



BaerCoil[®]

WIRE THREAD INSERTS - Type: NoTang

www.baercoil.com



2023

Type: «NoTang» without tang - for quick and easy installation.

Tangless thread inserts: You no longer need to worry about tang breakage or broken tangs remaining in the component. This saves time and reduces testing and documentation requirements.

Innovative installation: The threaded insert can be screwed in on both sides and has optimum running-in behavior into the thread. It is easy to install and can be processed without directional orientation.

Compatibility: The BaerCoil® NoTang thread insert is compatible with the same mounting thread as the rest of the BaerCoil® system.

Low tool wear: Thanks to an innovative installation process, the tool blade experiences hardly any wear. This leads to a longer service life and an increase in quality.

High-strength threads: BaerCoil® NoTang ensures high thread strength even in shallow blind holes or pre-assembled assemblies.

Time savings during installation: Due to the easy installation and the tangless BaerCoil® NoTang thread insert, a lot of time is saved during installation, so it is a real cost saving in any production.

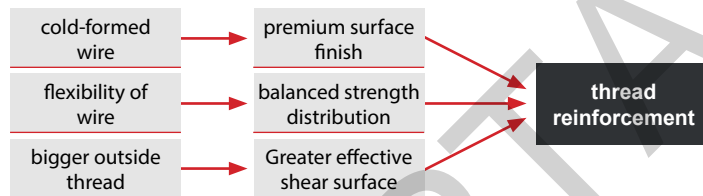
BaerCoil® NoTang meets the requirements of NA0276 and, when installed, also the requirements of DIN 8140.

BaerCoil® NoTang - the new innovation in the world of thread inserts. With this new product, you no longer need a tang, which prevents tang breakage and tang removal. This is possible thanks to two small notches on the thread insert and special insertion tools.

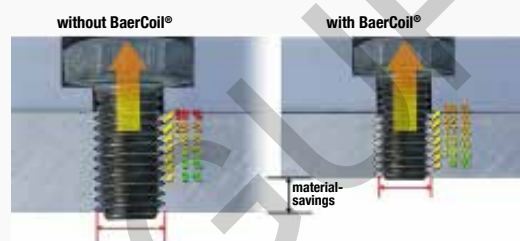


Thread Reinforcement and higher tensile strength

BaerCoil® thread inserts reinforce and increase the pull-out strength especially in materials with low shear strength, as e.g.: aluminum or magnesium.



example from test results	
material	Magnesium
thread - length	M 10 x 1,5 - 10 mm
pull-out strength without BaerCoil	3540 kg/mm ²
pull-out strength with BaerCoil	4570 kg/mm ²
relative increase	about 29 %



Premium surface finish

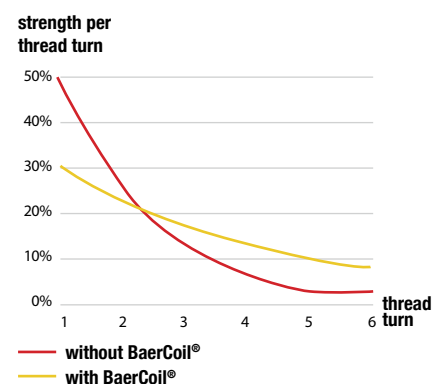
BaerCoil® thread inserts have a premium surface finish (about 2,5 µm) and are made predominantly from stainless steel (AISI 304) or other materials with a hardness (min. 425 HV 0,2) that far exceeds normal screw connections. For repetitive screw connections these properties ensure, among other things, a higher and consistent tension force at the same torque strength. This leads to a better utilization of yield strength. The torsion tension is up to 90% less than

Premium surface finish

Threads with BaerCoil® inserts more evenly distribute static and dynamic workloads to the individual thread turns. The flexibility of the inserts compensates for the rise- and angle errors, achieving an ideal force transmission from the bolt to the thread of the nut.

Greater effective shear surface

The BaerCoil® wire thread insert has a greater effective shear surface than a normal screw connection with cut thread turns. The shear surface refers to the contact surface of the wire thread insert or screw with the cut outer thread. The greater this surface, the less the force that affects a square mm.



Protection against wear of a thread

BaerCoil® thread inserts protect the thread against wear and damage in all metals and their alloys, as e.g. aluminum, magnesium, titanium, copper, steel, plastic and other materials. The thread insert is very hard and has a premium surface finish. Since the surface has minimal roughness, less friction force affects the thread when inserting the screw. The decrease in thread friction force

Corrosion-resistance

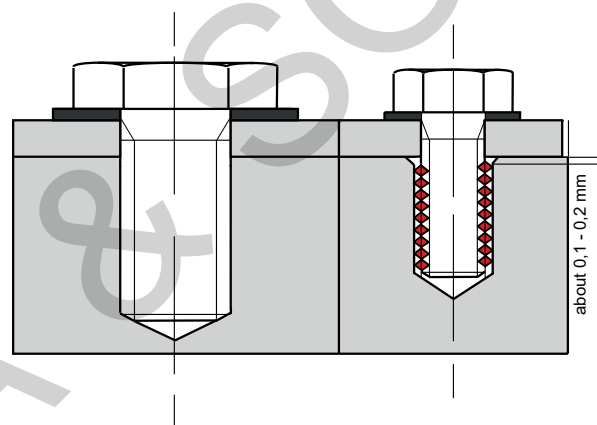
BaerCoil® thread inserts also have excellent corrosion-resistance properties. This ensures applicability in almost all materials and under most conditions.

Flexibility

BaerCoil® thread inserts were constructed to be axially and radially elastic. This ensures that each winding can adjust independently and thereby compensate for rise- and angle errors that exist between the inner thread and the screw. The force is

Reductions of weight and space

The reduction in weight is an uncontested and important design element for many products. Due to the high thread resilience of BaerCoil® thread inserts, the usage of smaller thread diameters and shorter thread lengths is possible. The extremely high resilience of the cladded thread allows for, depending on material and size, material savings of up to ca. 10 - 30 %. BaerCoil® thread inserts save material, building space and weight while fulfilling the same or higher



Minimize total costs

Since less material is needed, BaerCoil® inserts reduce production costs while still providing the required solidity of the thread connection. Moreover, follow-up costs are very low: Lighter vehicles and aircrafts require less gasoline or kerosene. Expensive spare parts and elaborate installations can be avoided with thread cladding, and damaged threads can be



Thread Repair

Besides thread reinforcement, the BaerCoil® thread insert also facilitates the repair of damaged threads. Rejected parts can be salvaged while maintaining the original thread size. Additionally, the thread is strengthened in its pull-out- and corrosion resistance. In maintenance the use of these thread inserts saves procurement- and processing costs for spare parts.

Applications

BaerCoil® thread inserts are especially well suited for the following materials:

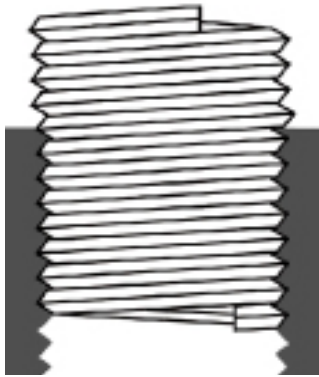
- Aluminum and aluminum alloys
- Brass, bronze, cast-iron
- Magnesium alloys
- Steels etc.



Application examples:

- Motor vehicle industry: Motor, transmission, radiator, vehicle body parts, oil drain etc.
- Aerospace: Engines, assembly parts reinforcement etc.
- Electronic- and laboratory technology: Medical devices, capacitors, casings etc.
- Household appliances: Hole punch, iron, pocket calculator, cameras, cell phones
- Facility- and device construction: Pumps, construction machines, various components etc.
- Military devices: Airplanes, weapons, tanks, scopes etc.








Design

The outer diameter of non-installed BaerCoil® thread inserts is larger by a fixed measure than the receiving thread. This is necessary in order to apply radial pressure during installation to the inner thread of the receiving thread. This radial pressure safely and firmly seats the thread insert in the receiving thread. Additional securing elements are, therefore, not required. The thread insert adjusts to the thread turns and slightly expands in length. This is why the length of the thread insert can only be measured when installed since it lengthens while being pressed together as it adjusts to the cut thread. Each thread insert size is available in 5 lengths. Lengths range from 1 x, 1.5 x, 2 x, 2.5 x and 3 times the size

Materials

Material	Tensile Strength	Temperature resistance	Examples of use
 Stainless Steel V2A AISI 304 X5CrNi18-10 Material-No.: 1.4301	>1400 N/mm ²	315°C long-term 425°C short-term	standard applications for all property classes and materials for Thread Repair and Thread Reinforcement
 Nitronic 60 UNS S21800 NIT60			<ul style="list-style-type: none"> ■ increased corrosion protection ■ perfect with stainless steel screws perfect for vacuum
 Inconel X750 NiCr15Fe7TiAl Material-No.: 2.4669	>1150 N/mm ²	550°C long-term 750°C short-term	<ul style="list-style-type: none"> ■ high thermal load ■ high corrosion protection aerospace technology turbocharger aeroplane engines turbines

Surface treatments

surface treatments	color	applications
cadmium plating	iridescent yellow	provides high corrosion resistance and lubrication to prevent galling - suitable up to 250°C
zinc plating	white	provides corrosion resistance as an alternative to cadmium
silver plating	silver white	to reduce galling of threads at high temperatures
cadmium plate & olive drab	olive drab	as specified on US military specs such as NASM21209.
Dry Film Lubricated	grey	additional lubrication in high friction applications - recommended for use with screw grip inserts

Compatibility

BaerCoil® wire thread inserts and tools are compatible with wire thread inserts and tools from other manufacturers, in most cases. BaerCoil® inserts are mainly manufactured according to DIN 8140 so they have the same dimensions. Other standards like DIN65536, EN2944, LN9039, LN9490, LN9499, NASM21209, AS4736 to 4748, to 3799, MA3279 to 3281 and NASM214850 ect. are available, too. Compatibility cannot be guaranteed, so it is always recommended to test from

Screw property class

tensile strength of mounting material	screw property class							
	4.6	5.6	6.6	8.8	9.8	10.9	12.9	14.9
< 100 N/mm ²	1,5 D	1,5 D	2,0 D	2,5 D	3,0 D			
100 - 150 N/mm ²	1,5 D	1,5 D	2,0 D	2,0 D	2,5 D	2,5 D	2,5 D	3,0 D
150 - 200 N/mm ²	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D	2,0 D	2,5 D	2,5 D
200 - 250 N/mm ²	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D	2,5 D	2,5 D
250 - 300 N/mm ²	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	2,0 D	2,0 D
300 - 350 N/mm ²	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D
350 - 400 N/mm ²	1,0 D	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D
> 400 N/mm ²	1,0 D	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D

Temperature limits for validity: aluminium alloys max. 300°C, magnesium alloys max. 100°C. For design of screwed connections under thermal stress, the changes of temperature-department material parameters must be taken into account. Intermediate lengths are available, too. For these guide values, the

Installation BaerCoil® NoTang

1

Drilling

Drill out the damaged thread with a twist drill. For an optimum result, the hole can be countersunk with a taper countersink..



2

Thread Tapping

Use special BaerCoil® tap to cut the parental thread in the hole. BaerCoil® taps are suitable for blind hole and through hole. The use of cutting oil is recommended.



3

Install the insert

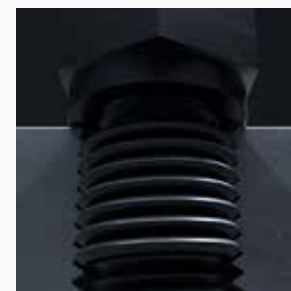
Turn the thread insert onto the tool. Since the thread insert has a notch on both sides, it does not need to be oriented. Adjust the locknuts so that the thread insert is screwed in to the desired depth. Then, applying light pressure, screw the thread insert into the receiving thread until it is 1/4 - 1/2 turns below the surface.



4

Unscrewing the insertion tool

The insertion tool is screwed out of the installed thread insert to the left and the new high-strength BaerCoil® NoTang thread is ready.



BaerCoil®

Type: NoTang
(without tang)

BaerCoil® Wire Thread Inserts - Type: "free running" - Material:
Stainless Steel AISI 304 (1.4301)



Diameter x Pitch	Pack	1,0 D 1,0 x Diameter		1,5 D 1,5 x Diameter		2,0 D 2,0 x Diameter	
		Item No.:	Part No	Item No.:	Part No	Item No.:	Part No
M 3 x 0,5	100	1-B7205-1TL	L1C0303010	1-B7205-15TL	L1C0303015	1-B7205-2TL	L1C0303020
M 4 x 0,7	100	1-B7207-1TL	L1C0304010	1-B7207-15TL	L1C0304015	1-B7207-2TL	L1C0304020
M 5 x 0,8	100	1-B7208-1TL	L1C0305010	1-B7208-15TL	L1C0305015	1-B7208-2TL	L1C0305020
M 6 x 1,0	100	1-B7209-1TL	L1C0306010	1-B7209-15TL	L1C0306015	1-B7209-2TL	L1C0306020
M 8 x 1,25	100	1-B7211-1TL	L1C0308010	1-B7211-15TL	L1C0308015	1-B7211-2TL	L1C0308020
M 10 x 1,5	100	1-B7215-1TL	L1C0310010	1-B7215-15TL	L1C0310015	1-B7215-2TL	L1C0310020
M 12 x 1,75	100	1-B7221-1TL	L1C0312010	1-B7221-15TL	L1C0312015	1-B7221-2TL	L1C0312020





SONS

HSSG M 10x1,5

BaerCoil® Thread Repair Kits NoTang

- Drill bit HSS
- Tap HSSG for wire thread inserts
- Inserting Tool Type No Tang
- Wire Thread Inserts No Tang - Type „free running“ - Lengths: **1,0 D - 1,5 D - 2,0 D**
fitting lengths for the most applications



			1,0 D	1,5 D	2,0 D	No.	Part No
M 3 x 0,5	KEBW03NT	3,2 mm	10	5	5	B40052NT	L5C1003004
M 4 x 0,7	KEBW04NT	4,2 mm	10	5	5	B40072NT	L5C1004004
M 5 x 0,8	KEBW05NT	5,2 mm	10	5	5	B40092NT	L5C1005004
M 6 x 1,0	KEBW06NT	6,3 mm	10	5	5	B40102NT	L5C1006004
M 8 x 1,25	KEBW08NT	8,3 mm	10	5	5	B40122NT	L5C1008004
M 10 x 1,5	KEBW10NT	10,4 mm	10	5	5	B40162NT	L5C1010004
M 12 x 1,75	KEBW12NT	12,4 mm	5	5	5	B40212NT	L5C1012004

BaerCoil®



Thread Repair
Workshop Kits






BaerCoil®
HSSG M 8x1,25



BaerCoil® Thread Repair Workshop Kits NoTang




- Drill bit HSS
- Tap HSSG for wire thread inserts
- Inserting Tool Type No Tang
- Wire Thread Inserts No Tang - Type „free running“ - Lengths: **1,0 D - 1,5 D - 2,0 D** fitting lengths for the most applications

M 3 - M 12

			1,0 D	1,5 D	2,0 D	No.	Part No
							
M 3 x 0,5	KEBW03NT	3,2 mm	10	10	5		
M 4 x 0,7	KEBW04NT	4,2 mm	10	10	5		
M 5 x 0,8	KEBW05NT	5,2 mm	10	10	5		
M 6 x 1,0	KEBW06NT	6,3 mm	10	10	5	B5101NT	L5C1003412
M 8 x 1,25	KEBW08NT	8,3 mm	10	10	5		
M 10 x 1,5	KEBW10NT	10,4 mm	5	5	5		
M 12 x 1,75	KEBW12NT	12,4 mm	5	5	5		

Sizes in Red are available on request*

M 5 - M 12

			1,0 D	1,5 D	2,0 D	No.	Part No
							
M 5 x 0,8	KEBW05NT	5,2 mm	10	10	5		
M 6 x 1,0	KEBW06NT	6,3 mm	10	10	5		
M 8 x 1,25	KEBW08NT	8,3 mm	10	10	5	B5104NT	L5C1005412
M 10 x 1,5	KEBW10NT	10,4 mm	5	5	5		
M 12 x 1,75	KEBW12NT	12,4 mm	5	5	5		

Sizes in Red are available on request*



BaerCoil® NoTang Inserting Tool - Type: free running

for "free running" Wire Thread Inserts
with 1/4"-hexagonal drive (Bit Drive)
with depth regulation (counter screws)



	Lengths			No.	Part No
M 3 x 0,5	62,20 mm	8,00 mm	1/4"	KEBW03NT	L3F4503001
M 4 x 0,7	62,20 mm	8,00 mm	1/4"	KEBW04NT	L3F4504001
M 5 x 0,8	67,00 mm	8,00 mm	1/4"	KEBW05NT	L3F4505001
M 6 x 1,0	72,00 mm	10,00 mm	1/4"	KEBW06NT	L3F4506001
M 8 x 1,25	69,00 mm	12,00 mm	1/4"	KEBW08NT	L3F4508001
M 10 x 1,5	79,00 mm	14,00 mm	1/4"	KEBW10NT	L3F4510001
M 12 x 1,75	89,00 mm	16,00 mm	1/4"	KEBW12NT	L3F4512001



Other Tools

Since the mounting thread of BaerCoil No Tang thread inserts are identical to the rest of the BaerCoil system. Find all other tools in the BaerCoil catalog.





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