional finish.
N	High-chromium nickel alloy UNS N06690	No additional finish.
P	Steel	Zinc phosphate finish in accordance MIL-DTL-16232 type Z, class 1.
R	Steel	Zinc plating in accordance with ASTM B633; type VI, Fe/Zn 5. ^{2/}
S	Corrosion resistant steel	No additional finish. Passivation in accordance with SAE AMS2700, type 6 or 7.
T	Titanium	Anodize in accordance with SAE AMS2488 type 2.
Z	Steel	Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5.
ZN	Steel	Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5 with NAVAIR TCP in accordance with MIL-DTL-81706, type 2, class 1A.

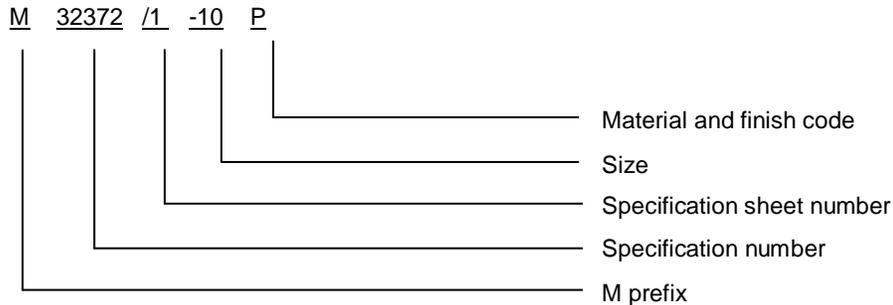
^{1/} Embitterment test need not be run.

^{2/} Hexavalent chromium free.

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Maximum operating pressure. Maximum operating pressure shall be in accordance with MIL-DTL-32372.

PIN: The PIN consists of the letter M, the basic specification number, the specification sheet number, a number for fitting size, and a letter for the material finish designator.



PIN example: M32372/1-10P indicates a male, straight, fitting, 5/8 inch tube OD, steel with zinc phosphate finish.

O-ring is not supplied order separately in accordance with SAE J515.

Cadmium is not recommended. To the users of this document, it is recommended that the use of carbon steel material with cadmium plating be used only when other materials and finishes specified in this document cannot meet performance requirements.

Referenced documents. In addition to MIL-DTL-32372, this document references the following:

- MIL-DTL-16232
- MIL-DTL-81706
- ASME B1.20.3
- ASTM B117
- ASTM B633
- ASTM B695
- ASTM F1136
- SAE AMS-C-81562
- SAE AMS-QQ-P-416
- SAE AMS2417
- SAE AMS2488
- SAE AMS2700
- SAE J1453-1
- SAE J1453-3
- SAE J515

CONCLUDING MATERIAL

Custodians:

Army – AR
Navy – SH
Air Force – 99
DLA – CC

Preparing activity:

DLA – CC

(Project 4730-2010-045)

Review activities:

Army – AT, GL
Navy – MC, SA, YD
Air Force – 71

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