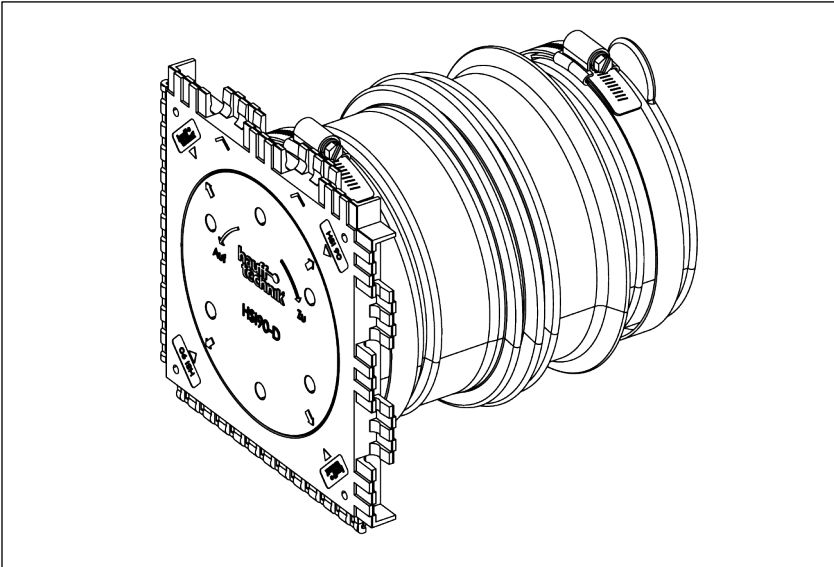




Installation instructions - HSI90 KMA94 Single wall insert with foldable rubber sleeve

EN



Vor Beginn der Montage Anleitung lesen und gut aufbewahren!
Read the instructions prior to installation and keep them in a safe place!

EN Safety Instructions and Information

Target Group

The installation may only be carried out by technical experts.

- Qualified and trained individuals carrying out installation must have
- knowledge of general safety and accident prevention regulations as amended,
 - knowledge of how to use safety equipment,
 - knowledge of how to use hand tools and electric tools,



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- knowledge of the relevant standards and guidelines for laying pipes/cables and for backfilling utility trenches as amended,
- knowledge of the regulations and installation guidelines of the supply company as amended,
- knowledge of the waterproof concrete directive and building waterproofing standards as amended.

General information and intended use

In line with their intended use, our products have been developed solely for installation in buildings made of state-of-the-art materials. Insofar as no express written confirmation has been provided by us, we do not accept any liability for any other purposes or purposes going beyond the above.

For warranty conditions, please see our current General Terms and Delivery Conditions. We explicitly draw your attention to the fact that no warranty whatsoever applies for any subsequent damage occurring as a result of failure to follow the installation instructions or if our products are used incorrectly or combined with third-party products.

The HSI90 KMA94 is a cable entry for installation flush with shuttering in concrete walls. HSI90 system covers or cable ducts (corrugated pipes, Hatetex) can be connected there to seal the media carried through.

Safety

This section provides an overview of all the main safety aspects for optimum protection of personnel and a safe installation process.

A failure to observe the instructions and safety information set out here may result in significant hazards.

During installation of the Single wall insert it is imperative to observe the relevant professional association rules, the VDE provisions, the relevant national safety and accident prevention regulations and your company's guidelines (work and procedure instructions).

The fitter must wear the relevant protective clothing.

Only intact components may be installed.

The following instructions are to be observed prior to installation of the Single wall insert HSI90 KMA94:

WARNING!

Risk of injury in the event of improper installation!

Improper installation can result in significant bodily harm and property damage.

- Observe the nationally applicable laying and filling regulations for pipes and cables.
- Seal the underground and cable substructure well prior to laying pipes or cables so that the latter cannot subside.

NOTICE!

No sealing due to incorrect installation!

Improper installation can result in damage.

- The incorrect laying of cables or ducts and improper filling of the cable trench causes settlement, which can lead to damage and leaks.
- Only open cable entries just before fitting with cables to avoid accidental damage during foundation works.
- The Single wall insert should not be supposed to mechanical load through cables or pipes.
- Any single wall inserts that are not required may be used as pressure-tight back-up entries if there is an undamaged Hauff quality seal on the closing cover.
- Do not knock the blind cover in with a hammer or sharp object!
- Open single wall inserts, which are used as back-up entries or closing cover which have been opened accidentally, should be fitted with **new** HSI 150 DT/DTS respectively HSI90 D blind covers.
- Set the wall insert in concrete so that the connection of the cable duct with the rubber sleeve is made on the outside of the building.
- Before mounting a system cover in the wall insert, clean the interior of any dirt and check the sealing surfaces for any damage.
- Before the process of installing the duct begins, the bottom of the trench must be free from water and the bottom bedding layer must be created by a professional in accordance with the installation guidelines provided by the duct manufacturer.
- Do not use cleaning agents containing solvents to clean the Single wall insert. We recommend using the cable cleaner KRMTX.
- For details of other accessories and further information, see www.hauff-technik.de and the technical data sheets as well as the safety data sheet.

Personnel requirements

Qualifications

WARNING!

Risk of injury in case of inadequate qualification!

Improper handling can result in significant bodily harm and property damage.

- Installation may only be carried out by qualified and trained individuals who have read and understood these instructions.

Skilled experts

Based on their specialist training, skills, experience and familiarity with the relevant provisions, standards and regulations, skilled experts are able to carry out the work assigned, independently identifying and avoiding potential hazards.

Transport, packaging, scope of delivery and storage

Safety instructions in connection with transport

NOTICE!

Damage in the event of improper transport!

Significant damage can occur in the event of improper transport.

- When unloading packaging items on delivery and in the course of in-house transport, proceed with care and observe the symbols on the packaging.

Transport inspection

Inspect the delivery immediately on receipt for completeness and transport damage. In the event of transport damage being visible from the outside, proceed as follows:

- Do not accept the delivery or only do so subject to reservations.
- Make a note of the extent of damage in the transport documentation or delivery note provided by the transporter.



- Submit a claim for every defect as soon as it has been identified.
- Claims for damages can only be asserted within the applicable claim period.

Scope of delivery

The scope of delivery of the Single wall insert includes the following:

Single wall insert with foldable sleeve HSI90 KMA

- 1 assembly frame incl. protective foil with a three-ribbed seal
- 1 closing cover
- 1 quality mark
- 1 foldable sleeve
- 1 pre-assembled clamping strap, 1 internal clamping strap
- 1 pipe cover with information sticker

Accessories

- Closing cover HSI90 D (for pressure-tight re-closure)

Storage

NOTICE!

Damage due to improper storage!

Significant damage can occur in the event of improper storage.

- The single wall insert is to be protected from damage, damp and soiling prior to installation. Only intact components may be installed.
- The Single wall insert must be stored in such a way that it is not exposed to low temperatures (< 5 °C), high temperatures (> 30 °C) or direct sunlight.

Disposal

If no return or disposal agreement has been concluded, recycle dismantled components after they have been properly dismantled:

- Metal remains are to be scrapped according to existing environmental regulations.
- Dispose of elastomers according to existing environmental regulations.
- Dispose of plastics according to existing environmental regulations.
- Dispose of packaging material according to existing environmental regulations.



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1 Publishing Notes

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2 Explanation of Symbols

- 1 Work stages
- Effect/result of a work step
- ① Reference numerals in drawings

3 Tools and aids required

For the correct installation of the Single wall insert **HSI90 KMA94**, the following tools and aids are required in addition to the usual standard tools:

Tools:

- 1 Flexible socket wrench SLS 6G (article no.: 0352010000) or
- 1 Flexible socket wrench SLS 6GD (walls with perimeter insulation, article no.: 0352010100)

Aids:

KRMTX cable cleaner (Hauff)

Cleaning cloths

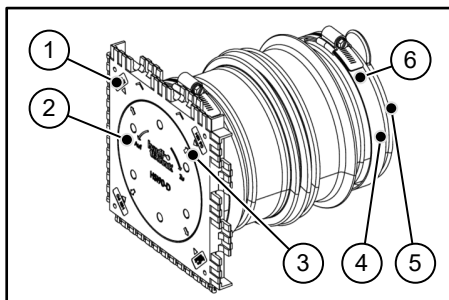
Lubricant (GMT, dishwashing liquid, etc.)

Pipe cutter

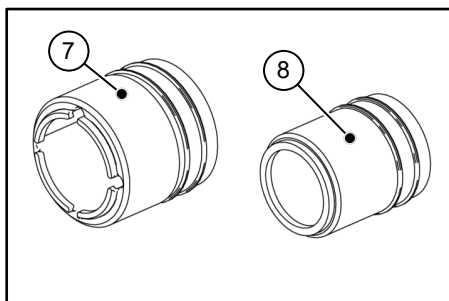
Tie wire

4 Description

Example Single wall insert with plug-in socket HSI90 1x1 KMA



- 1 Assembly frame with three-ribbed seal and protective foil (not shown)
- 2 Closing cover HSI90 D
- 3 Quality mark
- 4 Foldable sleeve Ø94
- 5 Pipe cover
- 6 Clamping strap



- 7 Adapter ring KMA77 (67-75 mm)
- 8 Adapter ring KMA65 (55-63 mm)


Single wall insert with foldable sleeve for setting in concrete. For connecting corrugated cable ducts or Hafelex spiral hose (with Ø_s= see following table) on the outside of the building/shaft. One-sided connection of HSI90 system covers or HRD press seals on the inside of the building/shaft.

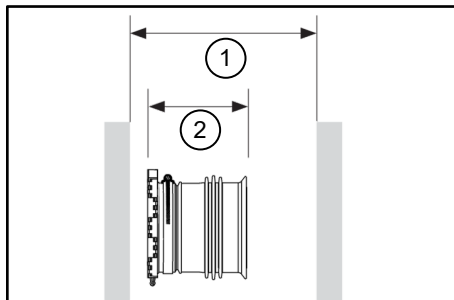
Pipe Ø (mm)	Number of adapter rings
86-94	No adapter ring
67-75	1 adapter ring
55-63	2 adapter rings



5 Setting the wall insert in concrete

 No block assembly possible!

 Take care to ensure that the three arrows on the protective foil are pointing upwards.

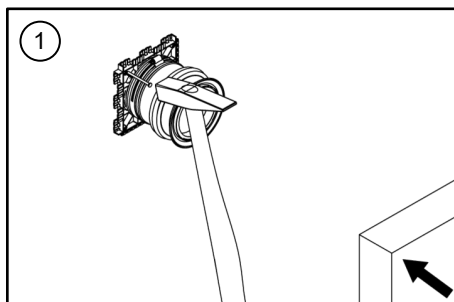


1 Shuttering space

2 Wall thickness "X" of the wall insert

 Preconditions for installation:

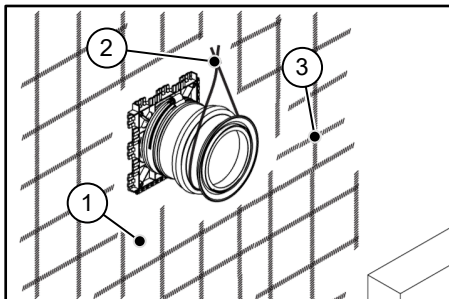
- The shuttering space must not be smaller or larger than the wall thickness "X" of the wall insert specified when ordering. Check the dimensions before installation.



1 Inside of building

- Nail the wall insert using the nail holes provided in the assembly frame to the wood shuttering on the inside of the building.

Then close the shuttering.

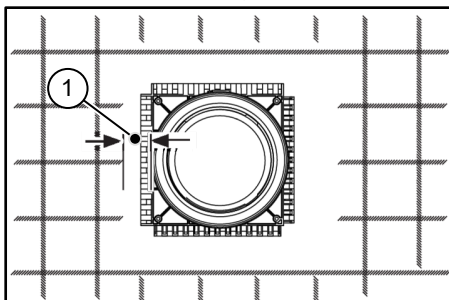


1 Steel shuttering

2 Attachment with tie wire

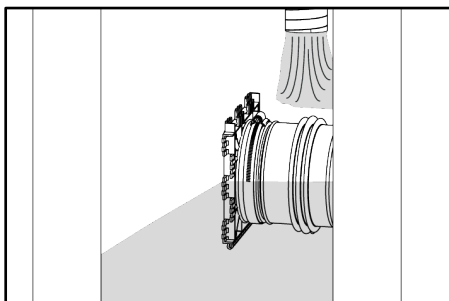
3 Reinforcement

In the case of steel shuttering, the wall insert must be attached to the reinforcement by means of wire.



1 5 cm gap to reinforcement

A gap of at least **5 cm** is to be observed between three-ribbed seals and iron reinforcements. The tie wire may not be attached to the three-ribbed seals.



- Set the wall inserts in concrete.

After the concrete has hardened, the shuttering can be removed.



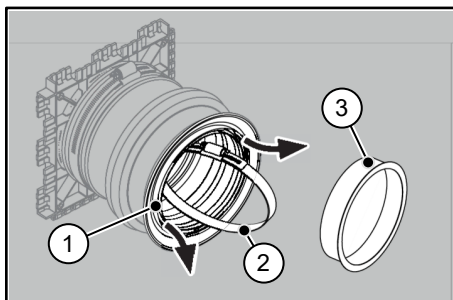
Single wall insert

HSI90 KMA94

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- When setting in concrete, care must be taken to ensure that compression is applied thoroughly in layers in the area of the wall inserts and in the event of block assembly. Blowholes must be avoided.
- The free fall height of the concrete may not exceed 1 m so as to prevent separations in the area of the conduit systems and wall base points.
- If the free fall height is exceeded, a fall cushion made of concrete at least 30 cm high with 8 mm maximum grain size (also called follow-up mix) is to be provided.
- The individual layers should be limited to a maximum of 50 cm and compacted using the internal vibrator.
- The uppermost concreting layer in walls should always be re-compacted.

6 Connecting the cable duct to the wall insert

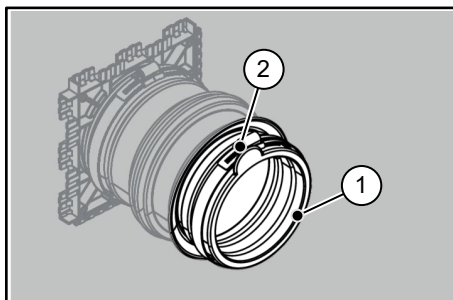


1 Foldable sleeve (folded)

2 Clamping strap

3 Pipe cover

- 1 After setting in concrete and before connecting the cable duct, remove the pipe cover from the foldable sleeve.



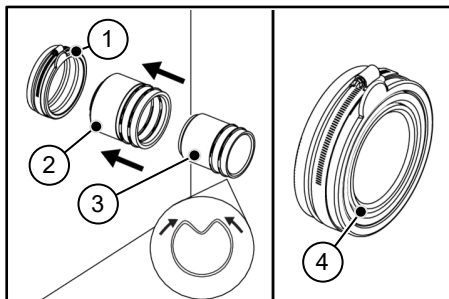
1 Foldable sleeve (unfolded)

2 Clamping strap in position

- 2 Remove the included clamping strap.

- 3 Unfold the foldable sleeve and place the clamping strap in the designated place.

Optional: Insert adapter rings



1 Foldable sleeve (unfolded)

2 67-75 mm adapter ring

3 55-63 mm adapter ring

4 Adapter rings inserted flush

- Moisten the 67-75 mm adapter ring with lubricant and insert it flush as far as it will go.
- If necessary, moisten the 55-63 mm adapter ring with lubricant and insert it flush into the 67-75 mm adapter ring.

To make installation easier, the adapter ring can be bent slightly.

Note when laying pipes:

- Before inserting them into the folding sleeve, saw off the sharp pipe ends flat and at a 90° angle.
- Due to the relative high stretch coefficient of thermoplastics, care should be taken to note the length extension of the pipes at high temperatures.
- Retaining compound must be added to pipe bundles and connections. Aids must be used in accordance with the pipe manufacturers' national installation guidelines. Spacers to protect against mechanical effects and buoyancy protection made from lean concrete as a fixation are recommended as aids.
- Refilling of the trench above the pipeline zone is carried out in accordance with the use of the entry area. Compaction using heavy compaction devices may not be carried out until a minimum coverage of 30 cm above the pipe apex has been achieved. Avoid overloading the filled pipeline trench during construction, e.g. driving over it with heavy construction machinery or vehicles.

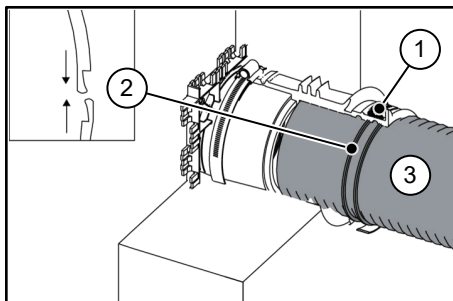


Single wall insert

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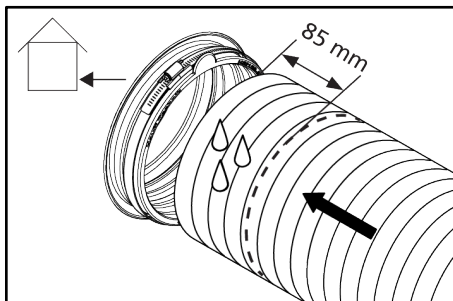
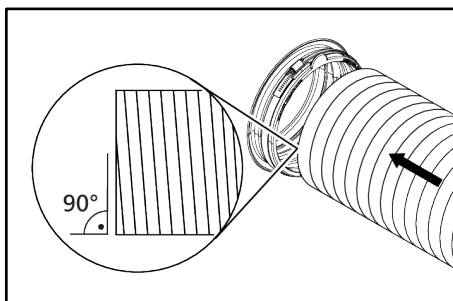
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When using corrugated pipes:



- 1 Clamping strap
- 2 Ring clip to stabilize the corrugated pipe
- 3 Corrugated pipe

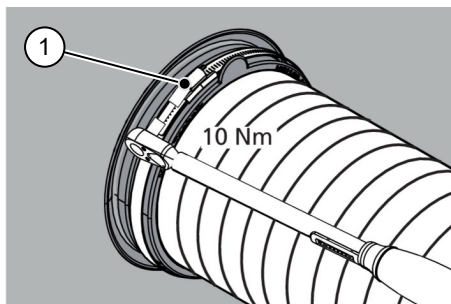
- 4 Insert the ring clip into the corrugated section at the level of the clamping strap and click into place with light pressure. The clamping strap is at an insertion depth of approx. 63-84 mm.



- 5 Mark the insertion depth (see Table 2) on the cable duct. Push the cable duct into the folding sleeve up to the marking.

Description	Insertion depth	Type
HSI90 KMA/X	85 mm	Foldable sleeve

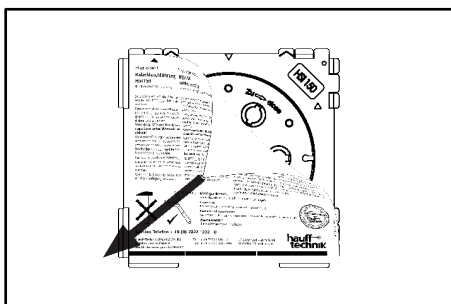
Table 2



- 1 Clamping strap

Tighten the clamping strap at the foldable sleeve to **10 Nm/A/F13** with a torque wrench.

7 Preparing to install the system cover/system seal



Observe prior to system cover installation:

- Complete removal of sealing pack sticker (protective film) prior to system cover installation!
- Carefully open the blind cover! Water pressure possible inside the wall insert!
- Do not open the blind cover of the wall insert until just before installing the cable. Observe the installation instructions for the system cover.
- Any wall inserts that are not required may be used as pressure-tight back-up entries if there is an undamaged Hauff quality seal on the closing cover.
- Do not knock the blind cover in with a hammer or sharp object!
- Open wall inserts, which are to be used as back-up entries, or closing cover which have been opened accidentally, should be fitted with new HSI150 DT/DTS respectively HSI90 D closing covers!
- Do not reuse uninstalled or damaged closing covers!



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- 1** Remove protective foil from the wall insert completely (after warming slightly).
- 2** If necessary, clean out concrete residue from the wrench threads on the blind cover.

Use the SLS 6G(D) flexible socket wrench to open the blind cover via the wrench threads by twisting to the left.

Service telephone + 49 7322 1333-0

Subject to change!



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