**Title:** VISU-LOK, FASTENER, BLIND
INTERNALLY THREADED, EXTERNAL SLEEVE
A-286 ALLOY STEEL
PROTRUDING HEX HEAD, SELF LOCKING
1/64" OVERSIZE

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>NOM DIA</th>
<th>A</th>
<th>C MAX</th>
<th>D DIA</th>
<th>H MAX</th>
<th>J DIA</th>
<th>K MAX</th>
<th>N MIN</th>
<th>R RAD</th>
<th>HOLE SIZE</th>
<th>BREAK-OFF LIMITS</th>
<th>TENSILE STRENGTH</th>
<th>DOUBLE SHEAR STRENGTH</th>
<th>INDENTED HEX OPTIONAL</th>
<th>LOCKING AREA</th>
<th>SELF LOCKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLT221-05(-)</td>
<td>.179</td>
<td>.250</td>
<td>.293</td>
<td>.180</td>
<td>.086</td>
<td>.244</td>
<td>.272</td>
<td>.272</td>
<td>.020</td>
<td>.183</td>
<td>+.088 +.000</td>
<td>1.0</td>
<td>3150</td>
<td>900</td>
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<tr>
<td>PLT221-06(-)</td>
<td>.214</td>
<td>.372</td>
<td>.328</td>
<td>.213</td>
<td>.104</td>
<td>.340</td>
<td>.340</td>
<td>.340</td>
<td>.025</td>
<td>.218</td>
<td>+.103 +.015</td>
<td>1.5</td>
<td>4600</td>
<td>1400</td>
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<tr>
<td>PLT221-08(-)</td>
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<td>.276</td>
<td>.135</td>
<td>.384</td>
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<td>.384</td>
<td>.025</td>
<td>.279</td>
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<td>7900</td>
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<tr>
<td>PLT221-10(-)</td>
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<td>.448</td>
<td>.327</td>
<td>.152</td>
<td>.427</td>
<td>.427</td>
<td>.427</td>
<td>.030</td>
<td>.330</td>
<td>+.130 +.027</td>
<td>3.5</td>
<td>11350</td>
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<td>PLT221-12(-)</td>
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<td>.500</td>
<td>.535</td>
<td>.390</td>
<td>.182</td>
<td>.516</td>
<td>.495</td>
<td>.548</td>
<td>.030</td>
<td>.393</td>
<td>+.130 +.027</td>
<td>4.0</td>
<td>16450</td>
<td>5600</td>
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</table>

**ALLOY IDENTIFICATION**

- "C" INDICATES A-286 STEEL
- MANUFACTURER’S IDENTIFICATION
- MONOGRAM = “N”
- VOI-SHAN = “VS”

**TYPICAL INSTALLATION**

- **GRIFF RANGE:**
  - MIN
  - MAX
- **L REF.**
  - PLT221
- **DRAWING NO.:**
  - PLT221-( )-( )

**NOTE:**

- "G" TOLERANCE: FOR -05 AND -06 SIZES +.030/-010; FOR -08 & -10 SIZES +.040/-010; FOR -12 SIZE +.050/-010.

**DRAWING:**

- APPROVED BY: G. MARTINEZ
- DRAWN DATE: 06-22-13

**TECHNICAL SPECIFICATIONS:**

- MONOGRAM AEROSPACE FASTENERS
- A TriMas company
- 3423 SOUTH GARFIELD AVENUE, COMMERCE, CALIFORNIA 90040
- (323) 722-4760   FAX (323) 727-1029
PROCUREMENT SPEC: ESCBB-2 CLASS II.

MATERIAL: NUT, SCREW, & SLEEVE: CORROSION RESISTANT STEEL, TYPE A-286 PER AMS5731, AMS5732 OR AMS5737.

HEAT TREAT: NUT, SCREW, & SLEEVE: SOLUTION HEAT TREATED AND AGED TO A CORE HARDNESS OF HRC 30 TO 45. ALL CORE HARDNESS READINGS ARE TAKEN ON MOUNTED SPECIMEN. USING A BRALE PENETRATOR AND A 30 Kg LOAD (ROCKWELL 30N).

FINISH: NUT, SCREW, & SLEEVE: PASSIVATE PER AMS2700.

LUBRICANT: LUBRICANTS LISTED BELOW MAY BE APPLIED TO ANY OR ALL COMPONENTS IF REQUIRED FOR PERFORMANCE.

DRY FILM LUBE PER A55272 TYPE I OR MIL-PRF-81329, WWM CARBO-WAX, PARAFFIN WAX AND/OR CETYL ALCOHOL PER A587132.

PART CODE & EXAMPLE: PLT221 - 05 - 05

GRIP LENGTHS IN 1/16THS NOMINAL BODY DIAMETER AS TABULATED

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.


4. THE PREVAILING TORQUE SHALL CONFORM TO THE VALUES AS TABULATED, WHEN TESTED IN ACCORDANCE WITH SPECIFICATION ESCBB-2. HOWEVER, PREVAILING TORQUES FOR THE PLT221-05-01 AND PLT221-06-01 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 COLOR IDENTIFICATION, HEAD MARKING, AND SELF-LOCKING FEATURE. EXISTING STOCK MAY BE REWORKED TO COLOR AND HEAD MARKING MAY BE AS SHOWN BELOW:

MONOGRAM...: PL0164A-PL0375A SERIES MARKING: "-" AND/OR "N" OVERSTAMPED "L" OR "SL"; NUT MAY BE COLORED RED.

VOI-SHAN...: VA 407 SERIES MARKING: "VS", "O", "V" AND/OR "SL"; NUT MAY BE COLORED GOLD.

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: PLT221-06-4.5 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. 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.

11. 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.

12. DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.

ALCOA
3423 SOUTH GARFIELD AVENUE
COMMERCE, CALIFORNIA 90040
(323) 722-4760     FAX (323) 727-1029

TITLED:
VISU-LOK, FASTENER, BLIND
INTERNALLY THREADED, EXTERNAL SLEEVE
A-286 ALLOY STEEL
PROTRUDING HEX HEAD, SELF LOCKING
1/64" OVERSIZE

DRAWING NO:
PLT221-( )-( )

DRAWN BY:
G.MARTINEZ 06-22-13

APPROVED BY:
5M902

MONOGRA
98524

REV R
11/04/14 SHEET 2 OF 2