

REV.  
A

AS21938

FEDERAL SUPPLY CLASS  
4730

## RATIONALE

THIS FITTING STANDARD IS REVISED TO INCLUDE PRI-QPL REQUIREMENTS, UPDATED THE WEIGHT VALUES IN TABLE AND MAINTAIN TO SUPPORT MILITARY AIRCRAFT CURRENTLY IN OPERATION.

## NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S MILITARY STANDARD MS21938D. THIS SAE STANDARD RETAINS THE SAME PART NUMBER ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

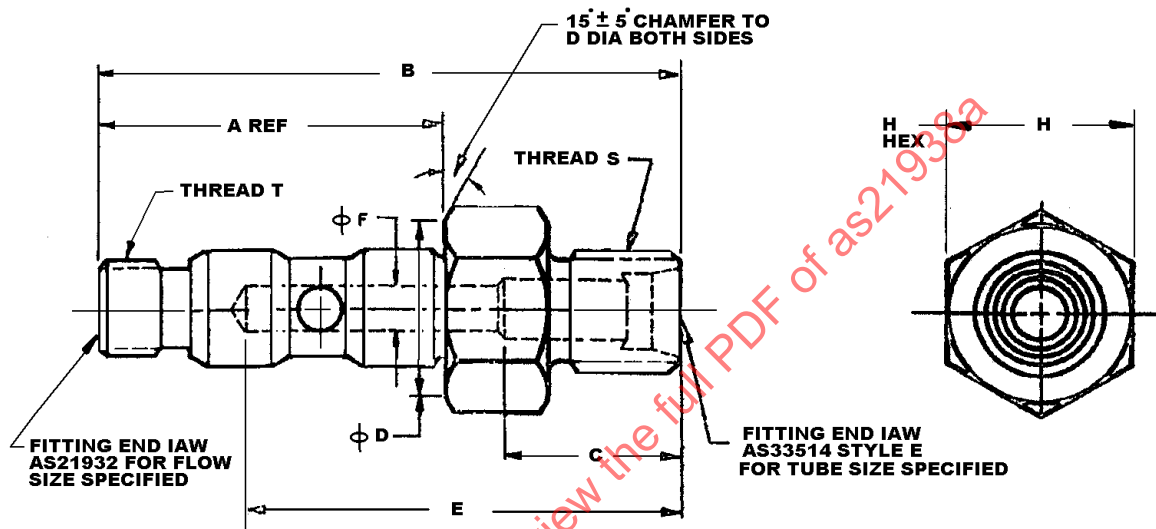
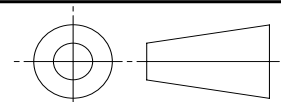


FIGURE 1 - BOLT, CLUSTER FITTING, SINGLE PORT, FLARELESS, DIMENSIONS AND CONFIGURATION

INACTIVE PART /14/

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: AS18280 /10/

**SAE Aerospace**  
An SAE International Group

## AEROSPACE STANDARD

(R) BOLT, CLUSTER FITTING,  
SINGLE PORT  
FLARELESS

**AS21938**  
SHEET 1 OF 4

**REV.  
A**

TABLE 1A - BOLT, CLUSTER FITTING, SINGLE PORT, FLARELESS,  
LOW FLOW, DIMENSIONS (A TO D)

| LOW<br>FLOW<br>SIZE<br>DASH<br>NO. | TUBE<br>OD | THREAD S<br>AS8879 | THREAD T<br>AS8879 | A<br>REF | B     | C<br>±.062 | D<br>+000<br>-.015 |
|------------------------------------|------------|--------------------|--------------------|----------|-------|------------|--------------------|
| -3L                                | .1875      | .3750-24 UNJF-3A   | .4375-20 UNJF-3A   | 1.438    | 2.172 | --         | .621               |
| -4L                                | .2500      | .4375-20 UNJF-3A   | .4375-20 UNJF-3A   | 1.438    | 2.235 | --         | .684               |
| -5L                                | .3125      | .5000-20 UNJF-3A   | .4375-20 UNJF-3A   | 1.438    | 2.297 | --         | .746               |
| -6L                                | .3750      | .5625-18 UNJF-3A   | .4375-20 UNJF-3A   | 1.438    | 2.344 | .663       | .871               |
| -8L                                | .5000      | .7500-16 UNJF-3A   | .4375-20 UNJF-3A   | 1.438    | 2.437 | .656       | .996               |

TABLE 1B - BOLT, CLUSTER FITTING, SINGLE PORT, FLARELESS,  
LOW FLOW, DIMENSIONS (F-H)

| LOW<br>FLOW<br>SIZE<br>DASH<br>NO. | TUBE<br>OD | THREAD S<br>AS8879 | THREAD T<br>AS8879 | E<br>±.062 | F<br>±.003 | H - HEX<br>MIN MAX | WT<br>LB<br>APPROX |
|------------------------------------|------------|--------------------|--------------------|------------|------------|--------------------|--------------------|
| -3L                                | .1875      | .3750-24 UNJF-3A   | .4375-20 UNJF-3A   | 1.568      | .125       | .621 .628          | .027               |
| -4L                                | .2500      | .4375-20 UNJF-3A   | .4375-20 UNJF-3A   | 1.653      | .187       | .684 .691          | .038               |
| -5L                                | .3125      | .5000-20 UNJF-3A   | .4375-20 UNJF-3A   | 1.715      | .234       | .746 .753          | .047               |
| -6L                                | .3750      | .5625-18 UNJF-3A   | .4375-20 UNJF-3A   | 1.750      | .234       | .871 .878          | .059               |
| -8L                                | .5000      | .7500-16 UNJF-3A   | .4375-20 UNJF-3A   | 1.844      | .234       | .996 1.003         | .132               |

TABLE 2A - BOLT, CLUSTER FITTING, SINGLE PORT, FLARELESS,  
HIGH FLOW, DIMENSIONS (A TO D)

| HIGH<br>FLOW<br>SIZE<br>DASH<br>NO. | TUBE<br>OD | THREAD S<br>AS8879 | THREAD T<br>AS8879 | A<br>REF | B     | C<br>±.062 | D<br>+000<br>-.015 |
|-------------------------------------|------------|--------------------|--------------------|----------|-------|------------|--------------------|
| -6H                                 | .3750      | .5625-18 UNJF-3A   | .5625-18 UNJF-3A   | 1.688    | 2.594 |            | .871               |
| -8H                                 | .5000      | .7500-16 UNJF-3A   | .5625-18 UNJF-3A   | 1.688    | 2.687 |            | .996               |
| -10H                                | .6250      | .8750-14 UNJF-3A   | .5625-18 UNJF-3A   | 1.688    | 2.750 | .812       | 1.121              |

TABLE 2B - BOLT, CLUSTER FITTING, SINGLE PORT, FLARELESS,  
HIGH FLOW, DIMENSIONS (F TO H)

| HIGH<br>FLOW<br>SIZE<br>DASH<br>NO. | TUBE<br>OD | THREAD S<br>AS8879 | THREAD T<br>AS8879 | E<br>±.062 | F<br>±.003 | H - HEX<br>MIN MAX | WT<br>LB<br>EACH<br>APPROX |
|-------------------------------------|------------|--------------------|--------------------|------------|------------|--------------------|----------------------------|
| -6H                                 | .3750      | .5625-18 UNJF-3A   | .5625-18 UNJF-3A   | 1.913      | .297       | .871 .878          | .098                       |
| -8H                                 | .5000      | .7500-16 UNJF-3A   | .5625-18 UNJF-3A   | 2.030      | .422       | .995 1.003         | .105                       |
| -10H                                | .6250      | .8750-14 UNJF-3A   | .5625-18 UNJF-3A   | 2.055      | .422       | 1.121 1.128        | .111                       |

NOTES:

1. MATERIALS: ALUMINUM ALLOY 7075 - SEE PROCUREMENT SPECIFICATION.
2. FINISH: SEE PROCUREMENT SPECIFICATION.
3. REMOVE BURRS AND SHARP EDGES.
4. INSTALLATION IN ACCORDANCE WITH MS21931.
5. SURFACE FINISH IN ACCORDANCE WITH ASME B46.1. UNLESS OTHERWISE SPECIFIED ALL OUTSIDE MACHINED SURFACE SHALL BE 125  $\mu$ in Ra AND ALL INSIDE SURFACE SHALL BE 250  $\mu$ in Ra.
6. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED TOLERANCES DECIMALS  $\pm$ .010, ANGLES  $\pm$ .5°.
7. DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-1994.
8. PART NUMBERS:

LETTERS "L" AND "H" IN PART NUMBERS INDICATE "LOW FLOW" AND "HIGH FLOW" RESPECTIVELY.

CODE "W" FOLLOWING BASIC PART NUMBER MS21938 INDICATES 7075 ALUMINUM ALLOY.

NO CODE LETTER FOR ALUMINUM ALLOY 2014/2024 ARE CANCELLED SUPERSEDED BY CODE "W" 7075 ALUMINUM. 2014/2024 PARTS ARE NO LONGER AVAILABLE FOR PROCUREMENT AFTER 2006.

EXAMPLES OF PART NUMBERS:

MS21938W4L - BOLT, .2500 TUBING, LOW FLOW, 7075 ALUMINUM ALLOY

MS21938W10H - BOLT, .6250 TUBING, HIGH FLOW, 7075 ALUMINUM ALLOY

9. SEE TABLE 3 FOR CANCELLED AND SUPERSEDED DOCUMENT AND PART NUMBERS.

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|                                                                                                                   |                                                        |                                |                         |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------|-------------------------|
| <br>An SAE International Group | <b>AEROSPACE STANDARD</b>                              | <b>AS21938</b><br>SHEET 3 OF 4 | <b>REV.</b><br><b>A</b> |
|                                                                                                                   | (R) BOLT, CLUSTER FITTING,<br>SINGLE PORT<br>FLARELESS |                                |                         |