



| PART NUMBER   | NOM DIA. | A            | C MAX. | D DIA.       | F DRIVING FLATS | H MAX. | J DIA MAX. | K MAX. | N MIN. | R RAD.       | HOLE SIZE    | BREAK-OFF LIMITS | PREVAILING TORQUE IN. LBS. MIN. | DOUBLE SHEAR STRENGTH LBS. MIN. | TENSILE STRENGTH LBS. MIN. |
|---------------|----------|--------------|--------|--------------|-----------------|--------|------------|--------|--------|--------------|--------------|------------------|---------------------------------|---------------------------------|----------------------------|
| PLT211-05-(-) | .179     | .250<br>.244 | .293   | .180<br>.178 | .086<br>.081    | .096   | .244       | .272   | .272   | .020<br>.010 | .183<br>.180 | +088<br>+000     | 1.0                             | 3355                            | 900                        |
| PLT211-06-(-) | .214     | .312<br>.305 | .328   | .215<br>.213 | .104<br>.099    | .113   | .300       | .312   | .340   | .025<br>.015 | .218<br>.215 | +098<br>+010     | 1.5                             | 5240                            | 1400                       |
| PLT211-08-(-) | .275     | .375<br>.367 | .379   | .276<br>.274 | .135<br>.130    | .135   | .384       | .351   | .409   | .025<br>.015 | .279<br>.276 | +135<br>+047     | 2.5                             | 9000                            | 2100                       |
| PLT211-10-(-) | .326     | .437<br>.429 | .446   | .327<br>.325 | .152<br>.147    | .160   | .427       | .426   | .479   | .030<br>.015 | .330<br>.327 | +146<br>+043     | 3.5                             | 12000                           | 3600                       |
| PLT211-12-(-) | .389     | .500<br>.491 | .535   | .390<br>.388 | .185<br>.180    | .190   | .516       | .495   | .548   | .030<br>.015 | .393<br>.390 | +152<br>+049     | 4.0                             | 19500                           | 5600                       |

| SECOND DASH NUMBER | G GRIP | GRIP RANGE |       | L REF.  |         |         |         |         |
|--------------------|--------|------------|-------|---------|---------|---------|---------|---------|
|                    |        | MIN        | MAX   | PLT211  |         |         |         |         |
|                    |        |            |       | -05-(-) | -06-(-) | -08-(-) | -10-(-) | -12-(-) |
| -01                | .093   | .031       | .093  | .733    | .874    | -       | -       | -       |
| -02                | .156   | .094       | .156  | .795    | .936    | 1.006   | 1.158   | -       |
| -03                | .219   | .157       | .219  | .858    | .999    | 1.069   | 1.221   | 1.304   |
| -04                | .281   | .220       | .281  | .920    | 1.061   | 1.131   | 1.283   | 1.367   |
| -05                | .344   | .282       | .344  | .983    | 1.124   | 1.194   | 1.346   | 1.429   |
| -06                | .406   | .345       | .406  | 1.045   | 1.186   | 1.256   | 1.408   | 1.492   |
| -07                | .469   | .407       | .469  | 1.108   | 1.249   | 1.319   | 1.471   | 1.554   |
| -08                | .531   | .470       | .531  | 1.170   | 1.311   | 1.381   | 1.533   | 1.617   |
| -09                | .594   | .532       | .594  | 1.233   | 1.374   | 1.444   | 1.596   | 1.679   |
| -10                | .656   | .595       | .656  | 1.295   | 1.436   | 1.506   | 1.658   | 1.742   |
| -11                | .719   | .657       | .719  | 1.358   | 1.499   | 1.569   | 1.721   | 1.804   |
| -12                | .781   | .720       | .781  | 1.420   | 1.561   | 1.631   | 1.783   | 1.867   |
| -13                | .844   | .782       | .844  | 1.483   | 1.624   | 1.694   | 1.846   | 1.929   |
| -14                | .906   | .845       | .906  | 1.545   | 1.686   | 1.756   | 1.908   | 1.992   |
| -15                | .969   | .907       | .969  | 1.608   | 1.749   | 1.819   | 1.971   | 2.054   |
| -16                | 1.031  | .970       | 1.031 | 1.670   | 1.811   | 1.881   | 2.033   | 2.117   |

| SECOND DASH NUMBER | G GRIP | GRIP RANGE |       | L REF.  |         |         |         |         |
|--------------------|--------|------------|-------|---------|---------|---------|---------|---------|
|                    |        | MIN        | MAX   | PLT211  |         |         |         |         |
|                    |        |            |       | -05-(-) | -06-(-) | -08-(-) | -10-(-) | -12-(-) |
| -17                | 1.094  | 1.032      | 1.094 | 1.874   | 1.944   | 2.096   | 2.179   |         |
| -18                | 1.156  | 1.095      | 1.156 | 1.936   | 2.006   | 2.158   | 2.242   |         |
| -19                | 1.219  | 1.157      | 1.219 | 1.999   | 2.069   | 2.221   | 2.304   |         |
| -20                | 1.281  | 1.220      | 1.281 | 2.061   | 2.131   | 2.283   | 2.367   |         |
| -21                | 1.344  | 1.282      | 1.344 | 2.124   | 2.194   | 2.346   | 2.429   |         |
| -22                | 1.406  | 1.345      | 1.406 | 2.186   | 2.256   | 2.408   | 2.492   |         |
| -23                | 1.469  | 1.407      | 1.469 | 2.249   | 2.319   | 2.471   | 2.554   |         |
| -24                | 1.531  | 1.470      | 1.531 | 2.311   | 2.381   | 2.533   | 2.617   |         |
| -25                | 1.594  | 1.532      | 1.594 | 2.374   | 2.444   | 2.596   | 2.679   |         |
| -26                | 1.656  | 1.595      | 1.656 | 2.436   | 2.506   | 2.658   | 2.742   |         |
| -27                | 1.719  | 1.657      | 1.719 | 2.499   | 2.569   | 2.721   | 2.804   |         |
| -28                | 1.781  | 1.720      | 1.781 | 2.561   | 2.631   | 2.783   | 2.867   |         |
| -29                | 1.844  | 1.782      | 1.844 | 2.624   | 2.694   | 2.846   | 2.929   |         |
| -30                | 1.906  | 1.845      | 1.906 | 2.686   | 2.756   | 2.908   | 2.992   |         |
| -31                | 1.969  | 1.907      | 1.969 | 2.749   | 2.819   | 2.971   | 3.054   |         |
| -32                | 2.031  | 1.970      | 2.031 | 2.811   | 2.881   | 3.033   | 3.117   |         |

▲ "G" TOLERANCE: FOR -05 AND -06 SIZES +.030/-0.10; FOR -08 & -10 SIZES +.040/-0.10; FOR -12 SIZES +.050/-0.10.



PROCUREMENT SPEC: ESCBB-2 CLASS I.

MATERIAL: NUT & SCREW: ALLOY STEEL: 4130 PER AMS-S-6758, 4140 PER AMS6382 OR AMS6349 OR 8740 PER AMS6322.  
 SLEEVE: CORROSION RESISTANT STEEL: 303 OR 304 PER AMS-QQ-S-763, AMS5639 OR AMS5641.

HEAT TREAT: NUT & SCREW: HEAT TREAT PER AMS2759. APPROXIMATELY 180,000-200,000 PSI TENSILE (HRC 39-43).  
 SLEEVE: AS REQUIRED FOR PERFORMANCE.

FINISH: NUT & SCREW: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. CADMIUM PLATE PER NAS 672 IS PERMISSIBLE PROVIDED IT IS FOLLOWED BY A DICHROMATE POST TREATMENT PER AMS-QQ-P-416.  
 SLEEVE: PASSIVATE PER AMS2700. CADMIUM PLATE PER AMS-QQ-P-416, TYPE I, CLASS 3.

LUBRICANT: LUBRICANTS LISTED BELOW MAY BE APPLIED TO ANY OR ALL COMPONENTS IF REQUIRED FOR PERFORMANCE.  
 NUT: WWM CARBO-WAX, PARAFFIN WAX, AND/OR CETYL ALCOHOL PER AS87132.  
 SCREW & SLEEVE: DRY FILM LUBE PER AS5272 TYPE I OR MIL-PRF-81329, WWM CARBO-WAX, PARAFFIN WAX, AND/OR CETYL ALCOHOL PER AS87132.

PART CODE & EXAMPLE: PLT211 - 05 - 05

GRIP LENGTHS IN 1/16THS  
 NOMINAL BODY DIAMETER AS TABULATED  
 BASIC PART NUMBER, 1/64" OVERSIZE, SELF-LOCKING BLIND FASTENER

GENERAL NOTES:

1. OUTSIDE DIAMETER OF HEAD OF SCREW AND OUTSIDE DIAMETER OF SLEEVE SHALL NOT EXCEED MAXIMUM "D" DIAMETER.
2. REMOVE ALL LOOSE OR HANGING BURRS.
3. LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT AND APPROXIMATELY .040 ABOVE THE INTERSECTION OF THE NUT NOSE ANGLE AND O.D. (MEAN GRIP OF FASTENER).
4. THE PREVAILING TORQUE SHALL CONFORM TO THE VALUES AS TABULATED, WHEN TESTED IN ACCORDANCE WITH SPECIFICATION ESCBB-2. HOWEVER, PREVAILING TORQUES FOR THE PLT211-05-01 AND PLT211-06-01 SHALL BE RECORDED THRU A ROTATION OF ONLY 360° OF THE NUT.
5. MANUFACTURER'S IDENTIFICATION: (REFER TO NOTE 7 FOR INTERIM IDENTIFICATION)  
 LETTER "N" DESIGNATES MONOGRAM AEROSPACE FASTENERS.  
 LETTERS "VS" DESIGNATE VOI-SHAN.
6. HEAD MARKINGS ON NUT DEPRESSED .010 MAX.
7. THE PRODUCT DESCRIBED BY THIS DRAWING IS "EQUIVALENT TO" AND "INTERCHANGEABLE WITH" THE MANUFACTURER'S PRODUCT LISTED BELOW EXCEPT FOR THE HEAD IDENTIFICATION MARKING. WHEN THESE EQUIVALENT FASTENERS ARE SUPPLIED, THE HEAD IDENTIFICATION MAY BE AS SHOWN BELOW:  
 MONOGRAM...: PL0164-PL0375 SERIES (MARKING: " - " AND/OR "N" OVERSTAMPED "L" OR "SL").  
 VOI-SHAN...: VA 405 SERIES (MARKING: "VS", "AV", AND "SL"; NUT HEAD MAY BE COLORED BLUE).
8. STANDARD FINISHES AND LUBRICANTS ARE SHOWN ABOVE. REFER TO SPECIFICATION ESCBB-4 FOR SPECIAL FINISHES AND/OR LUBRICANTS, IF REQUIRED.
9. HALF-GRIP SIZES MAY BE ORDERED BY ADDING (.5) TO THE GRIP DASH NUMBERS.  
 EXAMPLE: PLT211-06-4.5 INDICATES A NOMINAL GRIP LENGTH OF 4.5 SIXTEENTHS = .281.  
 THE GRIP RANGE FOR THESE HALF-GRIP SIZES WILL BE NOMINAL GRIP +.031/-.030.  
 THE BASIC "G" DIMENSION WILL BE NOMINAL GRIP +.031 AND THE OVERALL SCREW LENGTH "L" DIMENSION MAY VARY AT MANUFACTURER'S OPTION.
10. STANDARD GRIP LENGTHS ARE AS TABULATED, SHORTER OR LONGER GRIPS THAN THOSE LISTED MAY BE AVAILABLE AS SPECIALS. ON GRIP LENGTHS SHORTER THAN THOSE LISTED, THE BREAKOFF LIMITS AND PREVAILING TORQUES AS TABULATED DO NOT APPLY.
11. DISTORTION OF "D" DIAMETER SHALL NOT PREVENT INSERTION OF THE FASTENER INTO A RING GAUGE OF LENGTH EQUAL TO ONE DIAMETER AND DIAMETER EQUAL TO MAXIMUM "D" + .001". FORCE FOR INSERTION SHALL NOT EXCEED FIVE (5) POUNDS.
12. DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.

|   |        |   |                     |                        |                       |              |               |
|---|--------|---|---------------------|------------------------|-----------------------|--------------|---------------|
| <br>3423 SOUTH GARFIELD AVENUE<br>COMMERCE, CALIFORNIA 90040<br>(323) 722-4760 FAX (323) 727-1029   | TITLE: | VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE ALLOY STEEL PROTRUDING HEX HEAD, SELF LOCKING 1/64" OVERSIZE |                     | DRAWING NO:            | PLT211-( )-( )        |              |               |
|   |        |   |                     | DRAWN BY:              | G.MARTINEZ            | DRAWN DATE:  | 07-09-13      |
|   |        |   |                     | APPROVED BY:           |                       |              | CHECKED DATE: |
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|   |        |   | 5M902               | 98524                  | ECN DATE:<br>11/03/14 | SHEET 2 OF 2 |               |