

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

REV.  
D

AS4500

FEDERAL SUPPLY CLASS

## RATIONALE

CORRECTED NOTE NUMBERS AND CLARIFIED COVER CODES SHOWN IN TABLE 3. UPDATED NOTE 2 TO CURRENT STANDARD QPL WORDING.

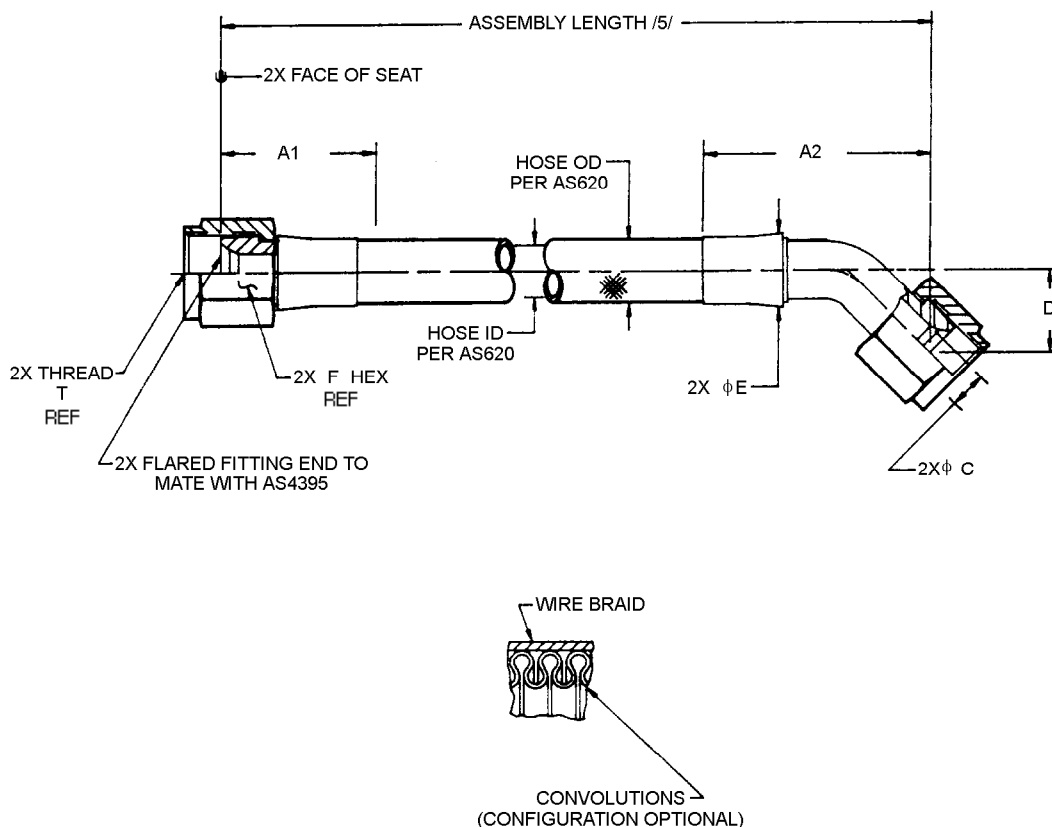


FIGURE 1 - HOSE ASSEMBLY

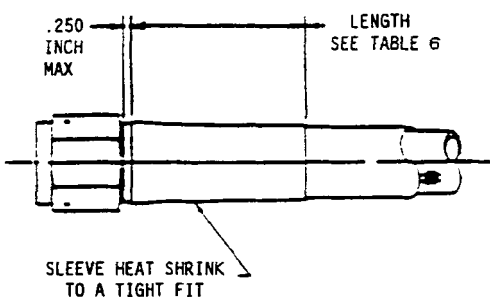
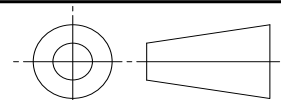


FIGURE 2 - SPIRAL AND POLYESTER ABRASION COVER /6/, /7/

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS4500D>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS620 /2/



## AEROSPACE STANDARD

HOSE ASSEMBLY, CONVOLUTED, POLYTETRAFLUOROETHYLENE, METALLIC REINFORCED CONDUCTIVE, FLARED, STRAIGHT TO 45°

AS4500  
SHEET 1 OF 5

REV.  
D

Documents

Copyright 2015 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)  
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)  
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

**TABLE 1 - ASSEMBLY DIMENSIONS**

| HOSE<br>ASSEMBLY<br>AS4500<br>SIZE CODE | HOSE<br>ASSEMBLY<br>SIZE<br>REF | THREAD T<br>PER AS8879<br>REF | A <sub>1</sub><br>MAX | A <sub>2</sub><br>MAX | ØC /8/<br>MIN | D<br>MIN | D<br>MAX | ØE /9/ MAX<br>WITHOUT<br>SLEEVING | F<br>HEX<br>REF |
|-----------------------------------------|---------------------------------|-------------------------------|-----------------------|-----------------------|---------------|----------|----------|-----------------------------------|-----------------|
| 04                                      | .250                            | .4375-20UNJF-3B               | 1.20                  | 1.62                  | .132          | .312     | .382     | .55                               | .56             |
| 06                                      | .375                            | .5625-18UNJF-3B               | 1.28                  | 1.86                  | .256          | .436     | .506     | .68                               | .69             |
| 08                                      | .500                            | .7500-16UNJF-3B               | 1.44                  | 2.18                  | .345          | .537     | .607     | .86                               | .88             |
| 10                                      | .625                            | .8750-14UNJF-3B               | 1.58                  | 2.42                  | .430          | .608     | .678     | .95                               | 1.00            |
| 12                                      | .750                            | 1.0625-12UNJ-3B               | 1.74                  | 2.77                  | .635          | .644     | .714     | 1.28                              | 1.25            |
| 16                                      | 1.000                           | 1.3125-12UNJ-3B               | 1.79                  | 3.05                  | .835          | .755     | .825     | 1.47                              | 1.50            |
| 20                                      | 1.250                           | 1.6250-12UNJ-3B               | 2.29                  | 3.68                  | 1.085         | .894     | .964     | 1.70                              | 1.81            |
| 24                                      | 1.500                           | 1.8750-12UNJ-3B               | 2.38                  | 3.95                  | 1.310         | 1.016    | 1.086    | 2.00                              | 2.12            |
| 32                                      | 2.000                           | 2.5000-12UNJ-3B               | 3.00                  | 5.38                  | 1.780         | 1.300    | 1.370    | 2.56                              | 2.75            |

**TABLE 2 - ASSEMBLY LENGTH TOLERANCE**

+ .250/- .125 INCH FOR LENGTHS UNDER 18 INCHES  
+ .500/- .250 INCH FOR LENGTHS FROM 18 TO 36 INCHES EXL.  
+ 1.000/- .500 INCH FOR LENGTHS FROM 36 TO 50 INCHES EXL.  
+ 2%/- 1% FOR LENGTHS 50 INCHES AND OVER

**TABLE 3 - HOSE OR COVER OUTSIDE DIAMETER**

| COVER<br>CODE | HOSE OR TYPE OF<br>PROTECTIVE COVER          | HOSE SIZE |           |            |             |             |             |             |             |             | UPPER<br>TEMP.<br>LIMIT<br>°F |
|---------------|----------------------------------------------|-----------|-----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|
|               |                                              | .250      | .375      | .500       | .625        | .750        | 1.00        | 1.25        | 1.50        | 2.00        |                               |
| -             | HOSE ONLY PER AS620                          | .413/.477 | .523/.587 | .723/.787  | .818/.882   | 1.028/1.092 | 1.266/1.330 | 1.494/1.558 | 1.758/1.822 | 2.293/2.357 | -                             |
| B             | SPIRAL ABRASION /6/                          | .505      | .615      | .825       | .935        | 1.140       | 1.358       | 1.630       | 1.890       | 2.395       | 275                           |
| H             | INTEGRAL FIRESLEEVE /10/                     | .710/.760 | .798/.862 | .978/1.055 | 1.100/1.202 | 1.300/1.392 | 1.478/1.610 | 1.718/1.840 | 1.968/2.120 | 2.480/2.564 | 400                           |
| N             | FIRESLEEVE SIL/FG (AS1072)                   | .900      | 1.030     | 1.150      | 1.380       | 1.590       | 1.800       | 2.060       | 2.320       | 2.740       | 400                           |
| K             | INTEGRAL ABRASION /7/<br>(BRAIDED) POLYESTER | .468/.532 | .598/.662 | .808/.872  | .888/.952   | 1.103/1.167 | 1.313/1.405 | 1.568/1.632 | 1.838/1.902 | 2.370/2.452 | 300                           |
| J             | INTEGRAL FIRESLEEVE /13/                     | .653/.717 | .763/.827 | .963/1.027 | 1.058/1.122 | 1.268/1.332 | 1.498/1.562 | -           | -           | 2.480/2.564 | 400                           |

**TABLE 4 - HOSE ASSEMBLIES PHYSICAL CHARACTERISTICS**

| HOSE<br>SIZE<br>REF | OPERATING<br>PRESSURE<br>MAX PSI | PROOF<br>PRESSURE<br>MIN PSI | BURST<br>PRESSURES<br>ROOM<br>TEMP<br>MIN PSI | BURST<br>PRESSURES<br>HIGH<br>TEMP<br>MIN PSI | BEND RADIUS<br>AT INSIDE<br>OF BEND<br>INCHES<br>(HOSE ONLY) |
|---------------------|----------------------------------|------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------------------------------------|
| 04                  | 1000                             | 2000                         | 4000                                          | 2800                                          | 1.25                                                         |
| 06                  | 1000                             | 2000                         | 4000                                          | 2800                                          | 2.25                                                         |
| 08                  | 1000                             | 2000                         | 4000                                          | 2800                                          | 2.88                                                         |
| 10                  | 1000                             | 1800                         | 3600                                          | 2500                                          | 3.00                                                         |
| 12                  | 1000                             | 1800                         | 3600                                          | 2500                                          | 3.75                                                         |
| 16                  | 1000                             | 1800                         | 3600                                          | 2500                                          | 5.00                                                         |
| 20                  | 1000                             | 1800                         | 3600                                          | 2500                                          | 6.25                                                         |
| 24                  | 750                              | 1500                         | 3000                                          | 2100                                          | 7.50                                                         |
| 32                  | 250                              | 500                          | 1000                                          | 700                                           | 10.00                                                        |



**AEROSPACE STANDARD**

HOSE ASSEMBLY, CONVOLUTED,  
POLYTETRAFLUOROETHYLENE, METALLIC REINFORCED  
CONDUCTIVE, FLARED, STRAIGHT TO 45°

AS4500  
SHEET 2 OF 5

REV.



Documents

Document Sharing Hub