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REV.  
B

AS4405™

FEDERAL SUPPLY CLASS  
4730

## RATIONALE

TAPER DIMENSION ON BODY HEX FACES REVISED TO COINCIDE WITH CURRENT DIMENSIONS SPECIFIED ON DESIGN STANDARD, AS4395. "INACTIVE" REPLACED BY "NOT RECOMMENDED." CLASSES 3A AND 3B ADDED TO TABLE 1 HEADING FOR THE THREADS. NEW DIMENSION L ADDED TO ALLOCATE OF TAPER DIMENSION OF BODY HEX TO TABLE 2. MATERIAL CODE LETTER R, CRES 321, INTRODUCED AS AN OPTIONAL MATERIAL. FINISH FOR MATERIAL CODE LETTER R BEING INTRODUCED. PROCUREMENT SPECIFICATION NOTE UPDATED TO CURRENT QML VERBIAGE. UPDATED SPECIFICATION CALLOUTS FROM MIL-A-8625 TO MIL-PRF-8625 AND ARP4296 TO AS4296. NOTE /16/ REVISED TO REFLECT OPTIONAL DRY FILM CODE LETTER N CALLOUT FOR SWIVEL NUT. RECOMMENDATION USAGE NOTE FOR ALUMINUM IN NOTE /17/ REVISED. NEW USAGE RECOMMENDATION FOR MATERIAL 347 ADDED TO NOTE /17/. INVENTORY DISPOSITION NOTE 18 ADDED.

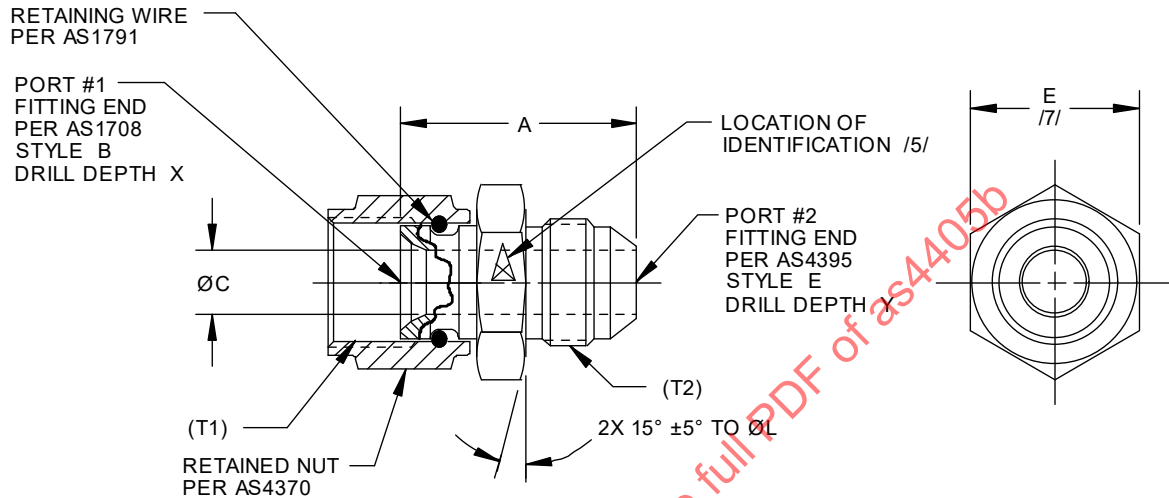


FIGURE 1 - FITTING ASSEMBLY, ADAPTER

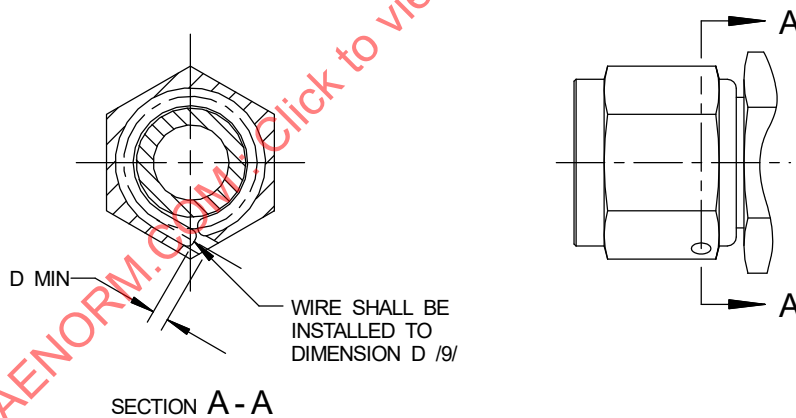
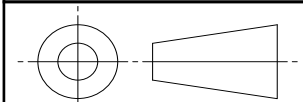


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

NOT RECOMMENDED IN PART /17/

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS4405B/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS4841 /4/



## AEROSPACE STANDARD

FITTING ASSEMBLY, ADAPTER,  
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ISSUED 1995-03 REVISED 2023-04

TABLE 1 - OVERALL LENGTH A

| SIZE OF<br>PORT #2 | SIZE OF<br>PORT #1<br>02 | SIZE OF<br>PORT #1<br>03 | SIZE OF<br>PORT #1<br>04 | SIZE OF<br>PORT #1<br>05 | SIZE OF<br>PORT #1<br>06 | SIZE OF<br>PORT #1<br>08 | SIZE OF<br>PORT #1<br>10 | SIZE OF<br>PORT #1<br>12 | SIZE OF<br>PORT #1<br>16 | SIZE OF<br>PORT #1<br>20 | SIZE OF<br>PORT #1<br>24 | SIZE OF<br>PORT #1<br>32 |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 02                 | .877                     | .889                     | .906                     | .962                     | 1.002                    | 1.082                    | 1.148                    | 1.166                    | 1.254                    | 1.383                    | 1.462                    | 1.690                    |
| 03                 | .917                     | .920                     | .937                     | .993                     | 1.033                    | 1.113                    | 1.179                    | 1.197                    | 1.285                    | 1.414                    | 1.493                    | 1.721                    |
| 04                 | .997                     | 1.000                    | 1.008                    | 1.064                    | 1.104                    | 1.184                    | 1.250                    | 1.268                    | 1.356                    | 1.485                    | 1.564                    | 1.792                    |
| 05                 | 1.006                    | 1.009                    | 1.017                    | 1.064                    | 1.104                    | 1.184                    | 1.250                    | 1.268                    | 1.356                    | 1.485                    | 1.564                    | 1.792                    |
| 06                 | 1.021                    | 1.024                    | 1.032                    | 1.079                    | 1.110                    | 1.190                    | 1.256                    | 1.274                    | 1.362                    | 1.491                    | 1.570                    | 1.798                    |
| 08                 | 1.140                    | 1.143                    | 1.151                    | 1.198                    | 1.229                    | 1.291                    | 1.357                    | 1.375                    | 1.463                    | 1.592                    | 1.671                    | 1.899                    |
| 10                 | 1.259                    | 1.262                    | 1.270                    | 1.317                    | 1.348                    | 1.410                    | 1.458                    | 1.476                    | 1.564                    | 1.693                    | 1.772                    | 2.000                    |
| 12                 | 1.383                    | 1.386                    | 1.394                    | 1.441                    | 1.472                    | 1.534                    | 1.582                    | 1.582                    | 1.670                    | 1.799                    | 1.878                    | 2.106                    |
| 16                 | 1.466                    | 1.469                    | 1.477                    | 1.524                    | 1.555                    | 1.617                    | 1.665                    | 1.665                    | 1.717                    | 1.846                    | 1.925                    | 2.153                    |
| 20                 | 1.549                    | 1.552                    | 1.560                    | 1.607                    | 1.638                    | 1.700                    | 1.748                    | 1.748                    | 1.800                    | 1.893                    | 1.972                    | 2.200                    |
| 24                 | 1.710                    | 1.713                    | 1.721                    | 1.768                    | 1.799                    | 1.861                    | 1.909                    | 1.909                    | 1.961                    | 2.054                    | 2.097                    | 2.325                    |
| 32                 | 2.032                    | 2.035                    | 2.043                    | 2.090                    | 2.121                    | 2.183                    | 2.231                    | 2.231                    | 2.283                    | 2.376                    | 2.419                    | 2.575                    |

TABLE 2 - DIMENSIONS C-L AND WEIGHTS

| BASIC NO.<br>AS4405<br>/16/<br>SIZE CODE | (NOMINAL<br>TUBE<br>SIZE) | T1, T2<br>THREAD<br>PER<br>AS8879<br>CLASS 3B, 3A | C           | D    | E           | L<br>±.010 | LB/EA<br>APPROX<br>REF<br>ALUM | LB/EA<br>APPROX<br>REF<br>CRES | LB/EA<br>APPROX<br>REF<br>TI |
|------------------------------------------|---------------------------|---------------------------------------------------|-------------|------|-------------|------------|--------------------------------|--------------------------------|------------------------------|
| 02                                       | .125                      | .3125-24 UNJF                                     | .058-.065   | .045 | .552-.565   | .542       | .018                           | .051                           | .029                         |
| 03                                       | .188                      | .3750-24 UNJF                                     | .121-.128   | .045 | .615-.628   | .605       | .021                           | .062                           | .036                         |
| 04                                       | .250                      | .4375-20 UNJF                                     | .168-.175   | .045 | .678-.691   | .668       | .024                           | .071                           | .041                         |
| 05                                       | .312                      | .5000-20 UNJF                                     | .230-.237   | .045 | .740-.753   | .730       | .028                           | .081                           | .046                         |
| 06                                       | .375                      | .5625-18 UNJF                                     | .293-.301   | .045 | .802-.815   | .792       | .041                           | .120                           | .069                         |
| 08                                       | .500                      | .7500-16 UNJF                                     | .387-.395   | .055 | .990-1.003  | .980       | .073                           | .211                           | .121                         |
| 10                                       | .625                      | .8750-14 UNJF                                     | .480-.488   | .063 | 1.113-1.128 | 1.103      | .105                           | .303                           | .174                         |
| 12                                       | .750                      | 1.0625-12 UNJ                                     | .604-.614   | .095 | 1.363-1.380 | 1.353      | .179                           | .520                           | .298                         |
| 16                                       | 1.000                     | 1.3125-12 UNJ                                     | .839-.851   | .125 | 1.613-1.630 | 1.603      | .248                           | .719                           | .412                         |
| 20                                       | 1.250                     | 1.6250-12 UNJ                                     | 1.073-1.086 | .155 | 1.863-1.880 | 1.853      | .438                           | 1.269                          | .727                         |
| 24                                       | 1.500                     | 1.8750-12 UNJ                                     | 1.307-1.320 | .180 | 2.109-2.135 | 2.099      | .586                           | 1.700                          | .974                         |
| 32                                       | 2.000                     | 2.5000-12 UNJ                                     | 1.776-1.791 | .180 | 2.734-2.760 | 2.724      | 1.117                          | 3.240                          | 1.856                        |

TABLE 3 - DRILL DEPTH X

| SIZE OF<br>PORT #2 | SIZE OF<br>PORT #1<br>02 | SIZE OF<br>PORT #1<br>03 | SIZE OF<br>PORT #1<br>04 | SIZE OF<br>PORT #1<br>05 | SIZE OF<br>PORT #1<br>06 | SIZE OF<br>PORT #1<br>08 | SIZE OF<br>PORT #1<br>10 | SIZE OF<br>PORT #1<br>12 | SIZE OF<br>PORT #1<br>16 | SIZE OF<br>PORT #1<br>20 | SIZE OF<br>PORT #1<br>24 | SIZE OF<br>PORT #1<br>32 |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 02                 | THRU                     | .301                     | .305                     | .343                     | .364                     | .417                     | .456                     | .437                     | .457                     | .518                     | .529                     | .620                     |
| 03                 | --                       | THRU                     | .323                     | .361                     | .383                     | .436                     | .475                     | .456                     | .475                     | .536                     | .547                     | .639                     |
| 04                 | --                       | --                       | THRU                     | .373                     | .394                     | .447                     | .486                     | .467                     | .486                     | .547                     | .558                     | .650                     |
| 05                 | --                       | --                       | --                       | THRU                     | .412                     | .465                     | .504                     | .485                     | .504                     | .565                     | .576                     | .668                     |
| 06                 | --                       | --                       | --                       | --                       | THRU                     | .488                     | .527                     | .508                     | .528                     | .588                     | .600                     | .691                     |
| 08                 | --                       | --                       | --                       | --                       | --                       | THRU                     | .512                     | .493                     | .513                     | .574                     | .585                     | .676                     |
| 10                 | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     | .510                     | .530                     | .591                     | .602                     | .693                     |
| 12                 | --                       | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     | .544                     | .605                     | .616                     | .707                     |
| 16                 | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     | .667                     | .678                     | .769                     |
| 20                 | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     | .707                     | .799                     |
| 24                 | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     | .859                     |
| 32                 | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | THRU                     |



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TABLE 4 - DRILL DEPTH Y

| SIZE OF<br>PORT #2 | SIZE OF<br>PORT #1<br>02 | SIZE OF<br>PORT #1<br>03 | SIZE OF<br>PORT #1<br>04 | SIZE OF<br>PORT #1<br>05 | SIZE OF<br>PORT #1<br>06 | SIZE OF<br>PORT #1<br>08 | SIZE OF<br>PORT #1<br>10 | SIZE OF<br>PORT #1<br>12 | SIZE OF<br>PORT #1<br>16 | SIZE OF<br>PORT #1<br>20 | SIZE OF<br>PORT #1<br>24 |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 03                 | .473                     | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       |
| 04                 | .540                     | .558                     | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       |
| 05                 | .531                     | .549                     | .561                     | --                       | --                       | --                       | --                       | --                       | --                       | --                       | --                       |
| 06                 | .527                     | .546                     | .557                     | .575                     | --                       | --                       | --                       | --                       | --                       | --                       | --                       |
| 08                 | .619                     | .638                     | .649                     | .667                     | .690                     | --                       | --                       | --                       | --                       | --                       | --                       |
| 10                 | .711                     | .730                     | .741                     | .759                     | .782                     | .767                     | --                       | --                       | --                       | --                       | --                       |
| 12                 | .798                     | .817                     | .831                     | .846                     | .869                     | .854                     | .871                     | --                       | --                       | --                       | --                       |
| 16                 | .813                     | .831                     | .842                     | .860                     | .884                     | .869                     | .886                     | .900                     | --                       | --                       | --                       |
| 20                 | .827                     | .846                     | .857                     | .875                     | .898                     | .884                     | .901                     | .915                     | .997                     | --                       | --                       |
| 24                 | .921                     | .939                     | .950                     | .968                     | .991                     | .977                     | .994                     | 1.008                    | 1.070                    | 1.100                    | --                       |
| 32                 | 1.106                    | 1.125                    | 1.136                    | 1.154                    | 1.177                    | 1.162                    | 1.179                    | 1.193                    | 1.255                    | 1.285                    | 1.345                    |

NOTES:

## NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

## a. DASH AS CODE LETTER:

- (1) BODY: TYPE 4130 STEEL BAR PER AMS-S-6758 OR AMS6370.
- (2) NUT: DASH AS CODE LETTER OF AS4370 (TYPE 4130 STEEL).
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

## b. CODE LETTER D /17/:

- (1) BODY: TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6; OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS4339.
- (2) NUT: CODE LETTER D OF AS4370 (TYPE 2024 ALUMINUM ALLOY).
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

## c. CODE LETTER J:

- (1) BODY: TYPE 304 CORROSION RESISTANT STEEL BAR PER AMS5639 OR AMS-QQ-S-763.
- (2) NUT: CODE LETTER J OF AS4370 (TYPE 304 CORROSION RESISTANT STEEL).
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

## d. CODE LETTER K:

- (1) BODY: TYPE 316 CORROSION RESISTANT STEEL BAR PER AMS5648 OR AMS-QQ-S-763.
- (2) NUT: CODE LETTER K OF AS4370 (TYPE 316 CORROSION RESISTANT STEEL).
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

## e. CODE LETTER R:

- (1) BODY: TYPE 321 CORROSION RESISTANT STEEL BAR PER AMS5645 OR AMS-QQ-S-763.
- (2) NUT: CODE LETTER R OF AS4370 (TYPE 321 CORROSION RESISTANT STEEL).
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).



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- f. CODE LETTER S:
- (1) BODY: TYPE 347 CORROSION RESISTANT STEEL BAR PER AMS5646 OR AMS-QQ-S-763.
  - (2) NUT: CODE LETTER S OF AS4370 (TYPE 347 CORROSION RESISTANT STEEL).
  - (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).
- g. CODE LETTER T:
- (1) BODY: TYPE 6AL-4V TITANIUM ALLOY BAR PER AMS4928.
  - (2) NUT: CODE LETTER T OF AS4370 (TYPE 6AL-4V TITANIUM ALLOY).
  - (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).
- h. CODE LETTER W:
- (1) BODY: TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.
  - (2) NUT: CODE LETTER W OF AS4370 (TYPE 7075 ALUMINUM ALLOY).
  - (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).
2. HEAT TREATMENT PER PROCUREMENT SPECIFICATION.
3. FINISH:
- a. DASH AS MATERIAL CODE LETTER:
- (1) BODY: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK.
  - (2) NUT: DASH AS MATERIAL CODE LETTER OF AS4370 (CADMIUM PLATE, DYED BLACK).
  - (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).
- b. MATERIAL CODE LETTER D:
- (1) BODY: ANODIZE PER AMS2472 OR MIL-PRF-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL.
  - (2) NUT: MATERIAL CODE LETTER D OF AS4370 (ANODIC COATING, DYE BLUE).
  - (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).
- c. MATERIAL CODE LETTER J:
- (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.
  - (2) NUT: MATERIAL CODE LETTER J OF AS4370 (PASSIVATED).
  - (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).
- d. MATERIAL CODE LETTER K:
- (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.
  - (2) NUT: MATERIAL CODE LETTER K OF AS4370 (PASSIVATED)
  - (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).
- e. MATERIAL CODE LETTER R:
- (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.
  - (2) NUT: MATERIAL CODE LETTER R OF AS4370 (PASSIVATED).
  - (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

|                                                                                     |                                                                                        |  |                                |                         |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|--------------------------------|-------------------------|
|  | <b>AEROSPACE STANDARD</b>                                                              |  | <b>AS4405™</b><br>SHEET 4 OF 6 | <b>REV.</b><br><b>B</b> |
|                                                                                     | FITTING ASSEMBLY, ADAPTER,<br>REDUCER AND NONREDUCER,<br>INTERNAL FLARE TO FLARED TUBE |  |                                |                         |