



BaerCoil®

Thread Repair Kits





BaerCoil® Wire Thread Inserts - type: "free running"

BaerCoil® thread inserts are made from austenitic chromium-nickel steel (stainless steel AISI 304 with a material tensile strength of at least 1400 N/mm²). In production the wire is swaged in cold-form to a rhombic cross-section, which ensures performance and maximum space utilization. With BaerCoil® thread inserts you achieve a better thread connection in regard to wear resistance, thread abrasion, surface finish, corrosion- and heat resistance than with any other single screw connection.



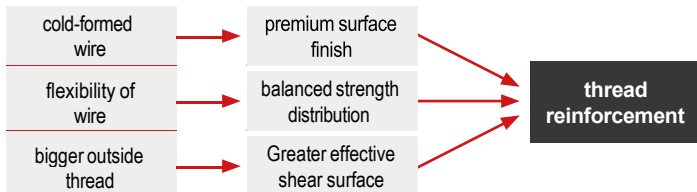
BaerCoil® Wire Thread Inserts - type: "screw grip"

In addition to "free-running" insert characteristics, BaerCoil® "screw grip" thread inserts have one or more polygonformed windings, which have a clamping effect on the flanks of the inserted screw. We only recommend using screws with a higher screw property class (from 8.8 on) because of this screw locking or screw clamping effect. An elastic and flexible frictional connection is formed. The clamping torque is comparable to the indications in DIN 267 Part 15 and ISO 2320. BaerCoil® "screw grip" thread inserts are predominantly used in areas where screw connections must remain tight while exposed to impacts, constant vibrations and movements.

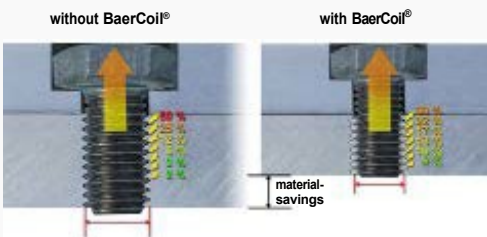
see locking torque values on page 7

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

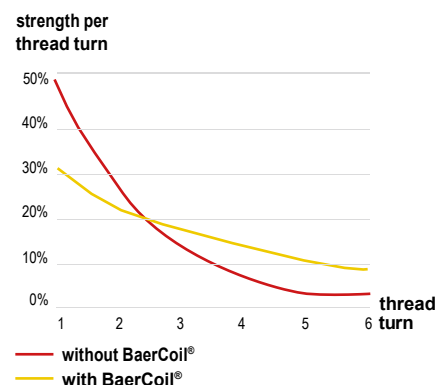
BaerCoil® thread inserts have a premium surface finish (about 2,5 µm) and are made predominantly from stainless steel (AISI 304) or other materials with a hardness (min. 425 HV 0,2) that far exceeds normal screw connections. For repetitive screw connections these properties ensure, among other things, 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 for threads without BaerCoil® thread inserts.

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.





Thread repair

Besides thread reinforcement, the BaerCoil® thread insert also enable the repair of damaged threads. Rejected parts can be saved 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. BaerCoil® thread repair sets are suitable for repairing the thread size/thread type. These sets can also be used to change threads that have the same diameter, e.g. from regular thread to fine thread. The distinctive feature is that the repaired thread is decidedly more durable and firmer than the original thread (thread reinforcement).

Instruction for use

1

Drilling

Clear the damaged thread with a standard drill. Many kits include the correct drill. To repair a spark plug thread no pre-drilling is necessary if using the special spark plug tap with pilot nose. Optionally you can countersink the borehole.



2

Tapping

Use the special BaerCoil® tap for cutting the holding thread into the cleared hole. The BaerCoil® taps are suitable for blind- and through holes. It's recommended to use a suitable cutting oil.



3

Install the insert

Place insert on installing tool and position the adjustable ring so that the insert tang is centred in the tang slot. Wind insert in with light downward pressure until 1/4 to 1/2 turn below the surface. Do not turn against direction of rotation, because the tang can break.



4

Tang removal

Lift the inserting tool from tang and place the tang break tool over the tang and tap down sharply. For bigger sizes and spark plug use a long nose pliers to remove the tang.



Adjustment of length

If necessary, you can shorten BaerCoil® Wire Thread Inserts by side cutting pliers to any needed length.

Compatibility

BaerCoil® wire thread inserts and tools are compatible with wire thread inserts and tools from other manufacturers, in most cases. Baer-Coil® 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 case to case.

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 also minimizes wear.

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 requirements.

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 repaired easily.

Applications

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

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

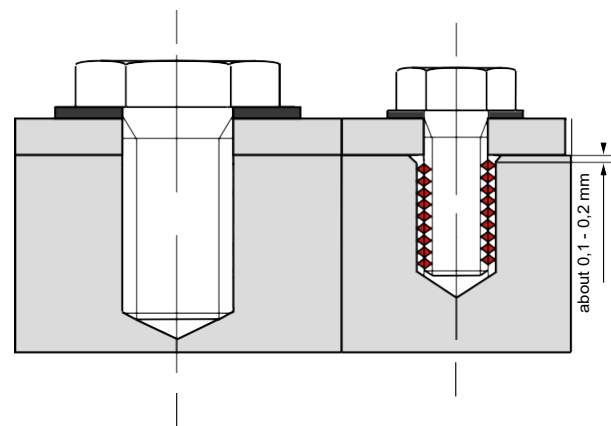


Corrosion-resistance

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 distributed evenly to all thread turns.

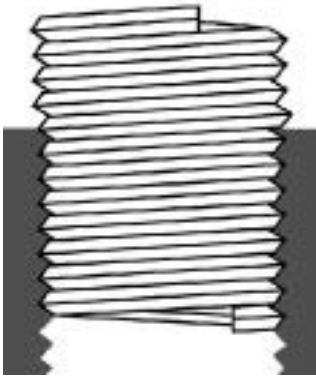


Thread Repair

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.

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 of the thread diameter. Other lengths are available upon request.

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
	Stainless Steel V4A AISI 316 X5CrNiMo17-12-2 Material-No.: 1.4401	>1400 N/mm ²	315°C long-term 425°C short-term	<ul style="list-style-type: none"> ■ increased corrosion protection ■ low thread friction ■ for high alloyed CrNi steel screws general lightweight construction sea water and chlorine-containing water
	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 thermal power plants
	Bronze CuSn6 CW452K Material-No.: 2.1020	> 900 N/mm ²	250°C long-term 300°C short-term	<ul style="list-style-type: none"> ■ translation threads ■ CrNi screws ■ Cu workpieces ■ non-magnetic applications in sea water best electric conductivity

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. Baer-Coil® 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 case to case.

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

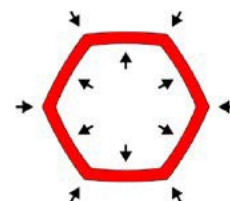
Temperature limits for validity: aluminium alloys max. 300°C, magnesium alloys max. 100°C. For design of screwed connections under thermal stress, the changes of temperature-department material parameters must be taken into account. Intermediate lengths are available, too. For these guide values, the screw is the weaker joint member. Lengths can be shorter than recommended nominal lengths if tests confirm this.

Locking Torque for BaerCoil® Wire Thread Inserts - type: „screw grip“

thread dimension	max. locking torque [Nm]	min. locking torque 15 th cycle [Nm]	thread dimension	max. locking torque [Nm]	min. locking torque 15 th cycle
M 2 x 0.4	0.12	0,003	UNC 2 x 56	20 oz-in	3 oz-in
M 2.2 x 0.45	0.14	0.02	UNC 3 x 48	32 oz-in	7 oz-in
M 2.5 x 0.45	0.22	0.06	UNC 4 x 40	48 oz-in	10 oz-in
M 3 x 0.5	0.44	0.1	UNC 5 x 40	75 oz-in	13 oz-in
M 3.5 x 0.6	0.68	0.12	UNC 6 x 32	6 lb-in	1 lb-in
M 4 x 0.7	0.9	0.16	UNC 8 x 32	9 lb-in	1.5 lb-in
M 5 x 0.8	1.6	0.3	UNC 10 x 24	13 lb-in	2 lb-in
M 6 x 1.0	3	0.4	UNC 12 x 24	24 lb-in	3 lb-in
M 7 x 1.0	4.4	0.6	UNC 1/4 x 20	30 lb-in	4.5 lb-in
M 8 x 1.25	6	0.8	UNC 5/16 x 18	60 lb-in	7.5 lb-in
M 10 x 1.5	10	1.4	UNC 3/8 x 16	80 lb-in	12 lb-in
M 12 x 1.75	15	2.2	UNC 7/16 x 14	100 lb-in	16.5 lb-in
M 14 x 2.0	23	3	UNC 1/2 x 13	150 lb-in	24 lb-in
M 16 x 2.0	32	4.2	UNC 9/16 x 12	200 lb-in	30 lb-in
M 18 x 2.5	42	5.5	UNC 5/8 x 11	300 lb-in	40 lb-in
M 20 x 2.5	54	7	UNC 3/4 x 10	400 lb-in	60 lb-in
M 22 x 2.5	70	9	UNC 7/8 x 9	600 lb-in	82 lb-in
M 24 x 3.0	80	11	UNC 1" x 8	800 lb-in	110 lb-in
M 27 x 3.0	95	12	UNC 1.1/8" x 7	900 lb-in	137 lb-in
M 30 x 3.5	110	14	UNC 1.1/4" x 7	1000 lb-in	165 lb-in
M 33 x 3.5	125	16	UNC 1.3/8" x 6	1150 lb-in	185 lb-in
M 36 x 4.0	140	18	UNC 1.1/2" x 6	1350 lb-in	210 lb-in

BaerCoil® Thread Inserts - type: „screw grip“ (screw locking) are red colored

Please find them on page 15



Installation by hand

1

Drilling

Clear the damaged thread with a standard drill bit. To repair a spark plug thread no pre-drilling is necessary if using the special spark plug tap with pilot nose. Optionally you can countersink the borehole.



2

Tapping

Use the special BaerCoil® tap for cutting the holding thread into the cleared hole. BaerCoil® taps are suitable for blind- and through holes. It's recommended to use a suitable cutting oil.



3

Installing thread inserts

Place insert on installing tool and position the adjustable ring that the insert tang is centred in the tang slot. Wind insert in with light downward pressure until 1/4 to 1/2 turn below the surface. Do not turn against direction of rotation, because the tang can break.



4

Tang removal

Lift the inserting tool from tang and place the tang break tool over the tang and tap down sharply. For bigger sizes and spark plug use a long nose pliers to remove the tang.



Installation by machine or electronic screwdriver

1

Drilling

Clear the damaged thread with a standard drill bit. Optionally you can countersink the borehole.



2

Tapping

Use the special BaerCoil® tap for cutting the holding thread into the cleared hole. BaerCoil® taps and forming taps are suitable for blind and through holes. It's recommended to use a suitable cutting oil or emulsion.



3

Installing thread inserts

Position the work piece that bore and machine spindle are above each other. Set the counter nuts according the installation length (1/4 to 1/2 turn below the surface). Turn the thread insert onto the installation tool. Activate the machine so that the thread insert is screwed to the desired depth. After inserting screw the tool of the insert. Avoid any rough placement of the tool on the work piece so as to not damage the work piece, tool or thread insert.



4

Tang removal

Place the tang break tool over the tang and tap down sharply or work with a pneumatic tang break tool. For bigger sizes and spark plug use a long nose pliers to remove the tang. For bulk production automatic tang breaking tools are available, too.



BaerCoil® Thread Repair Kits - Mix

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - lengths: **1,5 D - 2,0 D - 2,5 D**
- different lengths for most applications
- Instruction for use



M ISO metric thread

				1,5 D	2,0 D	2,5 D	No.
M 3 x 0,5	EBW03	BZ003	3,2 mm	10	5	5	B40052
M 4 x 0,7	EBW04	BZ004	4,2 mm	10	5	5	B40072
M 5 x 0,8	EBW05	BZ005	5,2 mm	10	5	5	B40092
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	5	B40102
M 7 x 1,0	EBW07	BZ006	7,3 mm	10	5	5	B40112
M 8 x 1,0	EBW08	BZ008	8,3 mm	10	5	5	B40132
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	5	B40122
M 10 x 1,0	EBW10	BZ010	10,3 mm	10	5	5	B40182
M 10 x 1,25	EBW10	BZ010	10,3 mm	10	5	5	B40172
M 10 x 1,5	EBW10	BZ010	10,4 mm	10	5	5	B40162
M 12 x 1,25	EBW12	BZ012	12,3 mm	10	5	5	B40232
M 12 x 1,5	EBW12	BZ012	12,4 mm	5	5	5	B40222
M 12 x 1,75	EBW12	BZ012	12,4 mm	5	5	5	B40212
M 14 x 1,5	EBW14		14,4 mm	3	3	3	B40292
M 14 x 2,0	EBW14		14,4 mm	3	3	3	B40282



BaerCoil® Thread Repair Kits for spark plug

- STI Tap HSSG with pilot nose for spark plug
- Inserting Tool
- Wire Thread Inserts - type: "free running" - different lengths
- **different lengths for most applications**
- Instruction for use

					No.
M 10 x 1,0	EBW10	10 mm 5	15 mm 5	20 mm 5	ZKG010
M 12 x 1,25	EBW12	12 mm 5	18 mm 5	24 mm 5	ZKG012
M 14 x 1,25	EBW14	8,4 mm 5	12,4 mm 5	16,4 mm 5	ZKG014
M 18 x 1,5	EBW18	12,7 mm 5	15,9 mm 5	16,7 mm 5	ZKG018

BaerCoil® Thread Repair Kits for oil drain plug

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - different lengths
- **different lengths for most applications**
- Instruction for use




				No.
M 12 x 1,5	EBW12	12,4 mm 5	18 mm 5	B40223
M 14 x 1,5	EBW14	14,4 mm 5	14 mm 21 mm 5	B40293
M 16 x 1,5	EBW16	16 mm 5	24 mm 5	B40333

BaerCoil® Thread Repair Kits - type: “screw grip”

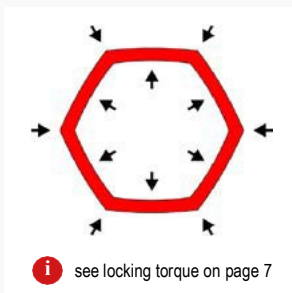
- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - **type: “screw grip” (screw locking)** - length: 1,5 D
- for impact resistant and vibration resistant bolted connections (more information on page 4 - 7)
- Instruction for use



M ISO metric thread



				1,5 D	No.
M 3 x 0,5	EBW03	BZ003	3,2 mm	10	BS4005
M 4 x 0,7	EBW04	BZ004	4,2 mm	10	BS4007
M 5 x 0,8	EBW05	BZ005	5,2 mm	10	BS4009
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	BS4010
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	BS4012
M 10 x 1,25	EBW10	BZ010	10,3 mm	10	BS4015
M 10 x 1,5	EBW10	BZ010	10,4 mm	10	BS4016
M 12 x 1,75	EBW12	BZ012	12,4 mm	10	BS4021
M 14 x 2,0	EBW14		14,5 mm	5	BS4028
M 16 x 2,0	EBW14			5	BS4032
M 18 x 2,5	EBW18			5	BS4034
M 20 x 2,5	EBW20			5	BS4037
M 24 x 3,0	EBW24			5	BS4043
M 30 x 3,5	EBW30			5	BS4054



BaerCoil® Wire Thread Inserts - type: “screw grip”

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BaerCoil® Thread Repair Kits - PRO

- Drill HSS
- STI Machine Tap HSSG
- Machine Inserting Tool with 1/4" hexagonal drive
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - lengths: **1,5 D - 2,0 D - 2,5 D**
- different lengths for most applications
- Instruction for use

M ISO metric thread

				1,5 D	2,0 D	2,5 D	No.
M 3 x 0,5	KEBW03	BZ003	3,2 mm	10	5	5	B40054
M 4 x 0,7	KEBW04	BZ004	4,2 mm	10	5	5	B40074
M 5 x 0,8	KEBW05	BZ005	5,2 mm	10	5	5	B40094
M 6 x 1,0	KEBW06	BZ006	6,3 mm	10	5	5	B40104
M 8 x 1,25	KEBW08	BZ008	8,3 mm	10	5	5	B40124
M 10 x 1,5	KEBW10	BZ010	10,4 mm	5	5	5	B40164
M 12 x 1,75	KEBW12	BZ012	12,4 mm	5	5	5	B40214

BaerCoil® Thread Repair Kits for blind holes

- Drill HSS
- STI Machine Tap HSSG
- Machine Inserting Tool with 1/4" hexagonal drive
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - lengths: **1,5 D - 2,0 D - 2,5 D**
- different lengths for most applications
- Instruction for use



M ISO metric thread

					1,5 D	2,0 D	2,5 D	No.
M 3 x 0,5	EBW03	BZ003	10,4 mm	3,2 mm	10	5	5	B40055
M 4 x 0,7	EBW04	BZ004	10,4 mm	4,2 mm	10	5	5	B40075
M 5 x 0,8	EBW05	BZ005	10,4 mm	5,2 mm	10	5	5	B40095
M 6 x 1,0	EBW06	BZ006	10,4 mm	6,3 mm	10	5	5	B40105
M 7 x 1,0	EBW07	BZ006	10,4 mm	7,3 mm	10	5	5	B40115
M 8 x 1,25	EBW08	BZ008	10,4 mm	8,3 mm	10	5	5	B40125
M 10 x 1,5	EBW10	BZ010	16,5 mm	10,4 mm	10	5	5	B40165
M 12 x 1,5	EBW12	BZ012	16,5 mm	12,4 mm	5	5	5	B40225
M 12 x 1,75	EBW12	BZ012	16,5 mm	12,4 mm	5	5	5	B40215
M 14 x 1,5	EBW14		16,5 mm	14,4 mm	5	5		B40295
M 16 x 1,5	EBW14		16,5 mm		10			B40335
M 16 x 2,0	EBW14		16,5 mm		10			B40325

BaerCoil® Thread Repair Kits

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- Instruction for use



M ISO metric thread

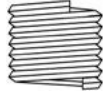
					1,5 D	No.
M 2 x 0,4	EBW01	BZ001	2,1 mm	20	B4001	
M 2,2 x 0,45	EBW01	BZ001	2,3 mm	20	B4002	
M 2,5 x 0,45	EBW02	BZ002	2,6 mm	20	B4003	
M 3 x 0,5	EBW03	BZ003	3,2 mm	20	B4005	
M 3,5 x 0,6	EBW03	BZ003	3,7 mm	20	B4006	
M 4 x 0,7	EBW04	BZ004	4,2 mm	20	B4007	
M 5 x 0,8	EBW05	BZ005	5,2 mm	20	B4009	
M 6 x 0,75	EBW06	BZ006	6,3 mm	10	B0675	
M 6 x 1,0	EBW06	BZ006	6,3 mm	20	B4010	
M 7 x 1,0	EBW07	BZ006	7,3 mm	20	B4011	
M 8 x 0,75	EBW08	BZ008	8,3 mm	10	B0875	
M 8 x 1,0	EBW08	BZ008	8,3 mm	20	B4013	
M 8 x 1,25	EBW08	BZ008	8,3 mm	20	B4012	
M 9 x 1,0	EBW08	BZ008	9,3 mm	10	B0091	
M 9 x 1,25	EBW08	BZ008	9,3 mm	15	B4014	
M 10 x 1,0	EBW10	BZ010	10,3 mm	15	B4018	
M 10 x 1,25	EBW10	BZ010	10,3 mm	15	B4017	
M 10 x 1,5	EBW10	BZ010	10,4 mm	15	B4016	
M 11 x 1,0	EBW10	BZ010	11,4 mm	5	B0111	
M 11 x 1,25	EBW10	BZ010	11,4 mm	5	B1125	
M 11 x 1,5	EBW10	BZ010	11,4 mm	10	B4019	
M 12 x 1,0	EBW12	BZ012	12,3 mm	10	B4024	
M 12 x 1,25	EBW12	BZ012	12,3 mm	10	B4023	
M 12 x 1,5	EBW12	BZ012	12,4 mm	10	B4022	
M 12 x 1,75	EBW12	BZ012	12,4 mm	10	B4021	
M 13 x 1,25	EBW12		13,25 mm	5	B1315	
M 13 x 1,5	EBW12		13,25 mm	5	B1325	
M 14 x 1,0	EBW14		14,4 mm	10	B4031	
M 14 x 1,25	EBW14		14,4 mm	10	B4030	
M 14 x 1,5	EBW14		14,4 mm	10	B4029	
M 14 x 2,0	EBW14		14,5 mm	10	B4028	
M 15 x 1,5	EBW14			5	B1515	
M 15 x 2,0	EBW14			5	B1520	
M 16 x 1,5	EBW14			10	B4033	
M 16 x 2,0	EBW14			10	B4032	

For sizes bigger than M 13 use a long nose pliers to remove the tang.



BaerCoil® Thread Repair Kits

- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

M ISO metric thread			
		 1,5 D	No.
M 18 x 1,5	EBW18	5	B4036
M 18 x 2,0	EBW18	5	B4035
M 18 x 2,5	EBW18	5	B4034
M 20 x 1,5	EBW20	5	B4039
M 20 x 2,0	EBW20	5	B4038
M 20 x 2,5	EBW20	5	B4037
M 22 x 1,5	EBW22	5	B4042
M 22 x 2,0	EBW22	5	B4041
M 22 x 2,5	EBW22	5	B4040
M 24 x 1,5	EBW24	5	B4045
M 24 x 2,0	EBW24	5	B4044
M 24 x 3,0	EBW24	5	B4043
M 26 x 1,5	EBW26	5	B4049
M 27 x 1,5	EBW27	5	B4052
M 27 x 2,0	EBW27	5	B4051
M 27 x 3,0	EBW27	5	B4050
M 28 x 1,5	EBW28	5	B4053
M 30 x 1,5	EBW30	5	B4056
M 30 x 2,0	EBW30	5	B4055
M 30 x 3,5	EBW30	5	B4054
M 33 x 2,0	EBW33	5	B4058
M 33 x 3,5	EBW33	5	B4057
M 36 x 1,5	EBW36	5	B4063
M 36 x 2,0	EBW36	5	B4062
M 36 x 3,0	EBW36	5	B4061
M 36 x 4,0	EBW36	5	B0364
M 39 x 2,0	EBW39	5	B0392
M 39 x 4,0	EBW39	5	B0394
M 42 x 2,0	EBW42	5	B0422
M 42 x 3,0	EBW42	5	B0423
M 42 x 4,0	EBW42	5	B0424

BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use



UNC

Unified National Coarse Thread Series ANSI B1.1

					1,5 D	No.
UNC	2 x 56	EBW01	BZ001	2,3 mm	20	B4100
UNC	3 x 48	EBW02	BZ002	2,6 mm	10	B4348
UNC	4 x 40	EBW03	BZ003	3,0 mm	20	B4101
UNC	5 x 40	EBW03	BZ003	3,4 mm	20	B4106
UNC	6 x 32	EBW03	BZ003	3,7 mm	20	B4102
UNC	8 x 32	EBW04	BZ004	4,5 mm	20	B4103
UNC	10 x 24	EBW04	BZ004	5,2 mm	20	B4104
UNC	12 x 24	EBW05	BZ005	5,8 mm	10	B4105
UNC	1/4 x 20	EBW06	BZ006	6,7 mm	20	B4107
UNC	5/16 x 18	EBW07	BZ006	8,3 mm	20	B4108
UNC	3/8 x 16	EBW08	BZ008	9,9 mm	15	B4109
UNC	7/16 x 14	EBW10	BZ010	11,6 mm	10	B4110
UNC	1/2 x 13	EBW12	BZ012	13,0 mm	10	B4111
UNC	9/16 x 12	EBW14			10	B4112
UNC	5/8 x 11	EBW14			10	B4113



BaerCoil® Thread Repair Kits

- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

UNC

Unified National Coarse Thread Series ANSI B1.1

					1,5 D	No.
UNC	11/16x11	EBW16			5	B41116
UNC	3/4 x 10	EBW18			5	B4114
UNC	7/8 x 9	EBW22			5	B4115
UNC	1" x 8	EBW24			5	B4116
UNC	1.1/8 x 7	EBW26			10	B4117
UNC	1.1/4 x 7	EBW30			10	B4118
UNC	1.3/8 x 6	EBW31			10	B4119
UNC	1.1/2 x 6	EBW36			10	B4120

€

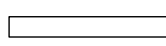
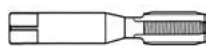


BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

UNF

Unified National Coarse Thread Series ANSI B1.1



1,5 D

No.

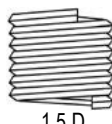
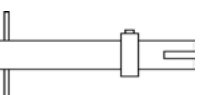
UNF	2 x 64	EBW01	BZ001	2,3 mm	10	B41201
UNF	3 x 56	EBW02	BZ002	2,6 mm	10	B4356
UNF	4 x 48	EBW03	BZ003	3,0 mm	20	B41202
UNF	6 x 40	EBW03	BZ003	3,7 mm	20	B4121
UNF	8 x 36	EBW04	BZ004	4,4 mm	20	B4122
UNF	10 x 32	EBW05	BZ005	5,1 mm	20	B4123
UNF	1/4 x 28	EBW06	BZ006	6,6 mm	20	B4125
UNF	5/16 x 24	EBW07	BZ006	8,2 mm	20	B4126
UNF	3/8 x 24	EBW08	BZ008	9,8 mm	15	B4127
UNF	7/16 x 20	EBW10	BZ010	11,5 mm	10	B4128
UNF	1/2 x 20	EBW12	BZ012	13,0 mm	10	B4129
UNF	9/16 x 18	EBW14			10	B4130
UNF	5/8 x 18	EBW14			10	B4131

BaerCoil® Thread Repair Kits

- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

UNF

Unified National Coarse Thread Series ANSI B1.1



1,5 D

No.

€

UNF	3/4 x 16	EBW20	5	B4132
UNF	7/8 x 14	EBW22	5	B4133
UNF	1" x 12	EBW24	5	B4134
UNF	1" x 14	EBW24	5	B41351
UNF	1.1/8 x 12	EBW30	5	B4137
UNF	1.1/4 x 12	EBW31	5	B4138
UNF	1.3/8 x 12	EBW36	5	B4139
UNF	1.1/2 x 12	EBW39	5	B4140



BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use



BSW British Standard Whitworth Coarse Thread Series BS 84

				1,5 D	No.	€
BSW 1/8 x 40	EBW03	BZ003	3,4 mm	20	B4141	
BSW 3/16 x 24	EBW05	BZ005	5,0 mm	20	B4142	
BSW 1/4 x 20	EBW06	BZ006	6,7 mm	20	B4143	
BSW 5/16 x 18	EBW07	BZ006	8,3 mm	20	B4144	
BSW 3/8 x 16	EBW08	BZ008	9,9 mm	15	B4145	
BSW 7/16 x 14	EBW10	BZ010	11,6 mm	10	B4146	
BSW 1/2 x 12	EBW12	BZ012	13,0 mm	10	B4147	
BSW 9/16 x 12	EBW14			5	B4148	
BSW 5/8 x 11	EBW14			5	B4149	



BaerCoil® Thread Repair Kits

- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

BSW Unified National Coarse Thread Series ANSI B1.1

				1,5 D	No.	€
BSW 11/16x11	EBW16			5	B4153	
BSW 3/4 x 10	EBW18			5	B4150	
BSW 7/8 x 9	EBW22			5	B4151	
BSW 1" x 8	EBW24			4	B4152	
BSW 1.1/8 x 7	EBW26			5	B4154	
BSW 1.1/4 x 7	EBW30			5	B4155	
BSW 1.3/8 x 6	EBW31			5	B4156	
BSW 1.1/2 x 6	EBW36			5	B4157	

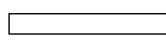
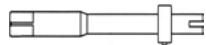


BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

BSF

British Standard Whitworth Fine Thread Series BS 84



1,5 D

No.

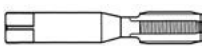
BSF 3/16 x 32	EBW04	BZ004	5,0 mm	20	B4162
BSF 7/32 x 28	EBW05	BZ005	5,8 mm	10	B4177
BSF 1/4 x 26	EBW06	BZ006	6,6 mm	20	B4163
BSF 9/32 x 26	EBW06	BZ006	7,3 mm	10	B4178
BSF 5/16 x 22	EBW07	BZ008	8,3 mm	20	B4165
BSF 3/8 x 20	EBW08	BZ008	9,9 mm	15	B4166
BSF 7/16 x 18	EBW10	BZ010	11,5 mm	10	B4167
BSF 1/2 x 16	EBW12	BZ012	13,0 mm	10	B4168
BSF 9/16 x 16	EBW14			5	B4169
BSF 5/8 x 14	EBW14			5	B4170

BaerCoil® Thread Repair Kits

- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

BSF

British Standard Whitworth Fine Thread Series BS 84



1,5 D

No.

€

BSF 11/16x 14	EBW16	5	B4171
BSF 3/4 x 12	EBW18	5	B4172
BSF 13/16x 12	EBW18	5	B4173
BSF 7/8 x 11	EBW22	5	B4174
BSF 1" x 10	EBW24	4	B4176
BSF 1.1/8 x 9	EBW30	5	B4179
BSF 1.1/4 x 9	EBW31	5	B4180
BSF 1.3/8 x 8	EBW36	5	B4181
BSF 1.1/2 x 8	EBW39	5	B4182



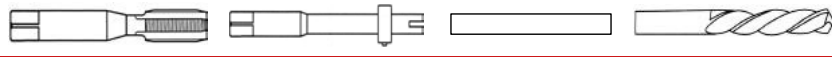
BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use



G (BSP)

British Standard Pipe Thread DIN ISO 228



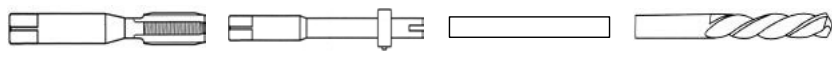
					2,0 D	No.
G 1/8 x 28	EBW10	BZ010	9,9 mm	5		B4190
G 1/4 x 19	EBW12	BZ012	13,5 mm	5		B4191
G 3/8 x 19	EBW14		17,0 mm	5		B4192
G 1/2 x 14	EBW22			5		B4193
G 5/8 x 14	EBW24			5		B4194
G 3/4 x 14	EBW26			5		B4195
G 7/8 x 14	EBW30			5		B4196
G 1" x 11	EBW36			5		B4197
G 1.1/4 x 11	EBW42			5		B4198
G 1.1/2 x 11	EBW50			5		B4199

Please note:

The outside diameter of 1" pipe thread is 33.25 mm (not 25.4 mm)!
But the length of the thread insert is calculated with the value 25.4 mm:
e.g.: Length 2 D at G 1/4 x 19: 1/4 x 25.4 mm x 2 = 12.70 mm 1,5

BA

British Association Standard Thread BS 931,5

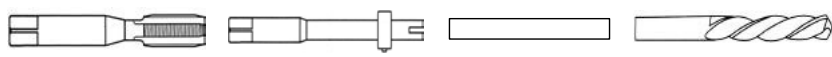


					1,5 D	No.	€
BA 0	EBW06	BZ006	6,2 mm	10		B4201	
BA 1	EBW05	BZ005	5,5 mm	10		B4202	
BA 2	EBW05	BZ005	4,9 mm	10		B4203	
BA 3	EBW04	BZ004	4,3 mm	5		B4204	
BA 4	EBW03	BZ003	3,8 mm	5		B4205	
BA 5	EBW03	BZ003	3,2 mm	5		B4206	
BA 6	EBW02	BZ002	2,9 mm	5		B4207	

leading time: 1 - 3 weeks

BSB

British Standard Brass Thread



					1,5 D	No.	€
BSB 1/4 x 26	EBW06	BZ006	6,6 mm	5		B4208	
BSB 5/16 x 26	EBW07	BZ006	8,2 mm	5		B4209	
BSB 3/8 x 26	EBW08	BZ008	9,8 mm	5		B4210	
BSB 7/16 x 26	EBW10	BZ010	11,5 mm	5		B4211	
BSB 1/2 x 26	EBW12	BZ012	13,0 mm	5		B4212	

leading time: 1 - 3 weeks



BaerCoil® Thread Repair Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

special sizes

				1,5 D	No.
UNEF 1/4 x 32	EBW06	BZ006	6,6 mm	10	B4225
Harley 1/4 x 24	EBW06	BZ006	6,6 mm	10	B4226
Harley 7/16 x 16	EBW10	BZ010	11,5 mm	10	B4227
Cummins 11/16x16	EBW14			10	B4228
Carburetor 7/8 x 20	EBW22			10	B4229
Carburetor 1" x 20	EBW24			10	B4230

BSC British Standard Cycle Thread RS 811

				1,5 D	No.
BSC 5/16 x 26	EBW07	BZ006	8,2 mm	10	B4220
BSC 3/8 x 26	EBW08	BZ008	9,8 mm	10	B4221
BSC 7/16 x 26	EBW10	BZ010	11,5 mm	5	B4222
BSC 1/2 x 26	EBW12	BZ012	13,0 mm	5	B4223

leading time: 1 - 3 weeks

NPT American Taper Pipe Thread ANSI B1.20.1

				1,5 D	No.
NPT 1/8 x 27	EBW10	10			B4231
NPT 1/4 x 19	EBW14	10			B4232
NPT 3/8 x 18	EBW14	10			B4233
NPT 1/2 x 14	EBW22	5			B4234
NPT 3/4 x 14	EBW26	5			B4235
NPT 1" x 11,5	EBW36	5			B4236

leading time: 1 - 3 weeks

8 - UN Unified Thread Series 8 TPI ANSI B1.1

				1,5 D	No.
1.1/8 x 8	EBW26	5			B4240
1.1/4 x 8	EBW30	5			B4241
1.3/8 x 8	EBW31	5			B4242
1.1/2 x 8	EBW36	4			B4243
1.5/8 x 8	EBW39	4			B4244
1.3/4 x 8	EBW42	4			B4245
1.7/8 x 8	EBW42	4			B4246
2" x 8	EBW42	4			B4247

leading time: 1 - 3 weeks






BaerCoil® Thread Repair Workshop Kits

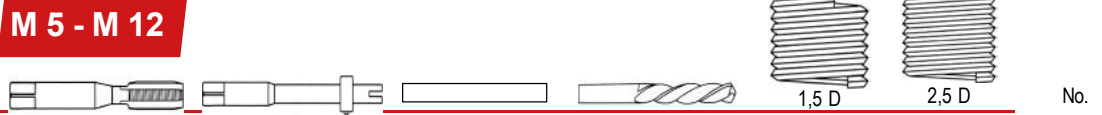
- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - lengths: **1,5 D - 2,5 D**
- **different lengths for most applications**
- Instruction for use

M 3 - M 12




				1,5 D	2,5 D	No.
M 3 x 0,5	EBW03	BZ003	3,2 mm	10	5	B5101
M 4 x 0,7	EBW04	BZ004	4,2 mm	10	5	
M 5 x 0,8	EBW05	BZ005	5,2 mm	10	5	
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	
M 10 x 1,5	EBW10	BZ010	10,4 mm	5	5	
M 12 x 1,75	EBW12	BZ012	12,4 mm	5	5	

M 5 - M 12




				1,5 D	2,5 D	No.
M 5 x 0,8	EBW05	BZ005	5,2 mm	10	5	B5104
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	
M 10 x 1,5	EBW10	BZ010	10,4 mm	5	5	
M 12 x 1,75	EBW12	BZ012	12,4 mm	5	5	

M 5 - M 8



				1,5 D	2,5 D	No.
M 5 x 0,8	EBW05	BZ005	5,2 mm	10	5	B5131
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	

M 6 - M 10

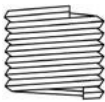
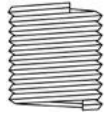



				1,5 D	2,5 D	No.
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	B5130
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	
M 10 x 1,5	EBW10	BZ010	10,4 mm	5	5	

BaerCoil® Thread Repair Workshop Kit for spark plug

- STI Tap HSSG with pilot nose, for spark plug
- Inserting Tool
- Wire Thread Inserts - type: "free running"
- **different lengths for most applications**
- Instruction for use


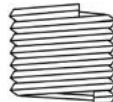
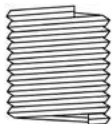


					No.
M 10 x 1,0	EBW10	10 mm 5	15 mm 5	20 mm 5	B5113
M 12 x 1,25	EBW12	12 mm 5	18 mm 5	24 mm 5	
M 14 x 1,25	EBW14	8,4 mm 5	12,4 mm 5	16,4 mm 5	



BaerCoil® Thread Repair Workshop Kit for oil drain plug

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Wire Thread Inserts - type: "free running"
- **different lengths for most applications**
- Instruction for use

					No.
M 12 x 1,5	EBW12	12,4 mm	12 mm 5	18 mm 5	B5157
M 14 x 1,5	EBW14	14,4 mm	14 mm 5	21 mm 5	
M 16 x 1,5	EBW14		16 mm 5	24 mm 5	



BaerCoil® Thread Repair Workshop Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running"
- different lengths for most applications
- Instruction for use

M 6 - M 14 x 1,5²

				1,5 D	2,5 D	No.
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	B5116
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5	
M 10 x 1,5	EBW10	BZ010	10,4 mm	5	5	
M 12 x 1,75	EBW12	BZ012	12,4 mm	5	5	
M 14 x 1,5 ²	EBW14		14,4 mm	14 mm	21 mm	
				5	5	

² for oil drain plug thread

M 6 - M 14 x 1,5²

				1,5 D	2,5 D		No.
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	B5108	
M 8 x 1,25	EBW08	BZ008	8,3 mm	10	5		
M 10 x 1,5	EBW10	BZ010	10,4 mm	5	5		
M 12 x 1,75	EBW12	BZ012	12,4 mm	5	5		
M 14 x 1,25 ¹	EBW14			8,4 mm	12,4 mm		
				5	5	5	

automotive - special

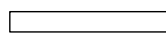
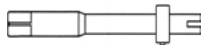
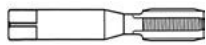
				1,5 D	2,5 D		No.	
M 6 x 1,0	EBW06	BZ006	6,3 mm	10	5	B5109		
M 10 x 1,0 ¹	EBW10			10 mm	15 mm			20 mm
				5	5			5
M 12 x 1,25 ¹				12 mm	18 mm			24 mm
	EBW12			5	5			5
M 12 x 1,5 ²		BZ012	12,4 mm	12 mm	18 mm			
				5	5			
M 14 x 1,25 ¹				8,4 mm	12,4 mm			16,4 mm
	EBW14			5	5			5
M 14 x 1,5 ²			14,4 mm	14 mm	21 mm			
				5	5			

BaerCoil® Thread Repair Workshop Kits - “screw grip”

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: “screw grip” (screw locking) - length: 1,5 D
- for impact resistant and vibration resistant bolted connections (more information on page 4 - 7)
- Instruction for use

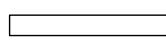
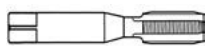


M 3 - M 12

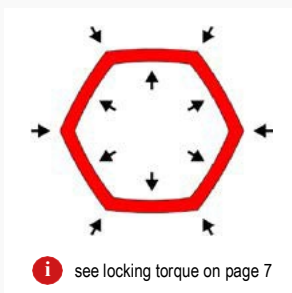


					No.
M 3 x 0,5	EBW03	BZ003	3,2 mm	20	B5153
M 4 x 0,7	EBW04	BZ004	4,2 mm	20	
M 5 x 0,8	EBW05	BZ005	5,2 mm	20	
M 6 x 1,0	EBW06	BZ006	6,3 mm	20	
M 8 x 1,25	EBW08	BZ008	8,3 mm	20	
M 10 x 1,5	EBW10	BZ010	10,4 mm	10	
M 12 x 1,75	EBW12	BZ012	12,4 mm	10	

M 5 - M 12



					No.
M 5 x 0,8	EBW05	BZ005	5,2 mm	20	B5154
M 6 x 1,0	EBW06	BZ006	6,3 mm	20	
M 8 x 1,25	EBW08	BZ008	8,3 mm	20	
M 10 x 1,5	EBW10	BZ010	10,4 mm	10	
M 12 x 1,75	EBW12	BZ012	12,4 mm	10	



BaerCoil® Wire Thread Inserts - type: “screw grip”

In addition to “free-running” insert characteristics, BaerCoil® “screw grip” thread inserts have one or more polygonformed windings, which have a clamping effect on the flanks of the inserted screw. We only recommend using screws with a higher screw property class (from 8.8 on), because of this screw locking or screw clamping effect. An elastic and flexible frictional connection is formed. The clamping torque is comparable to the indications in DIN 267 Part 15 and ISO 2320. BaerCoil® “screw grip” thread inserts are predominantly used in areas where screw connections must remain tight while exposed to tremors, constant vibrations and movements. Screw grip inserts are red-colored.



BaerCoil® Thread Repair Workshop Kits - PRO

- Drill HSS
- STI Machine Tap HSSG
- Countersink HSS with 1/4" hexagon drive (bit shank)
- Machine Inserting Tool with 1/4" hexagon drive (bit shank)
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - lengths **1,5 D - 2,5 D**
- **different lengths for most applications**

M 3 - M 12

					1,5 D	2,5 D	No.
M 3 x 0,5	KEBW03	BZ003		3,2 mm	10	5	
M 4 x 0,7	KEBW04	BZ004		4,2 mm	10	5	
M 5 x 0,8	KEBW05	BZ005	10,4 mm	5,2 mm	10	5	
M 6 x 1,0	KEBW06	BZ006		6,3 mm	10	5	B5103
M 8 x 1,25	KEBW08	BZ008		8,3 mm	10	5	
M 10 x 1,5	KEBW10	BZ010	16,5 mm	10,4 mm	5	5	
M 12 x 1,75	KEBW12	BZ012		12,4 mm	5	5	

M 5 - M 12

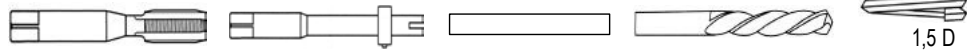
					1,5 D	2,5 D	No.
M 5 x 0,8	KEBW05	BZ005		5,2 mm	10	5	
M 6 x 1,0	KEBW06	BZ006	10,4 mm	6,3 mm	10	5	
M 8 x 1,25	KEBW08	BZ008		8,3 mm	10	5	B5106
M 10 x 1,5	KEBW10	BZ010	16,5 mm	10,4 mm	5	5	
M 12 x 1,75	KEBW12	BZ012		12,4 mm	5	5	

BaerCoil® Thread Repair Workshop Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

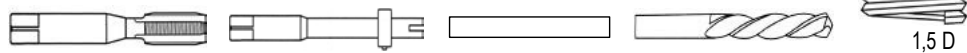


UNF 1/4 - 1/2"



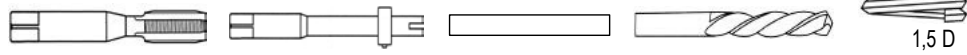
				1,5 D	No.
UNF 1/4 x 28	EBW06	BZ006	6,6 mm	25	B5121
UNF 5/16 x 24	EBW07	BZ008	8,3 mm	25	
UNF 3/8 x 24	EBW08	BZ008	9,9 mm	25	
UNF 7/16 x 20	EBW10	BZ010	11,5 mm	10	
UNF 1/2 x 20	EBW12	BZ012	13,0 mm	10	

UNC 1/4 - 1/2"



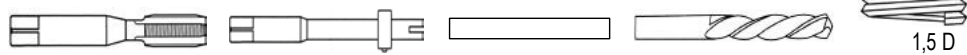
				1,5 D	No.
UNC 1/4 x 20	EBW06	BZ006	6,7 mm	25	B5120
UNC 5/16 x 18	EBW07	BZ008	8,3 mm	25	
UNC 3/8 x 16	EBW08	BZ008	9,9 mm	25	
UNC 7/16 x 14	EBW10	BZ010	11,6 mm	10	
UNC 1/2 x 13	EBW12	BZ012	13,0 mm	10	

BSW 1/4 - 1/2"



				1,5 D	No.
BSW 1/4 x 20	EBW06	BZ006	6,7 mm	25	B5122
BSW 5/16 x 18	EBW07	BZ008	8,3 mm	25	
BSW 3/8 x 16	EBW08	BZ008	9,9 mm	25	
BSW 7/16 x 14	EBW10	BZ010	11,6 mm	10	
BSW 1/2 x 12	EBW12	BZ012	13,0 mm	10	

BSF 1/4 - 1/2"



				1,5 D	No.
BSF 1/4 x 26	EBW06	BZ006	6,6 mm	25	B5123
BSF 5/16 x 22	EBW07	BZ008	8,3 mm	25	
BSF 3/8 x 20	EBW08	BZ008	9,9 mm	25	
BSF 7/16 x 18	EBW10	BZ010	11,5 mm	10	
BSF 1/2 x 16	EBW12	BZ012	13,0 mm	10	

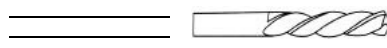


BaerCoil® Thread Repair Workshop Kits

- Drill HSS
- STI Bottoming Tap HSSG
- Inserting Tool
- Tang Break Tool
- Wire Thread Inserts - type: "free running" - length: 1,5 D
- Instruction for use

G (BSP)

British Standard Pipe Thread DIN ISO 228



1,5 D

No.

G (BSP) 1/8 x 28	EBW10	BZ010	10,0 mm	5	B5124
G (BSP) 1/4 x 19	EBW12	BZ012	13,5 mm	5	
G (BSP) 3/8 x 19	EBW14		17,0 mm	5	
G (BSP) 1/2 x 14	EBW22			5	

Please note:

The outside diameter of 1" pipe thread is 33.25 mm (not 25.4 mm)!

However, the length of the thread insert is calculated with the value 25.4 mm: e.g.: length 1,5 D at G 1/4 x 19: 1/4 x 25,4 mm x 1,5 = **9,525 mm**

BA

British Association Standard Thread BS 93



1,5 D

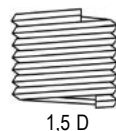
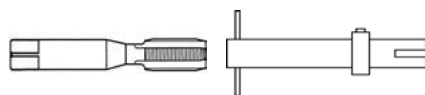
No.

BA 0	EBW06	BZ006	6,2 mm	5	B5125
BA 2	EBW05	BZ005	4,9 mm	5	
BA 4	EBW03	BZ003	3,8 mm	5	
BA 6	EBW02	BZ002	2,9 mm	5	

leading time: 1 - 3 weeks

NPT

American Taper Pipe Thread
ANSI B1.20.1



1,5 D

No.

NPT 1/8 x 27	EBW10			5	B5126
NPT 1/4 x 19	EBW14			5	
NPT 3/8 x 18	EBW14			5	
NPT 1/2 x 14	EBW22			5	



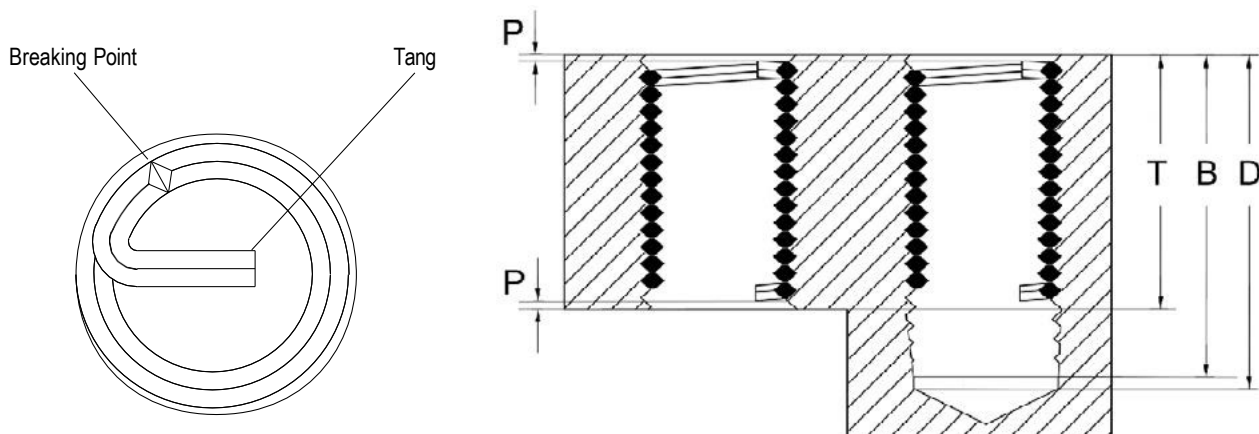
BaerCoil®

Technical Data

Technical Data for BaerCoil® Wire Thread Inserts

DIN 8140 with reduced diameter for better installation

	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
M 2 x 0.4	2.00	3.80	3.40	3.00	4.80	4.40	4.00	5.80	5.40	5.00	6.80	6.40	6.00	7.80	7.40	2.48	2.70
M 2.2 x 0.45	2.20	4.23	3.78	3.30	5.33	4.88	4.40	6.43	5.98	5.50	7.53	7.08	6.60	8.63	8.18		
M 2.5 x 0.45	2.50	4.52	4.07	3.75	5.78	5.33	5.00	7.03	6.58	6.25	8.28	7.83	7.50	9.53	9.08	3.04	3.70
M 3 x 0.5	3.00	5.25	4.75	4.50	6.75	6.25	6.00	8.25	7.75	7.50	9.75	9.25	9.00	11.25	10.75	3.60	4.35
M 3.5 x 0.6	3.50	6.20	5.60	5.25	7.95	7.35	7.00	9.70	9.10	8.75	11.45	10.85	10.50	13.20	12.60	4.22	4.95
M 4 x 0.7	4.00	7.15	6.45	6.00	9.15	8.45	8.00	11.15	10.45	10.00	13.15	12.45	12.00	15.15	14.45	4.83	5.60
M 4.5 x 0.75	4.50	7.88	7.13	6.75	10.13	9.38	9.00	12.38	11.63	11.25	14.63	13.88	13.50	16.88	16.13		
M 5 x 0.8	5.00	8.60	7.80	7.50	11.10	10.30	10.00	13.60	12.80	12.50	16.10	15.30	15.00	18.60	17.80	5.94	6.80
M 6 x 1.0	6.00	10.50	9.50	9.00	13.50	12.50	12.00	16.50	15.50	15.00	19.50	18.50	18.00	22.50	21.50	7.17	7.95
M 7 x 1.0	7.00	11.50	10.50	10.50	15.00	14.00	14.00	18.50	17.50	17.50	22.00	21.00	21.00	25.50	24.50	8.17	9.20
M 8 x 1.0	8.00	12.50	11.50	12.00	16.50	15.50	16.00	20.50	19.50	20.00	24.50	23.50	24.00	28.50	27.50	9.17	10.25
M 8 x 1.25	8.00	13.63	12.38	12.00	17.63	16.38	16.00	21.63	20.38	20.00	25.63	24.38	24.00	29.63	28.38	9.45	10.35
M 9 x 1.0	9.00	13.50	12.50	13.50	18.00	17.00	18.00	22.50	21.50	22.50	27.00	26.00	27.00	31.50	30.50	10.17	11.23
M 9 x 1.25	9.00	14.63	13.38	13.50	19.13	17.88	18.00	23.63	22.38	22.50	28.13	26.88	27.00	32.63	31.38	10.45	11.16
M 10 x 1.0	10.00	14.50	13.50	15.00	19.50	18.50	20.00	24.50	23.50	25.00	29.50	28.50	30.00	34.50	33.50	11.17	12.50
M 10 x 1.25	10.00	15.63	14.38	15.00	20.63	19.38	20.00	25.63	24.38	25.00	30.63	29.38	30.00	35.63	34.38	11.45	12.65
M 10 x 1.5	10.00	16.75	15.25	15.00	21.75	20.25	20.00	26.75	25.25	25.00	31.75	30.25	30.00	36.75	35.25	11.74	12.50
M 11 x 1.25	11.00	16.62	15.37	16.50	22.12	20.87	22.00	27.62	26.37	27.50	33.12	31.87	33.00	38.62	37.37	12.47	13.76
M 11 x 1.5	11.00	17.75	16.25	16.50	23.25	21.75	22.00	28.75	27.25	27.50	34.25	32.75	33.00	39.75	38.25	12.74	13.59
M 12 x 1.25	12.00	17.63	16.38	18.00	23.63	22.38	24.00	29.63	27.38	30.00	35.63	34.38	36.00	41.63	40.38	13.47	15.00
M 12 x 1.5	12.00	18.75	17.25	18.00	24.00	23.25	24.00	30.75	29.25	30.00	36.75	35.25	36.00	42.75	41.25	13.75	15.20
M 12 x 1.75	12.00	19.88	18.13	18.00	25.88	24.13	24.00	31.88	30.13	30.00	37.88	36.13	36.00	43.88	42.13	14.03	15.00
M 14 x 1.25	14.00	19.62	18.37	21.00	26.62	25.37	28.00	33.62	32.37	35.00	40.62	39.37	42.00	47.62	46.37	15.47	17.03
M 14 x 1.5	14.00	20.75	19.25	21.00	27.75	26.25	28.00	34.75	33.25	35.00	41.75	40.25	42.00	48.75	47.25	15.75	17.25
M 14 x 2.0	14.00	23.00	21.00	21.00	30.00	28.00	28.00	37.00	35.00	35.00	44.00	42.00	42.00	51.00	49.00	16.31	17.35
M 16 x 1.5	16.00	22.75	21.25	24.00	30.75	29.25	32.00	38.75	37.25	40.00	46.75	45.25	48.00	54.75	53.25	17.75	19.60
M 16 x 2.0	16.00	25.00	23.00	24.00	33.00	31.00	32.00	41.00	39.00	40.00	49.00	47.00	48.00	57.00	55.00	18.31	19.60
M 18 x 1.5	18.00	24.75	23.25	27.00	33.75	32.25	36.00	42.75	41.25	45.00	51.75	50.25	54.00	60.75	59.25	19.75	21.85
M 18 x 2.0	18.00	27.00	25.00	27.00	36.00	34.00	36.00	45.00	43.00	45.00	54.00	52.00	54.00	63.00	61.00	20.31	21.85
M 18 x 2.5	18.00	29.25	26.75	27.00	38.25	35.75	36.00	47.25	44.75	45.00	56.25	53.75	54.00	65.25	62.75	20.86	22.00



- P** Installed insert 1/4 – 1/2 pitch below the surface
- T** Length of Insert, when installed
- B** Tap depth – including threads chamfer of plug tap
- D** Drill depth (min.) - excluding point
- F** Free coil diameter

Technical Data for BaerCoil® Wire Thread Inserts

M	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
M 20 x 1.5	20.00	26.75	25.25	30.00	36.75	35.25	40.00	46.75	45.25	50.00	56.75	55.25	60.00	66.75	65.25	21.75	24.00
M 20 x 2.0	20.00	29.00	27.00	30.00	39.00	37.00	40.00	49.00	47.00	50.00	59.00	57.00	60.00	69.00	67.00	22.31	24.05
M 20 x 2.5	20.00	31.25	28.75	30.00	41.25	38.75	40.00	51.25	48.75	50.00	61.25	58.75	60.00	71.25	68.75	22.86	24.40
M 22 x 1.5	22.00	28.75	27.25	33.00	39.75	38.25	44.00	50.75	49.25	55.00	61.75	60.25	66.00	72.75	71.25	23.75	26.45
M 22 x 2.0	22.00	31.00	29.00	33.00	42.00	40.00	44.00	53.00	51.00	55.00	64.00	62.00	66.00	75.00	73.00	24.31	26.50
M 22 x 2.5	22.00	33.25	30.75	33.00	44.25	41.75	44.00	55.25	52.75	55.00	66.25	63.75	66.00	77.25	74.75	24.86	26.90
M 24 x 2.0	24.00	33.00	31.00	36.00	45.00	43.00	48.00	57.00	55.00	60.00	69.00	67.00	72.00	81.00	79.00	26.32	29.10
M 24 x 3.0	24.00	37.50	34.50	36.00	49.50	46.50	48.00	61.50	58.50	60.00	73.50	70.50	72.00	85.50	82.50	27.43	29.00
M 27 x 2.0	27.00	36.00	34.00	40.50	49.50	47.50	54.00	63.00	61.00	67.50	76.50	74.50	81.00	90.00	88.00	29.32	32.30
M 27 x 3.0	27.00	40.50	37.50	40.50	54.00	51.00	54.00	67.50	64.50	67.50	81.00	78.00	81.00	94.50	91.50	30.43	32.40
M 30 x 3.0	30.00	43.50	40.50	45.00	58.50	55.50	60.00	73.50	70.50	75.00	88.50	85.50	90.00	103.50	100.50	33.43	36.10
M 30 x 3.5	30.00	45.75	42.25	45.00	60.75	57.25	60.00	75.75	72.25	75.00	90.75	87.25	90.00	105.75	102.25	33.99	35.81
M 33 x 3.5	33.00	48.75	45.25	49.50	65.25	61.75	66.00	81.75	78.25	82.50	98.25	94.75	99.00	114.75	111.25	36.99	38.80
M 36 x 3.0	36.00	49.50	46.50	54.00	67.50	64.50	72.00	85.50	82.50	90.00	103.50	100.50	108.00	121.50	118.50	39.43	42.70
M 36 x 4.0	36.00	54.00	50.00	54.00	72.00	68.00	72.00	90.00	86.00	90.00	108.00	104.00	108.00	126.00	122.00	40.54	42.67
M 39 x 4.0	39.00	57.00	53.00	58.50	76.50	72.50	78.00	96.00	92.00	97.50	115.50	111.50	117.00	135.00	131.00	43.54	45.75
M 42 x 3.0	42.00	55.50	52.50	63.00	76.50	73.50	84.00	97.50	94.50	105.00	118.50	115.50	126.00	139.50	136.50	45.43	49.00
M 42 x 4.5	42.00	62.25	57.75	63.00	83.25	78.75	84.00	104.25	99.75	105.00	125.25	120.75	126.00	146.25	141.75	47.10	49.00

	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
1/8 x 28	0.125	0.287	0.251	0.187	0.349	0.313	0.250	0.412	0.376	0.312	0.474	0.438	0.375	0.537	0.501	0.426	0.472
1/4 x 19	0.250	0.488	0.435	0.375	0.613	0.560	0.500	0.738	0.685	0.625	0.863	0.810	0.750	0.988	0.935	0.582	0.637
3/8 x 19	0.375	0.613	0.560	0.562	0.800	0.747	0.750	0.988	0.935	0.937	1.175	1.122	1.125	1.363	1.310	0.720	0.787
1/2 x 14	0.500	0.820	0.749	0.750	1.070	0.999	1.000	1.320	1.249	1.250	1.570	1.499	1.500	1.821	1.749	0.911	0.992
5/8 x 14	0.625	0.945	0.874	0.937	1.257	1.186	1.250	1.570	1.499	1.562	1.882	1.811	1.875	2.195	2.124	0.988	1.078
3/4 x 14	0.750	1.070	0.999	1.125	1.445	1.374	1.500	1.820	1.749	1.875	2.195	2.124	2.250	2.570	2.499	1.127	1.228
7/8 x 14	0.875	1.195	1.124	1.312	1.632	1.561	1.750	2.070	1.999	2.187	2.507	2.436	2.625	2.945	2.874	1.275	1.389
1" x 11	1.000	1.410	1.319	1.500	1.910	1.819	2.000	2.410	2.319	2.500	2.910	2.819	3.000	3.410	3.319	1.416	1.543
1.1/4" x 11	1.250	1.660	1.569	1.875	2.285	2.194	2.500	2.910	2.819	3.125	3.535	3.440	3.750	4.160	4.069	1.759	1.909
1.1/2" x 11	1.506	1.910	1.819	2.250	2.660	2.569	3.000	3.410	3.319	3.750	4.160	4.069	4.500	4.910	4.819	1.991	2.161

BA	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
BA 0	0.236	0.413	0.374	0.354	0.531	0.492	0.472	0.649	0.610	0.591	0.768	0.729	0.709	0.886	0.847	0.280	0.309
BA 1	0.209	0.368	0.333	0.313	0.472	0.437	0.417	0.567	0.541	0.522	0.681	0.646	0.626	0.785	0.750	0.248	0.273
BA 2	0.185	0.329	0.297	0.278	0.422	0.390	0.370	0.514	0.482	0.463	0.607	0.575	0.555	0.699	0.667	0.220	0.243
BA 3	0.616	0.132	0.262	0.242	0.372	0.343	0.323	0.453	0.424	0.404	0.543	0.505	0.484	0.614	0.585	0.193	0.213
BA 4	0.142	0.259	0.233	0.213	0.330	0.304	0.283	0.400	0.374	0.354	0.471	0.455	0.425	0.542	0.516	0.170	0.188
BA 5	0.126	0.230	0.207	0.189	0.293	0.270	0.252	0.356	0.333	0.315	0.419	0.396	0.378	0.482	0.459	0.152	0.167
BA 6	0.110	0.204	0.183	0.165	0.259	0.238	0.220	0.314	0.293	0.276	0.370	0.349	0.331	0.425	0.404	0.133	0.147

Technical Data for BaerCoil® Wire Thread Inserts

UNC	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
2 x 56	0.086	0.166	0.148	0.129	0.209	0.191	0.172	0.252	0.234	0.215	0.295	0.277	0.258	0.338	0.320	0.107	0.119
3 x 48	0.099	0.193	0.172	0.148	0.242	0.221	0.198	0.292	0.271	0.248	0.342	0.321	0.297	0.391	0.370	0.124	0.139
4 x 40	0.112	0.224	0.199	0.168	0.280	0.255	0.224	0.336	0.311	0.280	0.392	0.367	0.336	0.448	0.423	0.142	0.159
5 x 40	0.125	0.237	0.212	0.187	0.300	0.275	0.250	0.362	0.337	0.312	0.425	0.400	0.375	0.487	0.462	0.155	0.173
6 x 32	0.138	0.279	0.247	0.207	0.348	0.316	0.276	0.417	0.385	0.345	0.486	0.454	0.414	0.555	0.523	0.175	0.193
8 x 32	0.164	0.305	0.273	0.246	0.387	0.355	0.328	0.469	0.437	0.410	0.551	0.519	0.492	0.633	0.601	0.201	0.220
10 x 24	0.190	0.377	0.336	0.285	0.472	0.431	0.380	0.567	0.526	0.475	0.662	0.621	0.570	0.757	0.716	0.238	0.259
12 x 24	0.216	0.404	0.362	0.324	0.512	0.470	0.432	0.620	0.578	0.540	0.727	0.686	0.648	0.836	0.794	0.265	0.283
1/4 x 20	0.250	0.475	0.425	0.375	0.600	0.550	0.500	0.725	0.675	0.625	0.850	0.800	0.750	0.975	0.925	0.308	0.330
5/16 x 18	0.312	0.562	0.507	0.469	0.719	0.663	0.625	0.875	0.819	0.781	1.031	0.976	0.937	1.187	1.132	0.377	0.400
3/8 x 16	0.375	0.656	0.594	0.562	0.844	0.781	0.750	1.031	0.969	0.937	1.219	1.156	1.125	1.406	1.344	0.447	0.472
7/16 x 14	0.437	0.759	0.687	0.656	0.978	0.906	0.875	1.196	1.125	1.094	1.415	1.343	1.312	1.634	1.562	0.520	0.551
1/2 x 13	0.500	0.846	0.769	0.750	1.096	1.019	1.000	1.346	1.269	1.250	1.596	1.519	1.500	1.846	1.769	0.588	0.622
9/16 x 12	0.562	0.937	0.854	0.844	1.219	1.135	1.125	1.500	1.417	1.406	1.781	1.698	1.687	2.062	1.979	0.659	0.694
5/8 x 11	0.625	1.034	0.943	0.937	1.347	1.256	1.250	1.659	1.568	1.562	1.972	1.881	1.875	2.284	2.193	0.730	0.767
3/4 x 10	0.750	1.200	1.100	1.125	1.575	1.475	1.500	1.950	1.850	1.875	2.325	2.225	2.250	2.700	2.600	0.865	0.906
7/8 x 9	0.875	1.375	1.264	1.312	1.812	1.701	1.750	2.250	2.139	2.187	2.687	2.576	2.625	3.125	3.014	1.002	1.052
1" x 8	1.000	1.563	1.437	1.500	2.062	1.937	2.000	2.562	2.437	2.500	3.062	2.937	3.000	3.562	3.437	1.143	1.196
1.1/8" x 7	1.125	1.768	1.625	1.687	2.330	2.187	2.250	2.893	2.750	2.812	3.455	3.312	3.375	4.018	3.875	1.288	1.355
1.1/4" x 7	1.250	1.893	1.750	1.875	2.518	2.375	2.500	3.143	3.000	3.125	3.768	3.625	3.750	4.393	4.250	1.413	1.483
1.3/8" x 6	1.375	2.125	1.958	2.062	2.812	2.646	2.750	3.500	3.333	3.437	4.187	4.021	4.125	4.875	4.708	1.565	1.643
1.1/2" x 6	1.500	2.250	2.083	2.250	3.000	2.833	3.000	3.750	3.583	3.750	4.500	4.333	4.500	5.250	5.083	1.690	1.772

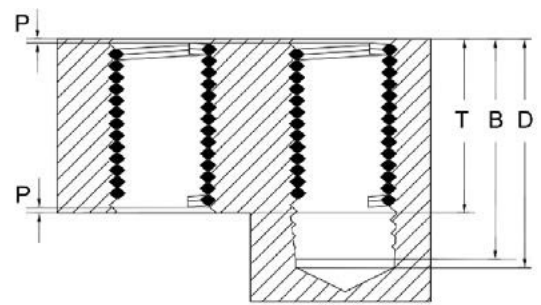
UNF	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
2 x 64	0.086	0.156	0.141	0.129	0.199	0.184	0.172	0.242	0.227	0.215	0.285	0.270	0.258	0.328	0.313	0.105	0.116
3 x 56	0.099	0.179	0.161	0.148	0.228	0.210	0.198	0.278	0.260	0.248	0.328	0.310	0.297	0.377	0.359	0.120	0.146
4 x 48	0.112	0.206	0.185	0.168	0.262	0.241	0.224	0.318	0.297	0.280	0.374	0.353	0.336	0.430	0.409	0.137	0.162
5 x 44	0.125	0.227	0.205	0.188	0.290	0.268	0.250	0.352	0.330	0.312	0.414	0.392	0.375	0.477	0.455	0.152	0.168
6 x 40	0.138	0.250	0.225	0.207	0.319	0.294	0.276	0.388	0.363	0.345	0.457	0.432	0.414	0.526	0.501	0.168	0.193
8 x 36	0.164	0.289	0.261	0.246	0.371	0.343	0.328	0.453	0.425	0.410	0.535	0.507	0.492	0.617	0.589	0.197	0.224
10 x 32	0.190	0.331	0.299	0.285	0.426	0.394	0.380	0.521	0.489	0.475	0.616	0.584	0.570	0.711	0.679	0.227	0.256
1/4 x 28	0.250	0.411	0.375	0.375	0.536	0.500	0.500	0.661	0.625	0.625	0.786	0.750	0.750	0.911	0.875	0.292	0.326
5/16 x 24	0.312	0.500	0.458	0.469	0.656	0.615	0.625	0.812	0.771	0.781	0.969	0.927	0.937	1.125	1.083	0.361	0.400
3/8 x 24	0.375	0.562	0.521	0.562	0.750	0.708	0.750	0.937	0.896	0.937	1.125	1.083	1.125	1.312	1.271	0.424	0.468
7/16 x 20	0.437	0.662	0.612	0.656	0.881	0.831	0.875	1.100	1.050	1.094	1.319	1.269	1.312	1.537	1.488	0.496	0.549
1/2 x 20	0.500	0.725	0.675	0.750	0.975	0.925	1.000	1.225	1.175	1.250	1.475	1.425	1.500	1.725	1.675	0.559	0.617
9/16 x 18	0.562	0.812	0.757	0.844	1.094	1.038	1.125	1.375	1.319	1.406	1.656	1.601	1.687	1.937	1.882	0.628	0.691
5/8 x 18	0.625	0.875	0.819	0.937	1.187	1.132	1.250	1.500	1.444	1.562	1.812	1.757	1.875	2.125	2.069	0.690	0.758
3/4 x 16	0.750	1.031	0.969	1.125	1.406	1.344	1.500	1.781	1.719	1.875	2.156	2.094	2.250	2.531	2.469	0.823	0.901
7/8 x 14	0.875	1.196	1.125	1.312	1.634	1.562	1.750	2.071	2.000	2.187	2.509	2.437	2.625	2.946	2.875	0.958	1.051
1" x 12	1.000	1.375	1.292	1.500	1.875	1.792	2.000	2.375	2.292	2.500	2.875	2.792	3.000	3.375	3.292	1.097	1.199
1.1/8" x 12	1.125	1.500	1.417	1.687	2.062	1.979	2.250	2.625	2.542	2.812	3.187	3.104	3.375	3.750	3.667	1.222	1.334
1.1/4" x 12	1.250	1.625	1.542	1.875	2.250	2.167	2.500	2.875	2.792	3.125	3.500	3.417	3.750	4.125	4.042	1.347	1.469
1.3/8" x 12	1.375	1.750	1.667	2.062	2.437	2.354	2.750	3.125	3.042	3.437	3.812	3.729	4.125	4.500	4.417	1.472	1.610
1.1/2" x 12	1.500	1.875	1.792	2.250	2.625	2.542	3.000	3.375	3.292	3.750	4.125	4.042	4.500	4.875	4.792	1.598	1.745

Technical Data for BaerCoil® Wire Thread Inserts

BSW	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
1/8 x 40	0.125	0.237	0.212	0.187	0.299	0.274	0.250	0.362	0.337	0.312	0.425	0.400	0.375	0.487	0.462	0.155	0.173
3/16 x 24	0.187	0.375	0.332	0.281	0.468	0.426	0.375	0.562	0.520	0.468	0.656	0.612	0.562	0.750	0.708	0.237	0.256
1/4 x 20	0.125	0.475	0.425	0.375	0.600	0.550	0.500	0.725	0.675	0.625	0.850	0.800	0.750	0.975	0.925	0.309	0.331
5/16 x 18	0.312	0.562	0.507	0.469	0.719	0.663	0.625	0.875	0.819	0.781	1.031	0.976	0.937	1.187	1.132	0.378	0.401
3/8 x 16	0.375	0.656	0.594	0.562	0.844	0.781	0.750	1.031	0.969	0.937	1.219	1.156	1.125	1.406	1.344	0.449	0.472
7/16 x 14	0.437	0.759	0.687	0.656	0.978	0.906	0.875	1.196	1.125	1.093	1.415	1.343	1.312	1.634	1.562	0.522	0.551
1/2 x 12	0.500	0.875	0.792	0.750	1.125	1.042	1.050	1.375	1.292	1.250	1.625	1.542	1.500	1.875	1.792	0.598	0.630
9/16 x 12	0.562	0.937	0.854	0.844	1.219	1.135	1.125	1.500	1.417	1.406	1.781	1.698	1.687	2.062	1.979	0.661	0.694
5/8 x 11	0.625	1.034	0.943	0.937	1.347	1.256	1.250	1.659	1.568	1.562	1.972	1.881	1.875	2.234	2.193	0.732	0.767
11/16 x 11	0.687	1.097	1.006	1.031	1.441	1.350	1.375	1.696	1.694	1.718	2.128	2.037	2.062	2.472	2.381		
3/4 x 10	0.750	1.200	1.100	1.125	1.575	1.475	1.500	1.950	1.850	1.875	2.325	2.225	2.250	2.700	2.606	0.868	0.905
7/8 x 9	0.875	1.375	1.264	1.312	1.812	1.701	1.750	2.250	2.139	2.187	2.687	2.576	2.625	3.125	3.014	1.006	1.051
1" x 8	1.000	1.563	1.437	1.500	2.062	1.937	2.000	2.562	2.437	2.500	3.062	2.937	3.000	3.562	3.437	1.147	1.197
1.1/8" x 7	1.125	1.768	1.625	1.687	2.330	2.187	2.250	2.893	2.750	2.812	3.455	3.312	3.375	4.018	3.875	1.293	1.354
1.1/4" x 7	1.250	1.893	1.750	1.875	2.518	2.375	2.500	3.143	3.000	3.125	3.768	3.625	3.750	4.393	4.250	1.418	1.484
1.1/2" x 6	1.500	2.250	2.083	2.250	3.000	2.833	3.000	3.750	3.583	3.750	4.500	4.333	4.500	5.250	5.083	1.696	1.776

BSF	1,0 D			1,5 D			2,0 D			2,5 D			3,0 D			F (mm)	
	T	D	B	T	D	B	T	D	B	T	D	B	T	D	B	min.	max.
3/16 x 32	0.187	0.327	0.296	0.281	0.421	0.390	0.375	0.515	0.484	0.468	0.608	0.577	0.562	0.702	0.671	0.225	0.247
7/32 x 28	0.218	0.379	0.343	0.328	0.489	0.453	0.437	0.598	0.562	0.546	0.707	0.671	0.656	0.817	0.781		
1/4 x 26	0.250	0.423	0.385	0.375	0.548	0.510	0.500	0.673	0.635	0.625	0.798	0.760	0.750	0.923	0.885	0.296	0.331
9/32 x 26	0.281	0.454	0.416	0.421	0.594	0.566	0.562	0.735	0.697	0.703	0.876	0.838	0.843	1.016	0.978		
5/16 x 22	0.312	0.516	0.471	0.469	0.673	0.628	0.625	0.829	0.784	0.781	0.985	0.940	0.937	1.141	1.096	0.367	0.405
3/8 x 20	0.375	0.325	0.550	0.562	0.787	0.737	0.750	0.975	0.925	0.937	1.162	1.112	1.125	1.350	1.300	0.435	0.476
7/16 x 18	0.437	0.687	0.631	0.656	0.906	0.850	0.875	1.125	1.069	1.093	1.343	1.287	1.312	1.562	1.506	0.504	0.555
1/2 x 16	0.500	0.781	0.719	0.750	1.031	0.969	1.000	1.281	1.219	1.250	1.531	1.469	1.500	1.781	1.719	0.575	0.630
9/16 x 16	0.562	0.843	0.781	0.844	1.125	1.063	1.125	1.406	1.344	1.406	1.687	1.625	1.687	1.968	1.906	0.637	0.700
5/8 x 14	0.625	0.946	0.875	0.937	1.258	1.187	1.250	1.571	1.500	1.562	1.883	1.812	1.875	2.196	2.125	0.710	0.775
11/16 x 14	0.687	1.008	0.937	1.031	1.352	1.281	1.375	1.696	1.625	1.718	2.039	1.968	2.062	2.383	2.312		
3/4 x 12	0.750	1.125	1.042	1.125	1.500	1.417	1.500	1.875	1.792	1.875	2.250	2.167	2.250	2.625	2.542	0.849	0.925
13/16 x 12	0.812	1.187	1.104	1.218	1.593	1.510	1.625	2.000	1.917	2.031	2.406	2.323	2.437	2.812	2.729		
7/8 x 11	0.875	1.284	1.193	1.312	1.721	1.630	1.750	2.159	2.068	2.187	2.596	2.505	2.625	3.034	2.943	0.983	1.074
1" x 10	1.000	1.450	1.350	1.500	1.950	1.850	2.000	2.450	2.350	2.500	2.950	2.850	3.000	3.450	3.350	1.119	1.220
1.1/8" x 9	1.125	1.625	1.514	1.687	2.187	2.076	2.250	2.750	2.639	2.812	3.312	3.201	3.375	3.875	3.764	1.257	1.366
1.1/4" x 9	1.250	1.750	1.639	1.875	2.375	2.264	2.500	3.000	2.889	3.125	3.625	3.514	3.750	4.250	4.139	1.382	1.500
1.3/8" x 8	1.375	1.938	1.813	2.062	2.625	2.500	2.750	3.312	3.188	3.437	4.000	3.875	4.125	4.688	4.563	1.523	1.657
1.1/2" x 8	1.500	2.063	1.938	2.250	2.813	2.688	3.000	3.563	3.438	3.750	4.313	4.188	4.500	5.063	4.938	1.648	1.811

- P** Installed insert 1/4 – 1/2 pitch below the surface
- T** Length of Insert, when installed
- B** Tap depth – including threads chamfer of plug tap
- D** Drill depth (min.) - excluding point
- F** Free coil diameter



Forming speeds for BaerCoil® Forming Taps

materials	tensile strength	forming speed in m/min	recommended lubrication
construction steels, free-machining steels, cold-extrusion steels etc.	< 600 N/mm ²	20 - 80	Cutting oil/ emulsion
construction steels, heat-treatable steels, cast steels etc.	< 800 N/mm ²	20 - 60	Cutting oil/ Emulsion
heat-treatable steels, cold-extrusion steels, nitriding steels etc.	< 1000 N/mm ²	10 - 40	Cutting oil
corrosion and acid proof steels ferritic, martensitic	< 950 N/mm ²	10 - 25 (with emulsion just limitedly applicable)	Cutting oil
corrosion and acid proof steels austenitic	< 950 N/mm ²	10 - 25 (with emulsion just limitedly applicable)	Cutting oil
aluminium wrought alloys	< 550 N/mm ²	15 - 40	Cutting oil/ Emulsion
aluminium cast alloys	Si < 12%	15 - 40	Cutting oil/ Emulsion
pure copper	< 400 N/mm ²	20 - 40	Cutting oil/ Emulsion
copper-zinc alloys (brass long-chipping)	< 550 N/mm ²	40 - 80	Emulsion

forming (cutting) speed [m/min] = (diameter * π * number of rotation) / 1000
 number of rotation n [1/min] = (cutting speed in m/min * 1000) / (diameter * π)
 feed programming [mm/min] = number of rotation * pitch

Please notice that the mentioned cutting speeds are only for orientation.

The right cutting speed is depend on lubrication and application.



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