



BaerFix® Thread Reinforcement & Thread Repair

BaerFix® Thread Inserts, self-tapping with cutting slots

BaerFix® Thread Inserts have a conical lead with cutting slots on the metric external thread. They are designed to cut their own threads as they are being driven into a drilled hole (= self-tapping). This provides a secure and high-strength anchor in the parent material. BaerFix® Thread Inserts create wear-free and vibration resistant bolted connections because of its close tolerances and the self-tapped thread. In some cases the Insert has a minimal inward springing action, which creates a screw locking effect. If this is not wished, you can use BaerFix® Thread Inserts with cutting holes. These are suitable for creating highly durable and wear resistant bolted connections in materials with low shear resistance.



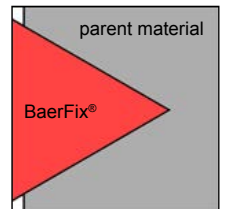
BaerFix® Thread Inserts, self-tapping with cutting holes

BaerFix® self-tapping Thread Inserts with cutting holes are constructed especially for materials with difficult machining characteristics. The thick wall allows higher cutting forces, which are distributed over three cutting holes.



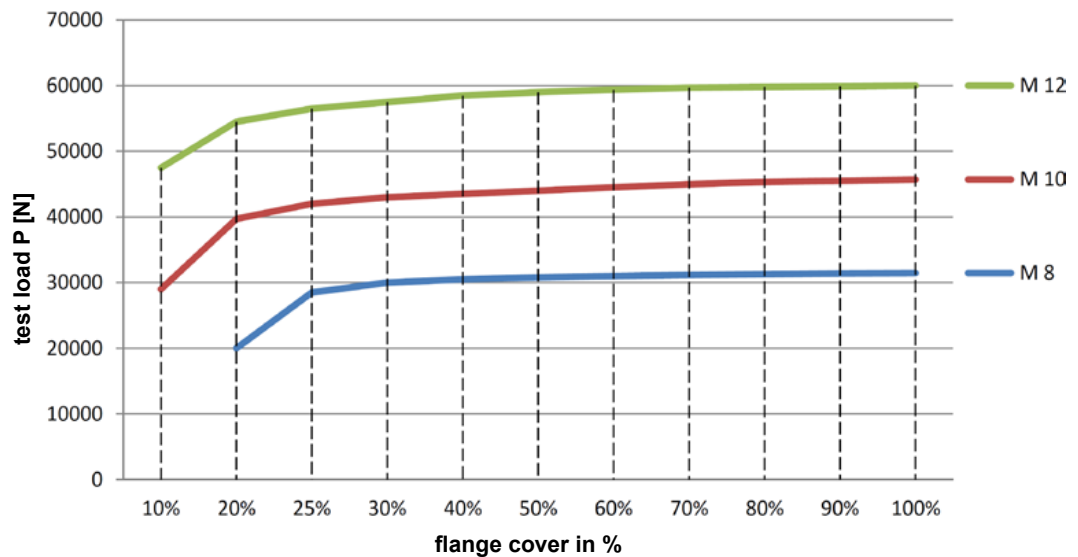
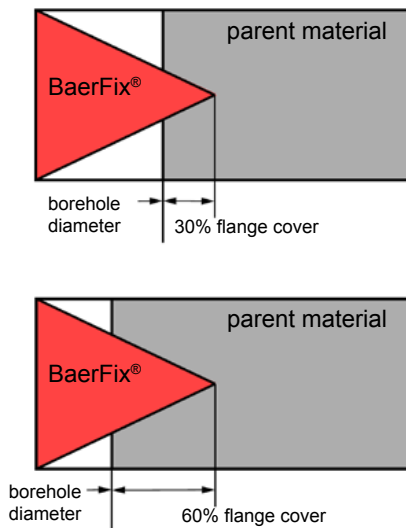
Large effective shearing surface

The BaerFix® Thread Insert has a larger effective surface, which ensures a higher degree of pull-out strength, i.e. an M 5 is often sufficient instead of a cut M 6 thread.



Flange cover

In a work piece made of a light alloy, the BaerFix® Insert achieves almost maximum pull-out strength with only 30 % flange cover.



Pull-out strength

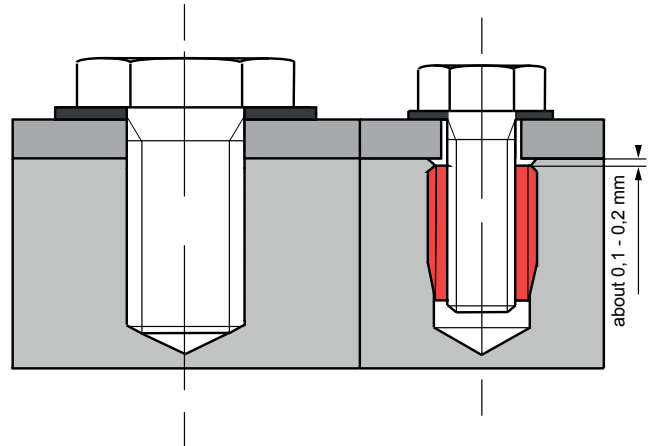
A BaerFix® Thread Insert is highly durable. Using in light alloys for example, helps achieving a pull-out strength which far exceeds the yield strength of a screw 8.8.

Corrosion resistance

The superior corrosion resistant characteristics of BaerFix® Inserts assure their adaptability to most materials and usual environmental conditions.

Minimize weight & space

Weight saving is unmatched - an important design feature for many products, particularly airborne equipment. Space saving is maximized, permitting the use of standard configurations with oversize requirements - as is necessary to accommodate solid bushings. A bigger radius equal to the nominal bolt size fit for higher load and forces.



Minimize total costs

Overall production cost savings may be realised by using a less expensive material and still maintain the required thread strength with BaerFix® Inserts. Costs savings apply in many directions - lower insert costs, lower installation costs and smaller bolts do all result savings.

Thread Repair

In addition to thread reinforcement the BaerFix® Inserts also are used for repairing broken threads. In this process rejected components can be reclaimed by installing a thread insert. The created thread will keep its original dimension and also gets reinforced by raising the pull-out strength and corrosion resistance. Costs of acquisition and processing can be saved by repairing threads with BaerFix® Thread Inserts.



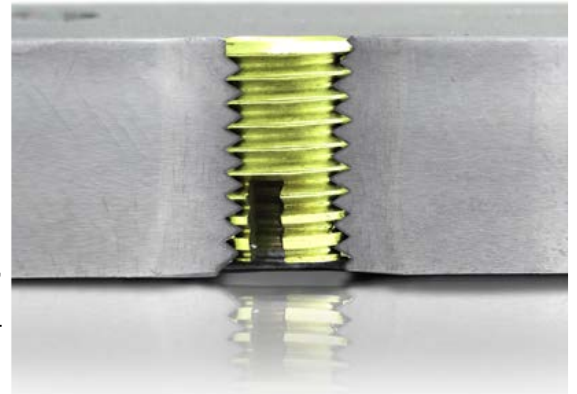
Applications

It's especially suitable for following materials:

- aluminum and aluminum alloy
- brass, bronze, cast iron
- magnesium alloy
- thermosetting plastics and thermoplastics (no rubber-soft thermoplastics)

Examples for applications:

- Automotive industry: engines, transmissions, radiators, autobody etc.
- Electrical and laboratory techniques: medical equipment, capacitors, boxes etc.
- Household appliance: vacuum cleaners, electric iron, washing machines, cameras, mobile phones etc.
- Plant and equipment construction: pumps, construction machines, different components etc.
- Military machines: aircrafts, weapons etc.



Materials



Case-hardened steel, zinc-plated, yellow chromated (conform to RoHS, free of ChromVI)

Stainless steel 1.4305

 AISI 303
 X8CrNiS18-9

Brass*

Stainless steel 1.4105*

 AISI 430 F
 X6CrMoS17

* on request

Other materials and surfaces on request.

Compatibility

BaerFix® Inserts are manufactured according to tolerance ISO 2768-m. BaerFix® products are compatible with thread inserts and tools from other manufactures.

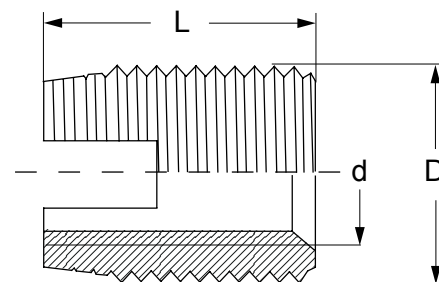


BaerFix® Thread Inserts with cutting slots

Material

Case-hardened steel, zinc-plated, yellow chromated
conform to RoHS

d	D	L	No.	packing unit	€ per pack. unit
M					
M 2 x 0,4*	M 4,5 x 0,5	6 mm	FE02	10	8,75
			1-FE02	100	35,00
M 2,5 x 0,45*	M 4,5 x 0,5	6 mm	FE025	10	8,75
			1-FE025	100	35,00
M 3 x 0,5	M 5 x 0,5	6 mm	FE03	10	3,95
			1-FE03	100	15,75
M 4 x 0,7	M 6,5 x 0,75	8 mm	FE04	10	5,15
			1-FE04	100	20,75
M 5 x 0,8	M 8 x 1,0	10 mm	FE05	10	5,90
			1-FE05	100	23,50
M 6 x 1,0	M 9 x 1,0	12 mm	FE069	10	7,50
			1-FE069	100	27,00
M 6 x 1,0	M 10 x 1,5	14 mm	FE06	10	7,50
			1-FE06	100	30,00
M 8 x 1,25	M 12 x 1,5	15 mm	FE08	10	9,50
			1-FE08	100	38,00
M 10 x 1,5*	M 14 x 1,5	18 mm	FE10	5	14,50
			1-FE10	100	53,00
M 12 x 1,5*	M 16 x 1,5	22 mm	FE125	5	13,90
			FE12	5	7,25
			1-FE12	100	70,00
M 12 x 1,75*	M 16 x 1,5	22 mm	FE145	5	15,90
			FE14	5	10,50
			1-FE14	50	46,00
M 14 x 1,5*	M 18 x 1,5	24 mm	FE16	5	12,50
			1-FE16	50	60,00
M 14 x 2,0*	M 18 x 1,5	24 mm	FE18	50	320,00
M 16 x 2,0*	M 20 x 1,5	22 mm	FE20	50	115,00
M 18 x 2,5*	M 22 x 1,5	24 mm	FE22	50	285,00
M 20 x 2,5*	M 26 x 1,5	27 mm	FE24	50	170,00
M 22 x 2,5*	M 26 x 1,5	30 mm			
M 24 x 3,0*	M 30 x 1,5	30 mm			
UNC					
UNC 4 x 40*	M 5 x 0,5	6 mm	FE70		*
UNC 6 x 32*	M 6 x 0,75	8 mm	FE71		*
UNC 8 x 32*	M 6,5 x 0,75	8 mm	FE72		*
UNC 10 x 24*	M 8 x 1,0	10 mm	FE73		*
UNC 1/4 x 20*	M 10 x 1,5	14 mm	FE74	10	10,90
			1-FE74	100	*
UNC 5/16 x 18*	M 12 x 1,5	15 mm	FE75	10	13,90
			1-FE75	100	*
UNC 3/8 x 16*	M 14 x 1,5	18 mm	FE76	5	12,00
			1-FE76	100	*
UNC 7/16 x 14*	M 16 x 1,5	22 mm	FE77	5	14,50
			1-FE77	100	*
UNC 1/2 x 13*	M 18 x 1,5	22 mm	FE78	5	17,50
			1-FE78	100	*
UNC 5/8 x 11*	M 20 x 1,5	22 mm	FE79		*
UNF					
UNF 4 x 40*	M 5 x 0,5	6 mm	FE80		*
UNF 6 x 40*	M 6 x 0,75	8 mm	FE81		*
UNF 8 x 36*	M 6,5 x 0,75	8 mm	FE82		*
UNF 10 x 32*	M 8 x 1,0	10 mm	FE83		*
UNF 1/4 x 28*	M 10 x 1,5	14 mm	FE84	10	10,90
			1-FE84	100	*
UNF 5/16 x 24*	M 12 x 1,5	15 mm	FE85	10	13,90
			1-FE85	100	*
UNF 3/8 x 24*	M 14 x 1,5	18 mm	FE86	5	12,00
			1-FE86	100	*
UNF 7/16 x 20*	M 16 x 1,5	22 mm	FE87	5	14,50
			1-FE87	100	*
UNF 1/2 x 20*	M 18 x 1,5	22 mm	FE88	5	17,50
			1-FE88	100	*
UNF 5/8 x 18*	M 20 x 1,5	22 mm	FE89		*



i Stainless steel 1.4105, Brass, and other materials on request

Please see borehole- and further technical information on page 22 - 23.

* stock goods are not conform to RoHS in this dimensions. Please inquire if you wish conform inserts.

BaerFix® Thread Inserts with cutting slots

Material
Stainless steel 1.4305 (AISI 303)

d	D	L	No.	packing unit	€ per pack. unit
M 3 x 0,5	M 5 x 0,5	6 mm	FA43	10	16,20
			1-FA43	100	58,00
M 4 x 0,7	M 6,5 x 0,75	8 mm	FA44	10	16,20
			1-FA44	100	58,00
M 5 x 0,8	M 8 x 1,0	10 mm	FA45	10	15,70
			1-FA45	100	59,00
M 6 x 1,0	M 9 x 1,0	12 mm	FA469	10	16,20
			1-FA469	100	63,50
M 6 x 1,0	M 10 x 1,5	14 mm	FA46	10	16,20
			1-FA46	100	65,00
M 8 x 1,25	M 12 x 1,5	15 mm	FA48	10	23,00
			1-FA48	100	85,00
M 10 x 1,5	M 14 x 1,5	18 mm	FA410	10	31,50
			1-FA410	100	125,00
M 12 x 1,75	M 16 x 1,5	22 mm	FA412	10	52,50
			1-FA412	100	210,00
M 16 x 2,0	M 20 x 1,5	22 mm	FA416	5	37,50
			1-FA416	50	150,00

Further dimensions on request



BaerFix® Thread Inserts with cutting holes

Material
Case-hardened steel, zinc-plated, yellow chromated
conform to RoHS

d	D	L	No.	packing unit	€ per pack. unit
M 3 x 0,5	M 5 x 0,6	4 mm	FEL03	10	6,00
			1-FEL03	100	24,00
M 4 x 0,7	M 6,5 x 0,8	6 mm	FEL04	10	7,30
			1-FEL04	100	29,00
M 5 x 0,8	M 8 x 1,0	7 mm	FEL05	10	8,00
			1-FEL05	100	32,00
M 6 x 1,0	M 10 x 1,25	8 mm	FEL06	10	9,30
			1-FEL06	100	37,00
M 6 x 1,0	M 10 x 1,25	12 mm	1-FELL06	100	43,00
			FEL08	10	10,20
M 8 x 1,25	M 12 x 1,5	9 mm	1-FEL08	100	40,50
			FEL10	10	13,80
M 8 x 1,25	M 12 x 1,5	14 mm	1-FELL08	100	53,00
			FEL10	10	13,80
M 10 x 1,5	M 14 x 1,5	10 mm	1-FEL10	100	55,00
			1-FELL10	100	67,00
M 10 x 1,5	M 14 x 1,5	18 mm	FEL12	10	19,00
			1-FEL12	100	76,00
M 12 x 1,75	M 16 x 1,75	12 mm	1-FELL12	100	100,00
			FEL12	10	19,00
M 12 x 1,75	M 16 x 1,75	22 mm	1-FELL12	100	100,00
			FEL16	50	65,00
M 16 x 2,0 zinc-plated, blue passivated	M 20 x 2,0	24 mm	1-FEL16B	50	65,00

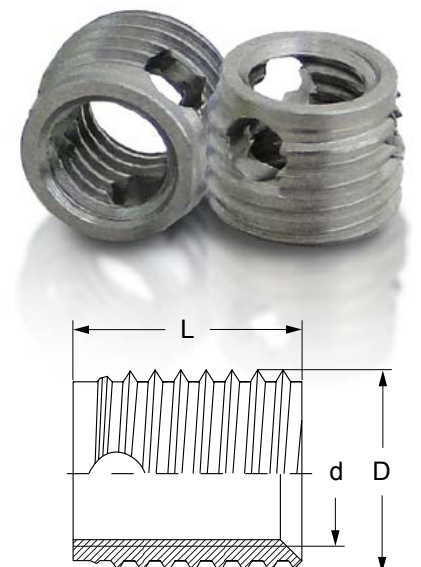
Further dimensions on request



Material
Stainless steel 1.4305 (AISI 303)

d	D	L	No.	packing unit	€ per pack. unit
M 3 x 0,5	M 5 x 0,6	4 mm	FAL03	10	17,50
			1-FAL03	100	70,00
M 3 x 0,5	M 5 x 0,6	6 mm	1-FALL03	100	82,00
			FAL04	10	18,80
M 4 x 0,7	M 6,5 x 0,8	6 mm	1-FAL04	100	75,00
			1-FALL04	100	88,00
M 5 x 0,8	M 8 x 1,0	7 mm	FAL05	10	20,50
			1-FAL05	100	82,00
M 5 x 0,8	M 8 x 1,0	10 mm	1-FALL05	100	100,00
			FAL06	10	23,50
M 6 x 1,0	M 10 x 1,25	8 mm	1-FAL06	100	93,00
			1-FALL06	100	105,00
M 6 x 1,0	M 10 x 1,25	12 mm	FAL08	10	25,00
			1-FAL08	100	100,00
M 8 x 1,25	M 12 x 1,5	9 mm	1-FALL08	100	119,00
			FAL10	10	33,80
M 8 x 1,25	M 12 x 1,5	14 mm	1-FAL10	100	135,00
			1-FALL10	100	155,00
M 10 x 1,5	M 14 x 1,5	18 mm	FAL412	10	56,00
			1-FAL412	100	225,00


Further dimensions on request





BaerFix® Thread Inserts with cutting holes for spark plug

Material
Case-hardened steel, zinc-plated

d	D	L		No.	packin unit	€ pro VPE
M 10 x 1,0	special size	8 mm	12,4 mm	FE101008	5	12,70
M 10 x 1,0	special size	13 mm	12,4 mm	FE101013	5	12,60
M 12 x 1,25	special size	10 mm	14,5 mm	FE121210	5	12,65
M 12 x 1,25	special size	14 mm	14,5 mm	FE121214	5	12,70
M 14 x 1,25	M 17,7 x 1,25	9 mm	17,0 mm	FE141259	5	19,75
M 14 x 1,25	M 17,7 x 1,25	15 mm	17,0 mm	FE141251	5	24,75



BaerFix® Thread Inserts for special applications

BAER Company develops and produces customer-oriented thread inserts and threading tools. Special applications can have special requirements to materials, dimensions, corrosion resistance, force effects, lifting capacities, pull out-strength or many more. Please send us your inquiry or give us a call. We enjoy to consult you in your applications.

- BaerFix® Thread Inserts with cutting holes, self-tapping
- BaerFix® Thread Inserts with hexagonal socket, self-tapping
- BaerFix® Thread Inserts for cold installation
- BaerFix® Thread Inserts for heat installation
- BaerFix® Thread Inserts for ultrasonic installation
- BaerFix® Thread Inserts for Screwing into a threaded hole
- Custom-made thread thread inserts (detail drawing or samples)



Installation by hand

1. Drilling

Clear the damaged thread with a drill bit or create a new hole in the parent material. For strong, hard and tough materials it is recommended to tap the thread (max. intermediate tap) before the installation of BaerFix® Inserts.



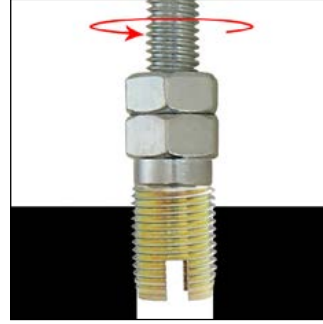
2. Screwing BaerFix® Insert on the inserting tool

Screw the BaerFix® Insert, with cutting slots or holes pointing downwards, on the inserting tool. Lock the BaerFix® Insert with the nut by wrench.



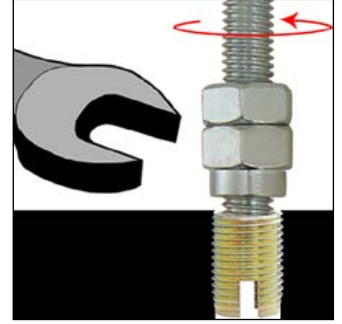
3. Installing the insert

Screw the BaerFix® Insert into the borehole. The BaerFix® Thread Insert is self-tapping. The inserting tool has a 1/4" hexagonal shank and can be used by a cordless screwdriver or a wrench socket.



4. Screwing off the inserting tool

Unlock the counter nut by a wrench and screw off the inserting tool. Created bolted connections with BaerFix® Inserts are vibration resistant, wear-free and have a high load capacity in materials with low shearing strength.



Installation by machine

1. Drilling

Clear the damaged thread with a drill bit or create a new hole in the parent material. For strong, hard and tough materials it is recommended to tap the thread (max. intermediate tap) before the installation of BaerFix® Inserts.



2. Configure the machine

Position the workpiece to ensure that hole and machine spindle are in alignment. Set the dimensions, speed values and driving depth (about 0,1 mm till 0,2 mm under the workpiece surface). Turn the external shell, so the stop pin can hold and drive the shell while rotating in clockwise direction. Screw the BaerFix® Insert, with cutting slots or holes pointing downwards, 2 till 4 windings on the inserting tool.



3. Installing the insert

Actuate the machine for screwing the insert into the hole, until the chosen driving depth is reached. Avoid a hard touchdown of the inserting tool on the workpiece to prevent damages on the inserting tool, thread insert or workpiece.



4. Screwing off the inserting tool



Set the machine on reverse running. The stop pin holds the shell while rotating in counterclockwise direction and screws out the inserting tool.



i Please see values for speed and installation torque on page 23.





Recommended borehole diameter

		BaerFix® Thread Inserts with cutting slots Case-hardened steel, zinc-plated, yellow chromated 				BaerFix® Thread Inserts with cutting holes Case-hardened steel, zinc-plated, yellow chromated 			
materials	Light alloys tensile strength [N/mm²]	$< 250 \text{ N/mm}^2$ $< 300 \text{ N/mm}^2$ $< 350 \text{ N/mm}^2$ $> 350 \text{ N/mm}^2$				$< 300 \text{ N/mm}^2$ $< 350 \text{ N/mm}^2$ $> 350 \text{ N/mm}^2$			
	Brass, NF-metals, bronze	$> 350 \text{ N/mm}^2$				$> 350 \text{ N/mm}^2$			
	Cast iron brinell hardness [HB]	$< 150 \text{ HB}$ $< 200 \text{ HB}$ $> 200 \text{ HB}$				$< 150 \text{ HB}$ $< 200 \text{ HB}$ $> 200 \text{ HB}$			
internal thread	M 2 x 0,4		4,1 mm	4,2 mm	4,3 mm				
	M 2,5 x 0,45		4,1 mm	4,2 mm	4,3 mm				
	M 3 x 0,5		4,6 mm	4,7 mm	4,8 mm	4,6 mm	4,7 mm	4,8 mm	
	M 4 x 0,7	5,9 mm	6,0 mm	6,1 mm	6,2 mm	6,0 mm	6,1 mm	6,2 mm	
	M 5 x 0,8	7,2 mm	7,3 mm	7,5 mm	7,6 mm	7,4 mm	7,5 mm	7,6 mm	7,7 mm
	M 6 x 1,0 thin walled	8,2 mm	8,3 mm	8,5 mm	8,6 mm				
	M 6 x 1,0	8,8 mm	9,0 mm	9,2 mm	9,4 mm	9,3 mm	9,4 mm	9,5 mm	9,6 mm
	M 8 x 1,25	10,8 mm	11,0 mm	11,2 mm	11,4 mm	11,1 mm	11,2 mm	11,3 mm	11,5 mm
	M 10 x 1,5	12,8 mm	13,0 mm	13,2 mm	13,4 mm	13,1 mm	13,2 mm	13,3 mm	13,5 mm
	M 12 x 1,75	14,8 mm	15,0 mm	15,2 mm	15,4 mm	15,0 mm	15,1 mm	15,2 mm	15,4 mm
	M 14 x 2,0	16,8 mm	17,0 mm	17,2 mm	17,4 mm	17,0 mm	17,1 mm	17,2 mm	17,4 mm
	M 16 x 2,0	18,8 mm	19,0 mm	19,2 mm	19,4 mm	19,0 mm	19,1 mm	19,2 mm	19,4 mm
	M 18 x 2,5	20,8 mm	21,0 mm	21,2 mm	21,4 mm				
	M 20 x 2,5	24,8 mm	25,0 mm	25,2 mm	25,4 mm				
	M 22 x 2,5	24,8 mm	25,0 mm	25,2 mm	25,4 mm				
	M 24 x 3,0	28,8 mm	29,0 mm	29,2 mm	29,4 mm				
	M 27 x 3,0	32,8 mm	33,0 mm	33,2 mm	33,4 mm				
M 30 x 3,5	34,8 mm	35,0 mm	35,2 mm	35,4 mm					
Flange cover	ca. 60%	ca. 50%	ca. 40%	ca. 30%	ca. 80%	ca. 70%	ca. 60%	ca. 50%	

possibly lubrication required

possibly lubrication required

Minimum wall thickness for BaerFix® inserts

	BaerFix® Thread Inserts with cutting slots 			BaerFix® Thread Inserts with cutting holes 		
	light alloys	cast iron	plastics	light alloys	cast iron	plastics
M 2 x 0,4	0,90 mm	1,35 mm	1,13 mm			
M 2,5 x 0,45	0,90 mm	1,35 mm	1,13 mm			
M 3 x 0,5	1,00 mm	1,50 mm	1,25 mm	1,00 mm	1,50 mm	1,25 mm
M 4 x 0,7	1,30 mm	1,95 mm	1,63 mm	1,30 mm	1,95 mm	1,63 mm
M 5 x 0,8	1,60 mm	2,40 mm	2,00 mm	1,60 mm	2,40 mm	2,00 mm
M 6 x 1,0	2,00 mm	3,00 mm	2,50 mm	2,00 mm	3,00 mm	2,50 mm
M 8 x 1,25	2,40 mm	3,60 mm	3,00 mm	2,40 mm	3,60 mm	3,00 mm
M 10 x 1,5	2,80 mm	4,20 mm	3,50 mm	2,80 mm	4,20 mm	3,50 mm
M 12 x 1,75	3,20 mm	4,80 mm	4,00 mm	3,20 mm	4,80 mm	4,00 mm
M 14 x 2,0	3,60 mm	5,40 mm	4,50 mm	3,60 mm	5,40 mm	4,50 mm
M 16 x 2,0	4,00 mm	6,00 mm	5,00 mm	4,00 mm	6,00 mm	5,00 mm
M 18 x 2,5	4,40 mm	6,60 mm	5,50 mm			
M 20 x 2,5	5,20 mm	7,80 mm	6,50 mm			
M 22 x 2,5	5,20 mm	7,80 mm	6,50 mm			
M 24 x 3,0	6,00 mm	9,00 mm	7,50 mm			
M 27 x 3,0	6,80 mm	10,20 mm	8,50 mm			
M 30 x 3,5	7,20 mm	10,80 mm	9,00 mm			

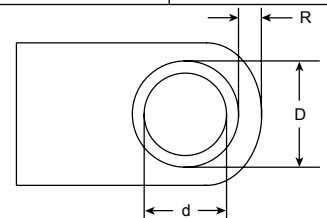
Calculation for minimum values

d = internal diameter BaerFix® Insert
D = external diameter BaerFix® Insert
R = remaining wall thickness

$$R_{\min} (\text{light alloys}) = 0,2 \times D$$

$$R_{\min} (\text{cast iron}) = 0,3 \times D$$

$$R_{\min} (\text{plastics}) = 0,25 \times D$$



Minimal borehole depth

BaerFix® Thread Inserts with cutting slots		
Internal Thread	Min. borehole depth for through holes	Min. borehole depth for blind holes
M 2 x 0,4	6,00 mm	8,00 mm
M 2,5 x 0,45	6,00 mm	8,00 mm
M 3 x 0,5	6,00 mm	8,00 mm
M 4 x 0,7	8,00 mm	10,00 mm
M 5 x 0,8	10,00 mm	13,00 mm
M 6 x 1,0	14,00 mm	17,00 mm
M 8 x 1,25	15,00 mm	18,00 mm
M 10 x 1,5	18,00 mm	22,00 mm
M 12 x 1,75	22,00 mm	26,00 mm
M 14 x 2,0	24,00 mm	28,00 mm
M 16 x 2,0	22,00 mm	27,00 mm
M 18 x 2,5	24,00 mm	29,00 mm
M 20 x 2,5	27,00 mm	32,00 mm
M 22 x 2,5	30,00 mm	36,00 mm
M 24 x 3,0	30,00 mm	36,00 mm
M 27 x 3,0	30,00 mm	36,00 mm
M 30 x 3,5	40,00 mm	46,00 mm

BaerFix® Thread Inserts with cutting holes			
Internal Thread	Length	Min. borehole depth for through holes	Min. borehole depth for blind holes
M 3 x 0,5	4,00 mm	4,00 mm	6,00 mm
M 3 x 0,5	6,00 mm	6,00 mm	8,00 mm
M 4 x 0,7	6,00 mm	6,00 mm	8,00 mm
M 4 x 0,7	8,00 mm	8,00 mm	10,00 mm
M 5 x 0,8	7,00 mm	7,00 mm	9,00 mm
M 5 x 0,8	10,00 mm	10,00 mm	13,00 mm
M 6 x 1,0	8,00 mm	8,00 mm	10,00 mm
M 6 x 1,0	12,00 mm	12,00 mm	15,00 mm
M 8 x 1,25	9,00 mm	9,00 mm	11,00 mm
M 8 x 1,25	14,00 mm	14,00 mm	17,00 mm
M 10 x 1,5	10,00 mm	10,00 mm	13,00 mm
M 10 x 1,5	18,00 mm	18,00 mm	22,00 mm
M 12 x 1,75	12,00 mm	12,00 mm	15,00 mm
M 12 x 1,75	22,00 mm	22,00 mm	26,00 mm
M 16 x 2,0	24,00 mm	24,00 mm	28,00 mm

BaerFix® Thread Inserts with cutting slots		
Internal Thread	Min. borehole depth for through holes	Min. borehole depth for blind holes
UNC 4 x 40	6,00 mm	8,00 mm
UNC 6 x 32	8,00 mm	10,00 mm
UNC 8 x 32	8,00 mm	10,00 mm
UNC 10 x 24	10,00 mm	13,00 mm
UNC 1/4 x 20	14,00 mm	17,00 mm
UNC 5/16 x 18	15,00 mm	18,00 mm
UNC 3/8 x 16	18,00 mm	22,00 mm
UNC 7/16 x 14	22,00 mm	26,00 mm
UNC 1/2 x 13	22,00 mm	28,00 mm
UNC 5/8 x 11	22,00 mm	27,00 mm

BaerFix® Thread Inserts with cutting slots		
Internal Thread	Min. borehole depth for through holes	Min. borehole depth for blind holes
UNF 4 x 48	6,00 mm	8,00 mm
UNF 6 x 40	8,00 mm	10,00 mm
UNF 8 x 36	8,00 mm	10,00 mm
UNF 10 x 32	10,00 mm	13,00 mm
UNF 1/4 x 28	14,00 mm	17,00 mm
UNF 5/16 x 24	15,00 mm	18,00 mm
UNF 3/8 x 24	18,00 mm	22,00 mm
UNF 7/16 x 20	22,00 mm	26,00 mm
UNF 1/2 x 20	22,00 mm	28,00 mm
UNF 5/8 x 18	22,00 mm	27,00 mm

Tolerances

BaerFix® Inserts are produced according to ISO 2768-m

Internal metric threads: ISO 6H

External metric threads: works standard

Recommended values for machine installation

Speed values for light alloys

BaerFix® Internal Thread	Speed per min
M 2,5 - M 3	650 - 900
M 4 - M 5	400 - 600
M 6 - M 8	280 - 400
M 10 - M 12	200 - 300
M 14 - M 16	150 - 200
M 18 - M 20	120 - 200
M 22 - M 24	100 - 160
M 27 - M 30	80 - 140

Values for installation torque

BaerFix® Internal Thread	Torque [Nm]
M 2,5 x 0,45	1,5 Nm
M 3 x 0,5	2,5 Nm
M 4 x 0,7	5,5 Nm
M 5 x 0,8	10,0 Nm
M 6 x 1,0	15,0 Nm
M 8 x 1,25	28,0 Nm
M 10 x 1,5	40,0 Nm
M 12 x 1,75	60,0 Nm