NOTICE: ALL DIMENSIONS ARE IN INCHES AND APPLY AFTER FINISH AND BEFORE LUBRICATION UNLESS OTHERWISE SPECIFIED.

WARNING: FASTENERS MAY NOT PERFORM PROPERLY IF ALTERED FROM THE MANUFACTURER’S AS-SHIPPED CONDITION OR INSTALLED IN CONDITIONS OTHER THAN SPECIFIED HEREIN.

PROCUREMENT SPECIFICATION:
PS-CNP-1000

CHERRY® RIVETLESS NUT-PLATE
0.060 INCH BOLT CLEARANCE

NUT PLATE INSTALLATION SEQUENCE

PREPARE HOLE
INSERT ASSEMBLY, PULL MANDREL
INSTALLED NUT PLATE

MATERIAL:

STRUCTURE
HOLE SIZE

MINIMUM GRIP
INSTALLATION TOOLING

NUT ELEMENT
NUT RETAINER
MANUFACTURER’S IDENTIFICATION
GRIP IDENTIFICATION
MANDREL (DISPOSABLE)

NOTICE: PRINTED COPIES OF THIS DOCUMENT ARE FOR "REFERENCE" ONLY. CURRENT REVISIONS ARE AVAILABLE ONLINE.

NOTICE: ALL DIMENSIONS ARE IN INCHES AND APPLY AFTER FINISH AND BEFORE LUBRICATION UNLESS OTHERWISE SPECIFIED.

WARNING: FASTENERS MAY NOT PERFORM PROPERLY IF ALTERED FROM THE MANUFACTURER’S AS-SHIPPED CONDITION OR INSTALLED IN CONDITIONS OTHER THAN SPECIFIED HEREIN.

PROCUREMENT SPECIFICATION:
PS-CNP-1000

CHERRY® RIVETLESS NUT-PLATE
0.060 INCH BOLT CLEARANCE

NUT PLATE INSTALLATION SEQUENCE

PREPARE HOLE
INSERT ASSEMBLY, PULL MANDREL
INSTALLED NUT PLATE

MATERIAL:

STRUCTURE
HOLE SIZE

MINIMUM GRIP
INSTALLATION TOOLING

NUT ELEMENT
NUT RETAINER
MANUFACTURER’S IDENTIFICATION
GRIP IDENTIFICATION
MANDREL (DISPOSABLE)
### TABLE I: ASSEMBLY DIMENSIONS

<table>
<thead>
<tr>
<th>NUT DESIGNATION</th>
<th>NUT ELEMENT</th>
<th>A MAX</th>
<th>B MAX</th>
<th>C REF E MAX</th>
<th>Z MIN INSTALLATION HOLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>.3125-18UNC-2B</td>
<td>.036</td>
<td>.775</td>
<td>.665</td>
<td>1.400</td>
</tr>
</tbody>
</table>

### TABLE II: RETAINER GRIP SELECTION

<table>
<thead>
<tr>
<th>RETAINER GRIP DASH NO.</th>
<th>MINIMUM GRIP F REF</th>
<th>MAXIMUM GRIP STANDARD MANDREL</th>
<th>LONG MANDREL</th>
</tr>
</thead>
<tbody>
<tr>
<td>-03</td>
<td>.125</td>
<td>.110</td>
<td>.500</td>
</tr>
<tr>
<td>-04</td>
<td>.190</td>
<td>.170</td>
<td>1.000</td>
</tr>
</tbody>
</table>

### TABLE III: MECHANICAL PROPERTIES

<table>
<thead>
<tr>
<th>NUT DESIGNATION</th>
<th>RETAINER GRIP DASH NO.</th>
<th>NUT ELEMENT PER NAS1794 AXIAL TENSILE STRENGTH OF CRES MATERIAL AT ROOM TEMPERATURE (lbf, MIN)</th>
<th>ASSEMBLY MECHANICAL PROPERTIES (4) TORQUE-OUT (in-lbf, MIN)</th>
<th>PUSH-OUT (lbf, MIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>-03 &amp; LONGER</td>
<td>6360</td>
<td>160</td>
<td>125</td>
</tr>
</tbody>
</table>
### TABLE IV: MATERIAL AND FINISH

<table>
<thead>
<tr>
<th>NUT</th>
<th>RETAINER</th>
<th>MANDREL 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIAL CODE</td>
<td>MATERIAL</td>
<td>FINISH CODE</td>
</tr>
<tr>
<td>C</td>
<td>A-286 CRES PER AMS5525, AMS55732, OR AMS55757</td>
<td>NO CODE</td>
</tr>
<tr>
<td></td>
<td>A-286 CRES PER AMS5525</td>
<td>NO CODE</td>
</tr>
<tr>
<td>A</td>
<td>C1050 CARBON STEEL PER AMS55085</td>
<td>MAGNIS60</td>
</tr>
<tr>
<td></td>
<td>A-286 CRES PER AMS55731</td>
<td>NO CODE</td>
</tr>
</tbody>
</table>
NOTES:

① FASTENER GRIP IDENTIFICATION STAMPED ON RETAINER. RETAINERS WITHOUT GRIP IDENTIFICATION MAY BE USED UNTIL STOCK IS DEPLETED.

② FASTENER SIZE DESIGNATION STAMPED ON RETAINER, OPTIONAL.

③ MANUFACTURER’S IDENTIFICATION LETTER “T” STAMPER ON RETAINER.

④ TORQUE-OUT AND PUSH-OUT VALUES APPLY TO ASSEMBLIES INSTALLED IN THE RECOMMENDED HOLE SIZE IN 2024-T3, 7075-T73, OR AN EQUIVALENT STRENGTH ALUMINUM ALLOY.

⑤ MATERIAL DESIGNATION REFERS TO CHEMICAL COMPOSITION ONLY PER APPROPRIATE SPECIFICATION.

⑥ “Z” IS THE MINIMUM I.D. OF NUT RETAINER AFTER INSTALLATION.

⑦ THREADS IN ACCORDANCE WITH ASME B1.1 BEFORE THREAD LOCK AND LUBRICATION.

⑧ USE CHERRY® INSTALLATION TOOL, ADAPTER, AND PULLING HEAD AS SHOWN BELOW, OR CONSULT CHERRY AEROSPACE LLC FOR OTHER INSTALLATION TOOLING OPTIONS.

<table>
<thead>
<tr>
<th>NUT DESIGNATION</th>
<th>INSTALLATION TOOL</th>
<th>PULLING HEAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>G84</td>
<td>H84C-404NP</td>
</tr>
</tbody>
</table>

⑨ FLOAT OF NUT ELEMENT OF ASSEMBLY SHALL NOT BE LESS THAN .030 INCH RADIALY FROM CENTERED POSITION. NUT ELEMENT SHALL BE CAPABLE OF ENGAGEMENT WITH BOLT IN THE MAXIMUM MISALIGNED POSITION.

⑩ STANDARD MANDREL MAY BE INSTALLED IN MATERIAL A MAXIMUM OF .500 INCH IN THICKNESS. LONG MANDREL MAY BE INSTALLED IN MATERIAL A MAXIMUM OF 1.000 INCH IN THICKNESS.

⑪ MANDREL MATERIAL (STAINLESS OR ALLOY STEEL) AND FINISH IS AT MANUFACTURER’S OPTION.

⑫ OPTIONAL: LUBE MAY BE APPLIED TO THE MANDREL FOR PERFORMANCE.

⑬ FINISH CODES WITH THE PREFIX “G” INDICATE REACH COMPLIANT COATING.
EXAMPLE OF CHERRY PART NUMBER:

CNP19  C  S  1  L  03  CC

- RETAINER FINISH CODE
- RETAINER GRIP DASH NUMBER
- MANDREL STEM LENGTH: "-" = STANDARD MANDREL
  "L" = LONG MANDREL
- NUT FINISH CODE
- NUT COUNTERBORE DASH NUMBER
- NUT DESIGNATION
- NUT MATERIAL CODE
- BASIC PART NUMBER
<table>
<thead>
<tr>
<th>REV LTR</th>
<th>DATE</th>
<th>DCR NUMBER</th>
<th>REVISION DESCRIPTION</th>
<th>COMP. BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>7-08-15</td>
<td>14-1298</td>
<td>• ADDED REACH COMPLIANT COATING GCC</td>
<td>MC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• ADDED NOTE 13</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• GENERAL CLEANUP AND STANDARDIZATION</td>
<td></td>
</tr>
</tbody>
</table>