



Fastening Review

www.thinklightweight.com

LIGHTWEIGHT PANEL FASTENING

- Lightweight Panel fastening
 - Often this question comes up after a customer recognizes the unique advantages of lightweight panels:

“How do I fasten to it?”

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- We categorize the solution to this question into the following 2 areas:
 - Low volume/medium strength requirements
 - High volume/high strength requirements

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- Low volume/medium strength requirements
 - In this situation we recommend use of the Hafele Varianta hollow core screw
 - Part # 013.30.900
 - Predrill to 3 mm
 - Deep spline offers medium strength

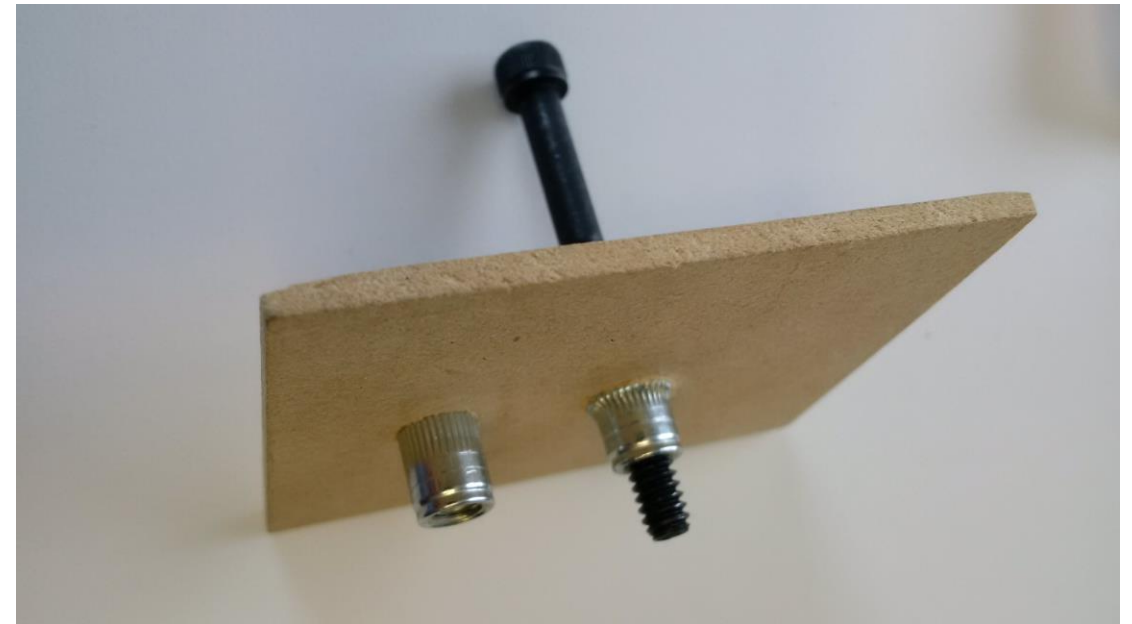


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- High volume/high strength requirements
 - In this situation we recommend use of the Avdel threaded insert
 - This installs a threaded insert into the skin material
 - Part #'s vary by thread required and skin thickness
 - Insert offers high strength
 - Fastening tool is semi-automatic
 - Installation tool cost is approx. \$1,700 so volume must justify tool cost
 - See images illustrating installed fasteners on the next slide

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- High volume/high strength requirements



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- Skin thickness
 - Both fastener applications can be used with a variety of skin thicknesses
 - The Hafele Varianta screw can be used in any skin thickness, the strength will increase with the thickness of the skin
 - The Avdel fastener must be ordered specifically for skin thickness as the crimp is toleranced to a predetermined skin material thickness

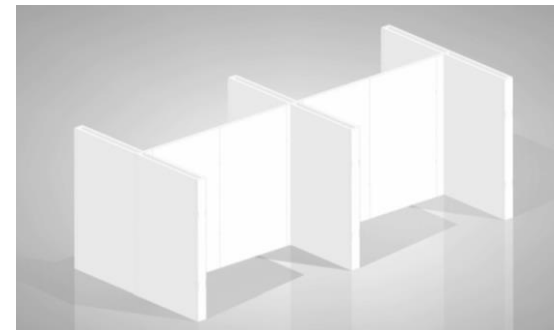
LIGHTWEIGHT PANEL FASTENING- PROCESS PARAMETERS

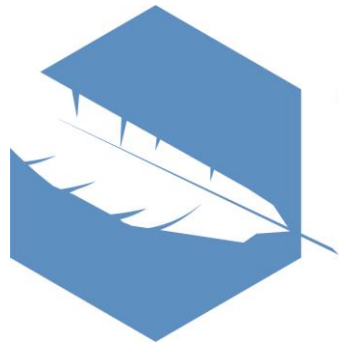
- Process parameters
 - Lightweight panel fasteners will not have the same resistance to torque in comparison to inserting fasteners into solid material
 - Common sense must be used to ensure that the fastener is not over torqued causing it to ruin the threads or spin the fastener

LIGHTWEIGHT PANEL FASTENING-DISCLAIMER

- Disclaimer
 - This document is for reference purposes only and the customer must test to ensure that they are satisfied with the process before proceeding to production. The fabricator is 100% responsible for the fastening application and ensuring that the application meets the requirements of their project. Think Lightweight does not take any responsibility for fastening failure.

MINIMIZE MATERIALS, MAXIMIZE RESULTS





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LIGHTWEIGHT[®]
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FOAM LIGHT[®]



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