

ADHESIVE-BONDED FASTENERS

No more welding or drilling on your expensive assets!





Click Bond, Inc. is a pioneer in the research and development of adhesive-bonded fasteners.

Click Bond fasteners are used extensively in aerospace, mining, military, agriculture, and construction and are now specifically designed for the marine and offshore industries.

A collection of fastening solutions has received approval from the American Bureau of Shipping (ABS) and Lloyd's Register.

Click Bond fasteners are attached using structural adhesives resistant to salt water, fuel, oils, and hydraulic fluids. The adhesive provides a chemical barrier that inhibits galvanic corrosion.

Click Bond's product line sets the benchmark for high-performance, adhesive-bonded fasteners. Constructed of durable, marine-grade, 316 stainless steel, Click Bond fasteners provide strong, watertight, corrosion-resistant attachments that streamline production, increase safety, and enhance structural integrity by eliminating the need for welding or drilling.

All Click Bond adhesive-bonded fasteners are supplied with disposable installation fixtures. These fixtures clamp the fasteners in place under positive pressure while the adhesive cures. This ensures optimal joint strength and bond-line consistency.

Use Click Bond Fasteners to:

- Reduce costs by eliminating:
 - Hot work (welding)
 - Gas freeing of fuel and storage tanks
 - Fire watch
- Maximise design and work sequence flexibility
- Reduce subcontractor labour time for installations 3 minutes for a bonded stud installation from initial prep to final stud installation
- Improve structural strength and integrity by eliminating welding
- Minimise corrosion and potential leak paths by reducing through-holes
- Facilitate and simplify field installations and system upgrades
- · Reduce risk to sensitive electronic equipment



Click Bond Product Range

Mounts Studs Image Part No. & Description Performance Image Part No. & Description Performance **Design Load:** TCS125* 75 lbs (34 kg) Tension TCM460VG5 Exceeds MIL-STD-3367 Threaded Stud 150 lbs (68 kg) Shear Low-Profile Cable-Tie Click Bond Ultimate Load: 50 lbs (23 kg) requirement 1.25" (31.8 mm) Mount Diameter Base 1000 lbs (454 kg) Tension 2 000 lbs (908 kg) Shear **Design Load:** TCS200* 100 lbs (45 kg) Tension TCM902 **Click Bond Ultimate Load:** Threaded Stud 450 lbs (204 kg) Shear Miniature Cable-Tie Exceeds MS3367 50 lbs 2.00" (50.8 mm) **Click Bond Ultimate Load:** Mount (23 kg) requirement 1700 lbs (771 kg) Tension Diameter Base 4 000 lbs (1 814 kg) Shear Design Load: 500 lbs (227 kg) Tension TCS922 900 lbs (408 kg) Shear **Click Bond Ultimate Load: TCM905** High-Shock Deck Stud 600 lbs (272 kg) Tension Click Bond Ultimate Load: 2.63" (66.8 mm) Strap-Loop Mount 600 lbs (272 kg) Shear 6 000 lbs (2 722 kg) Diameter Base Tension 9 000 lbs (4 082 kg) Shear **TCM989** TCS915 **Click Bond Ultimate Load: Click Bond Ultimate Load:** Fixed Tie-Down Ring Self-Fixturing Stud 5 000 lbs (2 268 kg) 5 000 lbs (2 268 kg) Tension 2.00" (50.8 mm) 2.63" (66.8 mm) Tension 1000 lbs (454 kg) Lateral Pull Diameter Base Diameter Base 3 000 lbs (1 361 kg) Shear Amercian Bureau of Shipping (ABS) Certified Approved Product. TCB9784 Electrical Grounding Click Bond Ultimate Load: Spacer Stud 1700 lbs (771 kg) Tension

Weld-Free Installation of a PPS Antenna Unit





2.00" (50.8 mm)

Diameter Base

4 000 lbs (1 814 kg) Shear

Click Bond Product Range

Adhesives

Adriesives						
Part No.	Mix Ratio (Vol.)	Cure Properties (at room temp. 72 °F/22 °C)				
Part No.		Working Time	Handling Strength	75% Strength	90% Strength	Full Strength
TCB420-50	10:1	4-6 min	18 min	15-18 min		24 hrs
TCB200-40	8:1	5 min	20 min		2 hrs	24 hrs

Dispensing

Image	Part No. & Description	
	TCB100-81 Manual Dispenser and Slide	
	TCB106 Mixing Tip	

Click Bond products have been an integral part of commercial aerospace, military, and private watercraft for more than 30 years and continue to pioneer advanced solutions!

Manual Adhesive Dispenser Instructions

Safety First: When using solvents and adhesives, follow appropriate safety precautions. These include personal protection equipment (gloves & protective eye wear) and adequate ventilation. Refer to MSDS/SDS for complete information. Read all instructions before starting work.



Step 1 - Insert Slide

 Lift the slide release lever and push the dispenser slide completely into the handle (teeth facing down). Use the following adhesive cartridge and dispenser slide combinations:

Cartridge	Slide	Cartridge	Slide	
TCB420-50	TCB81	TCB200-40	TCB81	



Step 2 - Insert Cartridge

- Check the adhesive expiration date discard expired adhesive.
- Remove the black protective clip on the back of the cartridge, if present.
- Insert the adhesive cartridge into the slot and lower the retainer to lock it in place.



Step 3 - Remove the End Cap & Check

- · Remove cap turn counterclockwise.
- Squeeze the trigger slowly to dispense a small amount of adhesive into a plastic packaging bag. Check that both components flow from the cartridge.
- Knead components through the bag wall. Check that each component has an even colour and consistency.



Step 4 - Attach Mixing Tip & Check

Attach the mixing tip and turn it clockwise to lock in place

Tip: Only use the TCB106 mixing tip.

 Squeeze the trigger slowly to dispense a bead of adhesive, about the length of the mixing tip, into a plastic packaging bag. Check that the adhesive mixes consistently.



Step 5 - Apply

 Squeeze the trigger slowly to dispense the adhesive. Refer to appropriate fastener installation instructions for specific application details. See adhesive working, handling, and cure times below.

Caution: If working time is exceeded, purge partially cured adhesive from the mixing tip. Do not apply excessive force to dispense. If adhesive cures in the mixing tip, replace it with a new tip (do not cut).

Adhesive	Working Time	Handling Strength	Full Cure	
TCB420-50	5 min	20 min	24 hrs	
TCB200-40	5 min	30 min	24 hrs	

*Accelerated Full Cure: 1 hr at 180 °F (82 °C).

Note: All times are measured at 75 °C (24 °C) and are significantly affected by temperature. Refer to the adhesive data sheet for more details.



Step 6 - Finish

- Lift the slide release lever and pull back the dispenser slide to relieve pressure on the cartridge.
- Lift the retainer and remove the cartridge from the dispenser - leave the mixing tip in place or replace the cap.
- To use the remaining adhesive, attach a new mixing tip.



INDUSTRIAL SUPPLIES

Streamlining the Design and Manufacturing of Production Vehicles

Example of Fastener Solutions for Rigorous Environments







Bonded fasteners eliminate fastener holes, holes that both compromise the structural integrity of the vehicles and create leak paths that can result in corrosion or environmental intrusion.











TCM988 Flush Tie-Down Ring





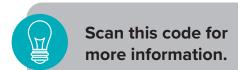
TCM905 Strap Loop Mount













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Delivering Optimal Uptime!