

REV.
E

AS141

FEDERAL SUPPLY CLASS

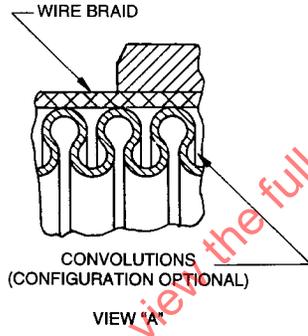
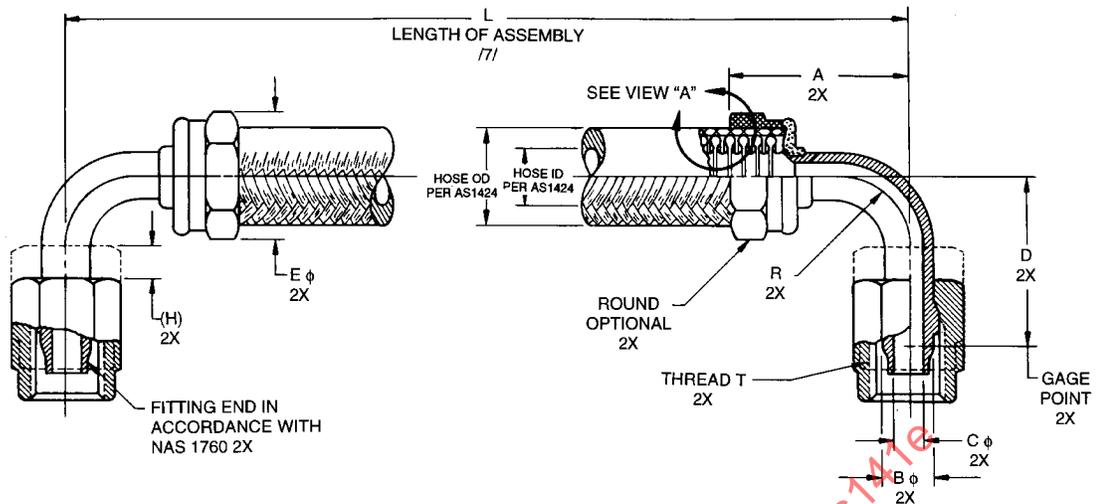


FIGURE 1 - HOSE ASSEMBLY

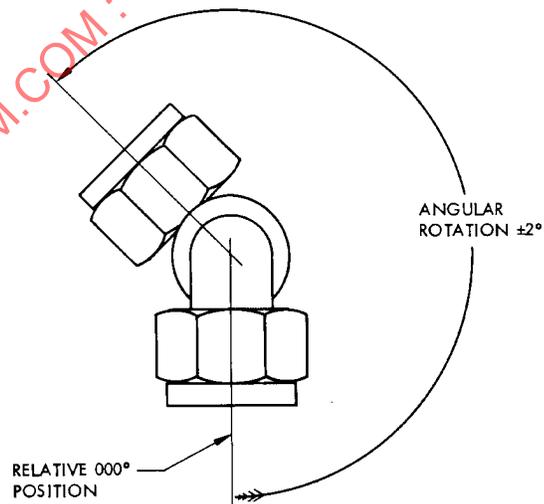


FIGURE 2 - FITTING ANGULAR ORIENTATION /11/

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AEROSPACE STANDARD

HOSE ASSEMBLY, METAL - MEDIUM PRESSURE,
FLARELESS, WELDED, 90° TO 90°

AS141
SHEET 1 OF 5

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ISSUED 1977-02 REVISED 2001-09

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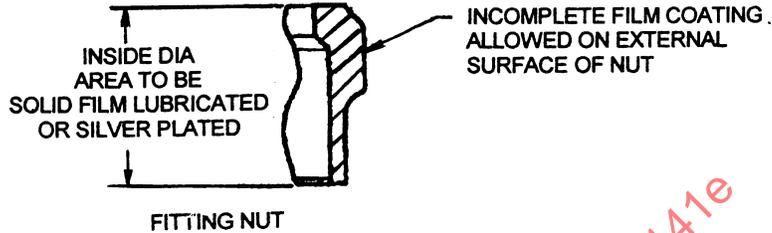
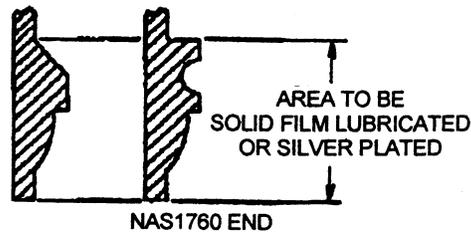


FIGURE 3 - LUBRICANT APPLICATION AREA /17/ /18/

TABLE 1 - ASSEMBLY DIMENSIONS

| HOSE ASSEMBLY SIZE CODE | HOSE SIZE (REF) | A MAX | B GAGE BASIC | C MIN THRU | | | | E (H) NOM | R (REF) | THREAD T PER AS8879 (ISO 3161) (REF) |
|-------------------------|-----------------|-------|--------------|------------|-------|-------|-------|-----------|---------|--------------------------------------|
| | | | | /8/ | D MIN | D MAX | MAX | | | |
| E | .250 | 1.18 | .2930 | .141 | .83 | 1.08 | .900 | .40 | .250 | .4375-20UNJF-3B |
| F | .312 | 1.24 | .3500 | .197 | .84 | 1.09 | 1.100 | .40 | .312 | .5000-20UNJF-3B |
| G | .375 | 1.31 | .4120 | .250 | .98 | 1.23 | 1.200 | .40 | .375 | .5625-18UNJF-3B |
| H | .500 | 1.50 | .5600 | .360 | 1.23 | 1.54 | 1.300 | .47 | .500 | .7500-16UNJF-3B |
| J | .625 | 1.75 | .6730 | .455 | 1.56 | 1.87 | 1.500 | .53 | .625 | .8750-14UNJF-3B |
| K | .750 | 2.06 | .8100 | .568 | 1.67 | 2.05 | 1.740 | .53 | .750 | 1.0625-12UNJ-3B |
| M | 1.000 | 2.50 | 1.0620 | .760 | 1.84 | 2.22 | 2.300 | .53 | 1.000 | 1.3125-12UNJ-3B |
| N | 1.250 | 2.97 | 1.3160 | .920 | 2.09 | 2.59 | 2.850 | .54 | 1.250 | 1.6250-12UNJ-3B |

TABLE 2 - ASSEMBLY LENGTH TOLERANCE

| HOSE ASSEMBLY LENGTH | LENGTH TOLERANCE |
|-----------------------|------------------|
| UNDER 10 in | ±.062 in |
| 10 TO 36 in EXCLUSIVE | ±.125 in |
| 36 TO 50 in EXCLUSIVE | ±.250 in |
| 50 in AND OVER | ±1% |

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TABLE 3 - HOSE ASSEMBLY PHYSICAL CHARACTERISTIC

| HOSE SIZE CODE | 70 °F /5/ | 70 °F /5/ | 70 °F /5/ |
|----------------------|----------------------------------|------------------------------|------------------------------|
| | OPERATING PRESSURE PSI MAX | PROOF PRESSURE PSI MIN | BURST PRESSURE PSI MIN |
| E | 2000 | 3000 | 8000 |
| F | 1800 | 2700 | 7200 |
| G | 1600 | 2400 | 6400 |
| H | 1400 | 2100 | 5600 |
| J | 1200 | 1800 | 4800 |
| K | 1050 | 1575 | 4200 |
| M | 800 | 1200 | 3200 |
| N | 550 | 825 | 2200 |

TABLE 4 - SPHERICAL BALL SIZE
FOR DETERMINING MINIMUM
HOSE ASSEMBLY ID /8/

| HOSE SIZE | ELBOW FITTING |
|-----------|---------------|
| E | .120 |
| F | .167 |
| G | .212 |
| H | .306 |
| J | .387 |
| K | .483 |
| M | .646 |
| N | .782 |

TABLE 5 - WEIGHTS (NOM)

| HOSE SIZE | HOSE LB/IN | STANDARD FITTING (LB) 90° ELBOW |
|--------------|---------------|------------------------------------|
| E | .016 | .05 |
| F | .018 | .08 |
| G | .020 | .09 |
| H | .028 | .15 |
| J | .038 | .24 |
| K | .042 | .44 |
| M | .058 | .68 |
| N | .072 | 1.02 |

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NOTES:

- /1/ MATERIALS:
- a. CLASS "N": INNERTUBE - NICKEL ALLOY TYPE 625
ALL OTHER COMPONENTS - 321 CORROSION RESISTANT STEEL
 - b. CLASS "S": ALL COMPONENTS - 321 CORROSION RESISTANT STEEL
- /2/ THIS HOSE ASSEMBLY SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS1424. SEE NOTE /15/. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.
- CHANGE-OVER FROM USER-QPL TO PRI-QPL SHALL BE PERFORMED IN ACCORDANCE WITH AS1424 AND COMPLETED WITHIN SIX MONTHS FROM THE DATE OF ISSUE OF PRI-QPL-AS1424. USERS OF THIS STANDARD SHALL PROCURE THIS PRODUCT FROM ACCREDITED MANUFACTURER(S), OR THEIR ACCREDITED DISTRIBUTOR(S), AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST PRI-QPL-AS1424 FOR THIS STANDARD.
3. MARKING SHALL BE PER AS1424 ON A STAINLESS STEEL BAND NOT OVER 1.0 in WIDE OR ON THE END FITTINGS. THE CHARACTERS SHALL BE A MINIMUM OF .060 HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOTION AND CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND.
4. THESE ASSEMBLIES ARE INTENDED FOR USE IN LOW AND MEDIUM PRESSURE PNEUMATIC SYSTEMS UP TO 850 °F WITH SHORT EXCURSIONS TO 1200 °F. MAXIMUM RATED OPERATING PRESSURE IS DEPENDENT ON AMBIENT OPERATING TEMPERATURE AND CAN BE DETERMINED FROM AS1424.
- /5/ SEE AS1424 FOR PRESSURES AT ELEVATED TEMPERATURE.
6. CONSTRUCTION AND PERFORMANCE PER AS1424. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.
- /7/ LENGTH "L" IS A FOUR DIGIT NUMBER OF WHICH THE FIRST THREE DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE FOURTH DIGIT, IN FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "GAGE POINT" TO "GAGE POINT". SEE TABLE 2 FOR ASSEMBLY LENGTH TOLERANCE.
- /8/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING ID. HOWEVER, THE APPLICABLE, OR LARGER, BALL DIAMETER LISTED IN TABLE 4 MUST BE CAPABLE OF PASSING THROUGH THE ASSEMBLY.
9. DIMENSIONS AND TOLERANCING: ASME Y14.5M-1994.
10. THESE HOSE ASSEMBLIES SHALL ONLY BE USED WHEN THE APPLICATION DOES NOT PRACTICALLY PERMIT THE USE OF A HOSE ASSEMBLY WITH AT LEAST ONE STRAIGHT END FITTING.
11. THE FITTING ORIENTATION DASH NUMBER IS A THREE DIGIT NUMBER DEFINING THE RELATIVE POSITION OF THE END FITTINGS IN 1° INCREMENTS (EXAMPLE 090 = 90°). FITTING ORIENTATION SHALL BE MEASURED COUNTERCLOCKWISE FROM THE NEAREST END FITTING WHICH SHALL BE IN THE RELATIVE 000° POSITION (SEE FIGURE 2). WHEN END FITTINGS ARE POINTING IN THE SAME DIRECTION, THE DASH NUMBER SHALL BE "000".
12. THIS PART STANDARD TAKES PRECEDENT IN CASE OF CONFLICT.
13. EXAMPLE OF PART NUMBER:

AS141 H 0244 S 090 L

