# **NUTPLATES**



Reduce hole count, reduce cost, increase performance and structural life.





# NUTPLATE

Click Bond's adhesive-bonded rivetless nutplates eliminate the drilling of attachment rivet holes traditionally associated with nutplate installation, preserving structural integrity and longevity, enabling weight savings, and reducing installation, rework, and repair time and cost.

All Click Bond nutplates conform to the performance requirements of NASM25027 and other high-performance OEM specifications including those requiring 50 cycle reusability with stainless steel or titanium bolts. Click Bond adhesive-bonded nutplates are FAATSO approved, allowing direct substitution for traditional riveted nutplates.

Unlike other rivetless nutplate systems that incorporate mechanical retention features, Click Bond's adhesive-bonded nutplates are not grip specific and their installation does not generate structural stress concentrations nor require removal of parent material. Rather, a fast curing structural adhesive secures the nutplate to structure. Should a repair or modification necessitate nutplate removal, approved non-destructive methods are available.

Disposable installation fixtures are included with every nutplate. This proprietary technology centers the nutplate on the fastener hole, protects the nut threads from adhesive fouling, and clamps the nutplate under positive pressure while the adhesive cures, ensuring optimum bond strength and consistency.

### APPLICATIONS

- Access Panels
- Structural Skins
- Structural Mate & Assembly
- Galleys & Lavatories
- Hinge & Fitting Attachments
- Stress & Fatigue Critical Areas
- Floorboards
- Interiors & Cockpits
- Wind Screens
- Canopy Frames
- Control Surfaces
- Pressure Bulkheads
- Fairings & Pods
- Instrument Panels
- Equipment Racks
- Fuel & Fluid Tanks
- Pressurized Vessels
- Pavload Covers
- Antennas & Systems
- Payload Hardpoints
- Engine Bays
- Door Frames
- UAV Structures



Click Bond's adhesive-bonded rivetless nutplates simplify the closeout process for structural areas with no backside access, including attachment of removable skins and access panels, completion of structural mate joints, installation of equipment, and securing of radomes, fairings, and antennas.

### **Features**

- Proprietary disposable fixture delivers optimal bond strength and repeatable, reliable installations
- Fixtures are color-coded for size identification
- Significantly reduces installation and rework
- Compatible with metal and composite structures

- Imperial and metric thread sizes in diameters from 04-40 to 1/2-20 and from M3 to M10
- Replaceable nut element, high reuse, extended float, and sealed variants available
- Multiple nut element counterbores / thread reliefs available

### Standard

Secure panels, skins, and access covers in applications where fluid or pressure sealing is not required. Variants with clip and bracket retained nut elements permit post-installation nut replacement. Double and triple nut configurations are also available.







### **Sealed**

Ideal for closeout of fluid-filled bays and tanks or pressure vessels, sealed nutplates are suitable for submerged application in aerospace fuels and industrial fluids when installed with compatible adhesives.







### **Sleeved**

Sleeved nutplates combine adhesive bonding and ACRES® sleeves, delivering enhanced protection of the hole bore. FLEXBOND® (Fatigue Life Extension) nutplates incorporate a mandrel-expanded sleeve to create the ultimate solution for structural fatigue life enhancement and nutplate installation, in one easy process.

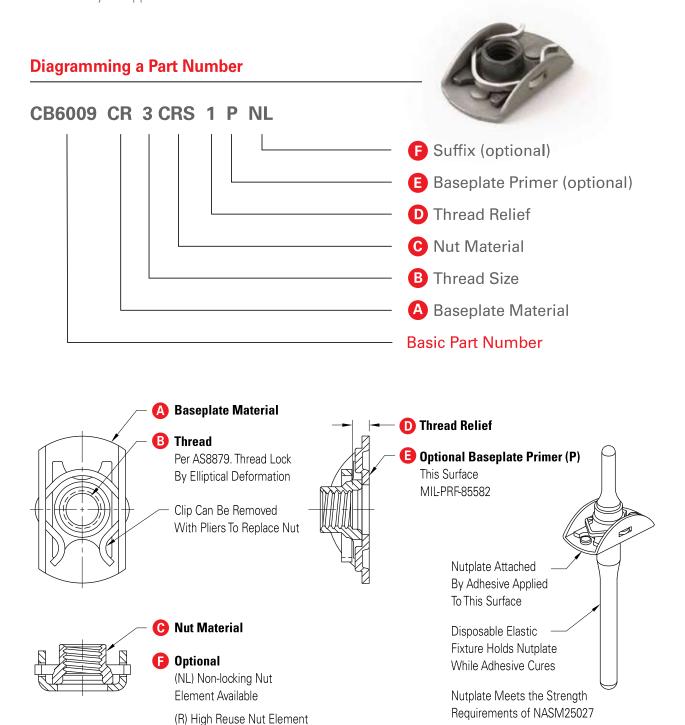






### **How Our Part Numbers Work**

This product guide lists the basic part numbers (for example, CB6009). The full part number is specified by adding further details, such as material and thread codes, to the basic part number. A sample part number is illustrated here as an example. A representative of Click Bond Sales will help you determine the right part number for your application.



Available (50 Reuse Cycles)



### **How Our Part Tables Work**

CB6009	CR	3		CRS	1		
Basic Part Number	Baseplate Material	Thread Size		Nut Material	Thread Relief		Baseplate
		Imperial	Metric	ivat iviateriai	Imperial	Metric	Style
CB6009	A, AA, CR (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M, 10M	-, CRS, CRT	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10, 12	2 Lug C

### **Material Options**

### **Baseplate Material**

A = Aluminum

AA = Anodized Aluminum

CR, CRA = A-286/304 CRES Passivated

C = Carbon/Epoxy, 350°F Cure

G = Glass/Epoxy, 250°F Cure

E = Glass/Epoxy, 350°F Cure

(P) = Optional Primer Available

### **Nut Material**

-, CR, CRA = A-286 CRES Passivated

CRS = CRES Silver Plate

CRT = CRES Copper Plate

High reuse nut elements available

### **Baseplate Styles**



C = Clip Retained





F = Foldover

NOTE: C and B styles permit nut element replacement

### **Thread Sizes**

Thread Sizes							
	Imperial	Metric					
Code	Size	Code	Size				
04	.1120-40	3M	MJ3 x 0,5				
06	.1380-32	4M	MJ4 x 0,7				
08	.1640-32	5M	MJ5 x 0,8				
3	.1900-32	6M	MJ6 x 1,0				
4	.2500-28	8M	MJ8 x 1,0				
420	.2500-20	10M	MJ10 x 1,25				
5	.3125-24						
6	.3750-24						
7	.4375-20						
8	.5000-20						

### **Thread Relief**

Multiple thread relief options are available on many nutplates and vary by part number and thread size. A representative of Click Bond Sales will help you determine the best solution for your application.

## Nutplates

### Standard Nutplates Product images not to scale.











No Lug

1 Lug

2 Lua

2 Nut Channel

3 Nut Channel

3	5		3				
Basic Part			d Size	Nut	Thread Relief		Baseplate
Number	Material	Imperial	Metric	Material	Imperial	Metric	Style
CB2009	A, AA, CR, CRA, (P)	08, 3	4M, 5M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	2 Lug B
CB2011	A, AA, CR, CRA, (P)	08, 3	4M, 5M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	1 Lug B
CB3009	A, AA, CR, CRA, (P)	4, 420	6M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	2 Lug B
CB3011	A, AA, CR, CRA, (P)	4, 420	6M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	1 Lug B
CB4009	C, E, G	08, 3, 4	4M, 5M, 6M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	2 Lug B
CB4011	C, E, G	08, 3, 4	4M, 5M, 6M	CR, CRA	None, 2, 3, 4, 5, 6	None, 2, 3, 4, 5, 6	1 Lug B
CB6003	CR, (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M, 10M	-, CRS	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10, 12	No Lug C
CB6009	A, AA, CR, (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M, 10M	– , CRS, CRT	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10, 12	2 Lug C
CB6011	A, AA, CR, (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M, 10M	– , CRS	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10, 12	1 Lug C
CB6012	CR, (P)	08, 3, 4, 5	4M, 5M, 6M, 8M	-, CRS	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10	2 Nut Channel C
CB6013	CR, (P)	08, 3, 4, 5	4M, 5M, 6M, 8M	-, CRS	1, 2, 3, 4, 5, 6	1, 4, 6, 8, 10	3 Nut Channel C
CB6014	CR, (PS)	04, 06, 08, 3, 4, 5	3M, 4M, 5M, 6M, 8M	_	1	1	2 Lug F
CB8009	A, AA, CR, (P)	08, 3, 4, 5, 6	4M, 5M, 6M, 8M, 10M	-, CRT	1, 2, 3, 4, 5, 6	None, 4, 6, 8, 10, 12	2 Lug C
CB8011	A, AA, CR, (P)	08, 3, 4, 5, 6	4M, 5M, 6M, 8M, 10M	- , CRT	1, 2, 3, 4, 5, 6	None, 4, 6, 8, 10, 12	1 Lug C
CB9197	CR, (P)	3, 4	NA	-	1, 2, 3, 4, 5, 6	NA	2 Lug F

### **Baseplate Material**

A = Aluminum

AA = Anodized Aluminum

CR, CRA = A-286/304 CRES Passivated

C = Carbon/Epoxy, 350°F Cure

G = Glass/Epoxy, 250°F Cure

E = Glass/Epoxy, 350°F Cure

(P) = Optional Primer Available

(PS) = Primer Standard

### **Nut Material**

- , CR, CRA = A-286 CRES Passivated

CRS = CRES Silver Plate

CRT = CRES Copper Plate

High reuse nut elements available

### **Baseplate Style**



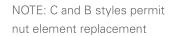
C = Clip Retained



B = Bracket Retained



F = Foldover





### Sealed Nutplates Product images not to scale.











1 Lug

Basic Part Number	Dome and Washer Material	Thread Size		Not Material	Thread Relief		Baseplate
		Imperial	Metric	Nut Material	Imperial	Metric	Style
CB6008	CR, ACR, (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M	-	2, 3, 4, 5, 6, 7, 8	3, 4, 6, 8, 10	1 Lug
CB6010	CR, ACR, (P)	08, 3, 4, 5, 6, 7, 8	4M, 5M, 6M, 8M	-	2, 3, 4, 5, 6, 7, 8	3, 4, 6, 8, 10	2 Lug
CB8008	CR, ACR, (P)	08, 3, 4, 5, 6, 7, 8	NA	-	2, 3, 4, 5, 6, 7, 8	NA	1 Lug
CB8010	CR, ACR, (P)	08, 3, 4, 5, 6, 7, 8	NA	_	2, 3, 4, 5, 6, 7, 8	NA	2 Lug
CB9356	CR, ACR, (P)	3	NA	CR	None, 3, 4, 5, 6, 7	NA	2 Lug (EF)

### **Dome and Washer Material**

CR = A-286 CRES Passivated

ACR = Anodized Aluminum Washer A-286 CRES Dome

(P) = Optional Primer Available

### **Nut Material**

- , CR = A-286 CRES Passivated

(EF) = Extended Float

### **Sleeved Nutplates** Product images not to scale.











**Installation tools** available, refer to page 48 in the **Tool Section.** 

2 Lug FLEX Sleeve

2 Lug Flared Sleeve

2 Lug Sealed FLEX Sleeve

2 Lug Sealed FLEX Sleeve

2 Lug Straight Sleeve

2 Lug I LLX OICC	2 Lug Harea Olek	,vc	Ocalea i EEX Olecve 2 Eag	g octaica i EEX olecve 2 Eag	otraight ofceve	
Basic Part Number	Baseplate or Dome and Washer Material	Thread Size Imperial	Nut Material	Thread Relief Imperial	Baseplate Style	Sleeve Type
CB6109	A, AA, CR, (P)	08, 3, 4, 5, 6	– , CRS	1, 2, 3, 4, 5, 6	2 Lug C	Flared
CB6209*	A, AA, CR, (P)	08, 3, 4, 5, 6	– , CRS	1, 2, 3, 4, 5, 6	2 Lug C	Straight
CB6307	A, AA, CR, (P)	3, 4	-, CRS	1, 2, 3, 4, 5, 6	Corner C	FLEX
CB6309	A, AA, CR, (P)	3, 4	-, CRS	1, 2, 3, 4, 5, 6	2 Lug C	FLEX
CB6310	CR, ACR, (P)	3, 4	-	2, 3, 4, 5, 6, 7, 8	2 Lug Sealed	FLEX
CB6311	A, AA, CR, (P)	3, 4	-, CRS	1, 2, 3, 4, 5, 6	1 Lug C	FLEX
CB6347	A, AA, CR, (P)	3, 4	-, CRS	1, 2, 3, 4, 5, 6	Corner C	FLEX
CB6349	A, AA, CR, (P)	3, 4	_	1, 2, 3, 4, 5, 6	2 Lug C	FLEX
CB6490	CR, ACR, (P)	3, 4, 5	(same as baseplate)	2, 3	2 Lug Sealed	FLEX
CB9382	CR, (P)	08, 3	(same as baseplate)	.062	2 Lug F	FLEX
CB9392	CR, (P)	08	(same as baseplate)	.062	2 Lug F	FLEX
CB9530	CR, (P)	3	_	None, 3, 4, 5, 6, 7	2 Lug Sealed (EF)	Flared

### **Baseplate Material**

A = Aluminum

AA, ACR = Anodized Aluminum

CR = CRES Passivated

(P) = Optional Primer Available

### **Nut Material**

- = A-286 CRES Passivated CRS = CRES Silver Plate

### Sleeve Material

A-286 CRES Passivated Optional aluminum coating available

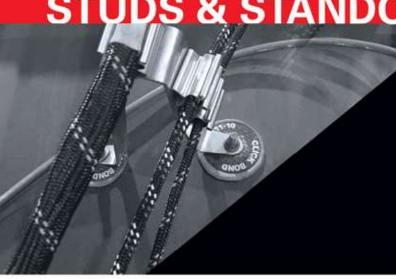
### **Sleeve Length**

Sleeve lengths available from .031" to 1.000"

(EF) = Extended Float

\* Metric sizes available for CB6209

# STUDS & STANDOFFS



Unlock options, simplify installation and retrofit, and preserve structural integrity.





# STUDS & STANDOFF

Click Bond's adhesive-bonded studs permit clamped attachment of wire bundles and tubing to structure where a through-bolt and nut combination is undesirable or impossible. They are also well suited for securing junction boxes, enclosures, or other modular equipment.

Larger diameter studs are ideal for heavier industrial and marine applications such as the attachment of deck boards, equipment, and furnishings to structural bulkheads and decks. Floating stud configurations address the rigorous requirements of high-shock environments.

Adhesive-bonded standoffs are suited for applications where separation between systems or components and structure is required. An extensive range of standoffs is available in multiple lengths and thread sizes with options for locking and non-locking threads.

Our new internally-fixtured studs and standoffs allow for installation in constrained footprint applications while reducing disposable waste and eliminating the step of fixture removal following adhesive cure.

Click Bond studs and standoffs are available in a variety of metal and composite materials and include installation fixtures that promote accurate positioning and hold the fastener under positive pressure while the adhesive cures, optimizing bond strength. Both internal and external fixtures are conducive to automated or robotic installation for high-volume applications.

### APPLICATIONS

### Attachment of:

- Wiring
- Cables
- Tubing
- Lighting
- Insulation Blankets
- Audio / Video Systems
- Surveillance Equipment
- Acoustic Panels
- Signage
- Interior Panels
- Sensors
- Conduit
- Junction Boxes
- Modular Equipment
- Furniture
- Decking
- Grating
- Tooling
- Electrical Grounding
- Ballistic Panels
- Ducting
- Architectural Cladding