ForceTec Lite utilizes FTI’s new Accelerated Installation Method (AIM) to cold expand the nut plate into the hole and seal in one precise movement.

FORCETEC LITE RIVETLESS NUT PLATE ADVANTAGES:

- One step installation
- Reduced life cycle cost
- Light weight
- Engineered for high volume applications
- Zero waste stream
- Factory-sealed: No sealant required after installation
- Easily Automated

AND RECEIVE THE CLASSIC BENEFITS OF FORCETEC:

- Enhanced fatigue life and damage tolerance
- Superior corrosion resistance
- Rivetless and adhesive-free for superior process reliability
- Prevents fuel leaks

FASTER INSTALLATION
INTRODUCING FORCETEC LITE

ForceTec Lite is the newest member in the ForceTec Rivetless Nut Plate family. It has the traditional benefits of ForceTec but offers a factory sealed nut and rapid one-step installation process. ForceTec Lite is designed for high volume applications in lieu of riveted, bonded or gang channel nut plate products to meet overall installed cost, reduced weight, and life cycle targets.

ForceTec Lite outperforms other nut plate products

<table>
<thead>
<tr>
<th>Installation Time</th>
<th>Adhesively Bonded Nut Plate</th>
<th>Riveted Nut Plate</th>
<th>Gang Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>Many</td>
<td></td>
</tr>
<tr>
<td>Installed Weight</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Waste Stream</td>
<td>Medium</td>
<td>Low</td>
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</tr>
<tr>
<td>Factory Noise Below Workplace Safety Targets</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Fatigue Life/Damage Tolerance</td>
<td>No benefit over open hole</td>
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Performs well under extreme conditions

FTI’s Test Lab performed extreme abuse and sealing tests on ForceTec Lite, and it more than met the challenge. Here’s an example of a test sequence for a 0.25-inch diameter nut plate:

1. Cyclic Pressure Leak Test
   • 1000 cycles at 50-55 psi
2. Vibration test per NASM1312-7
   • 30,000 cycles at 0.450-inch amplitude/30 Hz
3. Application of maximum axial tensile load per NASM25027
   • 1 rep at 4580 lbs min. using threaded fastener
4. Application of maximum torque out load per NASM25027
   • 15 reps at 100 in-lb min. applied using a “shanked bolt”
5. Application of maximum pushout load per NASM25027
   • 50 reps at 125 lb min. applied using a threaded fastener
6. Static Pressure Leak Test
   • 15 one-half hour cycles at 17-22 psi
7. Cyclic Pressure Leak Test

Test results: PASSED

AIM FOR SPEED AND PERFORMANCE

ForceTec Lite uses FTI’s new Accelerated Installation Method (AIM). This newly engineered process takes advantage of sound cold expansion principles and proven FTI puller technology to cold expand the nut into the structure in one precise movement.

This method can be easily automated.

Accelerated Installation Method (AIM) Procedure

Insert and hold the nut plate in the correct size hole

Insert the AIM mandrel into the nut plate

Activate the puller unit to install and seal the nut plate

Repeat the process at the next hole

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