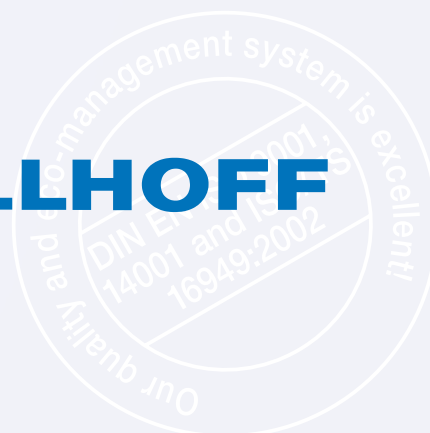


## Threaded Inserts for Metals

**KOBSERT®**

**Threaded inserts** for vibration and torque resistant threads in metals with low shear strength.

**BOLLHOFF**

## KOBSSERT® Threaded Inserts for Metals

### The Advantages:

KOBSSERT® threaded inserts are one-piece fasteners for locking, vibration and torque resistant threads with high strength, for metals with low shear strength, like:

- Aluminium and aluminium alloys,
- Magnesium alloys.

The KOBSSERT® is mechanically fixed in place without additional locking pins, adhesive or other additional elements.

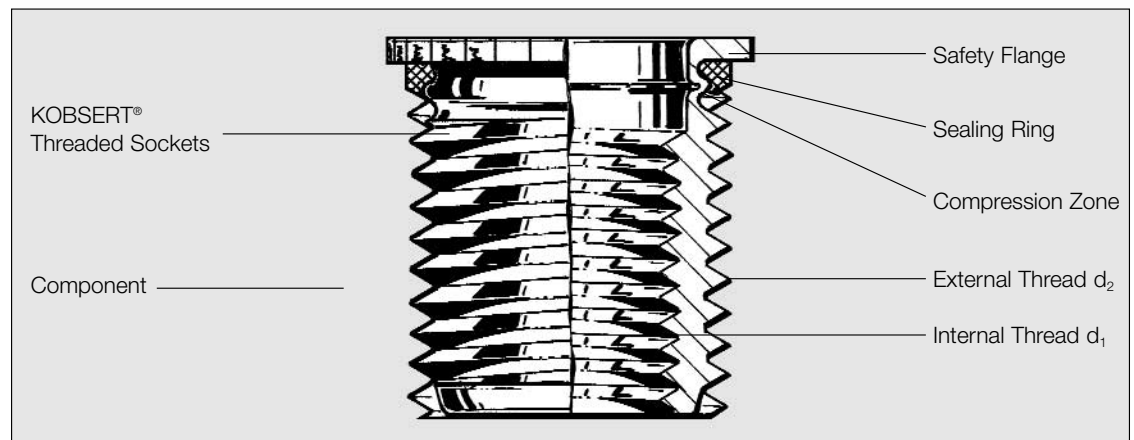
With KOBSSERT® threaded inserts, damaged threads can be repaired.

The KOBSSERT® with sealing ring is designed for gas and liquid leakproofed joints.

When installing the threaded inserts, the safety flange is pressed into the surface of the parent material. (This reduces the pipe-shaped neck area under the safety flange and covers as far as the mounting thread).

After installation into the part, the threaded inserts are reliably protected against unscrewing, even when the part is exposed to dynamic screwload or extreme temperatures. Due to the installation process where the KOBSSERT® body is pulled into the same direction like the screwload, the clearance of the external thread is compensated. The external thread is pre setted properly.

If, in exceptional cases, it is necessary to remove the threaded insert, follow the instructions on page 8.



### Design

Metric ISO thread DIN 13, tolerance range for industry standard screws and nuts tolerance 6g/6H.

Surface: – DIN 267 Part 2 Product Class A.

Material: – Steel, galvanic Zink plated, colourless chromated (for order no. see page 3 – 7).  
– Stainless steel, coatless (5th digit of Order no. changes from 0 to 6).

Sealing Ring/ – PERBUNAN® (eWZ Bayer AG) 70 Shore A, heat resistant to ~140 °C.

gasket: [VITON®, eWZ E.I. Dupont de Nemours & Co. INC.], to 300 °C (put 1 as the 5th digit of the Order no.).

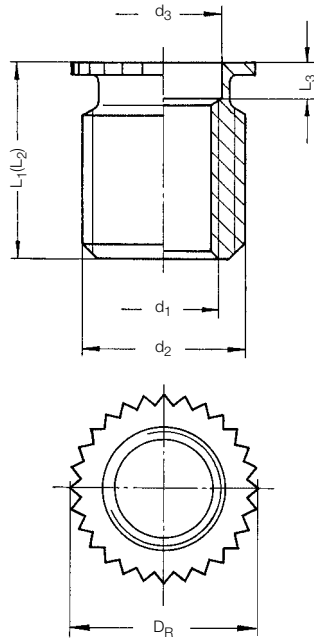
Example Order: KOBSSERT® Threaded insert type 1030 M 10 x 18 Order no. 1030 010 0018

i. e. Stated diameters M 10 = Internal Thread,

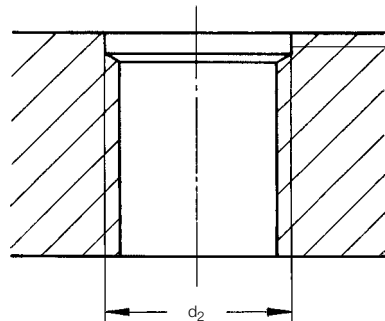
Stated length = 18 mm = Length of threaded socket after installation is completed.

Other specifications available on request.

## Type 1030



- Safety flange
- open version / through hole
- Material: Steel®, galvanic Zink plated, colourless chromated, other surface on demand



Countersinking cylindrical portion is only necessary for aluminium alloys with high tensile strength (see page 4).

Installation tools, see pages 10 + 11

d <sub>1</sub>	Order no.	d <sub>2</sub>	d <sub>3</sub>	L <sub>1</sub> *	L <sub>2</sub> *	L <sub>3</sub> *	D <sub>R</sub>	Knurl DIN 82
M 6	1030 006 0010	M 10	6.8	10	11	2.7	11	1.2
M 6	1030 006 0012	M 10	6.8	12	13	2.7	11	1.2
M 8	1030 008 0015	M 12x1.5**	8.5	15	16	3.3	13	1.6
M 10	1030 010 0018	M 14x1.5	10.5	18	19	3.3	15	1.6
M 12x1.5	1030 012 4021	M 16x1.5	12.5	21	22	3.5	17	1.6
M 12	1030 012 0021	M 16x1.5	12.5	21	22	3.5	17	1.6
M 14x1.5	1030 014 4024	M 20x1.5	15.5	24	25	3.6	21	1.6
M 14	1030 014 0024	M 20x1.5	15.5	24	25	3.6	21	1.6
M 16x1.5	1030 016 4026	M 22x1.5	17.5	26	27	3.6	23	1.6
M 16	1030 016 0026	M 22x1.5	17.5	26	27	3.6	23	1.6

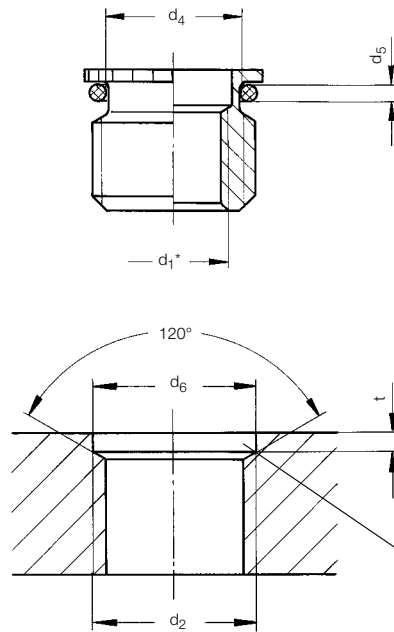
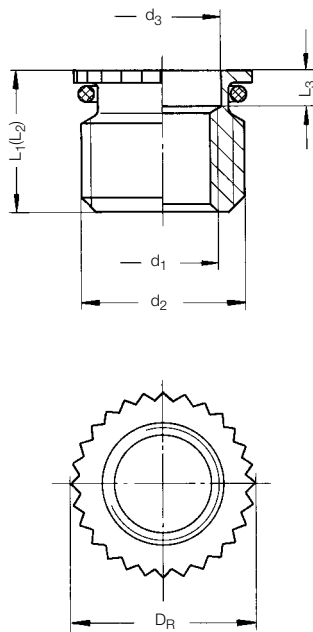
\* L<sub>1</sub>/L<sub>3</sub> = Lengths in assembled condition. \* L<sub>2</sub> = Lengths in delivery condition. Other lengths available on request.

\*\* also available for delivery with 1.25 thread

① Other materials on request, for technical specifications see page 2.

Subject to technical alterations.

## Type 1031



- Safety flange
- open version/  
through hole
- With sealing ring:  
PERBUNAN®
- Material: Steel®,  
galvanic Zink plated,  
colourless chromated,  
other surface on  
demand

Countersinking cylindrical portion is only necessary for aluminium alloys with high tensile strength.

Sealing ring:  
PERBUNAN® as standard, 70 Sh A,  
Heat resistance up to + 140 °C.  
Colour coding: black.

Alternative: VITON® 75 Sh A,  
Heat resistance up to + 300 °C.  
Colour coding: green.

Installation tools, see pages 10 + 11

d <sub>1</sub>	Order no.	d <sub>2</sub>	d <sub>3</sub>	L <sub>1</sub> *	L <sub>2</sub> *	L <sub>3</sub> *	D <sub>R</sub>	Knurl DIN 82	Sealing ring d <sub>4</sub> x d <sub>5</sub>	d <sub>6</sub>	Countersink Tol.	t	+ Tol.
M 10x1 <sup>®</sup>	1031 010 3010	M 14x1.5	10.5	10	11	3.2	15	1.6	10 x 1.5	14	± 0.10	2.5	0.3
M 12x1.5	1031 012 4012	M 16x1.5	12.5	12	13	3.5	17	1.6	12 x 1.5	16	± 0.10	2.5	0.3
M 14x1.5	1031 014 4012	M 20x1.5	15.5	12	13	3.6	21	1.6	14 x 2.0	20	+0.15/-0.10	3.0	0.3
M 16x1.5	1031 016 4012	M 22x1.5	17.5	12	13	3.6	23	1.6	16 x 2.0	22	+0.15/-0.10	3.0	0.3
M 18x1.5	1031 018 4012	M 24x1.5	19.5	12	13	3.6	25	1.6	18 x 2.0	24	+0.15/-0.10	3.0	0.3
M 20x1.5	1031 020 4014	M 26x1.5	21.5	14	15	3.6	27	1.6	20 x 2.0	26	+0.15/-0.10	3.0	0.3
M 22x1.5	1031 022 4014	M 28x1.5	23.5	14	15	3.6	29	1.6	22 x 2.0	28	+0.15/-0.10	3.0	0.3
M 24x1.5	1031 024 4014	M 30x1.5	25.5	14	15	3.6	31	1.6	24 x 2.0	30	+0.15/-0.10	3.0	0.3
M 26x1.5	1031 026 4016	M 32x1.5	27.5	16	17	3.6	33	1.6	26 x 2.0	32	+0.15/-0.10	3.0	0.3

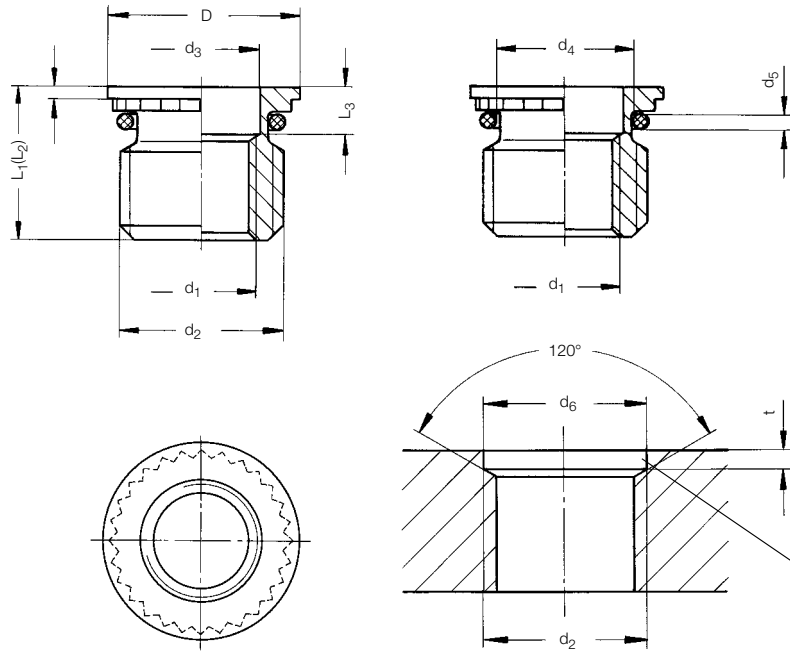
\* L<sub>1</sub>/L<sub>3</sub> = Length when assembled. \* L<sub>2</sub> = lengths in delivery condition. Other lengths available on request.

① Other materials on request, for technical specifications see page 2.

② Type 1031 is preferable for short screw lengths DIN 908 and 910.

Subject to technical alterations.

## Type 1032



- Safety flange with sealing flange
- open version/ through hole
- With sealing ring: PERBUNAN®
- Material: Steel®, galvanic Zink plated, colourless chromated, other surface on demand

Countersinking cylindrical portion is only necessary for aluminium alloys with high tensile strength.

Sealing ring:  
PERBUNAN® as standard, 70 Sh A,  
Heat resistance up to + 140 °C.  
Colour coding: black.

Alternative: VITON® 75 Sh A,  
Heat resistance up to + 300 °C.  
Colour coding: green.

Installation tools, see pages 10 + 11

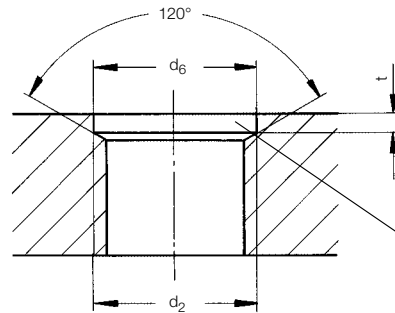
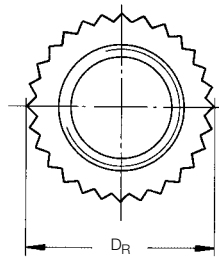
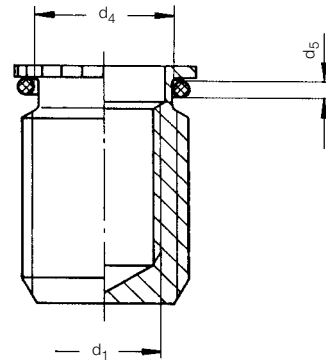
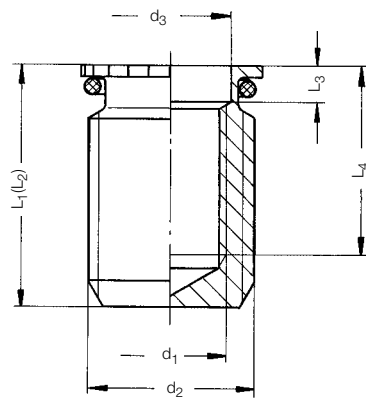
d <sub>1</sub>	Order no.	d <sub>2</sub>	d <sub>3</sub>	D	L <sub>1</sub> * L <sub>2</sub> *	L <sub>2</sub> *	L <sub>3</sub> *	L <sub>5</sub>	D <sub>R</sub>	Knurl DIN 82	Sealing ring d <sub>4</sub> x d <sub>5</sub>	d <sub>6</sub>	Countersink Tol.	t	+ Tol.
M 10 x 1	1032 010 3011	M 14 x 1.5	10.5	16	11.0 12.0	12.0	4.0	0.8	15	1.6	10 x 1.5	14	± 0.10	2.5	0.3
M 12 x 1.5	1032 012 4145	M 16 x 1.5	12.5	18	14.5 15.5	15.5	4.4	0.8	17	1.6	12 x 1.5	16	± 0.10	2.5	0.3
M 14 x 1.5	1032 014 4145	M 20 x 1.5	15.5	22	14.5 15.5	15.5	4.5	1.0	21	1.6	14 x 2.0	20	+0.15/-0.10	3.0	0.3
M 16 x 1.5	1032 016 4145	M 22 x 1.5	17.5	24	14.5 15.5	15.5	4.5	1.0	23	1.6	16 x 2.0	22	+0.15/-0.10	3.0	0.3
M 18 x 1.5	1032 018 4145	M 24 x 1.5	19.5	26	14.5 15.5	15.5	4.7	1.2	25	1.6	18 x 2.0	24	+0.15/-0.10	3.0	0.3
M 20 x 1.5	1032 020 4155	M 26 x 1.5	21.5	28	15.5 16.5	16.5	4.7	1.2	27	1.6	20 x 2.0	26	+0.15/-0.10	3.0	0.3
M 22 x 1.5	1032 022 4155	M 28 x 1.5	23.5	30	15.5 16.5	16.5	4.7	1.2	29	1.6	22 x 2.0	28	+0.15/-0.10	3.0	0.3
M 24 x 1.5	1032 024 4155	M 30 x 1.5	25.5	32	15.5 16.5	16.5	4.7	1.2	31	1.6	24 x 2.0	30	+0.15/-0.10	3.0	0.3
M 26 x 1.5	1032 026 4175	M 32 x 1.5	27.5	34	17.5 18.5	18.5	4.7	1.2	33	1.6	26 x 2.0	32	+0.15/-0.10	3.0	0.3
M 30 x 1.5	1032 030 4175	M 36 x 1.5	31.5	38	17.5 18.5	18.5	4.7	1.2	37	1.6	30 x 2.0	36	+0.15/-0.10	3.0	0.3

\* L<sub>1</sub>/L<sub>3</sub> = Lengths when assembled. \* L<sub>2</sub> = Lengths in delivery condition. Other lengths available on request.

① Other materials on request, for technical specifications see page 2.

Subject to technical alterations.

**Type 1033**



- Safety flange
- closed version/ blind hole
- With sealing ring: PERBUNAN®
- Material: Steel®, galvanic Zink plated, colourless chromated, other surface on demand

Countersinking cylindrical portion is only necessary for aluminium alloys with high tensile strength.

Sealing ring:  
PERBUNAN® as standard, 70 Sh A,  
Heat resistance up to + 140 °C.  
Colour coding: black.

Alternative: VITON® 75 Sh A,  
Heat resistance up to + 300 °C.  
Colour coding: green.

Installation tools, see pages 10 + 11

d <sub>1</sub> *	Order no.	d <sub>2</sub>	d <sub>3</sub>	L <sub>1</sub> **	L <sub>2</sub> **	L <sub>3</sub> **	L <sub>4</sub> **	D <sub>R</sub>	Knurl DIN 82	Sealing ring d <sub>4</sub> x d <sub>5</sub>	d <sub>6</sub>	Countersink Tol.	t	+ Tol.
M 5	1033 005 0012	M 8	5,4	12	13	2,7	8,2	9	1,2	5 x 1,0	8	± 0,10	2,0	0,3
M 6	1033 006 0015	M 10	6,8	15	16	2,7	10,5	11	1,2	6 x 1,5	10	± 0,10	2,5	0,3
M 8	1033 008 0018	M 12 x 1,5	8,5	18	19	3,3	12,0	13	1,6	8 x 1,5	12	± 0,10	2,5	0,3
M 10	1033 010 0021	M 14 x 1,5	10,5	21	22	3,3	14,0	15	1,6	10 x 1,5	14	± 0,10	2,5	0,3
M 12	1033 012 0024	M 16 x 1,5	12,5	24	25	3,5	16,0	17	1,6	12 x 1,5	16	± 0,10	2,5	0,3
M 14	1033 014 0026	M 20 x 1,5	15,5	26	27	3,6	17,0	21	1,6	14 x 2,0	20	+0,15/-0,10	3,0	0,3
M 16	1033 016 0031	M 22 x 1,5	17,5	31	32	3,6	21,0	23	1,6	16 x 2,0	22	+0,15/-0,10	3,0	0,3

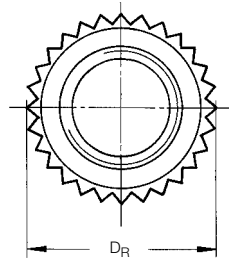
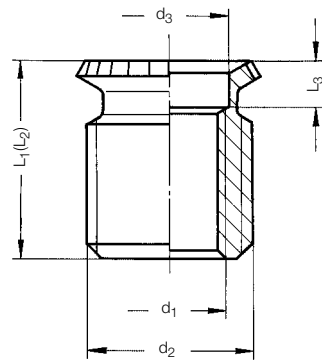
\* Available with fine thread.

\*\* L<sub>1</sub>/L<sub>3</sub>/L<sub>4</sub> = Lengths in assembled condition. \*\* L<sub>2</sub> = Lengths in delivery condition. Other lengths on request.

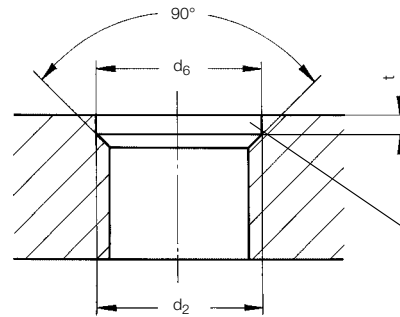
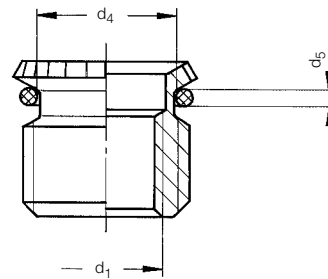
① Other materials on request, for technical specifications see page 2.

Subject to technical alterations.

**Type 1040**



**Type 1041, with sealing ring\***



- HP – High Power
- Safety flange
- open version / through hole
- With or without sealing ring
- Material: Steel®, galvanic Zink plated, colourless chromated

Countersinking cylindrical portion is only necessary for aluminium alloys with high tensile strength.

Sealing ring:  
 PERBUNAN® as standard, 70 Sh A,  
 Heat resistance up to + 140 °C.  
 Colour coding: black.

Alternative: VITON® 75 Sh A,  
 Heat resistance up to + 300 °C.  
 Colour coding: green.

Installation tools, see pages 10 + 11

d <sub>1</sub> *	Order no.	d <sub>2</sub>	d <sub>3</sub>	L <sub>1</sub> **	L <sub>2</sub> **	L <sub>3</sub> **	D <sub>R</sub>	Knurl DIN 82	Sealing ring d <sub>4</sub> x d <sub>5</sub>	d <sub>6</sub>	Countersink Tol.	t	+ Tol.
M 5	1040 005 0010	M 10	5.5	10	11.0	1.5	11	1.2	7 x 1.5	10	± 0.1	2.5	0.3
M 6	1040 006 0012	M 12 x 1.5	6.5	12	13.5	1.6	13	1.2	8 x 2.0	12	± 0.1	3.0	0.3
M 8	1040 008 0015	M 14 x 1.5	8.5	15	16.5	1.8	15	1.6	10 x 2.0	14	± 0.1	3.5	0.3
M 10	1040 010 0018	M 16 x 1.5	10.5	18	20.0	2.0	17	1.6	12 x 2.0	16	± 0.1	4.0	0.3
M 12	1040 012 0021	M 20 x 1.5	13.0	21	23.0	2.5	21	1.6	15 x 2.5	20	+ 0.15/- 0.10	4.5	0.4
M 14	1040 014 0024	M 22 x 1.5	15.0	24	26.0	2.5	23	1.6	17 x 2.5	22	+ 0.15/- 0.10	4.5	0.4
M 16	1040 016 0026	M 24 x 2.0	17.0	26	28.0	3.0	25	1.6	19 x 2.5	24	+ 0.18/- 0.10	4.5	0.4
M 20	1040 020 0030	M 30 x 2.0	21.0	30	32	3.5	31	1.6	23 x 3.5	30	+ 0.18/- 0.10	4.5	0.4
M 22	1040 022 0032	M 33 x 2.0	23.0	32	34	3.5	34	1.6	25 x 4.0	33	+ 0.18/- 0.10	4.5	0.4
M 24	1040 024 0034	M 36 x 3.0	25.0	34	36	3.5	37	1.6	27 x 4.5	36	+ 0.18/- 0.10	4.5	0.4

\* Other diameters and threads on request.  
 When ordering type 1041 (with sealing ring) the 4th digit of the order no. changes from 0 to 1.

\*\* L<sub>1</sub>/L<sub>3</sub> = Lengths when assembled.

\*\* L<sub>2</sub> = Lengths in delivery condition, other lengths available on request.

① Other materials on request, for technical specifications see page 2.

Subject to technical alterations.

## KOBSSERT® Installation Guidelines

### Mounting Thread

Metric ISO threads according to DIN 13, tolerance 6 H.

The mounting thread should be checked with a thread gauge tolerance 6 H.

### Thread hole

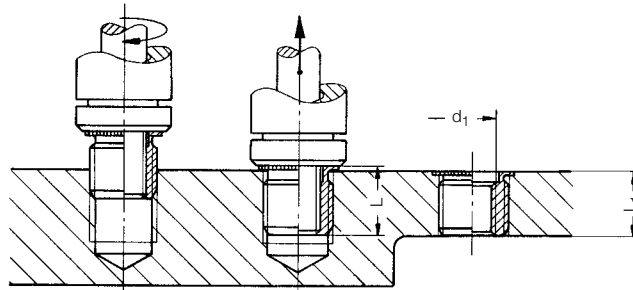
The minor diameter of the thread hole has to be drilled according to DIN 13 tolerance 6 H.

In general, the tapped hole should not be countersunk. Chamfering is permissible, within the diameter, but should not be greater than the specified diameter of the mounting thread.

If the KOBSSERT® or the KOBSSERT® HP is used with a sealing ring, a cylindrical portion in accordance with pages 3 to 7 should be created.

### Installation

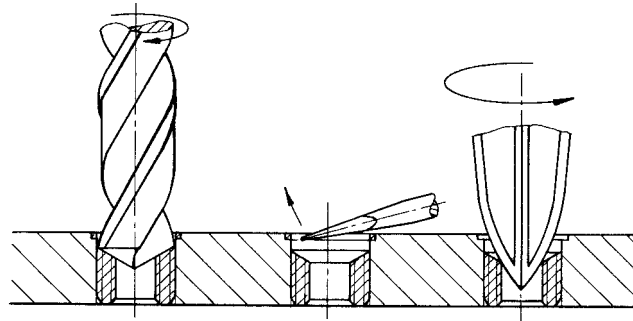
Manual and motor-driven tools are available for installing the KOBSSERT®. The KOBSSERT® insert is screwed into the part until the safety flange is in contact to the surface of the part. The installation procedure – pressing the safety flange into the part – is carried out by a relative axial movement between the spindle, which has been screwed in, and the frontend assembly of the installation tool. After the setting process the spindle has to be turned out of the KOBSSERT®.



### Disassembly

If KOBSSERT® threaded inserts must be removed from a part, it must be done as follows (see sketch):

- Drilling into the safety flange until reaching the external thread (Drill  $\varnothing$  = external thread  $\varnothing$   $d_2$ ).
- Lever out the safety flange using a scraper or a screwdriver.
- Insert a tool for unscrewing – if necessary a suitable scraper – into the internal thread, so it is possible to turn it. Unscrew the socket anticlockwise.



### New installation

Screw in a threaded insert of the same specified size, until the safety flange is level with the previous impression – if necessary, unscrew it a little – and as usual, set it on one level with the surface using an KOBSSERT® installation tool.

## KOBSERT® Installation Guidelines

### Wall thickness Specifications for Aluminium Materials (casted and forging alloys)

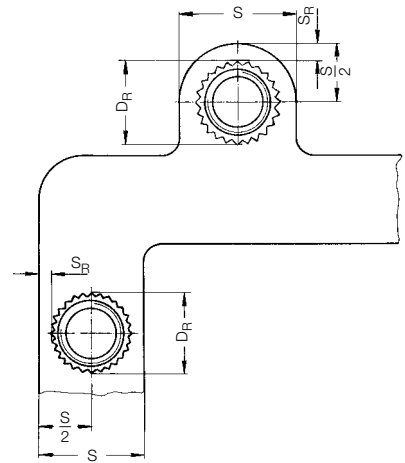
The minimum width  $S$  or the wall thickness  $S_R$  depends on the tensile strength and the E-Modul of the parent material. The following formula only gives guide values for aluminium alloys. For other materials, e. g. copper or brittle materials, the required wall thickness should be established by performing tests.

Dimensions of the mounting thread see page 3 to 7.

$$S = 1.4 \times D_R$$

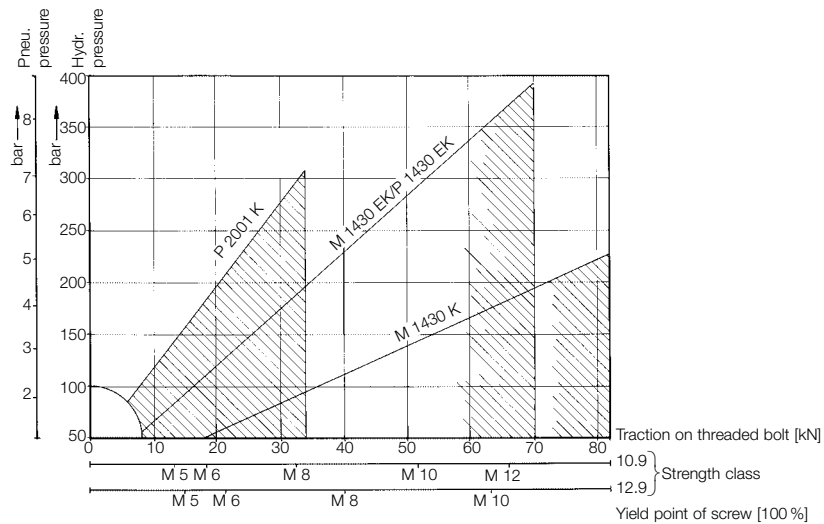
$$S_R = 0.2 \times D_R$$

$S$  = Minimum width of workpiece  
 $S_R$  = Minimum wall thickness  
 $D_R$  = Outer diameter of safety flange (Knurl diameter)

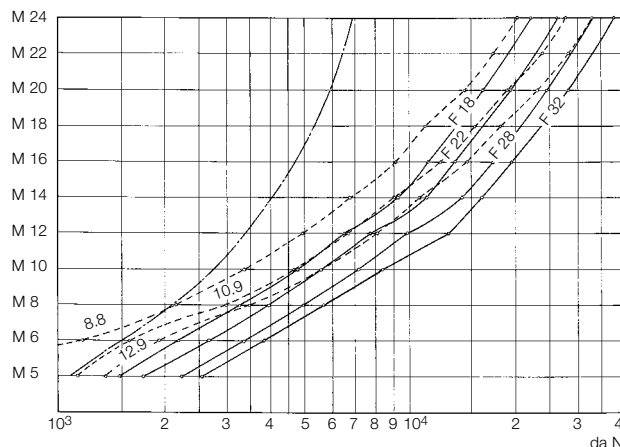


### Pressure and work areas at the various Installation Tools

(see pages 10/11)



### Pull out load in relation to screw class on tensile strength of parent material



Pull out load for type 1030 and 1033 KOBSERT® threaded inserts in standard lengths, in different material qualities, including: F 18  
 F 22  
 F 26  
 F 32

Tear strengths are 30 to 50% higher. Test strengths type 1040/1041 on request.

-----  
 Test strengths of screws of different strength classes (8.8 - 10.9 - 12.9) ~ 90% of screw yield point.

-----  
 Average installation strength for KOBSERT® threaded inserts.

## Tools for **KOBSERT®** Threaded Inserts

### Manual Installation Tools Type S 5 to S 12

Screw Tool for Individual Assembly



Description B 73 000 Type	Included in delivery	Complete tool		Spares	
		Specified Ø	Order no.	Threaded bolt Order no.	Spindle nut Order no.
S 5	The tools S 5 to S 12 x 1.5 are only available as a set.	M 5	2353 010 5000	2353 010 5020	2353 010 0050
S 6		M 6	2353 010 6000	2353 010 6020	2353 010 0050
S 8		M 8	2353 010 8000	2353 010 8020	2353 010 0050
S 10		M 10	2353 011 0000	2353 011 0020	2353 010 0051
S 10x1		M 10x1	2353 011 0300	2353 011 0320	2353 010 0351
S 12		M 12	2353 011 2000	2353 011 2020	2353 010 0051
S 12x1.5		M 12x1.5	2353 011 2400	2353 011 2420	2353 010 0451

### Manual Installation Tool Type M 1430 K

Hydraulic Manual Tool for small series, use as an Installation Tool with the AL 250 power unit



Description B 73 000 Type	without threaded bolt Order no.	Tools		Replacement part threaded bolt and adaptor Order no.	
		Specified Ø	with threaded bolt and adaptor Order no.		
M 1430-K	1069 020 0000	M 14	1069 011 4000	1069 011 4020	* Threaded bolt is in two parts from M 16
		M 14 x 1.5	1069 011 4400	1069 011 4420	
		M 16	1069 011 6000	1069 011 6020	
		M 16 x 1.5	1069 011 6400	1069 011 6420	
		M 18 x 1.5	1069 011 8400*	1069 011 8420*	
		M 20 x 1.5	1069 012 0400*	1069 012 0420*	
		M 22 x 1.5	1069 012 2400*	1069 012 2420*	
		M 24 x 1.5	1069 012 4400*	1069 012 4420*	
		M 26 x 1.5	1069 012 6400*	1069 012 6420*	
		M 28 x 1.5	1069 012 8400*	1069 012 8420*	
		M 30 x 1.5	1069 013 0400*	1069 013 0420*	

### AL 250 Power Unit

Hydraulic Hand Pump for Small Series



AL 250 with mano- meter	1069 080 0000
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### Machine Installation Tool Type P 2001 K

Hydraulic-Pneumatic Tool for Assembling the Business Series



Description Type	without threaded bolt and chuck Order no.	Tools			Spares	
		Specified Ø	with threaded bolt and chuck Order no.	Interchangeable unit (only threaded bolt and chuck) Order no.	Threaded bolt Order no.	Chuck Order no.
P 2001 K	1061 530 0000	M 5	1061 530 5000	1061 530 5010	2361 130 5020	1061 530 5030
		M 6	1061 530 6000	1061 530 6010	2361 130 6020	1061 530 6030
		M 8	1061 530 8000	1061 530 8010	2361 130 8020	1061 530 8030
		M 10	1061 531 0000	1061 531 0010	2361 131 0020	1061 531 0030
		M 10 x 1	1061 531 0300	1061 531 0310	2361 131 0320	1061 531 0330

Special tools on request.

## Tools for KOBSERT® Threaded Inserts

### Machine Installation Tools Type M 830 K

Hydraulic Installation Tool with Manual Transmission for Middle Series



Description Type	without threaded bolt and chuck Order no.	Tools		Replacement unit (only threaded bolt and chuck) Order no.	Spares	
		Specified Ø	with threaded bolt and chuck Order no.		Threaded bolt Order no.	Chuck Order no.
M 1430-EK	1061 060 0000	M 8*	1061 060 8000	1061 070 8010	1061 070 8020	1061 070 8030
		M 10*	1061 061 0000	1061 071 0010	1061 071 0020	1061 071 0030
		M 10x1*	1061 061 0300	1061 071 0310	1061 071 0320	1061 071 0330
		M 12*	1061 061 2000	1061 071 2010	1061 071 2020	1061 071 2030
		M 12x1.5*	1061 061 2400	1061 071 2410	1061 071 2420	1061 071 2430
		M 14	1061 061 4000	1061 071 4010	1061 071 4020	1061 071 4030
		M 14x1.5	1061 061 4400	1061 071 4410	1061 071 4420	1061 071 4430
		M 16	1061 061 6000	1061 071 6010	1061 071 6020	1061 071 6030
		M 16x1.5	1061 061 6400	1061 071 6410	1061 071 6420	1061 071 6430
		M 18x1.5	1061 061 8400	1061 071 8410	1061 071 8420	1061 071 8430
		M 20x1.5	1061 062 0400	1061 072 0410	1061 072 0420	1061 072 0430
		M 22x1.5	1061 062 2400	1061 072 2410	1061 072 2420	1061 072 2430
		M 24x1.5	1061 062 4400	1061 072 4410	1061 072 4420	1061 072 4430
		M 26x1.5	1061 062 6400	1061 072 6410	1061 072 6420	1061 072 6430
		M 28x1.5	1061 062 8400	1061 072 8410	1061 072 8420	1061 072 8430
M 30x1.5	1061 063 0400	1061 073 0410	1061 073 0420	1061 073 0430		

### Machine Installation Tool Type P 830 K

Hydraulic Installation Tool with Pneumatic Transmission for Larger Series



P 1430-EK	1061 070 0000	M 8*	1061 070 8000	1061 070 8010	1061 070 8020	1061 070 8030
		M 10*	1061 071 0000	1061 071 0010	1061 071 0020	1061 071 0030
		M 10x1*	1061 071 0300	1061 071 0310	1061 071 0320	1061 071 0330
		M 12*	1061 071 2000	1061 071 2010	1061 071 2020	1061 071 2030
		M 12x1.5*	1061 071 2400	1061 071 2410	1061 071 2420	1061 071 2430
		M 14	1061 071 4000	1061 071 4010	1061 071 4020	1061 071 4030
		M 14x1.5	1061 071 4400	1061 071 4410	1061 071 4420	1061 071 4430
		M 16	1061 071 6000	1061 071 6010	1061 071 6020	1061 071 6030
		M 16x1.5	1061 071 6400	1061 071 6410	1061 071 6420	1061 071 6430
		M 18x1.5	1061 071 8400	1061 071 8410	1061 071 8420	1061 071 8430
		M 20x1.5	1061 072 0400	1061 072 0410	1061 072 0420	1061 072 0430
		M 22x1.5	1061 072 2400	1061 072 2410	1061 072 2420	1061 072 2430
		M 24x1.5	1061 072 4400	1061 072 4410	1061 072 4420	1061 072 4430
		M 26x1.5	1061 072 6400	1061 072 6410	1061 072 6420	1061 072 6430
		M 28x1.5	1061 072 8400	1061 072 8410	1061 072 8420	1061 072 8430
M 30x1.5	1061 073 0400	1061 073 0410	1061 073 0420	1061 073 0430		

**Power unit E 250** Electric Hydropump, including electric foot-switch for all hydraulically driven Installation Tools. Pressures from 100 to 300 bars can be used.



E 250	2365 010 0000
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Stationary installation machines on request.

\* When ordering with these measurements the material receiving the inserts and the installation pressure must be checked. You should carry out a practice assembly

Tools for rent on request.

We reserve the right to make technical modifications.

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## **North Europe**

Wilhelm Böllhoff GmbH & Co. KG, Bielefeld  
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in Bielefeld, Braunschweig, Burgau, Dormagen,  
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Böllhoff Systemtechnik GmbH & Co. KG, Bielefeld,  
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Böllhoff S.A. de C.V., Mexico City, Mexico

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Böllhoff Service Center Ltda., São Paulo, Porto Alegre and Curitiba  
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MollerTech Böllhoff Ltda.\*, Jundiaí and Curitiba,  
Böllhoff Neumayer Industrial Ltda.\*, Jundiaí,  
Brazil

Böllhoff S.A., Buenos Aires, Argentina

## **South-East Asia**

Böllhoff Trading Company, Shanghai, China (VR)

\*Joint-Ventures

In addition to Böllhoff companies in these 17 countries, the company has a network of agents and dealers serving an international customer base on major industrial markets world-wide.

# **BÖLLHOFF**

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