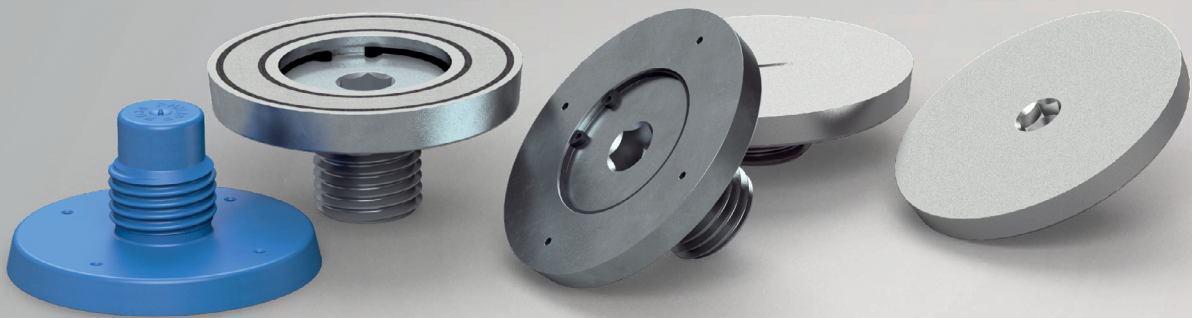


WS system

for Wirbelstar / Wirbelstar KH with adapter disc



Application Instruction

Our products from the division BUILDING SOLUTIONS

SERVICES

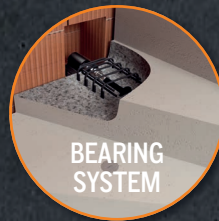
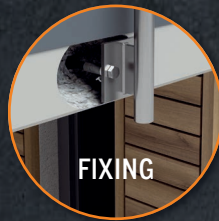
- » On-site tests -> we ensure that your requirements are properly covered by our planning.
- » Test reports -> for your safety and documentation.
- » Trainings -> the knowledge of your employees from planning and production is enhanced by our experts on site, online or via webinar.
- » Planning support -> latest design software, planning documents, CAD data and much more can be downloaded any time from www.philipp-group.de.

HIGH DEMANDS ON PRODUCT SAFETY AND PRACTICALITY

- » Close cooperation with notified bodies and - if necessary - approval of our solutions.

TECHNICAL DEPARTMENT

- » Our expert-team will support you at any time during your planning phase with detailed advice.



CONTENT

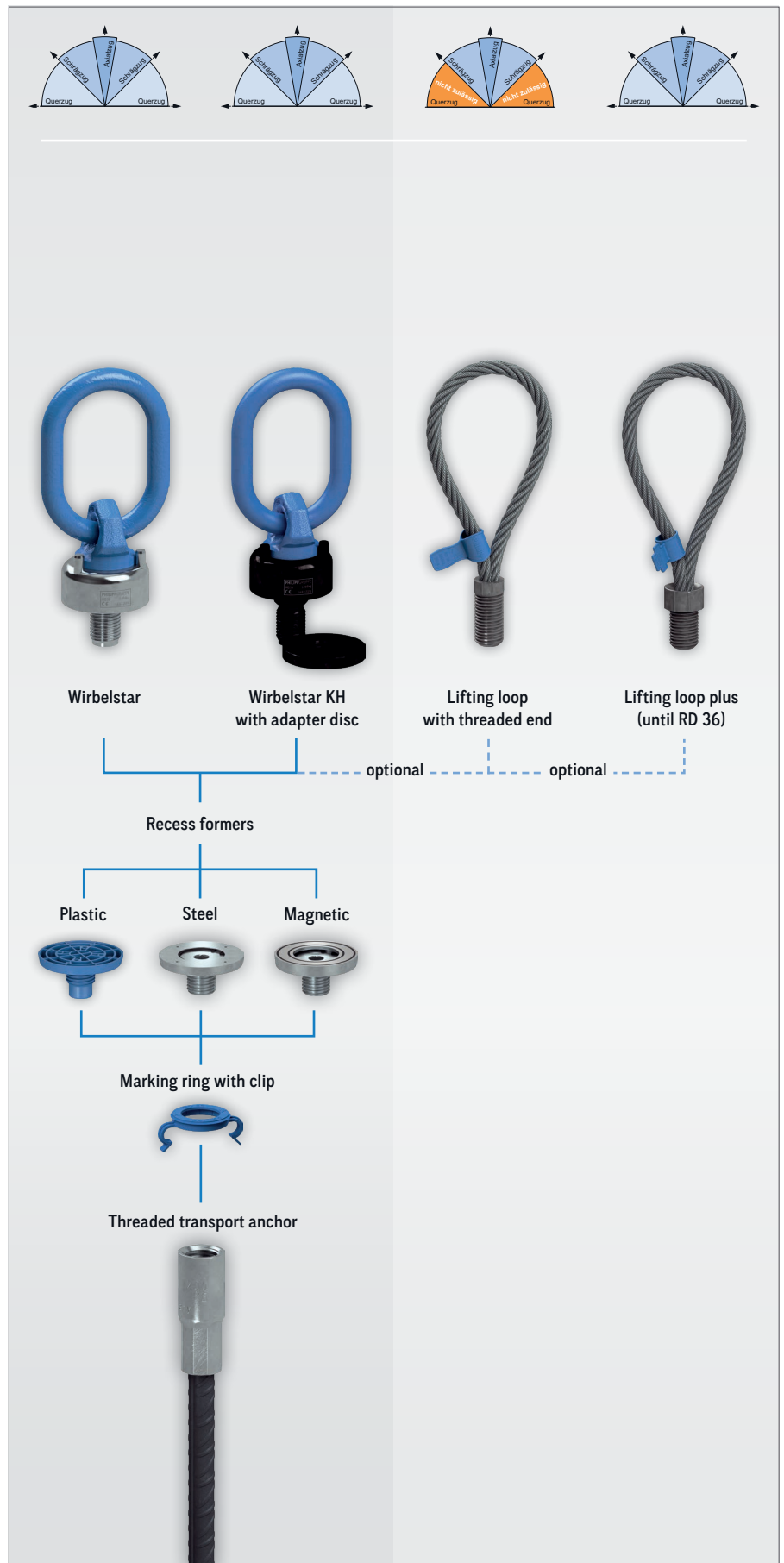
THE WS SYSTEM	Page	4
RECESS FORMERS	Page	5
Plastic recess former WS	Page	5
Key for Plastic recess former WS	Page	6
Steel recess former WS	Page	7
Magnetic recess former WS	Page	8
SEALING CAP	Page	9
Sealing cap WS (stainless steel with slot)	Page	9
Sealing cap WS (stainless steel with hexagon socket)	Page	9

THE WS SYSTEM

The WS system is a well-coordinated combination of the PHILIPP lifting device Wirbelstar or Wirbelstar KH and the corresponding recess formers resp. sealing caps.

Combinations:

- » Lifting devices
 - › Wirbelstar
 - › Wirbelstar KH (with adapter disc)
 - › Lifting loop with threaded end
 - › Lifting loop plus (until RD 36)
- » Recess formers
 - › Plastic recess former WS
 - › Steel recess former WS
 - › Magnetic recess former WS
- » Sealing cap
 - › Sealing cap WS (stainless steel)
- » Transport anchor
 - › Can be combined with all PHILIPP Threaded transport anchors type RD



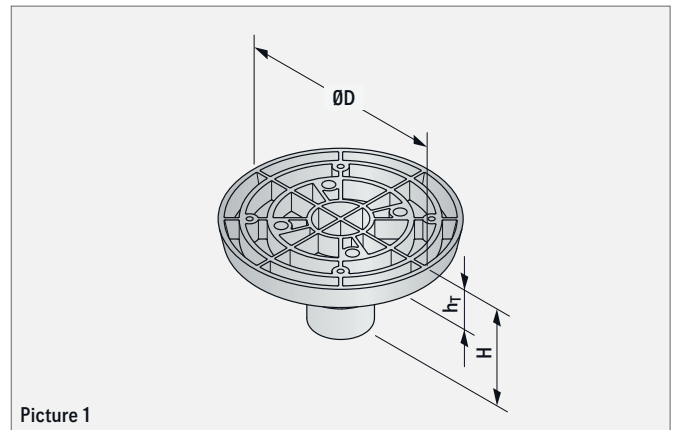
FURTHER INFORMATION

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

RECESS FORMER WS




PLASTIC RECESS FORMER WS

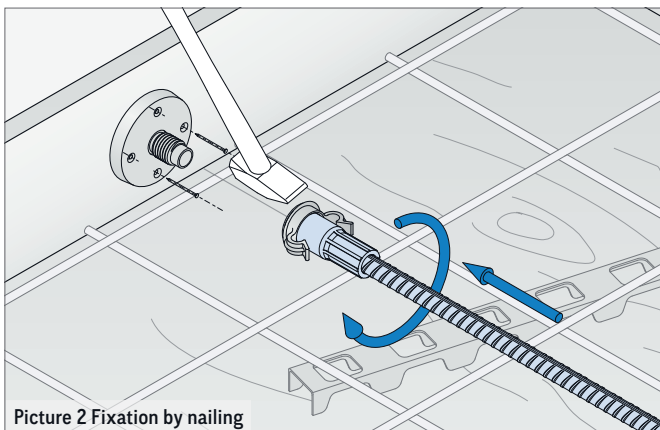
The Plastic recess formers WS are fixed to the formwork by nailing or hot bonding. Now, the Threaded transport anchor can be screwed onto the fixed Recess former WS. In order to avoid a change of position of the transport anchor during concreting, it may be necessary, depending on the length of the transport anchor, to fix it additionally to the reinforcement of the concrete element. After the demoulding, the Plastic recess former WS can be quickly and easily removed e.g. with the PHILIPP tool 67WS (page 6).



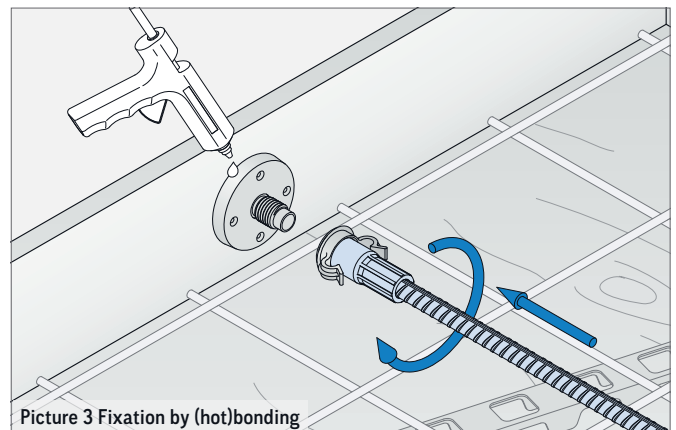
Picture 1

TABLE 1: PLASTIC RECESS FORMER WS

Ref. no.	Type RD	Thread	ØD (mm)	H (mm)	h _T (mm)
72KHN36WS	 36	RD36	105	54	12
72KHN42WS	 42	RD42	115	58	15
72KHN52WS	 52	RD52	136	57	15



Picture 2 Fixation by nailing



Picture 3 Fixation by (hot)bonding

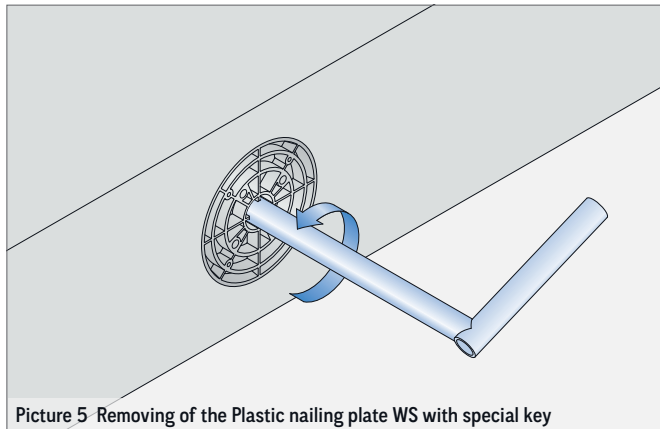
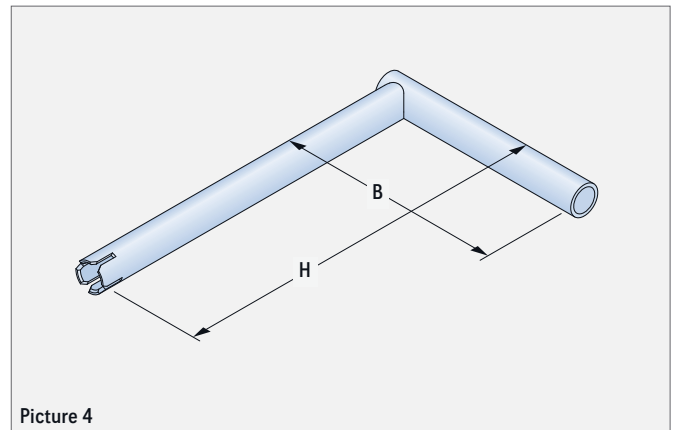
RECESS FORMER WS

KEY FOR PLASTIC RECESS FORMER WS

The tool/key is used for an easy unscrewing of the Plastic recess former WS (72KHN_WS) from the transport anchor set in concrete. Due to its special geometry, the tool/key can be used for all nailing plate sizes (type 36-52) of the WS system.

TABLE 2: KEY FOR PLASTIC NAILING PLATE

Ref. no.	B (mm)	H (mm)
67WS	130	220

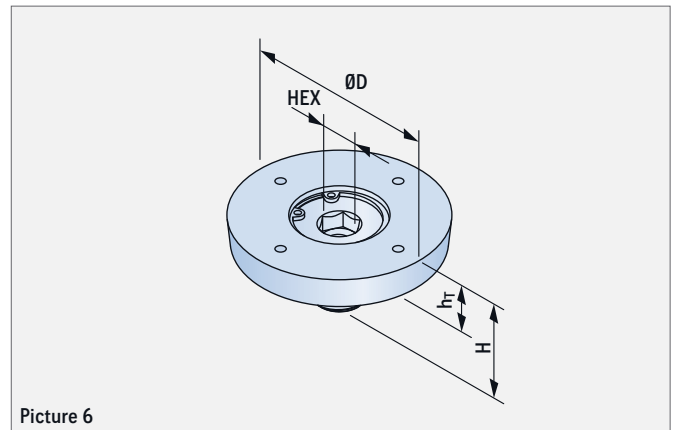


RECESS FORMER WS

STEEL RECESS FORMER WS

With Steel recess formers WS 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.

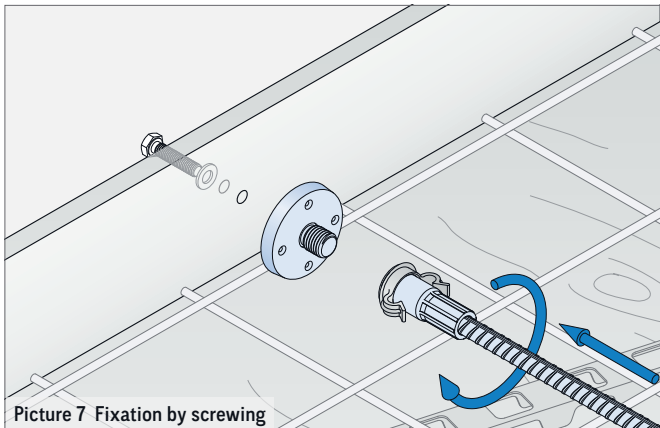
After demoulding, the Steel recess former WS can be quickly and easily removed with an Allen key (see table 3).



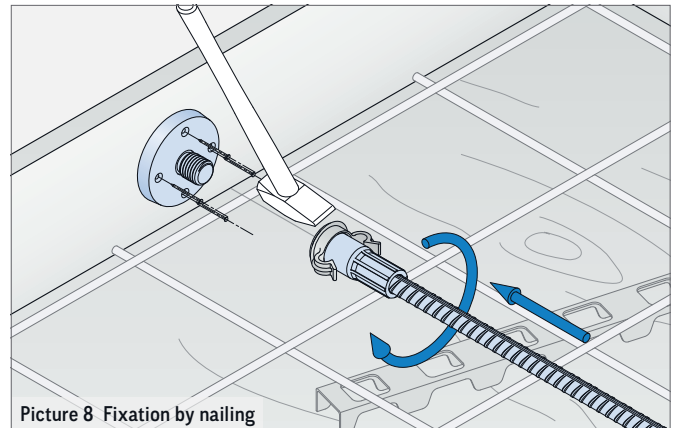
Picture 6

TABLE 3: STEEL RECESS FORMER WS

Ref. no.	Type RD/M	Thread	ØD (mm)	H (mm)	h _T (mm)	HEX (mm)
72SAT12K	12	M 12	50.5	23	10	8
72SAT16K	16	M 16	66.0	27	10	10
72SAT20K	20	M 20	80.0	31	10	10
72SAT24K	24	M 24	78.0	35	12	14
72SAT30K	30	M 30	95.0	43	12	14
72SAT36K	36	M 36	105.0	48	12	14
72SAT42K	42	M 42	115.0	59	15	17
72SAT52K	52	M 52	136.0	69	15	17
72SAT56K	56	M 56	155.0	76	18	17
72SAT60K	60	M 60	155.0	78	18	17



Picture 7 Fixation by screwing



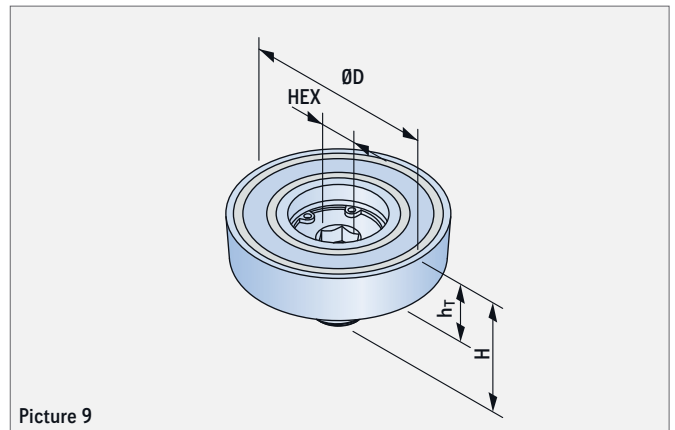
Picture 8 Fixation by nailing

RECESS FORMER WS

MAGNETIC RECESS FORMER WS

The Magnetic recess formers WS 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 demoulding, the Magnetic recess former WS 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 WS

Ref. no.	Type RD / M	Thread	ØD (mm)	H (mm)	h _T (mm)	HEX (mm)
72SATM12K	12	M 12	50.5	23	12	8
72SATM16K	16	M 16	66.0	30	15	10
72SATM20K	20	M 20	80.0	34	15	10
72SATM24K	24	M 24	78.0	37	15	14
72SATM30K	30	M 30	95.0	45	15	14
72SATM36K	36	M 36	105.0	50	15	14
72SATM42K	42	M 42	115.0	59	15	17
72SATM52K	52	M 52	136.0	69	15	17



FURTHER INFORMATION

HANDLING!

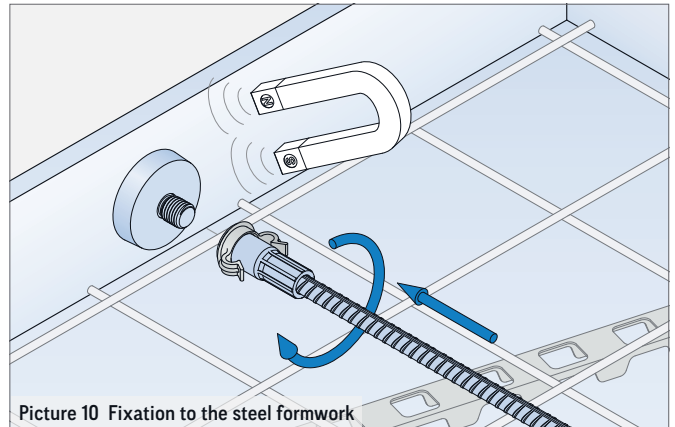
Improper handling may result in skin bruises and haematomas. Due to the high impact speeds, parts of the magnet can splinter and cause injuries. Magnets do not belong in children's hands. Also swallowing of the magnets can cause serious medical problems. Persons with pacemakers are advised to keep a 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).

TEMPERATURE!

Please note that the magnets have a maximum operating temperature of 80 °C. At temperatures above 80 °C, they may permanently lose some of their adhesive force.

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 pacemaker, watches, counters, compasses, displays can be influenced or destroyed. Therefore, keep a distance of at least one metre to these objects.



Picture 10 Fixation to the steel formwork

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. Mechanical influences such as welding or grinding must be avoided in all cases.

SEALING CAP WS

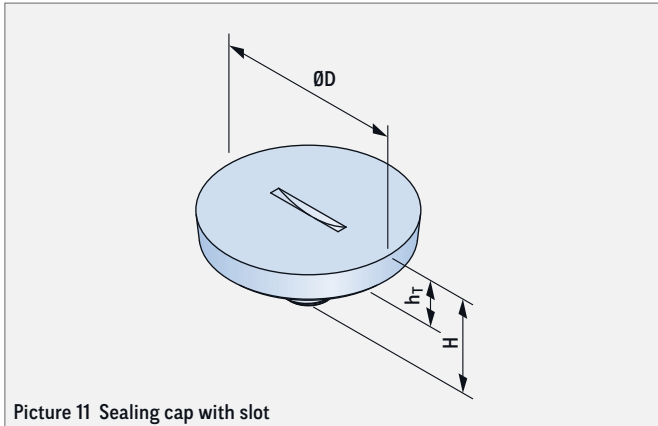
SEALING CAP WS (STAINLESS STEEL)

A high-quality and visual attractive solution for closing recesses surface-flush is a Sealing cap WS in stainless steel (picture 12 and 14). This is available with slot or hexagon socket on the visible surface to offer a simple possibility to remove it.

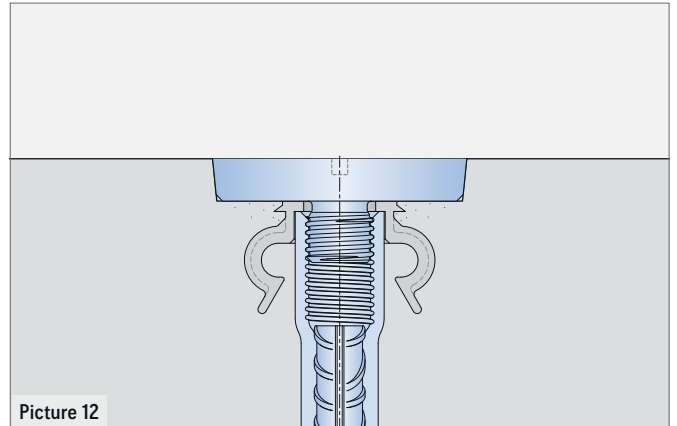


NOTICE

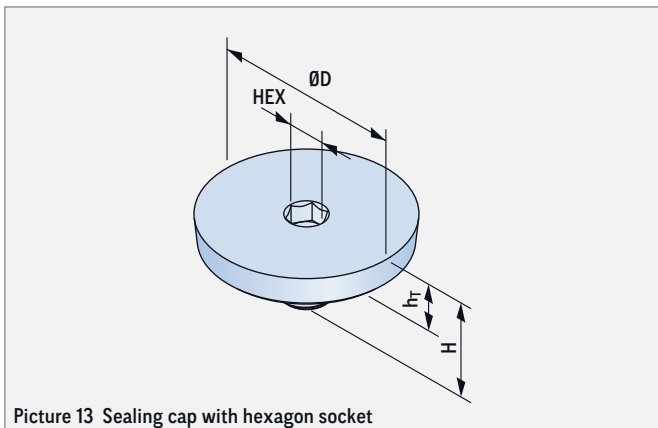
Sealing caps are used exclusively as visual attractive closing of the recesses. In order to avoid damage to the concrete element (e.g. spalling due to frost), the user shall ensure that the Sealing caps are protected against moisture penetration.



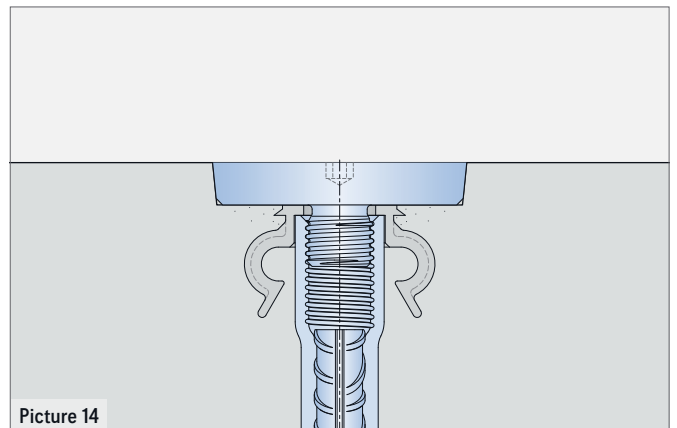
Picture 11 Sealing cap with slot



Picture 12



Picture 13 Sealing cap with hexagon socket



Picture 14

TABLE 5: SEALING CAP WS (STAINLESS STEEL)

Ref. no.		Type RD / M	Thread	ØD (mm)	H (mm)	h _T (mm)	HEX (mm)
with slot	with hexagon socket						
72ASSAT12VA-S	72ASSAT12VA-ISK	12	M 12	50.5	22	10	8
72ASSAT16VA-S	72ASSAT16VA-ISK	16	M 16	66.0	25	10	10
72ASSAT20VA-S	72ASSAT20VA-ISK	20	M 20	80.0	27	10	10
72ASSAT24VA-S	72ASSAT24VA-ISK	24	M 24	78.0	27	12	14
72ASSAT30VA-S	72ASSAT30VA-ISK	30	M 30	95.0	30	12	14
72ASSAT36VA-S	72ASSAT36VA-ISK	36	M 36	105.0	30	12	14
72ASSAT42VA-S	72ASSAT42VA-ISK	42	M 42	115.0	40	15	17
72ASSAT52VA-S	72ASSAT52VA-ISK	52	M 52	136.0	40	15	17

HEADQUARTERS

Lilienthalstraße 7-9
63741 Aschaffenburg
☎ +49 6021 40 27-0
✉ info@philipp-gruppe.de

PRODUCTION AND LOGISTICS

Hauptstraße 204
63814 Mainaschaff
☎ +49 6021 40 27-0
✉ info@philipp-gruppe.de

OFFICE COSWIG

Roßlauer Straße 70
06869 Coswig / Anhalt
☎ +49 34903 6 94-0
✉ info@philipp-gruppe.de

OFFICE NEUSS

Sperberweg 37
41468 Neuss
☎ +49 2131 3 59 18-0
✉ info@philipp-gruppe.de

OFFICE TANNHEIM

Robert-Bosch-Weg 12
88459 Tannheim / Allgäu
☎ +49 8395 8 13 35-0
✉ info@philipp-gruppe.de

PHILIPP VERTRIEBS GMBH

Pfaffing 36
5760 Saalfelden / Salzburg
☎ +43 6582 7 04 01
✉ info@philipp-gruppe.at



HEADQUARTERS Aschaffenburg



Visit us! www.philipp-group.de