

PHILIPPGROUP

PHILIPP WS system



for PHILIPP Wirbelstar / Wirbelstar KH with adapter disc

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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PHILIPP 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

☑ Recess formers

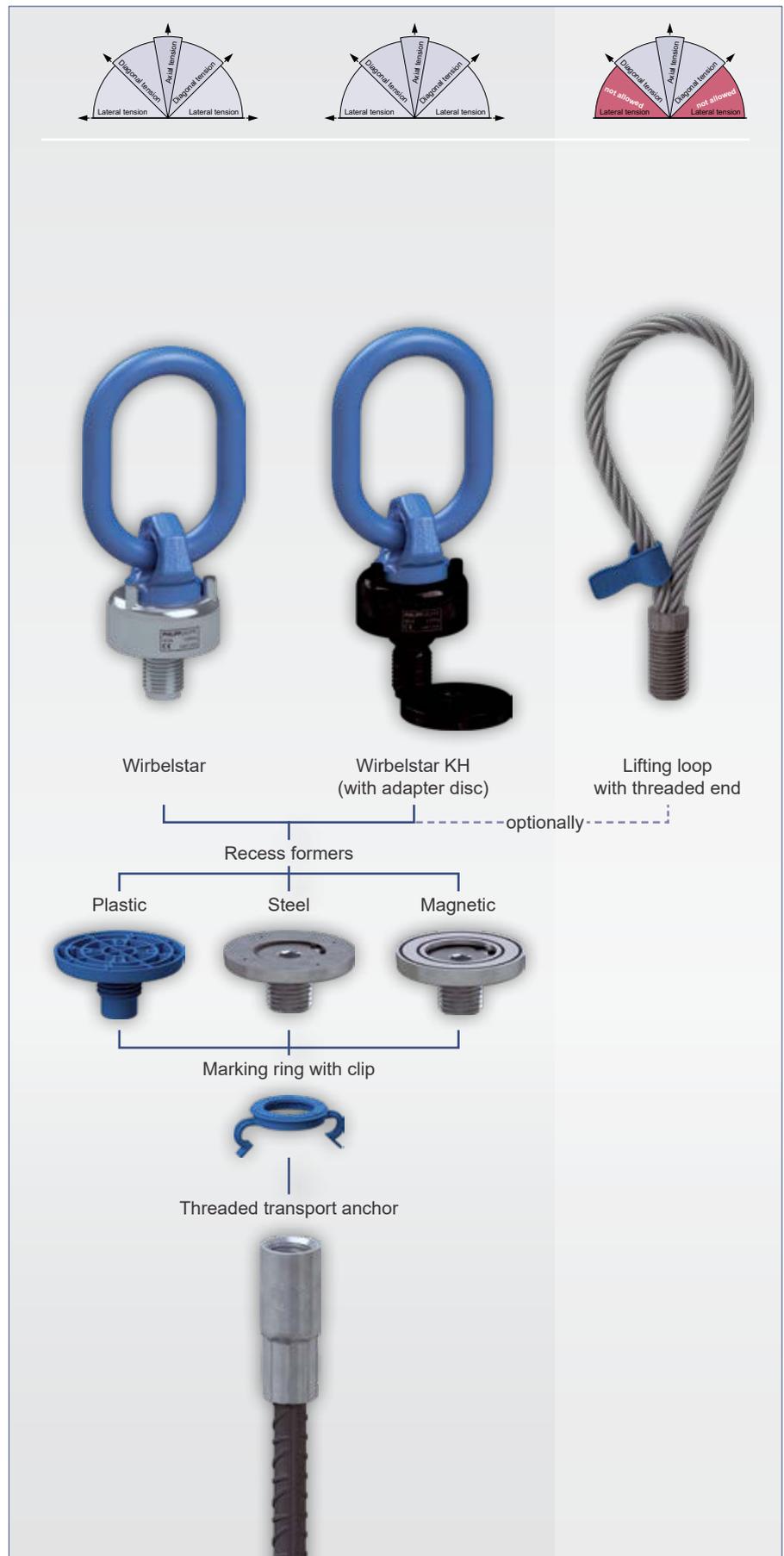
- ☑ Plastic recess former WS
- ☑ Steel recess former WS
- ☑ Magnetic recess former WS

☑ Sealing cap

- ☑ Sealing cap WS (stainless steel)

☑ Transport anchor

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



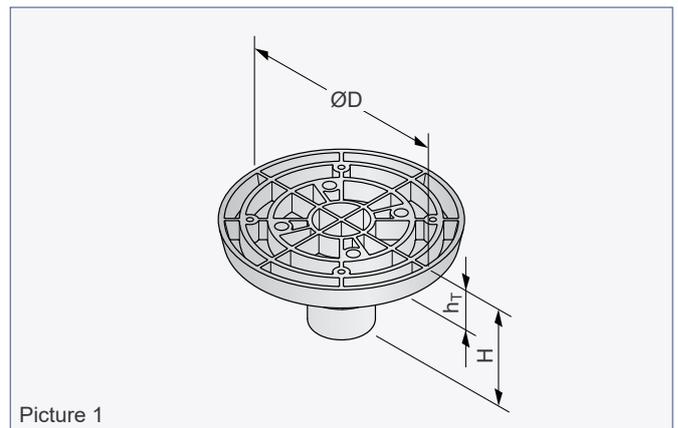
For further information about possible combinations of lifting devices, recess formers and sealing caps please refer to the document *Threaded transport anchor system-Combinations*.



Recess former WS

Plastic recess former WS

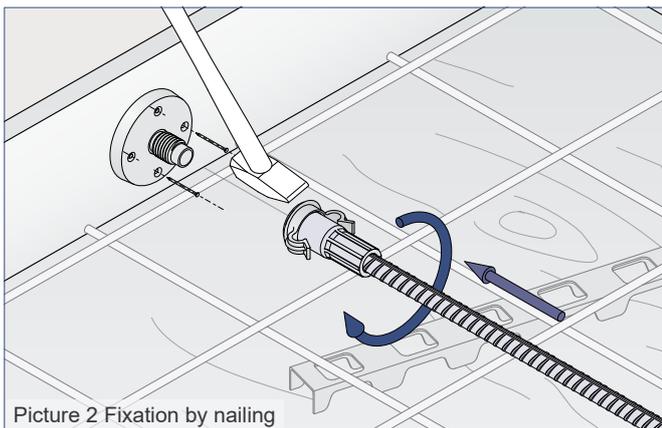
The Plastic recess formers WS are fixed to the formwork by nailing or hot bonding. Now, the Threaded transport anchor can be screwed onto the fixed Recess former WS. In order to avoid a change of position of the transport anchor during concreting, it may be necessary, depending on the length of the transport 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).



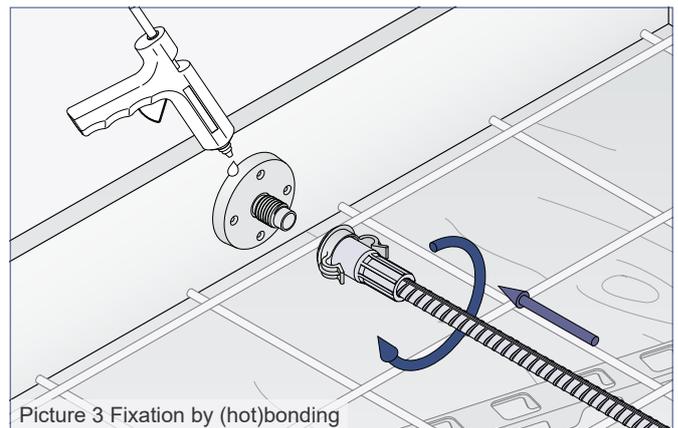
Picture 1

Table 1: Plastic recess former WS

Ref.-no.	Type RD / M	Thread	ØD [mm]	H [mm]	h _T [mm]
72KHN36WS	 36	M36	105	54	12
72KHN42WS	 42	M42	115	58	15
72KHN52WS	 52	M52	136	57	15



Picture 2 Fixation by nailing



Picture 3 Fixation by (hot)bonding

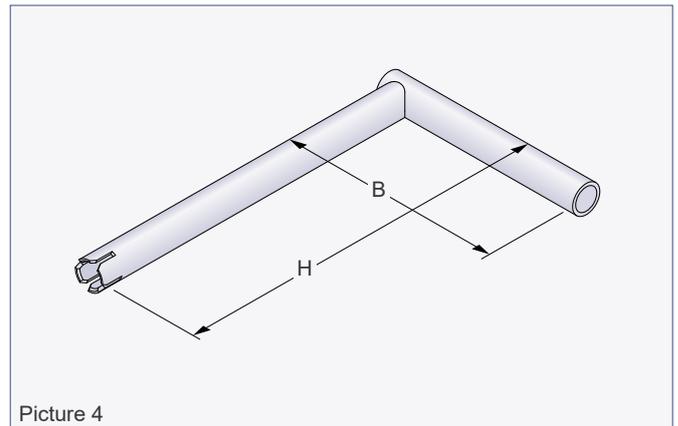
Recess former WS

Key for Plastic recess former WS

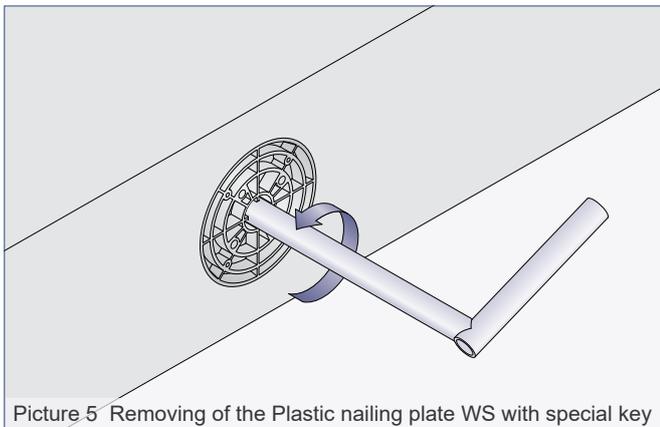
The tool/key is used for an easy unscrewing of the Plastic recess former WS (72KHN_WS) from the transport anchor set in concrete. Due to its special geometry, the tool/key can be used for all nailing plate sizes (type 36-52) of the WS system.

Table 2: Key for Plastic nailing plate

Ref.-no.	B [mm]	H [mm]
67WS	130	220



Picture 4



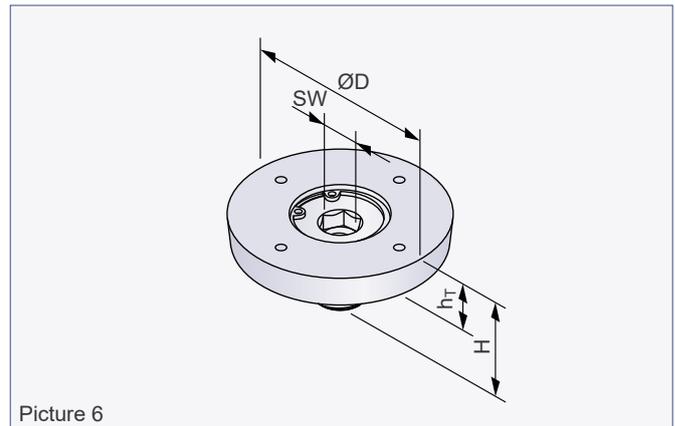
Picture 5 Removing of the Plastic nailing plate WS with special key

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.

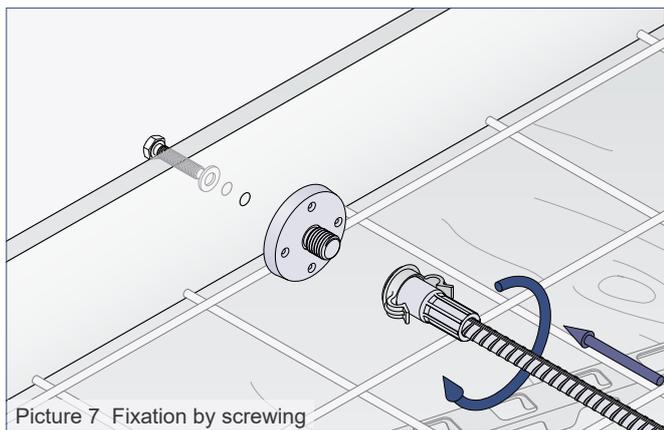
After demoulding, the Steel recess former WS can be quickly and easily removed with an Allen key (see table 3).



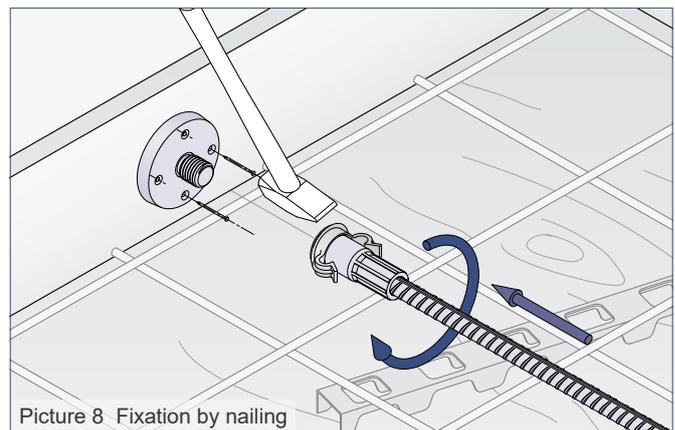
Picture 6

Table 3: Steel recess former WS

Ref.-no.	Type RD / M	Thread	ØD [mm]	H [mm]	h_T [mm]	SW [mm]
72SAT12K	12	M 12	50.5	23	10	8
72SAT14K	14	M 14	55.5	25	10	8
72SAT16K	16	M 16	66.0	27	10	10
72SAT18K	18	M 18	69.0	29	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



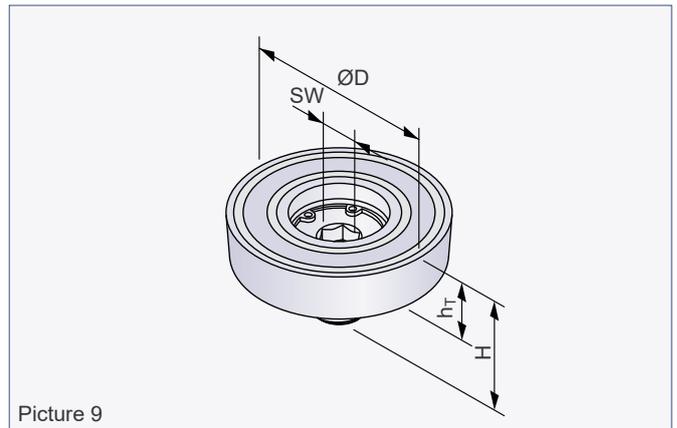
Picture 8 Fixation by nailing

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.

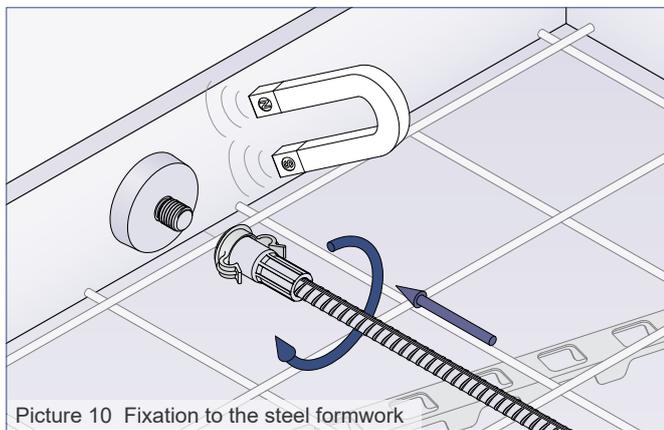
After demoulding, the Magnetic recess former WS can be quickly and easily removed with an Allen key (see table 4). In order to achieve the optimum adhesive force of the Magnetic recess former the adhesive surface of the recess former and the steel formwork shall be cleaned after use.



Picture 9

Table 4: Magnetic recess former WS

Ref.-no.	Type RD / M	Thread	ØD [mm]	H [mm]	h _T [mm]	SW [mm]
72SATM12K	12	M 12	50.5	23	12	8
72SATM14K	14	M 14	55.5	25	12	8
72SATM16K	16	M 16	66.0	30	15	10
72SATM18K	18	M 18	69.0	32	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



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 magnets 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.

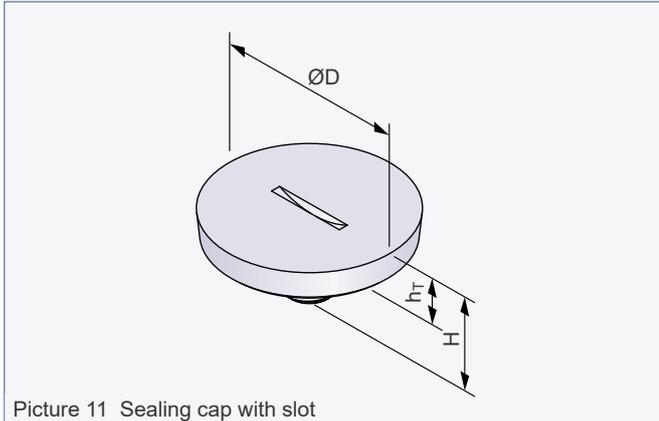
Sealing cap WS

Sealing cap WS (stainless steel)

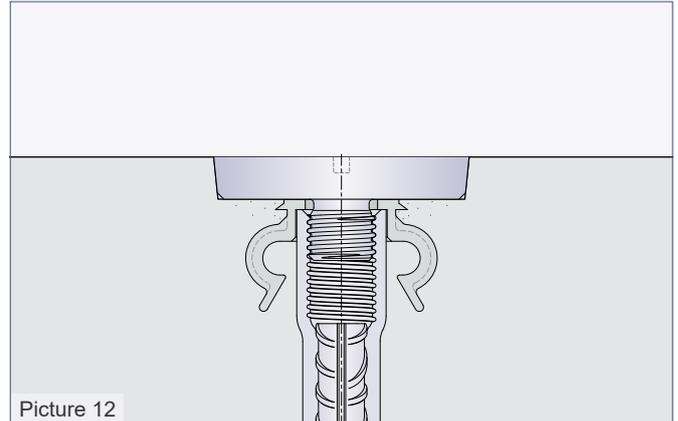
A high-quality and visual attractive solution for closing recesses surface-flush is a Sealing cap WS in stainless steel (picture 12 and 14). This is available with slot or hexagon socket on the visible surface to offer a simple possibility to remove it.



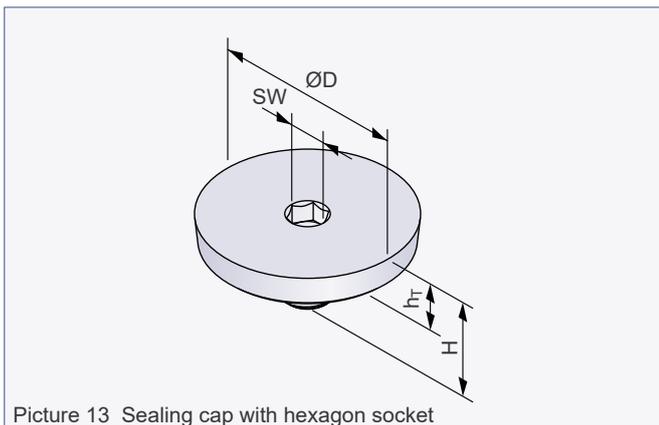
Sealing caps are used exclusively as visual attractive closing of the recesses. In order to avoid damage to the concrete element (e.g. spalling due to frost), the user shall ensure that the Sealing caps are protected against moisture penetration.



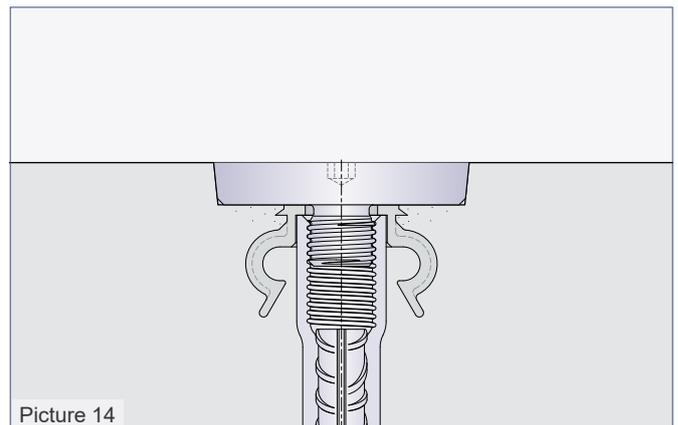
Picture 11 Sealing cap with slot



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]	SW [mm]
with slot	with hexagon socket						
72ASSAT12VA-S	72ASSAT12VA-ISK	12	M 12	50.5	22	10	8
72ASSAT14VA-S	72ASSAT14VA-ISK	14	M 14	55.5	22	10	8
72ASSAT16VA-S	72ASSAT16VA-ISK	16	M 16	66.0	25	10	10
72ASSAT18VA-S	72ASSAT18VA-ISK	18	M 18	69.0	27	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

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

Sustainable
solutions

PHILIPPGROUP



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