MATERIAL:
SLEEVE: CRES PER AMS 5639 (304) OR AMS 5514 (305)
NUT: 1050 CARBON STEEL PER AMS 5085, H.T. TO 160,000 PSI MIN ULTIMATE TENSILE STRENGTH
BRACKET: 1050 CARBON STEEL PER AMS 5085, H.T. TO HRC 42-47
FINISH CODE:
ALL COMPONENTS: CAD PLATE PER AMS QQ-P-416, TYPE II, CLASS 2 (YELLOW)
NUT: DRI-FILM LUBRICANT PER MIL-PRF-46010

NOTES:
1. "AA" GRIP RECOMMENDED PANEL PREPARATION:
SIZES 12, 12F, 12C NOT RECOMMENDED FOR LESS THAN .060 THICKNESSES
SIZES 8, 8F, 10, 10F, 10C, 10D C'SINK – "Q" DIMENSION .276-.281, "R2" DIMENSION .343
SIZES 2, 4, 4F, 6, 6F C'SINK – "R2" DIMENSION .275
2. SOFT – DIMENSION FOR SOFT ALUMINUM ALLOYS & PLASTICS
HARD - DIMENSION FOR HARD ALUMINUM ALLOYS & STEEL
(SEE PCD 160012 FOR MORE DETAILS)
3. A MINIMUM OF TWO THREADS ARE DEFORMED TO PRODUCE SELF-LOCKING
ACTION PER NASM25027 WHEN LOCKING FEATURE IS REQUIRED.
4. NUT ELEMENT HAS .060 TOTAL RADIAL FLOAT FOR GRIP LENGTHS "AA"
THRU "C" AND .046 MIN. FOR GRIP LENGTHS GREATER THAN "C".
5. FOR NUT ELEMENT REPLACEMENT P/N SEE DWG. S-0877.
6. NUT ELEMENT COLOR CODE: (PCD 160147)
   NONE – LOCKING STANDARD THREADS
   GREEN - NONLOCKING STANDARD THREADS
   YELLOW – COARSE THREADS
   ORANGE – FAST LEAD THREADS
   SKY BLUE – "MJ" METRIC THREADS.
7. TO OBTAIN ADDITIONAL WEIGHTS ADD INCREMENTS OF .010 PER LETTER CODE FOR 4, 4F, 6, 6F;
   .020 FOR 8, 8F, 10, 10F, 10C, 10D, 12, 12F, 12C.
8. THREAD SIZE CODE.
9. COMPLETE TOOL ASSEMBLY INCLUDES NOSE PIECE, PULLER, & HANDLE.
10. NUT ELEMENT REMOVAL TOOL AVAILABLE, P/N RB 6527.
11. FOR HIGH VOLUME INSTALLATION RATES, ALTERNATE POWER TOOLING IS AVAILABLE.
    PLEASE CONTACT AFS INSTALLATION SYSTEMS FOR MORE INFORMATION.
12. THREAD DIMENSIONS APPLY PRIOR TO APPLICATION OF DRI-FILM LUBRICANT.
    POSSIBLE THREAD TIGHTNESS DUE TO LUBE BUILDUP WILL DIMINISH FOLLOWING ENGAGEMENT
    OF MATING PART.
13. MECHANICAL PROPERTIES PER NASM25027 WHEN INSTALLED PER NASM14200. APPLIES TO
    SIZES LISTED IN NASM14200 ONLY.

### HAND INSTALLATION TOOL SELECTION TABLE

<table>
<thead>
<tr>
<th>TOOL TYPE</th>
<th>COMPLETE HAND TOOL ASSEMBLY</th>
<th>PULLER</th>
<th>NOSE PIECE</th>
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<td>DCSN86130(−)</td>
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<tr>
<th>INSTALLATION TOOLS:</th>
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<tbody>
<tr>
<td>ARBOR PRESS TOOL HW ( * ) 7659(−)</td>
</tr>
<tr>
<td>ANVIL HW ( * ) 7658(−)</td>
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<tr>
<td>FORMER HW ( * ) 7657(−)</td>
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<td>PULLER</td>
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</table>

Alcoa Fastening Systems

AEROSPACE FASTENER DIVISION
3728 EAST COLUMBIA STREET
TUCSON, ARIZONA 85714
PHONE 520 519-7400
FAX 520 519-7427

J. SCHLOBOHM
J. CALLAWAY
J. HEIN

SCALE: 2:1
SHEET 2 OF 4
MATERIAL:
SLEEVE: CRES PER AMS 5639 (304) OR AMS 5514 (305)
NUT: 1050 CARBON STEEL PER AMS 5085, H.T. TO
160,000 PSI MIN ULTIMATE TENSILE STRENGTH
BRACKET: 1050 CARBON STEEL PER AMS 5085, H.T. TO HRC 42-47

FINISH CODE:
ALL COMPONENTS: CAD PLATE PER AMS QQ-P-416, TYPE II, CLASS 2 (YELLOW)
NUT: DRI-FILM LUBRICANT PER MIL-PRF-46010

NOTES:

1. “AA” GRIP RECOMMENDED PANEL PREPARATION:
   SIZES M6 NOT RECOMMENDED FOR LESS THAN 1.52 THICKNESS
   SIZES M4, M5 – “Q” DIMENSION 7.01-7.14; “R2” DIMENSION 8.71.
   SIZES M2, M2.5, M3, M3.5 “C’SINK” – “R2” DIMENSION 6.99.

2. SOFT – DIMENSION FOR SOFT ALUMINUM ALLOYS & PLASTICS
   HARD – DIMENSION FOR HARD ALUMINUM ALLOYS & STEEL
   (SEE PCD 160012 FOR MORE DETAILS)

3. A MINIMUM OF TWO THREADS ARE DEFORMED TO PRODUCE SELF-LOCKING
   ACTION PER NASM25027 FOR SIMILAR INCH SIZE NUTPLATE WHEN LOCKING
   FEATURE IS REQUIRED.

4. NUT ELEMENT HAS 1.52 TOTAL RADIAL FLOAT FOR GRIP LENGTHS “AA”
   THRU “C” AND 1.17 MIN. FOR GRIP LENGTHS GREATER THAN “C”.

5. FOR NUT ELEMENT REPLACEMENT P/N SEE DWG. S-0877.

6. NUT ELEMENT COLOR CODE: (PCD 160147)
   SKY BLUE – “MJ” METRIC THREADS.

7. TO OBTAIN ADDITIONAL WEIGHTS ADD INCREMENTS OF 5g PER
   LETTER CODE FOR M2, M2.5, M3, M3.5; 9g FOR M4, M5, M6.

8. THREAD SIZE CODE.

9. COMPLETE TOOL ASSEMBLY INCLUDES NOSE PIECE, PULLER, & HANDLE.

10. NUT ELEMENT REMOVAL TOOL AVAILABLE, P/N RB 6527.

11. FOR HIGH VOLUME INSTALLATION RATES, ALTERNATE POWER TOOLING IS AVAILABLE.
    PLEASE CONTACT AFS INSTALLATION SYSTEMS FOR MORE INFORMATION.


13. ALL DIMENSIONS ARE IN MILLIMETERS.

14. THREAD DIMENSIONS APPLY PRIOR TO APPLICATION OF DRI-FILM LUBRICANT.
    FOLLOWING ENGAGEMENT OF MATING PART, POSSIBLE THREAD TIGHTNESS
    DUE TO LUBE BUILDUP WILL DIMINISH.

15. AISI 4130 PER SAE AMS 6348 MAY BE USED AS AN OPTIONAL NUT ELEMENT MATERIAL
    FOR ASSEMBLIES CERTIFIED TO ALCOA FASTENING SYSTEMS (FF6010 SERIES) PART
    NUMBERS ONLY.

HAND INSTALLATION TOOL SELECTION TABLE

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( ) = THREAD SIZE CODE

INSTALLATION TOOLS:
ARBOR PRESS TOOL HW ( * ) 7659(-) 
ANVIL HW ( * ) 7658(-) 
FORMER HW ( * ) 7657(-) 

HAND INSTALLATION TOOLS:
NOSE PIECE
PULLER
HANDLE ASSEMBLY TA7533

METRIC NUT PLATE, RIVETLESS, STANDARD, FLOATING

AEROSPACE FASTENER DIVISION
3724 EAST COLUMBIA STREET
TUCSON, ARIZONA 85714
PHONE 520 519-7400
FAX 520 519-7427

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