



Fastening Solutions
for Green Energy
Applications




A Green World Joined Together By Alcoa Fastening Systems






Applications

AFS products offer tangible benefits across a myriad of applications in the Green Energy market.

Lattice Tower Frame

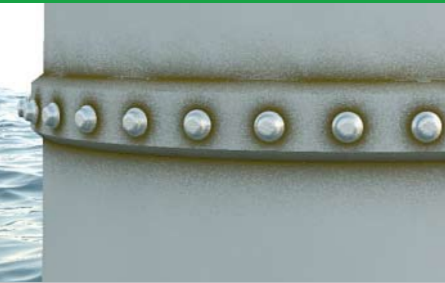


Application




		Frame construction
		

Huck 360™

Monolithic Tower




Application










		Tower construction
		

Huck 360™

Nacelle and Blade




Application








		Gearbox Blade attachment Cone attachment
		Segment attachment
		Step attachment
		Step gate removal
		Segment attachment

Nylstop

Photovoltaic Frame




Application




		Floor standing frame
		
		Panel structure
		Roof attachment bracketry

BOM®

Hydro-Electric Pipe




Application




		Pipe construction
		

BOM®

Parabolic Trough Frame



Application

		Frame
		Tower construction

Hucklok™

LockBolts and Blind Fasteners



<p>Next Step in LockBolt Evolution - BobTail</p> 	<p>Large Diameter Structural Blind Fasteners</p> 	<p>Small Diameter Structural Blind Fasteners</p> 	<p>Marson Non Structural Blind Fasteners</p> 	<p>Tooling Solutions</p> 
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Benefits:

- Tamperproof - once installed cannot be removed without specialist tooling
- Maintenance free joints - no need to torque or re-torque
- Will not loosen even under extreme vibration
- High speed, easy to install systems can reduce production time by 75%
- Improves health and safety - replace welded joints

Quick Release Fastening Solutions



<p>Quick Release Fasteners</p> 	<p>Draw Latches</p> 	<p>Locks</p> 	<p>Hinges</p> 	<p>Handles</p> 	<p>Customised Solutions</p> 
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Benefits:

- Fasteners can be locked and unlocked in a matter of seconds - saving time and reducing costs
- Vibration resistant - performs well in even the most intensive applications
- The capability to develop and produce parts according to your requirements

Self Locking Nuts Range



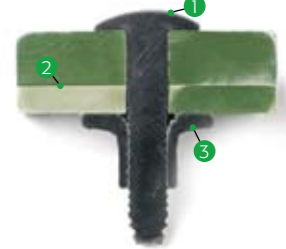
<p>Nyloc Nuts</p> 	<p>Slotted Nuts</p> 	<p>Special Nut Solutions</p> 
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Benefits:

- Re-Usable - Can be loosened and re-fastened numerous times, ideal for infrequent maintenance applications
- Vibration resistant - performs well in even the most intensive applications
- The capability to develop and produce special nuts solutions specifically to your requirements

Solutions For Joining Composite Materials

Huck LockBolts are ideal for joining composite material together



- 1) Consistent and predictable clamp force, important when using composite materials
- 2) Large diameter head reduces stress concentration on material
- 3) Wide flange collar increases surface contact, reducing the stress on joined material

Introducing Alcoa Fastening Systems

Alcoa Fastening Systems (AFS) offers the greatest breadth and depth of fastening solutions available including from our standard range: slotted nuts, self-locking nuts, 1/4 turn fasteners, high tensile latches, threaded inserts, lockbolts & structural blind fasteners.

Alternatively, through decades of experience working closely with major manufacturers from a myriad of markets, AFS can develop specially engineered parts designed to your specific fastening needs.

With manufacturing and distribution facilities on the major continents, AFS is ideally suited to work with customers on a global basis.

These strengths combined with Alcoa's long-standing leadership and commitment to excellence make Alcoa Fastening Systems the best choice to answer your fastening system needs.



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