

PHILIPPGROUP

PHILIPP KHN System



VB3-T-064-en - 05/19 - PDF

For PHILIPP Lifty / Lifty with wire rope

Application Instruction

Transport and mounting systems for prefabricated building

■ Technical department

Our staff will be pleased to support your planning phase with suggestions for the installation and use of our transport and mounting systems for precast concrete construction.

■ Special designs

Customized to your particular needs.

■ Practical tests on site

We ensure that our concepts are tailored precisely to your requirements.

■ Inspection reports

For documentation purposes and your safety.

■ On-site service

Our engineers will be pleased to instruct your technicians and production personnel at your plant, to advise on the installation of precast concrete parts and to assist you in the optimisation of your production processes.

■ High safety level when using our products

Close cooperation with federal materials testing institutes (MTIs), and official approvals for the use of our products and solutions whenever necessary.

■ Software solutions

The latest design software, animated videos and CAD libraries can always be found under www.philipp-gruppe.de.

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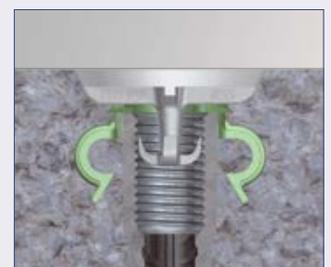
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PHILIPP KHN System

The KHN System is a well-coordinated combination of the PHILIPP lifting device Lifty or Lifty with wire rope and the corresponding recess formers resp. sealing caps.

Combinations:

☑ Lifting devices

- ☑ Lifty
- ☑ Lifty with wire rope
- ☑ Lifting loop with threaded end

☑ Recess formers KHN

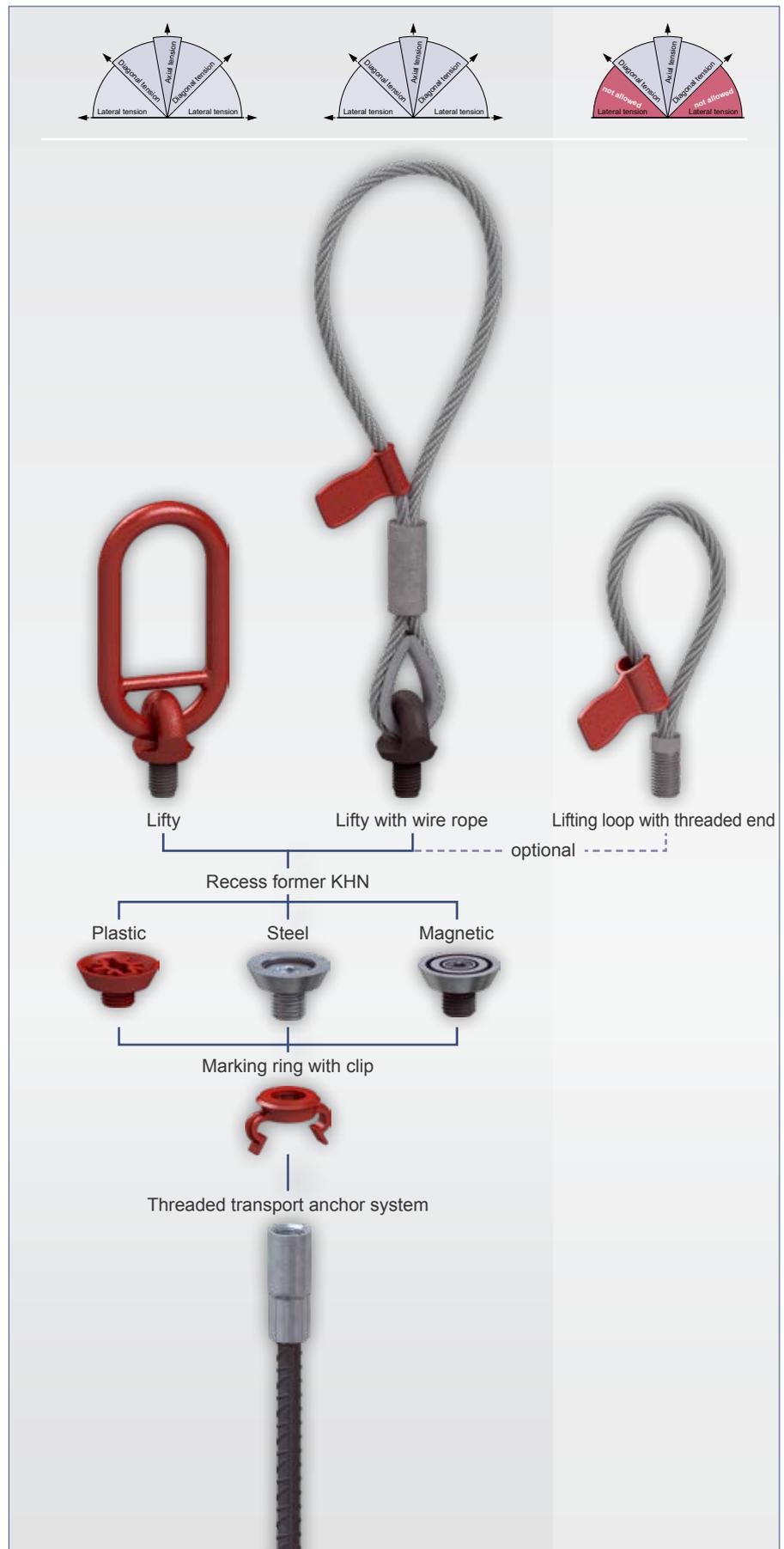
- ☑ Plastic recess former KHN
- ☑ Steel recess former KHN
- ☑ Magnetic recess former KHN

☑ Sealing caps KHN

- ☑ Sealing cap KHN (plastic)
- ☑ Sealing cap KHN (stainless steel)

☑ Transport anchor

- ☑ Can be combined with all PHILIPP Threaded transport anchors type RD



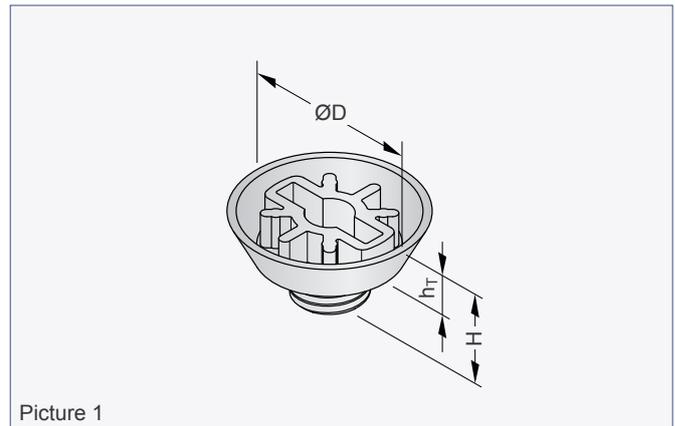
For further information about possible combinations of lifting devices, recess formers and sealing caps please refer to the document *Threaded transport anchors system-Combinations!*



Recess former KHN

Plastic recess former KHN

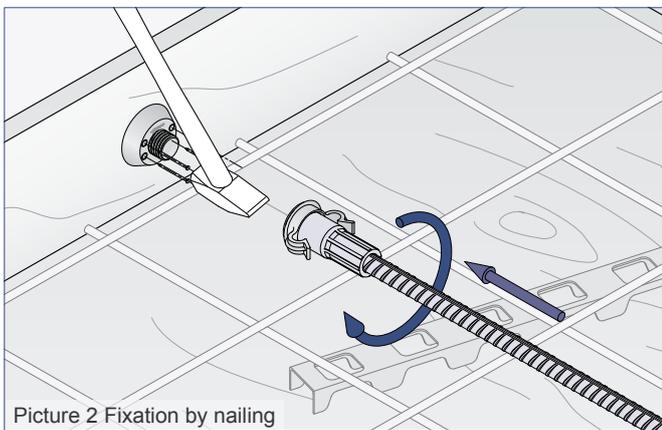
Firstly, the Plastic nailing plates KHN are fixed to the formwork by nailing or hot bonding. Now the Threaded transport anchor can be screwed onto the fixed recess former. In order to avoid a change of position of the transport anchor during concreting, it may be necessary, depending on the length of the transport anchor, to fix it additionally to the reinforcement of the concrete element. After the demoulding, the Plastic nailing plate can be quickly and easily removed e.g. with the PHILIPP tool 72KHNS (page 6).



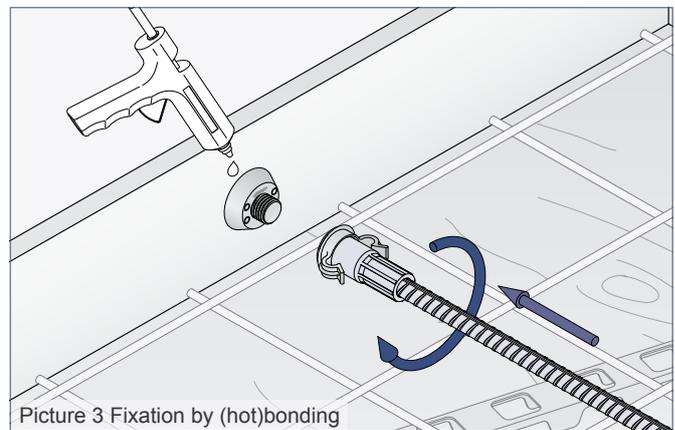
Picture 1

Table 1: Plastic recess former KHN

Ref.-no.	Type RD/M	Thread	ØD [mm]	H [mm]	h _T [mm]	Colour code
72KHN12	12	M12	40	20	10	Pastel orange
72KHN14	14	M14	40	20	10	Pure white
72KHN16	16	M16	40	20	10	Flame red
72KHN18	18	M18	55	25	10	Light pink
72KHN20	20	M20	55	25	10	Pastel green
72KHN24	24	M24	55	25	10	Jet black
72KHN30	30	M30	70	30	10	Emerald green
72KHN36	36	M36	70	30	10	Light blue
72KHN42	42	M42	96	35	12	Silk grey
72KHN52	52	M52	96	35	12	Sulphur yellow



Picture 2 Fixation by nailing

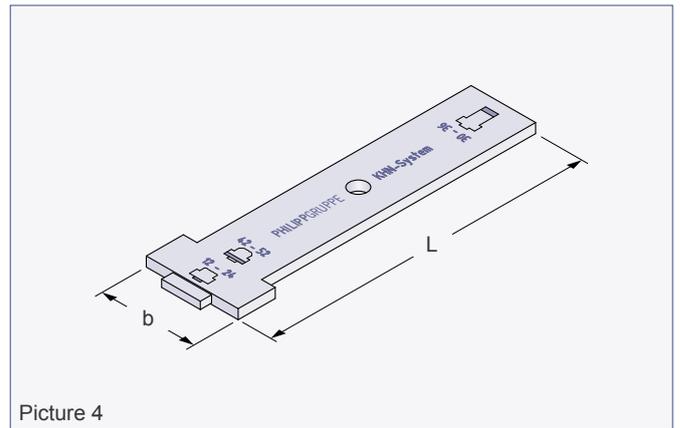


Picture 3 Fixation by (hot)bonding

Recess former KHN

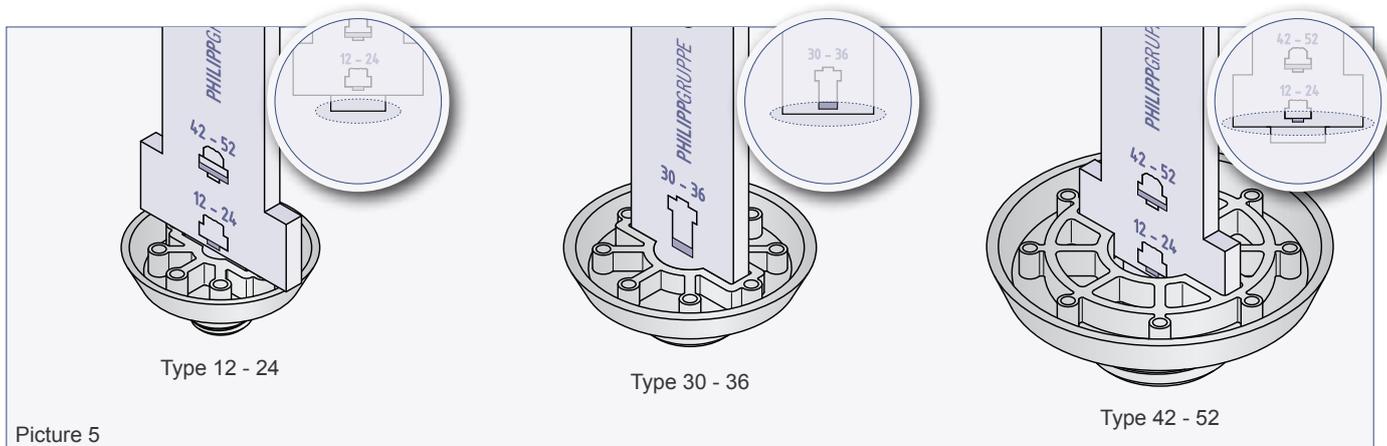
Key for Plastic recess former KHN

The tool/key is used for an easy unscrewing of the Plastic nailing plate (72KHN_) from the transport anchor set in concrete. Due to its special geometry, the tool/key can be used for all nailing plate sizes (type 12 - 52) of the KHN system.



Picture 4

Table 2: Key for Plastic nailing plate			
Ref.-no.	Type	L [mm]	b [mm]
72KHNS	12 - 52	200	57

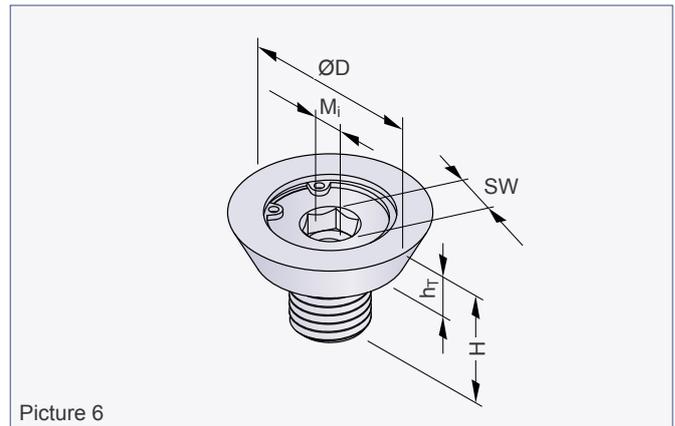


Picture 5

Recess former KHN

Steel recess former KHN

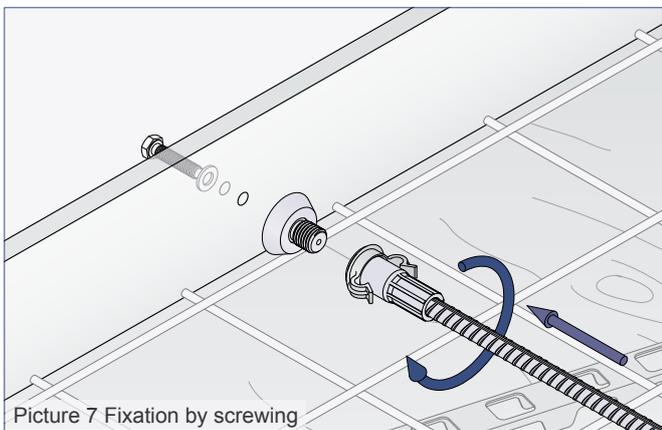
With Steel recess formers KHN threaded transport anchors can be fixed with screws (with metric thread) or nails to the formwork. Depending on the length of the Threaded transport anchors, it may be necessary to fix the anchor to the reinforcement of the concrete element additionally. After demoulding, the Steel recess former can be quickly and easily removed with an Allen key (see table 3).



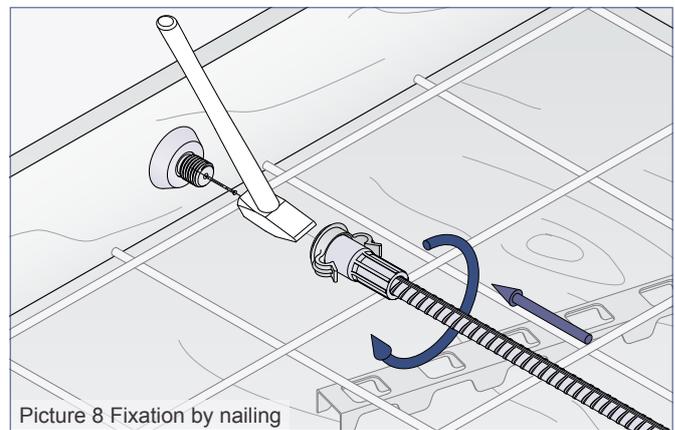
Picture 6

Table 3: Steel recess former KHN

Ref.-no.	Type RD/M	Thread	ØD [mm]	H [mm]	h [mm]	M _i [mm]	SW [mm]
72KHN12STK	12	M12	40	23	10	M6	8
72KHN14STK	14	M14	40	25	10	M6	8
72KHN16STK	16	M16	40	27	10	M8	10
72KHN18STK	18	M18	55	29	10	M8	10
72KHN20STK	20	M20	55	31	10	M8	10
72KHN24STK	24	M24	55	35	10	M10	14
72KHN30STK	30	M30	70	43	10	M10	14
72KHN36STK	36	M36	70	48	10	M10	14
72KHN42STK	42	M42	96	59	12	M16	17
72KHN52STK	52	M52	96	69	12	M16	17



Picture 7 Fixation by screwing



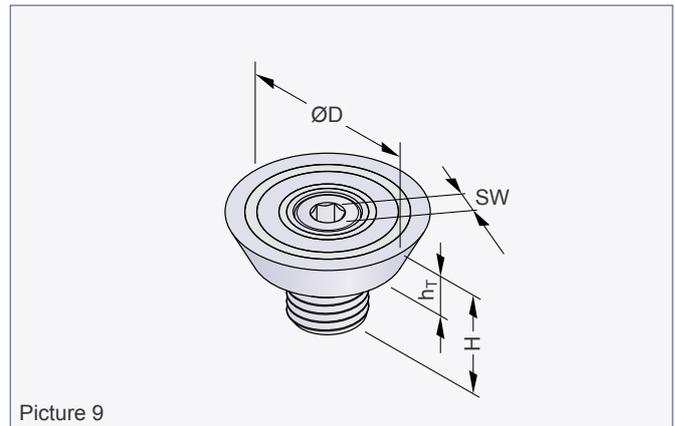
Picture 8 Fixation by nailing

Recess former KHN

Magnetic recess former KHN

The Magnetic recess formers KHN are fixed to the steel formwork with a screwed-on transport anchor. Here, a correction of the position on the formwork is possible at any time. In order to avoid a change of position of the transport anchor during concreting, it may be necessary, depending on the length of the transport anchor, to fix it additionally to the reinforcement of the concrete element.

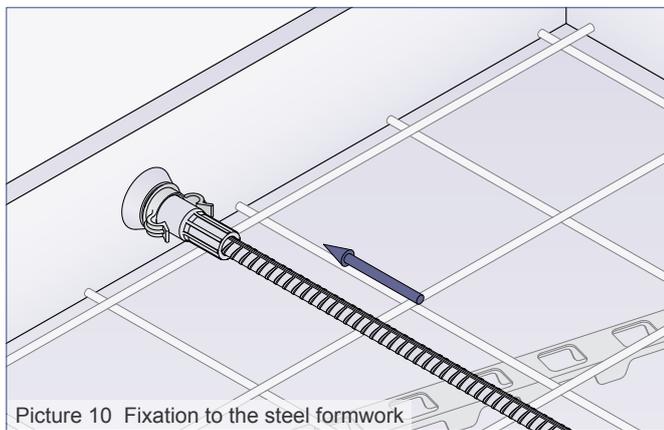
After the demoulding, the Magnetic recess former can be quickly and easily removed with an Allen key (see table 4). In order to achieve the optimum adhesive force of the Magnetic recess former the adhesive surface of the recess former and the steel formwork shall be cleaned after use.



Picture 9

Table 4: Magnetic recess former KHN

Ref.-no.	Type RD / M	Thread	ØD [mm]	H [mm]	h _T [mm]	Adhesion [kg]	SW [mm]
72MAXKHN12	M12	12	40	25	10	60	6
72MAXKHN14	M14	14	40	25	10	60	6
72MAXKHN16	M16	16	40	25	10	60	6
72MAXKHN18	M18	18	55	30	10	100	8
72MAXKHN20	M20	20	55	30	10	100	8
72MAXKHN24	M24	24	55	30	10	100	8
72MAXKHN30	M30	30	70	30	10	180	8
72MAXKHN36	M36	36	70	30	10	180	8
72MAXKHN42	M42	42	96	35	12	180	8
72MAXKHN52	M52	52	96	35	12	180	8



Picture 10 Fixation to the steel formwork



Handling!

Improper handling may result in skin bruises and haematomas. Due to the high impact speeds, parts of the magnet can splinter and cause injuries. Magnets don't belong in children's hands. Also swallowing of the magnets may cause serious medical problems. Persons with pacemakers are advised to keep a certain safety distance to strong magnets. Also direct contact with magnetic materials can lead to allergic reactions (e.g. against ceramic and metallic materials as well as zinc, nickel or plastics).

Effect!

Please note that magnetic fields can delete data media such as hard disks, cards with magnetic stripes etc. Electronic and mechanic components such as pacemakers, watches, counters, compasses, displays can be influenced or destroyed. Therefore, keep a distance of at least one metre to these objects.

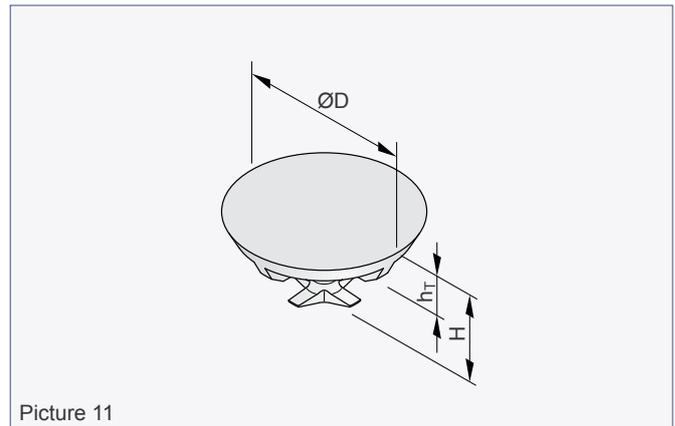
Responsibility!

The magnets are coated to protect them. This coat can be removed during normal use. Splintering of the coating is possible when magnets collide. But this does not affect the performance of the magnets and is no reason for complaint.

Sealing caps KHN

Sealing cap KHN (plastic)

The Sealing cap KHN (plastic) covers the complete range of thread sizes from 12 to 52 (table 5) with only four types. As the Plastic sealing cap is only pressed into the Threaded transport anchor, it has no disturbing recesses on the visible surface for screwing in and out (slot, hexagon socket). Hence, the Sealing cap in plastic offers an visual attractive solution to close recesses surface-flush.



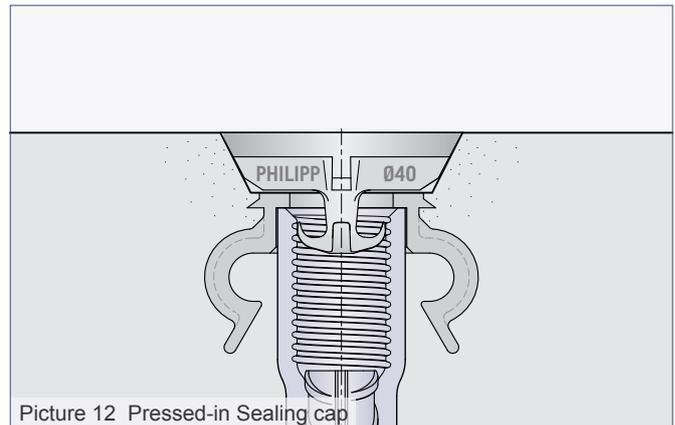
Picture 11



Sealing caps are used exclusively as visual attractive closing of the recesses. In order to avoid damage to the concrete element (e.g. spalling due to frost), the user shall ensure that the Sealing caps are protected against moisture penetration.

Table 5: Sealing cap KHN (plastic)

Ref.-no.	Type RD/M	ØD [mm]	H [mm]	h _T [mm]
72ASKHN040	12	40	20	10
	14			
	16			
72ASKHN055	18	55	28	10
	20			
	24			
72ASKHN070	30	70	40	10
	36			
	42			
72ASKHN096	52	96	60	12

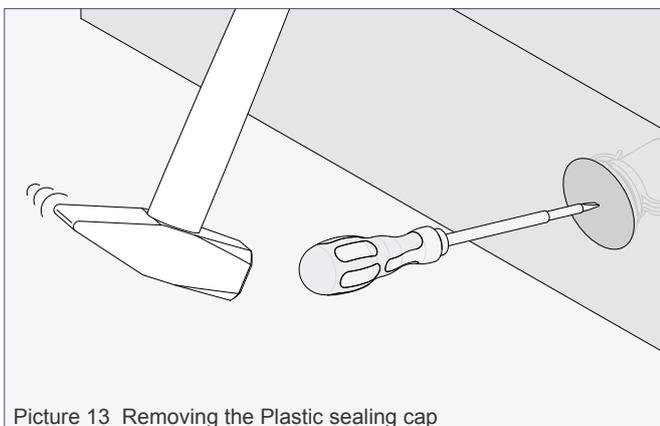


Picture 12 Pressed-in Sealing cap

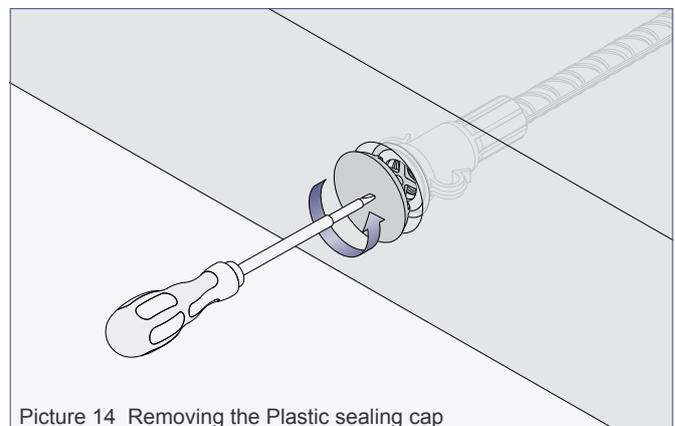
Removing the Plastic sealing cap

In order to remove the Plastic sealing cap, punch a big screwdriver centrally into it.

Then, the Plastic sealing cap can be unscrewed easily.



Picture 13 Removing the Plastic sealing cap



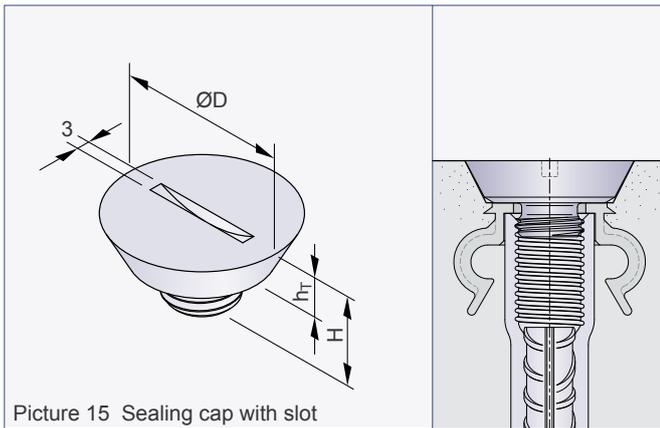
Picture 14 Removing the Plastic sealing cap

Sealing caps KHN

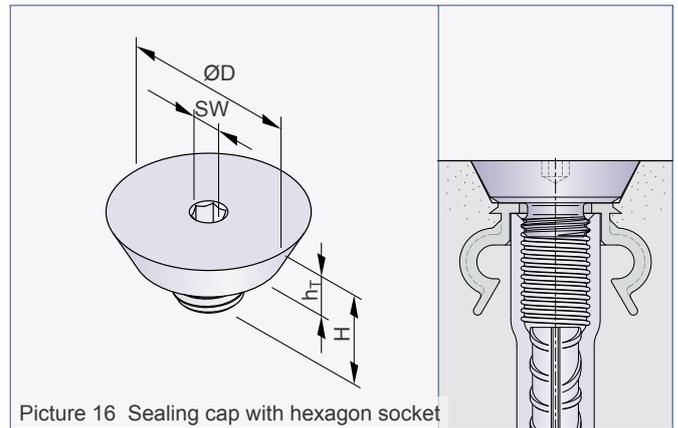
Sealing cap KHN (stainless steel)

A high-quality and visual attractive solution for closing recesses surface-flush is a Sealing cap KHN in stainless steel. This is available with slot or hexagon socket on the visible surface to offer a simple possibility to remove it. In its function, the Sealing cap completely closes the entire recess created by the corresponding former.

 Sealing caps are used exclusively as visual attractive closing of the recesses. In order to avoid damage to the concrete element (e.g. spalling due to frost), the user shall ensure that the Sealing caps are protected against moisture penetration.



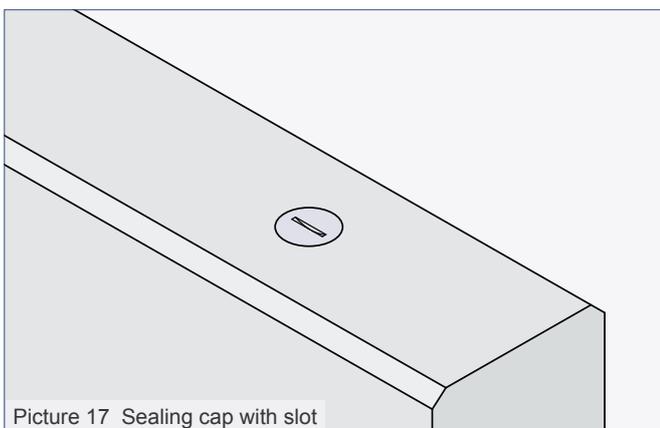
Picture 15 Sealing cap with slot



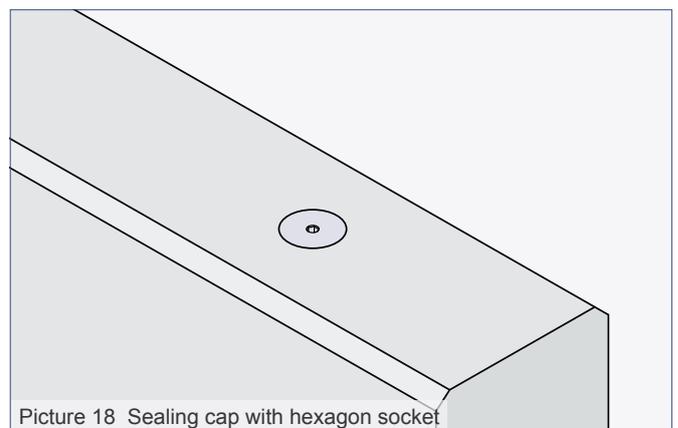
Picture 16 Sealing cap with hexagon socket

Table 6: Sealing cap KHN (stainless steel)

Ref.-no.		Type RD / M	Thread	ØD [mm]	H [mm]	h _T [mm]	SW [mm]
with slot	with hexagon socket						
72ASKHN12VA-S	72ASKHN12VA-ISK	M12	12	40	18	10	6
72ASKHN14VA-S	72ASKHN14VA-ISK	M14	14	40	18	10	6
72ASKHN16VA-S	72ASKHN16VA-ISK	M16	16	40	18	10	6
72ASKHN18VA-S	72ASKHN18VA-ISK	M18	18	55	22	10	6
72ASKHN20VA-S	72ASKHN20VA-ISK	M20	20	55	22	10	6
72ASKHN24VA-S	72ASKHN24VA-ISK	M24	24	55	22	10	6
72ASKHN30VA-S	72ASKHN30VA-ISK	M30	30	70	25	10	6
72ASKHN36VA-S	72ASKHN36VA-ISK	M36	36	70	25	10	6
72ASKHN42VA-S	72ASKHN42VA-ISK	M42	42	96	30	12	6
72ASKHN52VA-S	72ASKHN52VA-ISK	M52	52	96	35	12	6

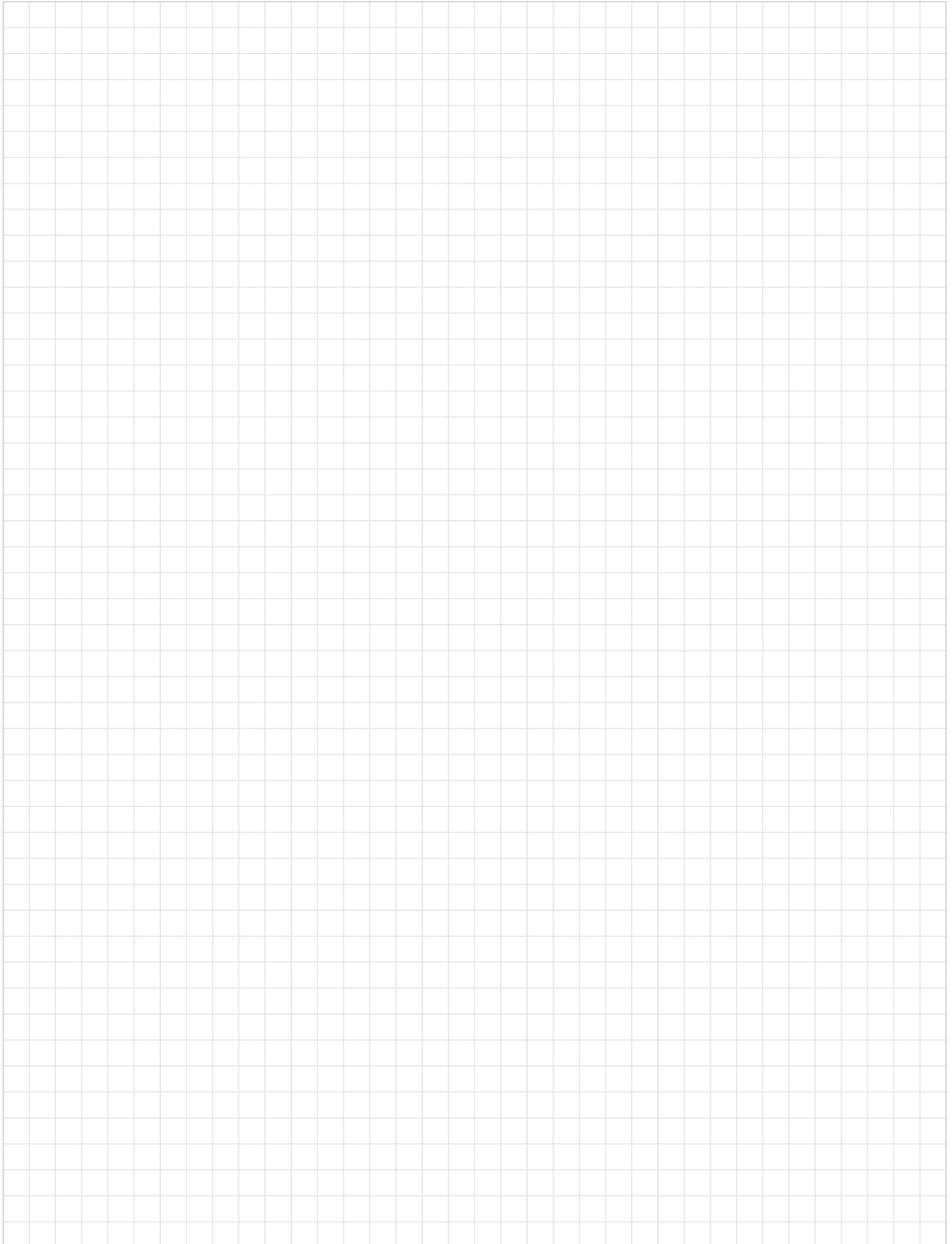


Picture 17 Sealing cap with slot



Picture 18 Sealing cap with hexagon socket

Notes:



Our customers trust us to deliver. We do everything in our power to reward their faith and we start each day intending to do better than the last. We provide strength and stability in an ever-changing world.

Welcome to the PHILIPP Group

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