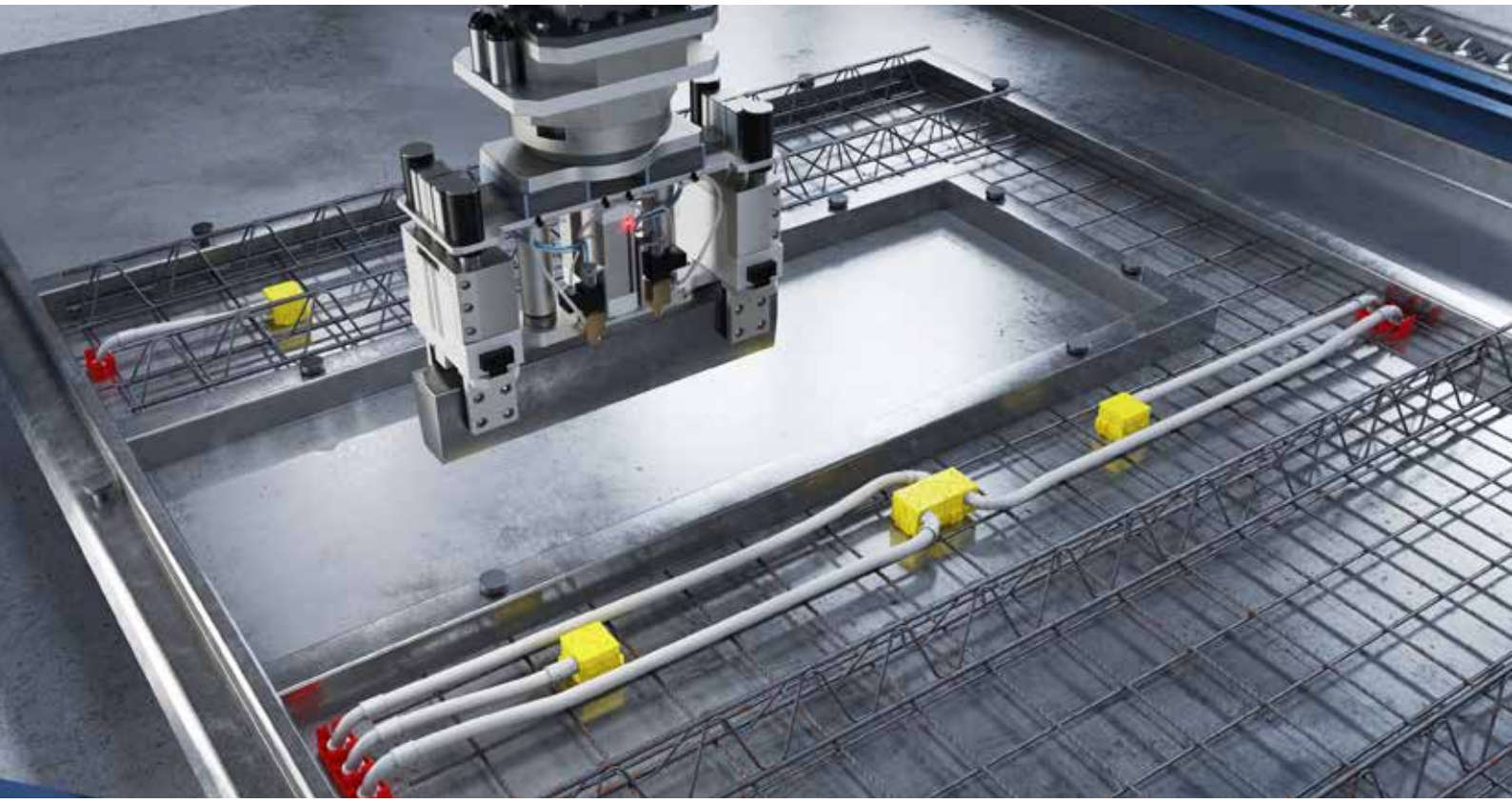
Electrical installation in precast concrete construction and prefabricated room modules.

Boxes, housings and systems.



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KAISER provides planners, architects, engineers and specialist firms with extensive support in the planning, implementation and operation of their BIM construction projects:

Through the link **https://to.kaiser-elektro.de/planung**, the user can directly access the information section on tendering and planning on the **KAISER Homepage**.

At **kaiser.partcommunity.com**, planners, architects and engineers can access 3D multi-BIM CAD data – including BIM data for Revit from Autodesk, Allplan from Nemetschek and Archicad from Graphisoft. The engineering data can be configured online and, after registration, downloaded in over 100 common CAD formats in 3D and 2D into the respective CAD system and incorporated into your own 3D planning.

Tenders in all common formats for KAISER products can be found at http://www.ausschreiben.de/katalog/Kaiser

KAISER – The basis for a good installation.

Planning tools

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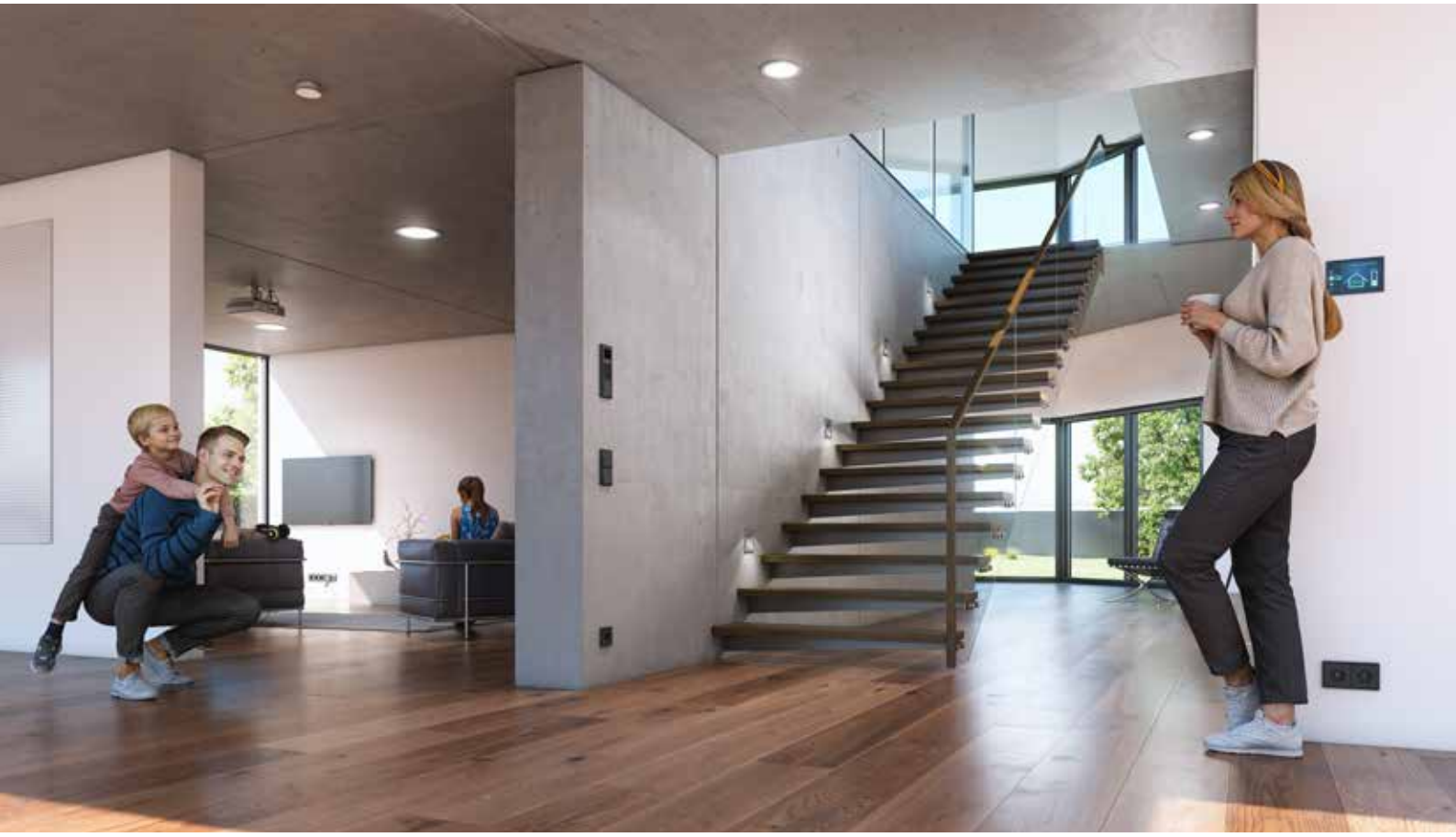

Precast concrete.

Prefabricated construction (precast concrete) is well suited for the series production of individual elements. They are manufactured completely or partially in concrete factories. This type of construction is characterised by high efficiency due to short installation times, weather-independent production and the consistent quality of the ceiling and wall elements.

The high degree of automation in horizontal production on steel formwork tables ensures high-precision and fast production runs. Mounting and fixing an installation system on the steel formwork must be carried out precisely, securely and rapidly. For this operation, where every minute counts, magnets, hot glues or adhesive films are used. For precast concrete, too, KAISER provides a practical system with various fixing and supporting options in order to guarantee trouble-free production.

A crucial factor for maximum efficiency for concrete construction in precast concrete is the production lead times. The set-up times for reinforcement and electrical installation play a significant role here – especially in computer-controlled factories with circulation systems. A decisive factor for further processing on the cast-in-place concrete construction site is the quality of the pre-installation and therefore the cost-effective further processing (installation) in walls and ceilings.

The KAISER programme for precast concrete consists mainly of the B² system with one-gang junction boxes as well as special slab ceiling boxes and housings. This programme is supplemented for precast concrete with intelligent products for conduit installation, such as wall and ceiling transitions and oval funnels for faster wall mounting. In addition to these products, which have been specially developed for precast concrete, all KAISER on-site mixed concrete products can also be used in precast concrete.

1. Wall and ceiling transition 90°, oval funnel
2. Large slab ceiling box 115 for magnet attachment
3. HaloX® 250 with tunnel for precast concrete for magnet attachment
4. B² electronics box with plaster skin
5. B² one-gang junction box with plaster skin
6. B² one-gang junction box without plaster skin, 175 to 300 mm universal extension element and 48.5 mm extension element
7. B² one-gang junction boxes for magnet attachment
8. HaloX® 180 with tunnel for precast concrete for magnet attachment
9. End and transition bush, wall and ceiling transition 30° and wall and ceiling transition 90° for magnet attachment
10. HaloX® 180 for precast concrete for magnet attachment
11. Central transition casing
12. HaloX® 180 with tunnel for precast concrete for magnet attachment
13. Universal installation housing with mineral fibreboard
14. B² two-gang junction box with plaster skin

Find out more about the
precast concrete solution area.
Scan the QR code or go to:
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BETON


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Simple and efficient concrete construction.
System magnet and system magnet PLUS.

The system magnets are suitable for all installation parts required in wall and ceiling production to prepare the electrical installation in-factory. The **system magnets** can be used for correct positioning in both manual and automated production. In automated production, the magnets can be placed on the formwork table by machine and in the correct position using the multifunction gripper.

The **system magnet PLUS** (1299-70) can also be automatically removed and magazined.

The high adhesive force of 500 N ensures that the magnets remain exactly where the installation parts have been placed in their correct position.

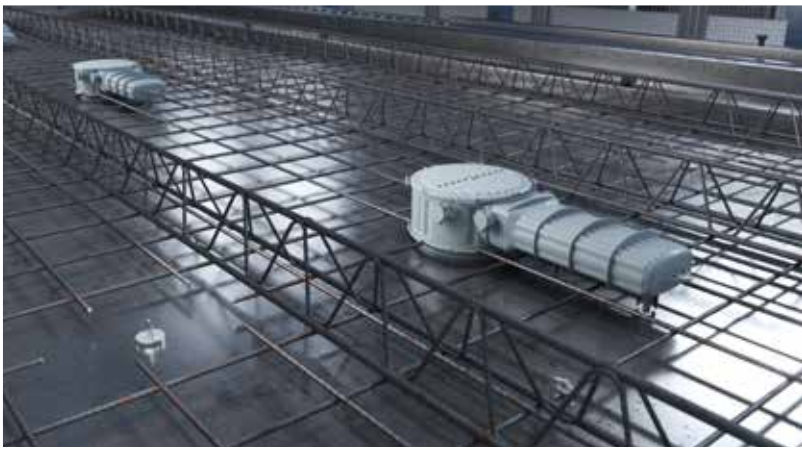
Installation parts, such as one-gang junction boxes, are aligned via lateral notches on the system magnet and system magnet PLUS. This ensures that the vertical and horizontal alignment is dimensionally accurate, even when multiple combinations are used.

The exact fitting connection between the system magnet/system magnet PLUS and the installation parts with peripheral sealing ensures that concrete ingress is prevented.

After removal of the formwork, the magnets remain on the formwork table and can then be returned to production.

Product video Installation/ Insertion work

Product video Installation



The **system magnet** and **system magnet PLUS** are used to hold B² one-gang junction boxes, large slab ceiling boxes, wall and ceiling transitions as well as HaloX® luminaire and loudspeaker housings, the central transition casing, the 48.5 mm extension element and the adapter for push-pull props.

- The complete installation requires only one type of magnet
- For automated setting (system magnet 1299-69) or setting and removal (system magnet PLUS 1299-70)
- Four lateral notches ensure torsion-proof installation of the one-gang junction boxes
- Adhesive force of 500 N
- Reusable

System magnet
1299-69

System magnet PLUS
1299-70

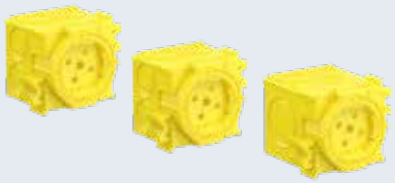
Wall installation.
B² one-gang junction boxes.

With modern precast concrete, every second counts – and every connection must hold. The new **B² one-gang junction boxes** offer a well-designed solution: large installation space, easy installation and flexible application options – both with a slot for the system magnet and with or without plaster skin.

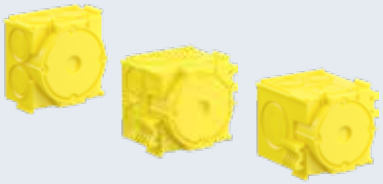
Thanks to the optional slot for the system magnet (1299-69) or system magnet PLUS (1299-70), the boxes can be quickly and precisely placed on magnets that have already been set. Lateral connection options allow for a simple combination of several boxes at a standardised distance of 71 mm and matching conduit connectors ensure a defined, secure conduit connection as well as dampening vibrations during concrete compacting.

- For in-factory installation
- 1-piece, with a closed cover at the rear
- Can be combined robustly with a standardised distance of 71 mm
- For magnet and adhesive attachment
- Safe, convenient conduit connection technology
- Proven B² push-button technology for fixing extension elements on the rear
- Prefabricated sub-assemblies

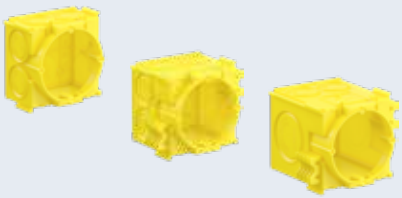
B² one-gang junction boxes with magnetic recess
1262-03/1263-03/1264-03

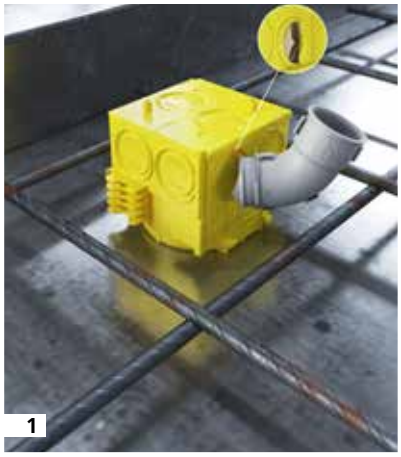


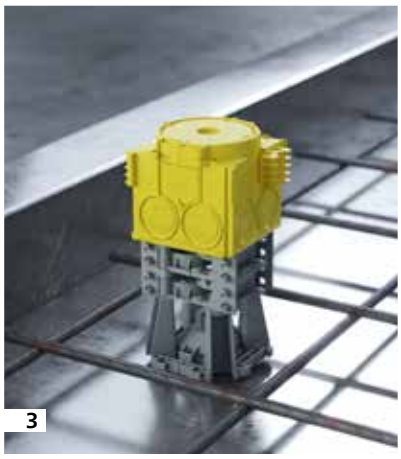
B² one-gang junction boxes with plaster skin
1262-01/1263-01/1264-01



B² one-gang junction boxes without plaster skin
1262-02/1263-02/1264-02







1 The conduit connectors can be attached by simply snapping them in.
2 The conduits are inserted into the locked-in conduit connectors.

3 Extension elements are used to bridge the wall thickness and support one-gang junction boxes when installed on the opposing formwork.
4 Conduit transition coupling Ø 32 mm for toolless connection of Ø 32 mm conduits to the B² one-gang junction boxes 1262-XX and 1263-XX

Using the **B² concrete construction system**, almost every imaginable combination can be realised with the help of the individual components. This allows you to accommodate any wall thickness – in 5 or 10 mm increments – and insert the one-gang junction boxes precisely.

Even single boxes that are to be installed on top of the formwork table can be positioned in a stable and torsion-proof manner with the aid of the **extension elements** and the **counter bearing**.

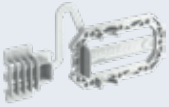
Using the **distance piece 142** (1261-18), combinations for separate covering of different voltage types or to avoid wall weakening can be realised by an offset installation (e.g. for sound, stability or fire protection reasons).

System magnet
1299-69

System magnet PLUS
1299-70

Extension element 10 to 50 mm
1261-10

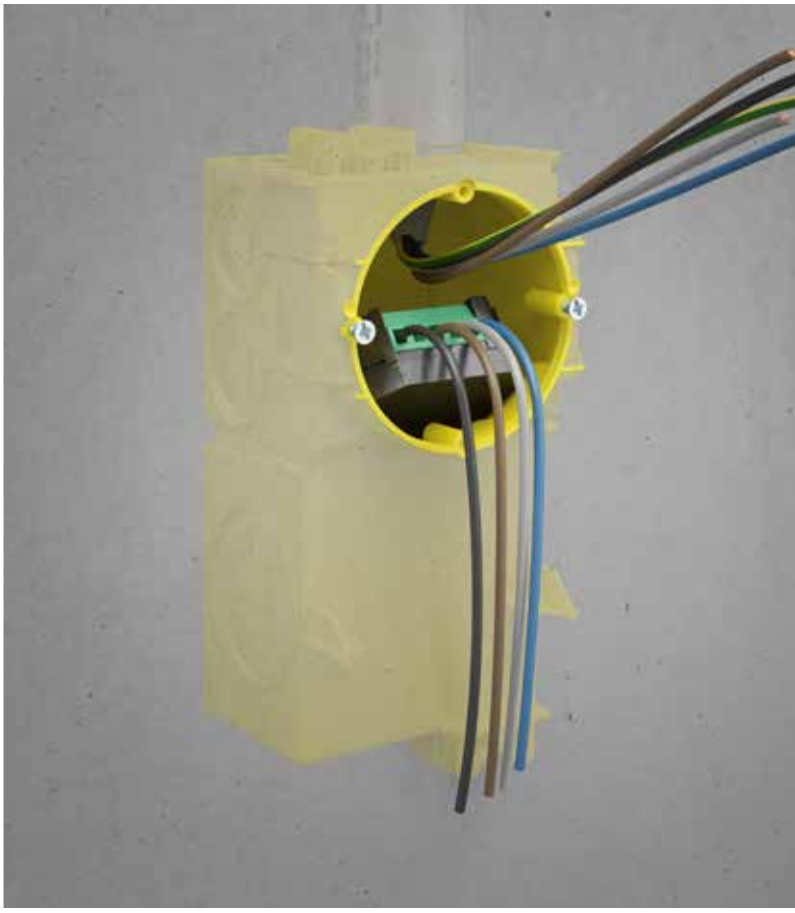
Prefix® universal support seat
1261-00



Counter bearing
1261-11

Distance piece 142
1261-18

Animation



More space for modern building technology.
B² electronics boxes.

Two new box variants, representing a groundbreaking expansion of the KAISER product range, have been developed specifically to meet the demands of modern, digitally networked building technology.

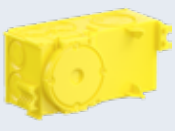
The new B² electronics box – optimised for smart home installations.

The new **B² electronics box**, with a depth of 68.5 mm, provides ample space for installing modern devices and electronic components. Its additional installation area is ideally suited for smart home modules, such as switch actuators or bus systems – with standard-compliant separation of bus and operating voltages. The angled side chamber ensures optimised concrete ingress, thereby guaranteeing a permanently secure embedding in the building structure.

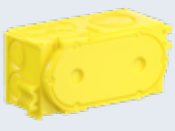
B² electronics box for system magnet
1263-13

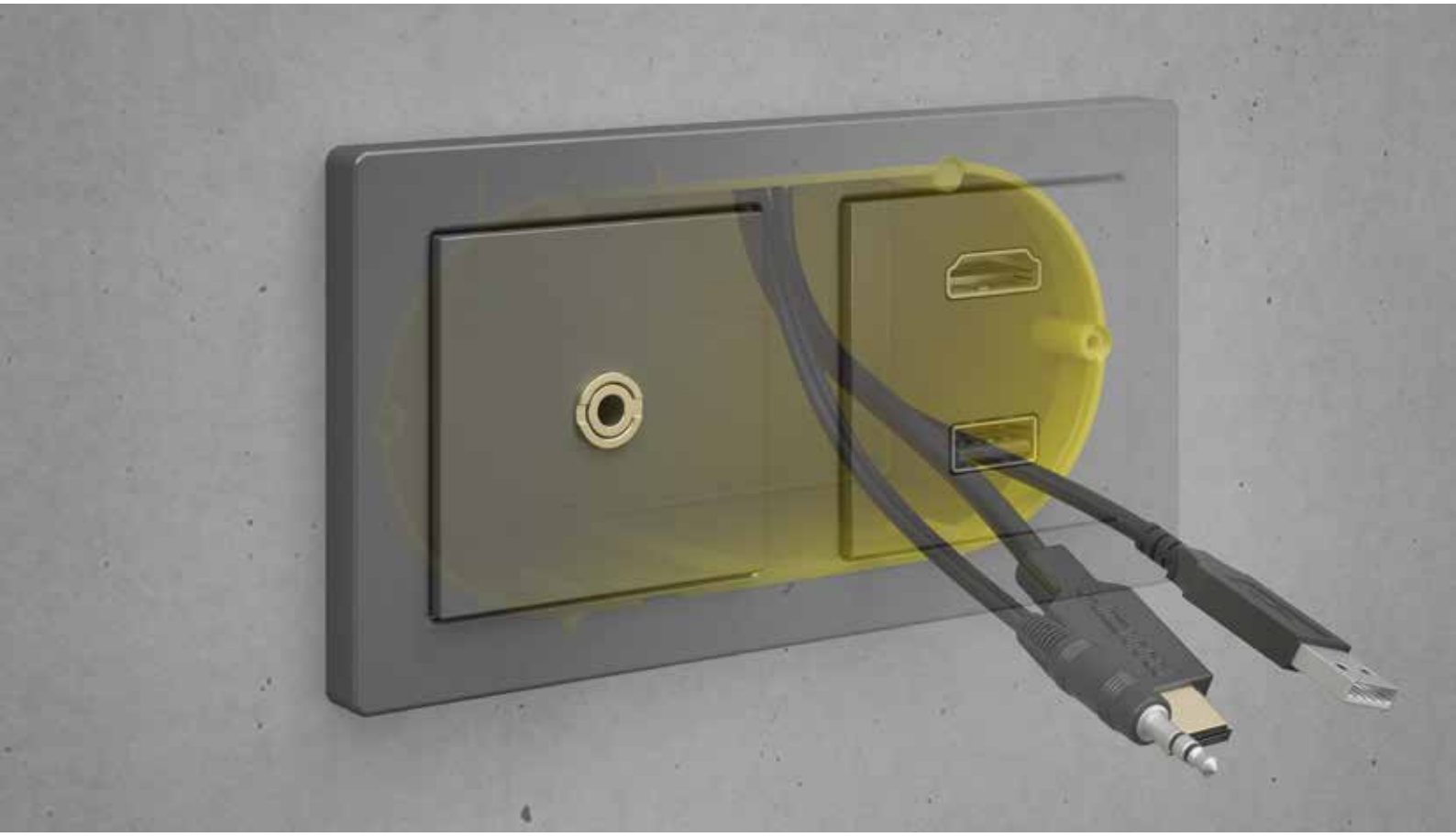
B² two-gang junction box for system magnet
1263-23

B² electronics box with plaster skin
1263-11



B² two-gang junction box with plaster skin
1263-21





Convenient installation.
B² two-gang junction boxes.

The new B² two-gang junction box – maximum flexibility with large space provision.

Also designed with a depth of 68.5 mm, the **B² two-gang junction box** provides additional space for installations involving multiple modules or larger components.

The spacious installation opening makes it easy to install modular units, pre-wired units and multimedia connections. It also makes it easy to feed prefabricated cables, such as HDMI cables, into the system.

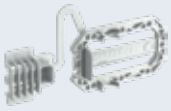
B² electronics boxes and B² two-gang junction boxes are each available in versions with a system magnet slot and with a plaster skin.

System magnet
1299-69

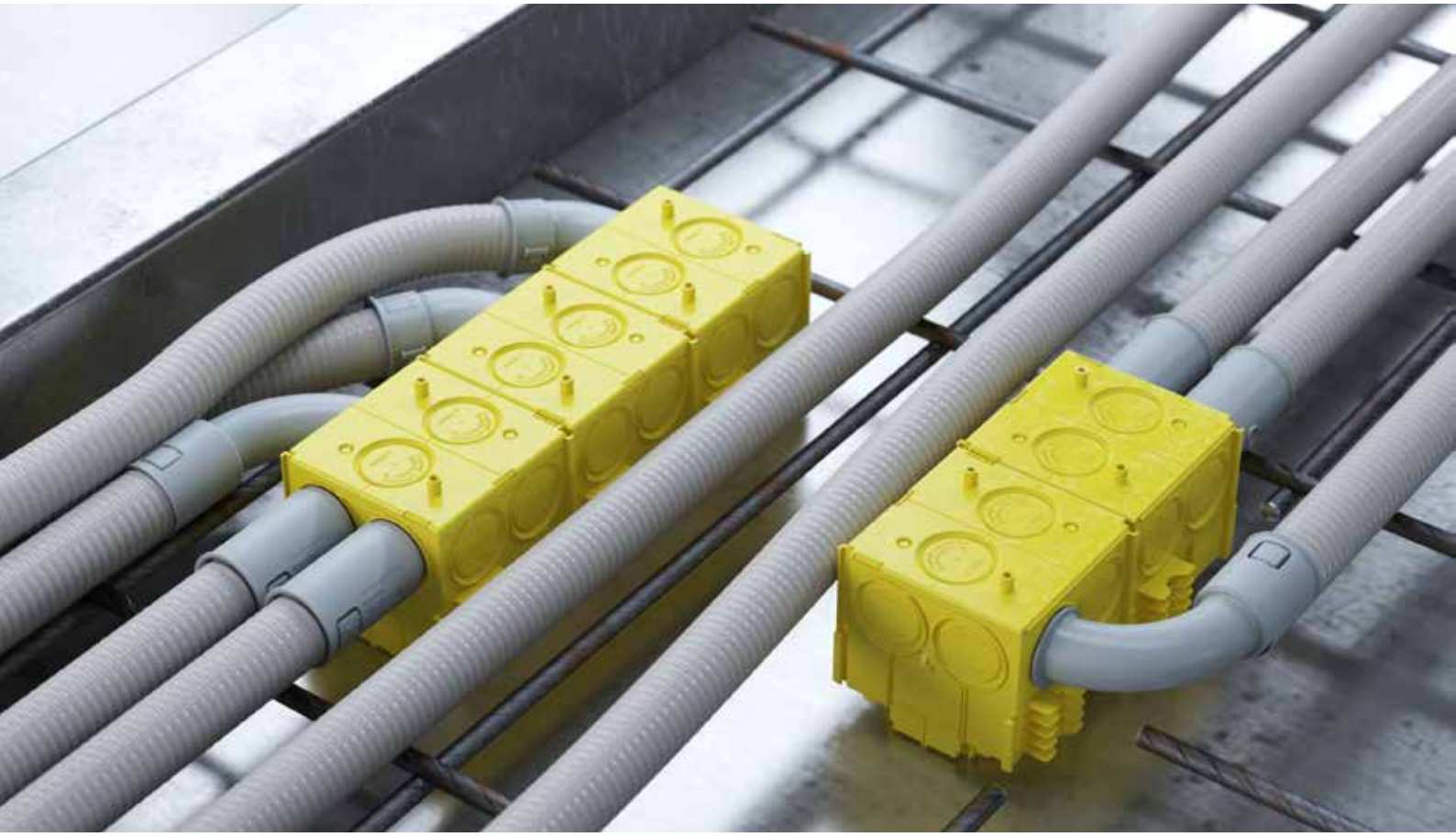
System magnet PLUS
1299-70

Extension element 10 to 50 mm
1261-10

Prefix® universal support seat
1261-00



Animation



B² conduit connectors.
Secure and fast connections.

The range of **B² conduit connectors** offers a secure and toolless conduit connection to B² one-gang junction boxes without the need for special tools. The conduit connection created using a conduit connector is absolutely sealed against concrete and safely dampens the vibrations of the conduit during the compaction process. As the conduit connection is made outside the B² one-gang junction boxes, no conduit protrudes into the interior of the box, thus eliminating the need to shorten conduits on the inside. With the 90° conduit connectors, lateral conduit connections can now also be easily implemented in tight installation areas.

With the extensive **KAISER conduit connector programme,** all rigid or flexible conduits in diameters of 20, 25, 32 and 40 mm can be connected to the B² one-gang junction boxes.

Two cutting edges on the connection piece are used to open the box entries without the need for tools; all you need to do is press and turn the connection piece against the box to open the entry.

- Toolless conduit connection, no special tools required
- Exact "variable" conduit connection, completely sealed against concrete
- Damping of vibrations during the high-frequency or low-frequency compression process
- Conduit connection outside the one-gang junction box, no conduits protruding into the interior of the box
- 90° conduit connectors for lateral connection of conduits in narrow installation areas

Conduit connector
Ø 20 / 25 / 32 / 40 mm
1261-21/26/32/40

Conduit transition coupling
Ø 32 mm
1263-32

Conduit connector 90°
Ø 20 / 25 / 32 mm
1262-20/25/32

Conduit connector 60°
1266-25

Animation


1


2


3


4

1 Insert the tips of the conduit connector at the desired conduit entry and turn while applying pressure against the one-gang junction box until the feed-through is cut.
2 The conduit connectors buffer the vibrations between the conduit and box body that occur during the compacting process…

3 … and at the same time securely seal the connection to the box in any position.
4 The B^2 range allows for complete prefabrication of electrical installations. The conduit connectors and wall and ceiling transitions offer the greatest possible tolerance compensation when using rigid conduits.

48.5 mm extension element for system magnet.

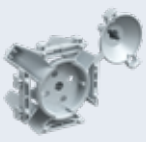
For all wall thicknesses of 100 mm and more.

The **48.5 mm extension element** for precast concrete enables automated positioning and fixing of overhead electrical installations in solid concrete walls as well as double concrete walls.

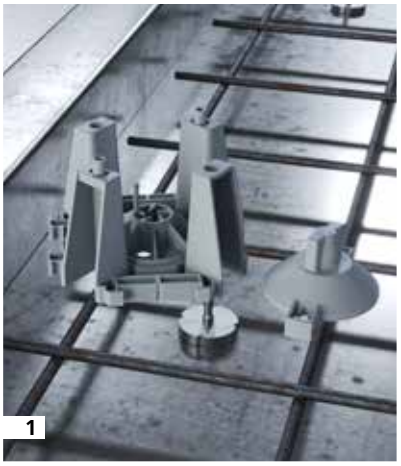
The integrated slot for the system magnet (1299-69) or system magnet PLUS (1299-70) enables a safe, formwork-flush fit on the horizontal steel formwork for the circulation systems used in concrete plants. At the same time, the proven B^2 push-button connection ensures a secure connection to all B^2 one-gang junction boxes and extension elements, thus enabling overhead installation on walls with a thickness of 100 mm or more.

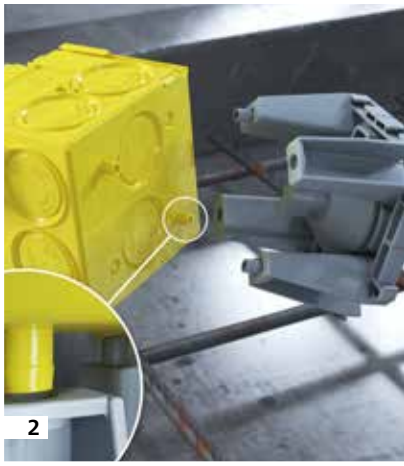
- Slot for system magnet (1299-69) and system magnet PLUS (1299-70) for use in automated production lines
- For use in automated production lines
- Push-button connection to all B^2 one-gang junction boxes and B^2 extension elements
- Can be combined with itself, the B^2 one-gang junction boxes and the 142 distance piece
- Integrated closing cap to protect the rear of the system magnet from concrete
- Spacers at the front ensure complete flow around the magnetic recess
- After formwork removal, the system magnet remains on the formwork table

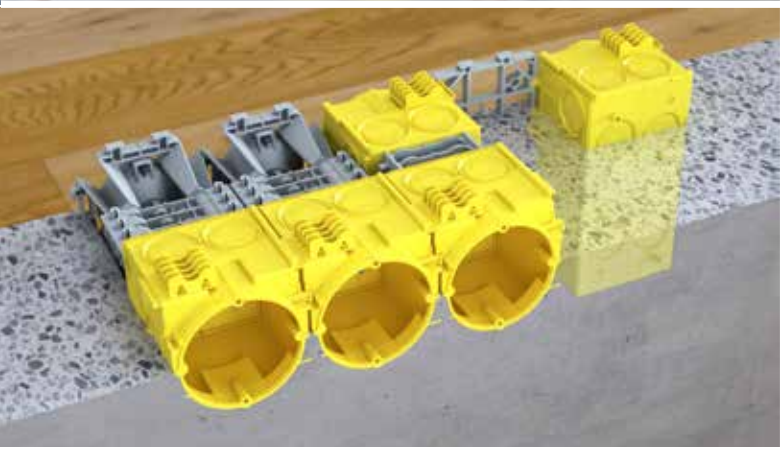
Extension element 48.5 mm
1261-02

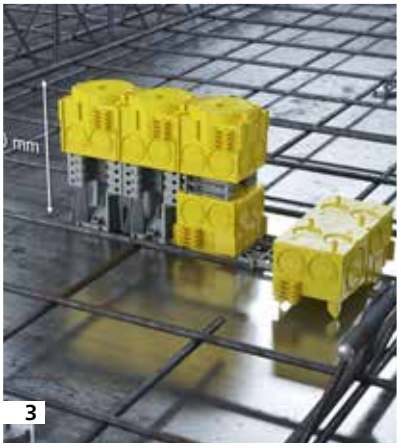


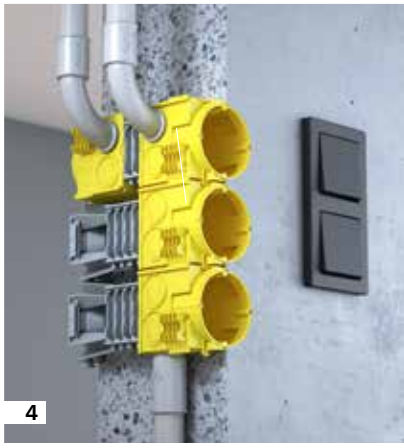
Animation







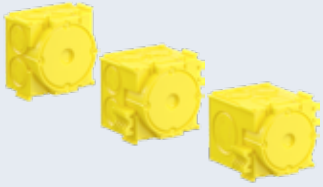




1 Fixing is carried out via system magnets and thus provides a precisely aligned and secure basis for overhead installation.
2 The connection between the extension element and B² one-gang junction boxes is made via the proven B² push-button connection.

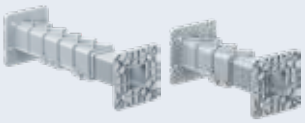
3 In combination with the 10 – 50 mm extension element and the 105 – 170 mm universal extension elements.
4 … or 175 – 300 mm universal extension elements, overhead installations can be realised in all wall element thicknesses.

B² one-gang junction boxes with plaster skin
1262-01/1263-01/1264-01



10 – 50 mm extension element
1261-10

175 – 300 mm and 105 – 170 mm universal extension elements
1261-09/1261-08



Counter bearing
1261-11

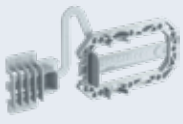
The Prefix® universal support seat.
A proven fixing method for top-mounted installation in mass-produced solid walls.

The B^2 range offers special product features for overhead installations in solid walls. The one-gang junction boxes have special **slots for the Prefix® universal support seat**, which can be adjusted flexibly to concrete ceilings from 20 mm to 35 mm. This system allows overhead installations without visible traces in the rear wall, which is particularly important for high-quality facing concrete.

All fastening variants ensure torsion-proof support technology that guarantees exact positioning of the installation even during compression.

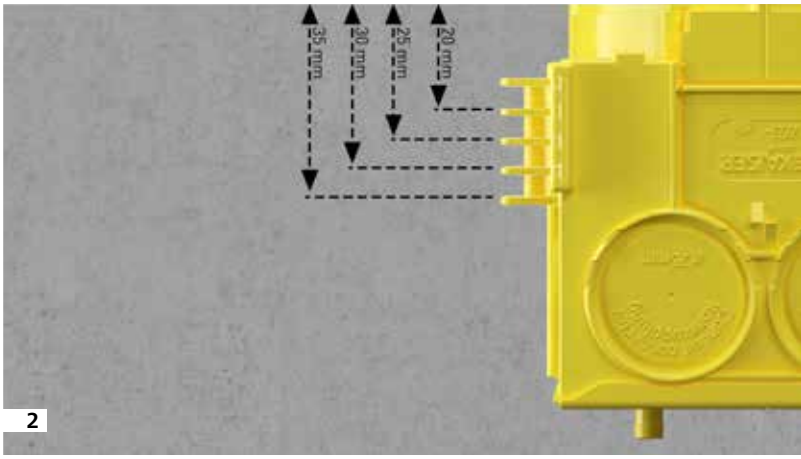
- For surface-mounted electrical installations in prefabricated solid walls without support
- Includes dimension indications, for easy adjustment to all standard 20, 25, 30 or 35 mm concrete ceilings
- Generous tolerance compensation for fixing to the reinforcement
- Prefixing using Prefix® installation technology leaves both hands free for fixing with tie wires

Prefix® universal support seat
1261-00



Animation

1



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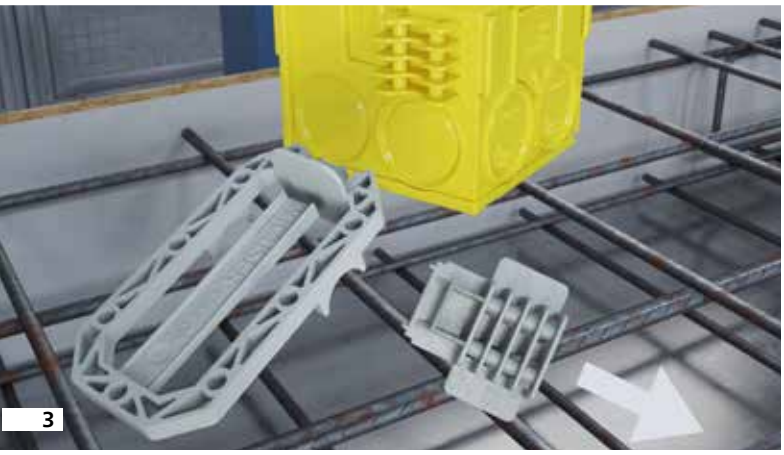
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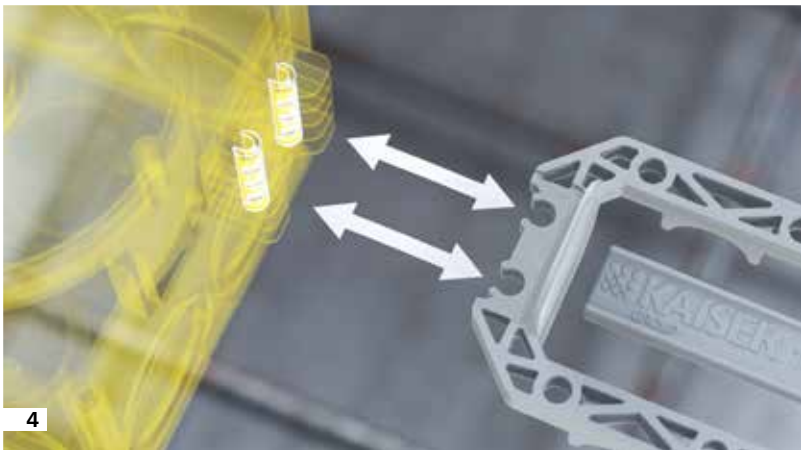
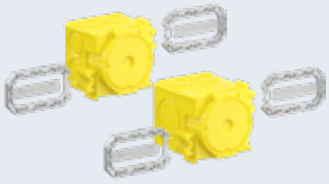

4

1 The new **B² concrete construction boxes** each have two opposing stable slots for the new Prefix® universal support seat.
2 The required concrete cover can be quickly read off and precisely set using the dimensional scale.

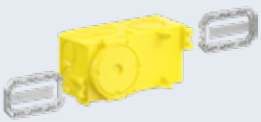
3 The dimensional scale is adjusted so that the B² concrete construction boxes are minimally below the subsequent wall surface and therefore do not interfere with the further production process.
4 The **B² concrete construction boxes** have a stable snap-in connection. If the concrete cover is set incorrectly, these can be loosened again and repositioned.

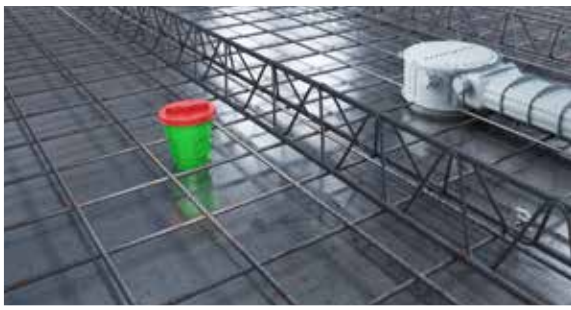
B² one-gang junction boxes with plaster skin
1263-01/1264-01



B² two-gang junction boxes with plaster skin
1263-21

B² electronics boxes with plaster skin
1263-11



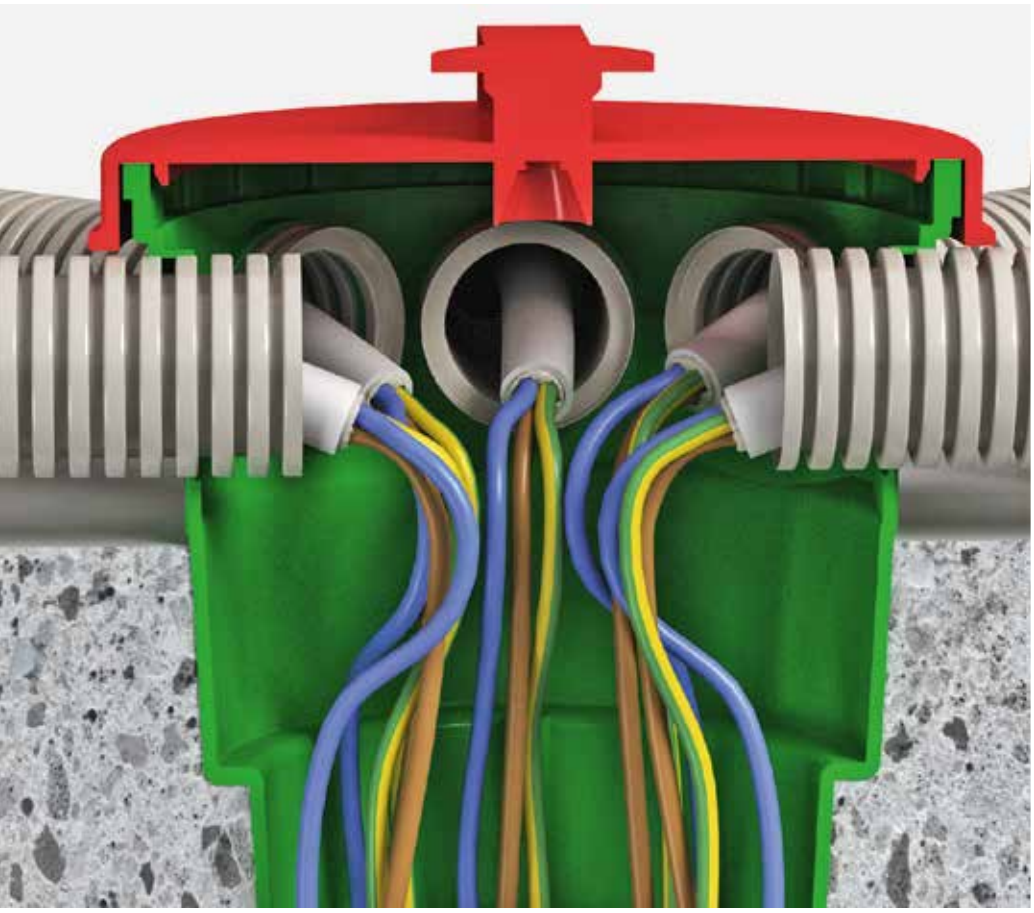


Slab ceiling boxes.
Ceiling installation.

The **large slab ceiling box 115** is suitable for in-factory installation in prefabricated ceilings. The version with a slot for the system magnet (1299-69) or system magnet PLUS (1299-70) is perfect for quick attachment to system magnets that have already been set automatically. The large slab ceiling boxes are already a part of the ceiling when they reach the construction site and enable the quick insertion of empty conduits. The resealable quick-release cover can be opened with a quarter turn and so enables the quick and exact creation of conduit entries using punch pliers (1286-33/-34).

System magnet
1299-69

System magnet PLUS
1299-70



1 The conduits are fitted at the construction site
2 Slab ceiling boxes are easily opened with KAISER punch pliers.
3 The conduit is inserted tightly and accurately and the box is sealed with the cover.

The large slab ceiling boxes are already a part of the ceiling when they reach the construction site and enable quick insertion of empty conduits on site.

The **large slab ceiling boxes** were specially designed for industrial manufacturing. With two different installation heights of 105 and 115 mm, they are precisely tailored to the requirements of in-factory installation and the different heights of the space frames and/or designed for maximum installation space.

The boxes are secured and moulded on the formwork table with hot glue or double-sided adhesive foils at the concrete plant. The conduits are fitted after the slab ceiling elements are laid by crane at the construction site. To do so, the box screw-on covers are removed so that **KAISER punch pliers** (1286-33/-34) can be used to make exact openings in the upper part of the box for the conduit and then connect the conduit to the box.

This can be done even if an installation box was not inserted during industrial production or when additional installation boxes are desired **later on**. The slab ceiling box for subsequent installation can be retrofitted (1247-01) into a Ø 65 mm core-drilled hole in the prefabricated ceiling.

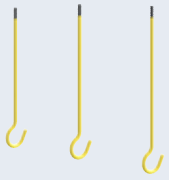
Large slab ceiling box 105
1227-54

Large slab ceiling box 115 for system magnet
1227-16

Large slab ceiling box 115
1227-55

Slab ceiling box for retrofitting
1247-01

Light hook
1226-97/-98/-99

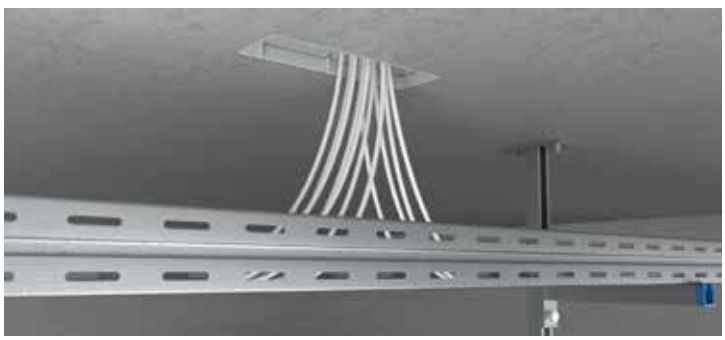


To make exact openings for conduits using **punch pliers** Art. No 1286-33/ -34.

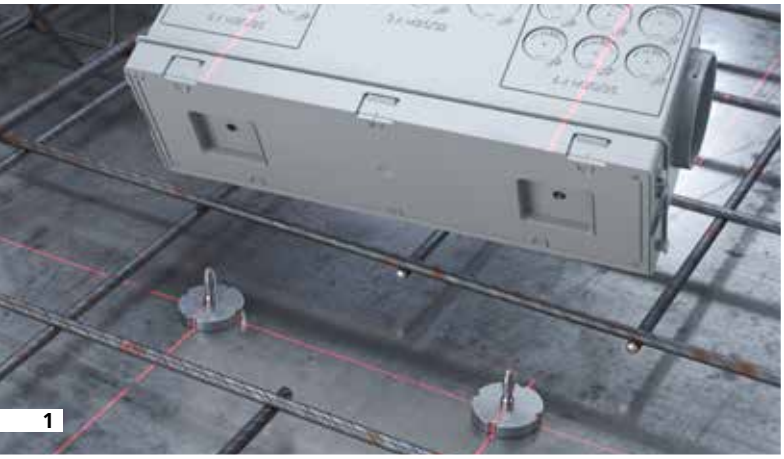
Central transition casing.
For universal conduit entries.

The new **central transition casing** for use in ceilings prefabricated in the factory is used to bring together conduits of different diameters at a central point. As a central entry point, it enables a clean transition to electrical circuit distributors and cable routing systems, allowing, for example, all supply lines required for the electrical installation of a flat to be brought together at one transition point.

- For the exit of several electric cables, e.g. above an electrical distribution board located in a lightweight wall or mounted on the surface
- For system magnet, adhesive or nail fastening
- Conduit entries for Ø 20 mm, Ø 25 mm and Ø 32 mm on the long sides, up to Ø 63 mm on the short sides
- Positioning of the conduit entries above the first reinforcement layer or the top of the filigree ceiling
- Can be connected in a row as often as required



Animation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1 Fixing using a system magnet (1299-69) or system magnet PLUS (1299-70).
2 Fixing by means of hot glue.

3 If required, several central transition casings can be lined up next to each other.
4 Numerous entries for conduits from Ø 20 mm to Ø 63 mm.

The **new central transition casing** is designed so that the upper conduit entries 24 x M20-25 and 6 x M25-32 are located above the filigree ceiling, which is usually 4 to 6 cm thick.

At the end faces, where several boxes can also be connected in a row, there is an M40-M63 entry in each case. Moreover, it is possible to use four large windows for bundled conduit entries.

Optional 45 mm high extension frames, which can also be stacked on top of each other as required, allow the gap between the bare concrete and finished ceiling to be bridged in the case of suspended ceiling insulation.

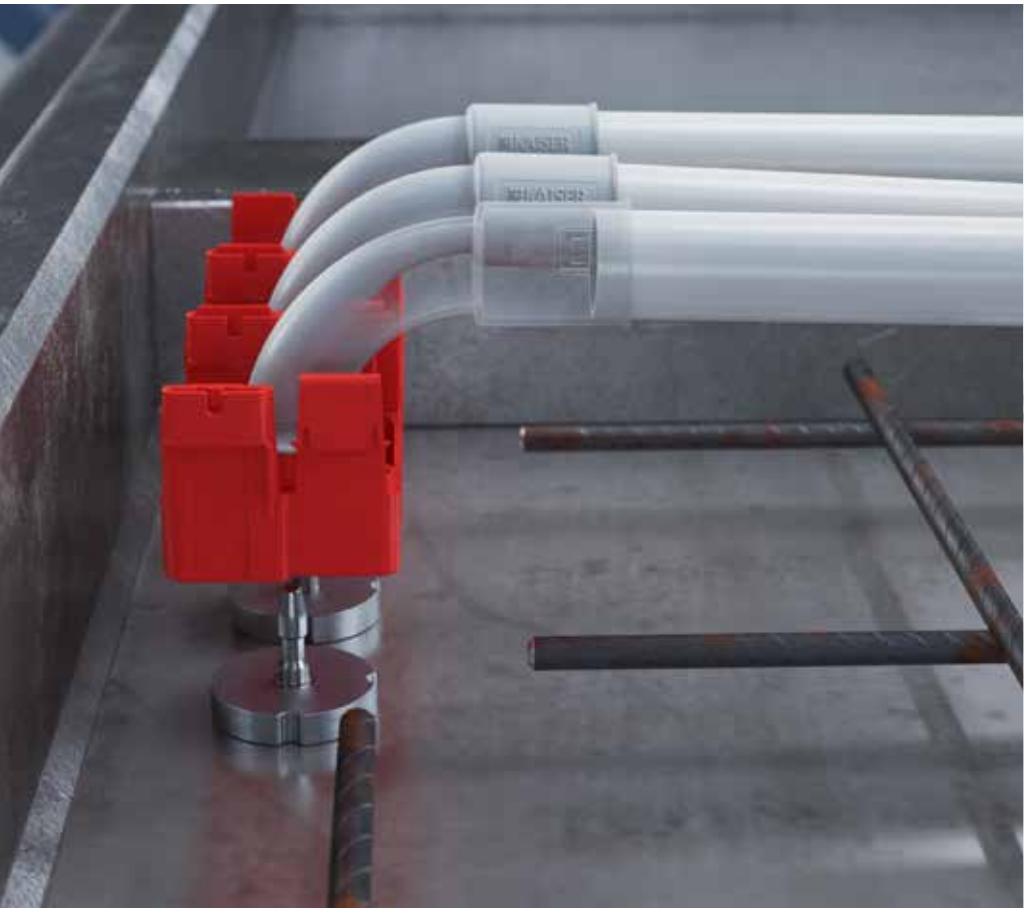
The front part of the central transition casing is attached to the formwork with nails or adhesives and the upper part is simply snapped on. After formwork removal, the opening contour of the front part can be easily knocked out with one hammer blow. Plastic or aluminium screw-on covers are available for clean room separation.

Central transition casing
9914.10

Extension frame for Central transition casing
9914.10.68

Screw-on cover Plastic
9914.10.02

Aluminium damp-room cover
9914.10.03

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Securely fixed, versatile uses.
Wall and ceiling transitions.

The **end and transition bushes, wall and ceiling transitions 30°** and **wall and ceiling transitions 90°** allow automated positioning and fixing of conduit connections in precast concrete elements for the first time.

The integrated slot for system magnets (1299-69) and system magnets PLUS (1299-70) enables a safe, formwork-flush fit on the horizontal steel formwork for the circulation systems used in concrete plants.

The articles also provide alternative options for fixing to formwork. In this way, they can be fixed using hot glue, steel nails and even using **Prefix® universal support seats** (1261-00) for overhead installation in solid wall elements.

- Slot for system magnet (1299-69) and system magnet PLUS (1299-70) for use in automated production lines
- For conduit sizes of Ø 20 mm, Ø 25 mm and Ø 32 mm
- All end and transition bushes, wall and ceiling transitions 30° and wall and ceiling transitions 90° can be combined with each other
- Resealable closing cover to protect the empty conduit system from concrete when installed on top, during transport and when erected on site
- Signal bristle and bright colouring for easy retrieval in the concrete surface
- Easy cable pull-in due to optimal transition radius
- 1-piece design, immediately ready for use

Animation


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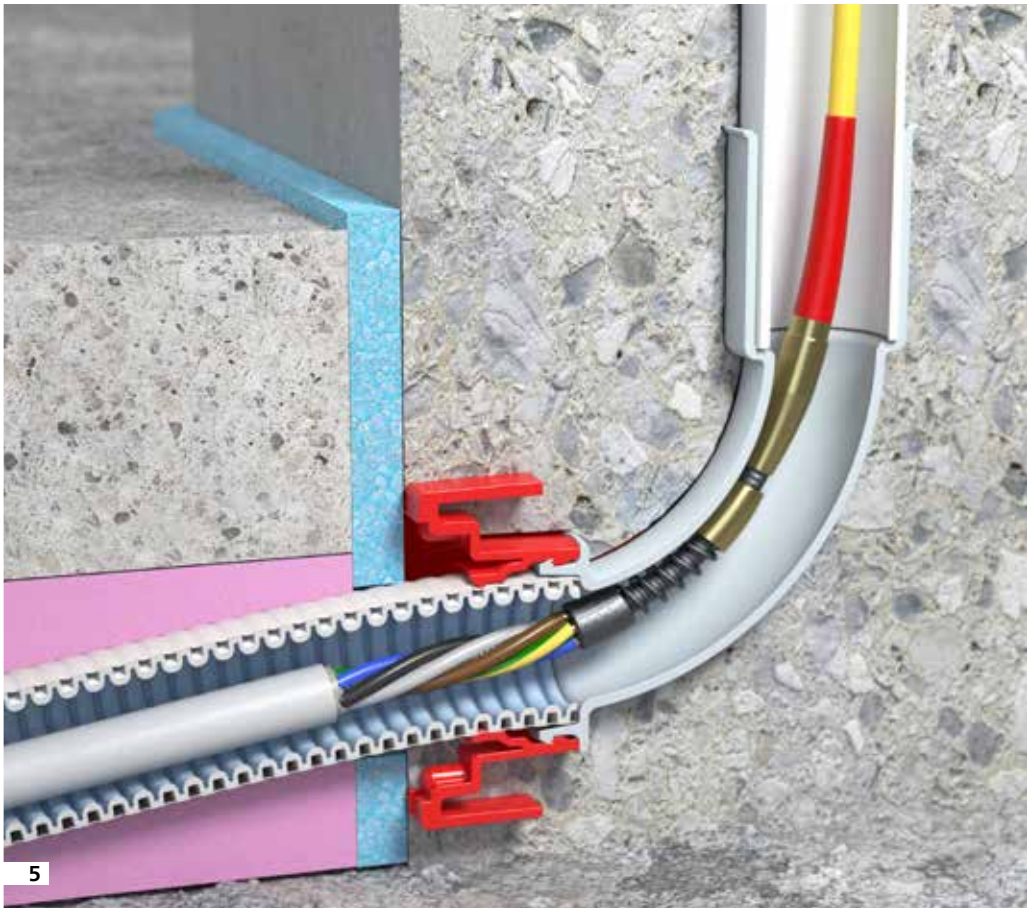
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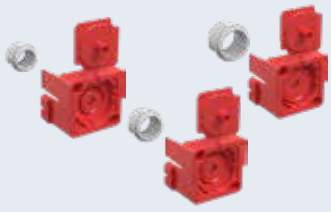
1 Wall and ceiling transitions with slots for the system magnet (1299-69) and system magnet PLUS (1299-70).
2 Perfect connections for automated production.
3 Wall and ceiling transitions for fixing by means of hot glue.

4 Prefix® universal support seat (1261-00) – fast and easy fitting for overhead installations.
5 The optimal elbow radius of the new unit facilitates flexible and easy electric cable insertion.

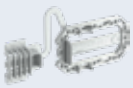
End and transition bush, Ø 20 / 25 / 32 mm
1261-82/-83/-84

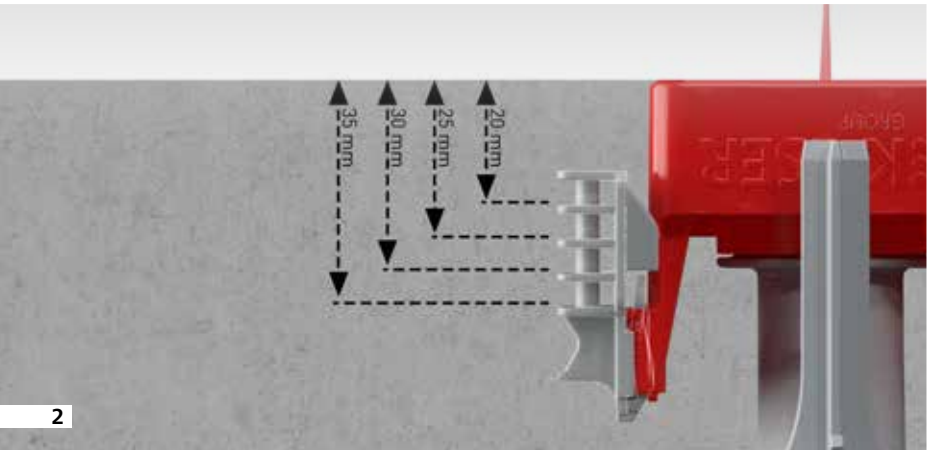


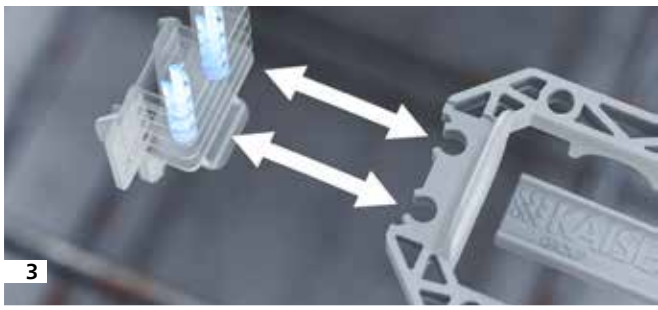
Wall and ceiling transition 30° Ø 20 / 25 / 32 mm
1261-92/-93/-94

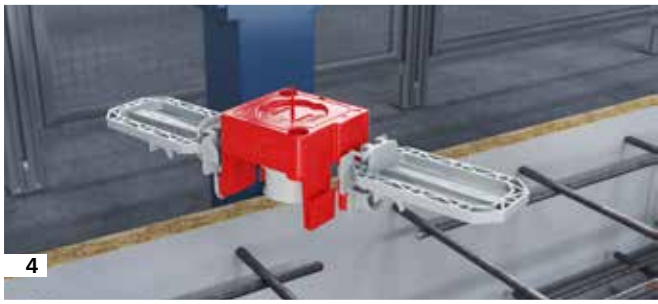
Wall and ceiling transition 90° Ø 20 / 25 / 32 mm
1261-95/-96/-97

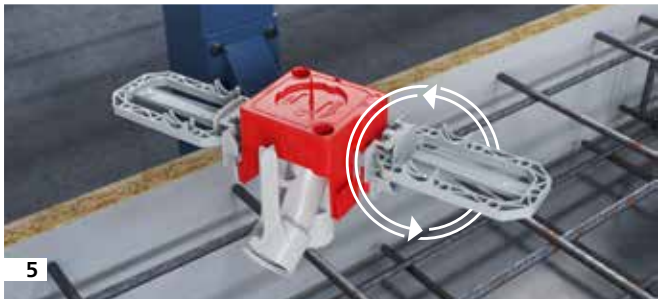
Prefix® universal support seat
1261-00











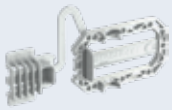
The Prefix® universal support seat. Solutions for a simplified overhead installation.

The **Prefix® universal support seat** enables simple, fast fitting of overhead electrical installations in solid wall elements without a support element for the steel formwork table.

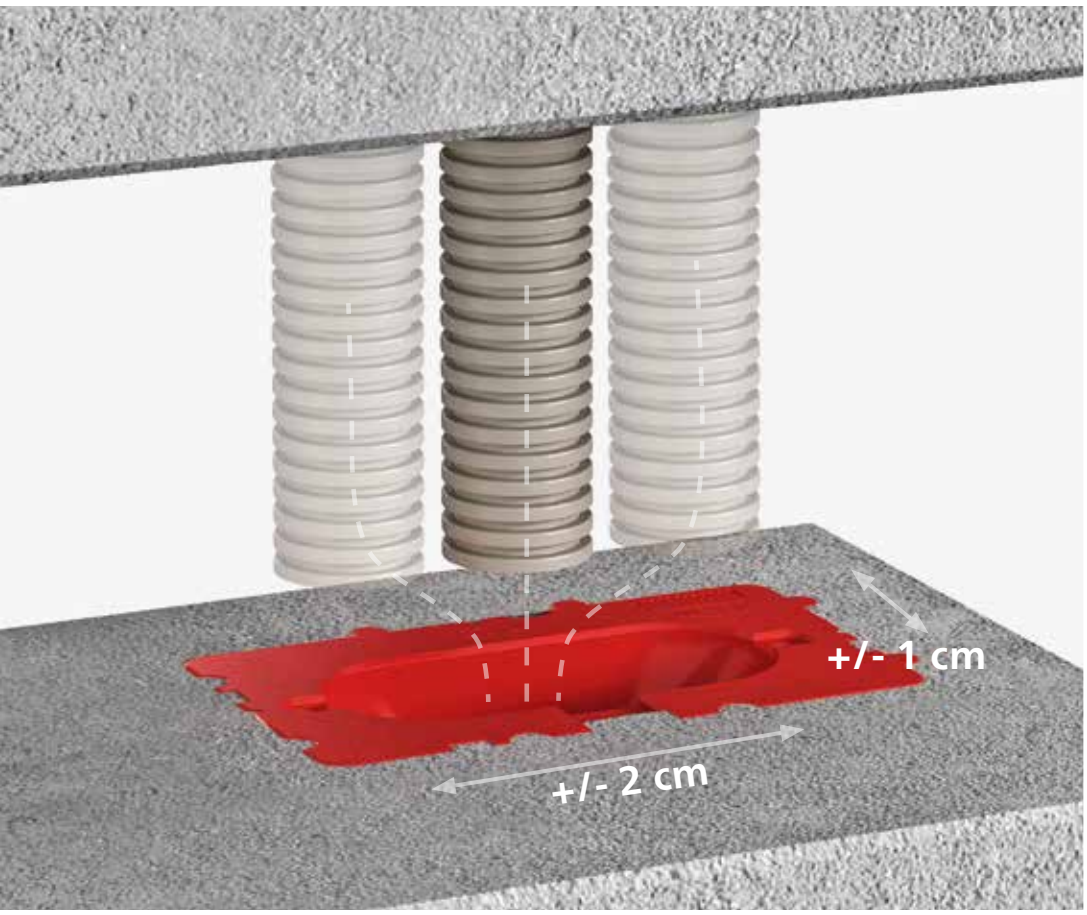
The support seat can be easily adjusted to the required concrete ceiling by means of a snap-in connection and attached to the end and transition bushes, wall and ceiling transitions 30° and wall and ceiling transitions 90° by means of a snap-in connection. The previously common and costly single constructions made of wooden blanks can thus be dispensed with. Disturbances of the further production process are a thing of the past and the production of a good wall surface quality is fully guaranteed.

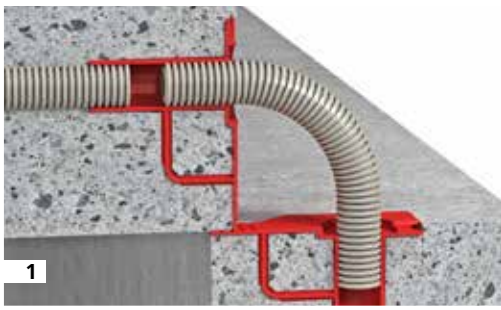
- For overhead electrical installations in prefabricated solid walls without support elements
- With integrated dimension marking, easily adjustable to common 20 mm, 25 mm, 30 mm or 35 mm concrete covers
- Generous tolerance compensation for fixing to the reinforcement
- Prefixing using Prefix® installation technology leaves both hands free for fixing with tie wires

Prefix® universal support seat
1261-00



1 The new wall and ceiling transitions each have two opposing stable slots for the new Prefix® universal support seat.
2 The required concrete ceiling can be quickly read off and precisely set using the dimensional scale.
3 If the concrete cover is set incorrectly, these can be loosened again and repositioned.
4 The Prefix® universal support seat allows all end and transition bushes...
5 ... as well as the wall and ceiling transitions 30° to be installed without overhead support elements.

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Transitions for precast concrete.

KAISER offers several variants for **wall and ceiling transitions**.

The 90° bend makes it easier to pull in the electric cables and is suitable for exits above the plain concrete ceiling or for suspended ceilings. Due to its design height, the **90° wall to ceiling transition** is ideal for slab ceilings. The straight variant has an integrated measuring strip. The required distance to the formwork can be fixed in increments of 5 mm. The 90° wall to ceiling transition is available for Ø 20 and Ø 25 mm conduits, the straight version for Ø 25 mm conduits with protective covers and with or without adhesive attachment.

The **oval funnel** simplifies the assembly of individual prefabricated parts. It offers a tolerance compensation of 2 or 1 cm and ensures secure conduit entry for M20 and M25 conduits.

On steel formwork, the oval funnel can be fixed with hot glue and, on wooden formwork, it can be fixed to the auxiliary formwork or side formwork with nails or wood screws.
During installation, the oval opening is closed with a hinged cover to prevent concrete from flowing in during pouring. With the help of the **oval funnel**, a tolerance compensation of 2 or 1 cm is possible. The secure conduit entry is thus maintained.

1 Wall and ceiling transitions serve as wall exits or as connecting elements between prefabricated concrete elements.
2 The 90° wall and ceiling transition is ideal for slab ceilings.
3 Tolerance compensation of 2 or 1 cm possible.

Wall and ceiling transition
1261-12/73

Wall to ceiling transition 90°
1261-16/-14

Oval funnel
1261-42/-43

System magnet adapter
for push-pull props.

New system magnet adapters make it possible to automatically integrate not only the electrical installation components but also the mounting anchors for erecting the wall elements on site into the in-factory production process for concrete walls.

These are matched to the available push-pull props on the market and thus enable the complete factory integration of all components required for a wall element.

- Patented system magnet lock for a secure fit on the system magnet with attached push-pull prop anchors
- Easy placement on the system magnet and simple removal after formwork removal
- Secure and concrete-tight connection to the mounting anchor
- Tapered contour for the adapter to remain securely on the formwork table

Schematic diagram

During **removal of the adapter** from the system magnet (1299-69 / 1299-70), please ensure ...

... that the snap-ins remain free so they can release the magnet.

KRASO® **wall feed-through** with slot for system magnets.

Some particular challenges arise in WU concrete constructions in situations involving pressurised water. In addition to on-site construction, building with element walls as WU concrete constructions has become standard. Continuous high-quality and fast construction progress are just two of the many advantages of this procedure.

Regardless of whether you use on-site concrete or work with prefabricated elements, any points where conduits or electric cables pass through the components pose a challenge. At such points, protection measures against water penetration must be adopted by means of conduit feed-throughs with WU sealing.

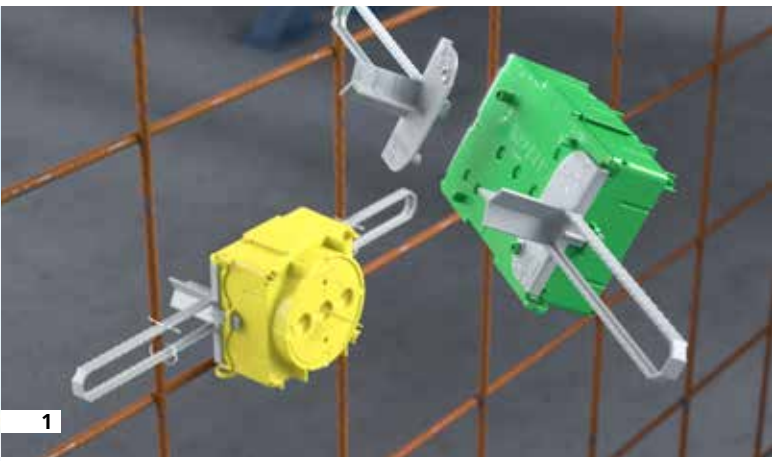
During in-factory prefabrication, these conduit feed-throughs are traditionally positioned with installation covers manually glued onto the steel formwork table.

The wall feed-through size DN110 by KRASO® can now be positioned quickly and precisely on the steel formwork table using KAISER system magnets. Extensive rework, such as removing glue residue, is thus eliminated, and the result is a clean wall feed-through.

Wall feed-through
(For manufacturer: KRASO®)
https://www.kraso.de

System Flat 45 for serially pre-assembled room modules made of concrete.

In the area of prefabricated garages, prefabricated bathrooms and living space modules, industrially prefabricated concrete modules are produced with dimensional accuracy. The high degree of pre-planning, industrial prefabrication in a protected environment and prefabrication with regard to the assembly of installation parts ensure short assembly times and minimised costs. The components for the electrical installation must also be fixed and integrated with the same level of precision as is applied to their manufacture.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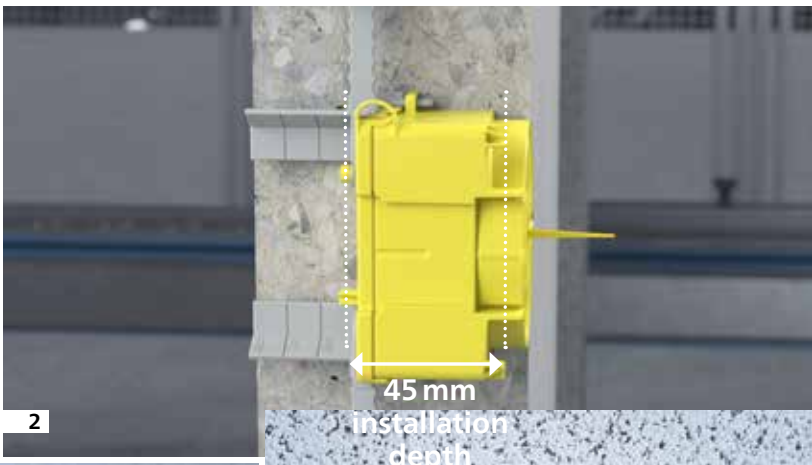

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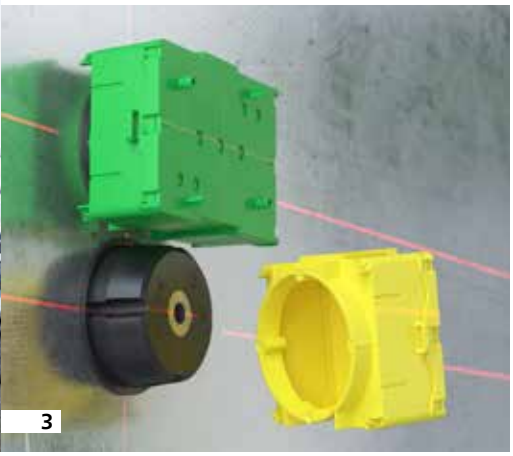
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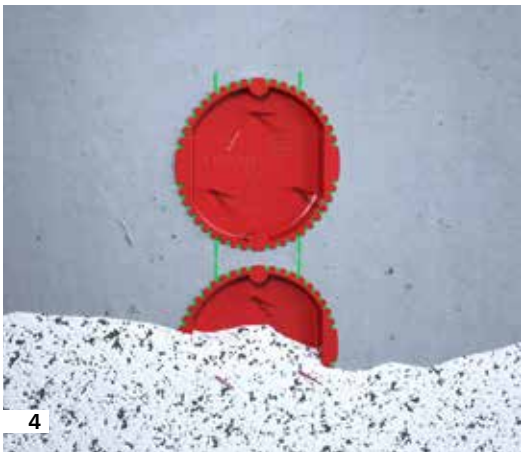
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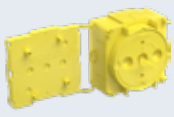
1 Wall and ceiling transitions with slots for the system magnet (1299-69) and system magnet PLUS (1299-70).
2 Perfect connections for automated production.
3 Wall and ceiling transitions for fixing by means of hot glue.

4 Prefix® universal support seat (1261-00) – Fast and easy fitting for overhead installations.
5 The optimal elbow radius of the new unit facilitates flexible and easy electric cable insertion.

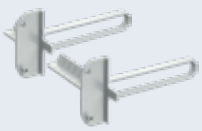
One-gang box Flat 45
1256-01



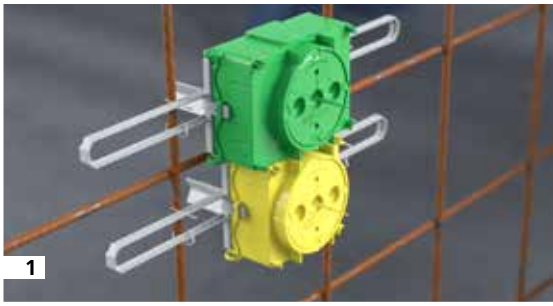
One-gang junction box Flat 45
1266-01

Wall light connection box Flat 45
1246-01

Fixing and support element Flat 45/80 / Flat 45/120
1256-08/-12



Brochure



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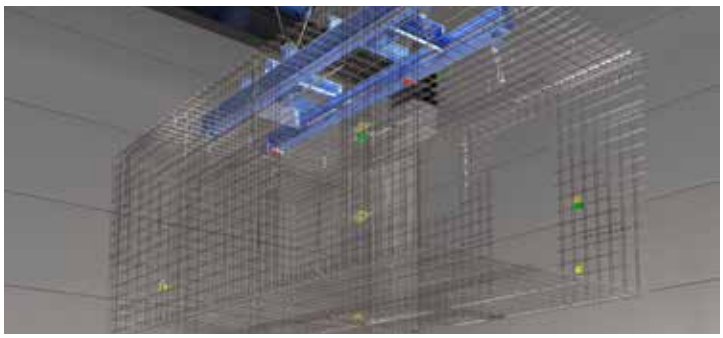
Prefabricated garages.

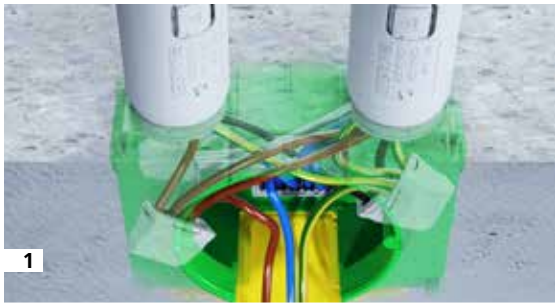
1 Exact position retention with rear securing by using the Flat 45 fixing and support element.
2 In combination with the Ø 32 mm conduit transition coupling, the Flat 45 one-gang junction box can be converted into a wallbox outlet box.

The **FLAT 45 system has been especially adapted to the production of concrete garages.** The electrical installation boxes, which are usually integrated into the reinforcement cage, can be fixed in place with the help of the **Flat 45 fixing and support elements** and securely fastened by means of tie wires. For this purpose, the fixing and support elements Flat 45 can simply be attached to the back of the Flat 45 fixing and support elements using the proven KAISER push-button connection.

With the **conduit transition coupling Ø 32 mm** (1263-32), 32 mm conduits can also be securely connected to the **Flat 45 one-gang junction box**. This means that garage modules manufactured in the factory can already be prepared for the connection of a wallbox with an eye to the future.

Thanks to the three conduit entry options on the long sides, it is also easy to prepare for a network line, so that the wallbox can communicate with the PV system, for example, and the electric car can be charged with solar power.

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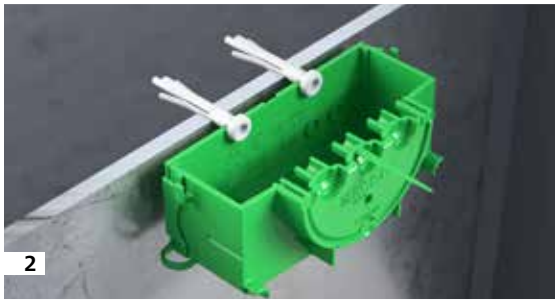
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Prefabricated bathrooms.

1 Flat 45 one-gang junction box with generous lateral terminal compartment for convenient accommodation of conductors and connection terminals.
2 It is fastened to the formwork on the front or rear side by means of expanding dowels, rivets or threaded screws.
3 Flat 45 wall light connection box.

With prefabricated bathrooms, which are delivered fully equipped and ready for connection and are simply positioned in the right place in the shell of the building by crane, investors benefit from the short construction times and low coordination effort.

After all, the manufacturer combines the services of ten trades with 19 work steps. Coordinating all of these on the construction site can lead to friction points, fluctuations in quality, loss of time and unpredictable costs. Projects in which bathrooms of the same type are required in larger quantities are particularly cost-effective and reduce construction times.

The required **one-gang, one-gang junction and wall light connection boxes Flat 45** must therefore not exceed an installation depth of 45 mm.

High-frequency compacting of the highly flowable concrete used also generates high concrete pressure and requires secure fixing of the fixtures. As with the prefabricated garages, the robust **Flat 45 system boxes have proven themselves.**

Fastening to the formwork is done on the front or rear side by means of expanding dowels, rivets or threaded screws.

System overview: HaloX® 180 and HaloX® 250 for precast concrete

The HaloX® system for precast concrete consists of various elements, which are configured individually as required. Follow the steps below to choose the required components:

System overviews

1 Installation compartment for luminaires/loudspeakers and operating devices

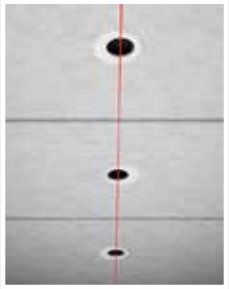
	max. 140 mm (with tolerance compensation) max. 180 mm (without tolerance compensation)		max. 210 mm (with tolerance compensation) max. 250 mm (without tolerance compensation)	
	Adhesive attachment One piece housing with universal mineral fibreboard	**Magnet attachment** one-piece housing with universal plastic panel for the magnet recess **System magnet** 1299-69 **System magnet PLUS** 1299-70	**Adhesive attachment** One piece housing with universal mineral fibreboard	**Magnet attachment** one-piece housing with universal plastic panel for holding the magnet recess **System magnet** 1299-69 **System magnet PLUS** 1299-70
without additional space for operating devices	 **HaloX® 180** 1282-71	 **HaloX® 180** 1282-74	 **HaloX® 250** 1283-71	 **HaloX® 250** 1283-74
Additional space for operating devices up to max. 150 x 90 x 50 mm	 **HaloX® 180 with 190 tunnel** 1282-72	 **HaloX® 180 with 190 tunnel** 1282-75		
Additional space for larger operating devices up to max. 280 x 90 x 50 mm	 **HaloX® 180 with 325 tunnel** 1282-73	 **HaloX® 180 with 325 tunnel** 1282-76	 **HaloX® 250 with 325 tunnel** 1283-73	 **HaloX® 250 with 325 tunnel** 1283-76

2 Installation depth

Installation height > 110 mm	 **Extension rings 25 / 50 mm 1282-25/50**		 **Extension rings 25 / 50 mm 1283-25/50**	

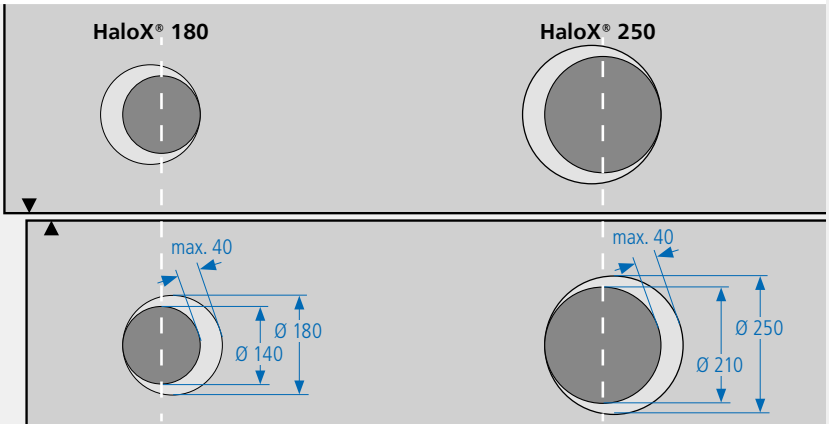
3 Accessories

Wall installation in vertical formwork	 **Wall installation set for installation in vertical formwork** 1299-60...64			
Easy to find after formwork removal	 **Signal cover** 1281-31...33			



Tolerance compensation

Depending on the installation diameter, inaccuracies arising during installation of the slab ceilings can subsequently be corrected. Variable installation diameters can be cut out precisely in the front parts with the KAISER VARIOCUT universal hole cutter.

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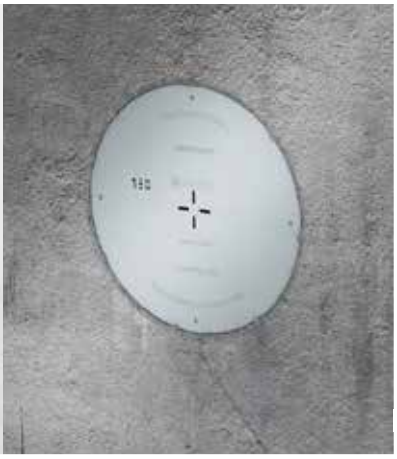

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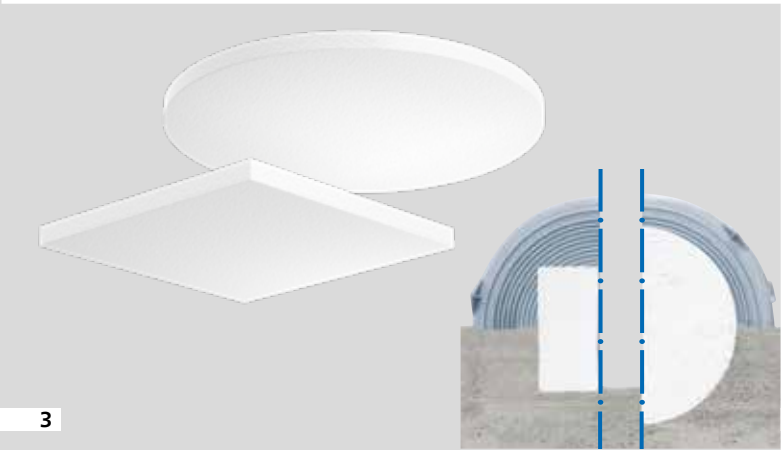
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Forms and functions.

Front parts with defined installation diameters are available for all enclosure sizes – also for the facing concrete versions.

An additional elastomer sheathing prevents the dry concrete from cracking in this case. **Styrofofoam parts** are available for individual installation diameters in almost any shape and thickness, and **universal** front parts are suitable for variable or as-yet undefined ceiling cut-outs.

1 Round front parts with and without an elastomer seal.
2 Square front parts with and without an elastomer seal.
3 Styrofoam mouldings for individual cut-outs in any shape and size (with and without an elastomer seal).
4 Universal front parts for variable or not yet defined ceiling cut-outs.

HaloX® 100/180/250
Front parts
1281-01..07
1282-01..06
1283-01..06

HaloX® 100
Front parts square
1281-08/09

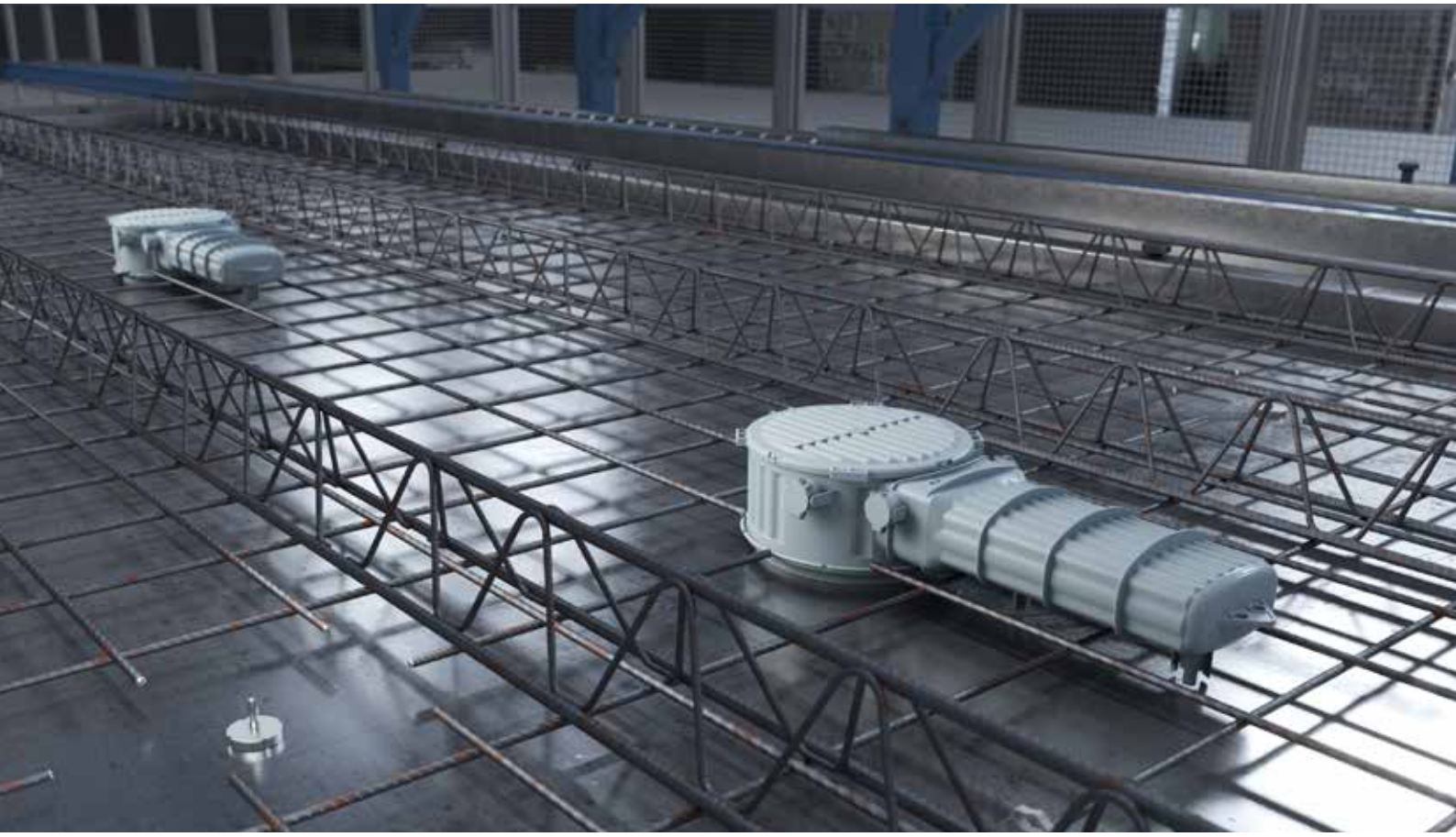
HaloX® 100/180/250
front parts for facing concrete
1281-61..67
1282-61..66
1283-61..66

HaloX® 100
Front parts square for facing concrete
1281-68/69

HaloX® 100/180/250
universal front parts with plastic panels
1281-10/1282-10/
1283-10

HaloX® 100/180/250
universal front parts with mineral fibreboard
1281-11/1282-11/
1283-11

HaloX®
Styrofoam moulded parts
1292-90



Fitting
in precast concrete.

For fitting in precast concrete, the **HaloX® system** is designed as a single element. The housings can easily be aligned on the formwork table by means of markings on the housing.

The housing with pre-fitted mineral fibreboard allows easy gluing and the housings can be turned by 360° on the formwork table even after gluing.

For the **magnet attachment,** housings are available with pre-fitted front parts to accommodate the system magnet (1299-69/1299-70).

Laying tolerances which may occur during the fitting of panel elements are compensated for via the housing sizes in connection with a variable cut-out surface. Because of the compact dimensions of the housings, the reinforcement can easily be placed around the housing.

For luminaires or loudspeakers with installation depths equal to or greater than 110 mm, the installation compartment of the HaloX® housings can be increased on the on-site concrete building site by means of **extension rings**. The fitting of the conduits on-site takes place without the need for tools for M20/M25 conduits without any internal shortening of the conduits.

HaloX® 180/250
1282-71/1283-71

HaloX® 180 with 190 tunnel
1282-72

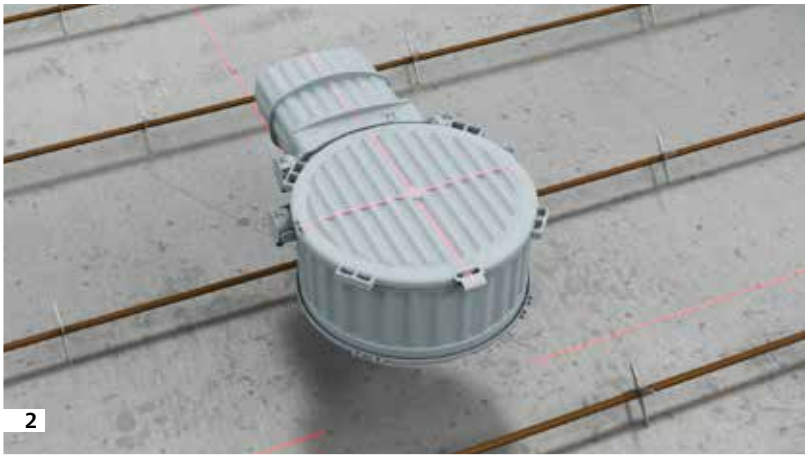
HaloX® 180 with 325 tunnel
1282-73

HaloX® 180 with 325 tunnel
1283-73

Replacement mineral fibreboard for HaloX® 180, HaloX® 250
1282-27/1283-27

HaloX® extension rings
1282-25/50
1283-25/50


1


2


3


4

1 Mounting of the single-piece housing with mineral fibreboard.
2 Alignment marks for exact positioning on the formwork table.

3 Installation of the one-piece housing by means of a system magnet (1299-69).
4 Precise and level fixing of the housing.

Animation

HaloX® 180/ 250 for magnet attachment
1282-74/1283-74

HaloX® 180 with 190 tunnel for magnet attachment
1282-75

HaloX® 180 with 325 tunnel for magnet attachment
1282-76

HaloX® 250 with 325 tunnel for magnet attachment
1283-76

System magnet/system magnet PLUS
1299-69/-70

Signal cover
1281-31/-32/-33

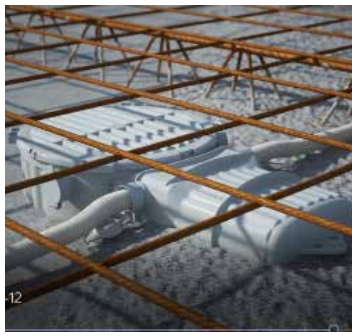
Further processing
of the precast concrete elements
at the construction site.

Further processing of HaloX® housings is quite simple. The housing sizes in combination with the universal front parts allow the compensation of tolerances, which may arise when laying the panel elements. After laying the panel elements, the conduits can be fitted.

The toolless opening of the M20/M25 combination entries enables fast and secure conduit insertion. At the same time, the depth stop obviates the need for subsequent internal shortening of the conduits.

For luminaires or loudspeakers with greater installation depths (> 100 mm), the installation compartment of the HaloX® housing can be subsequently raised with extension rings at the on-site mixed concrete construction site.

Toolless conduit entry
for M20/M25 conduits with
depth stop.



Finished conduit installation of
the HaloX® housing.


1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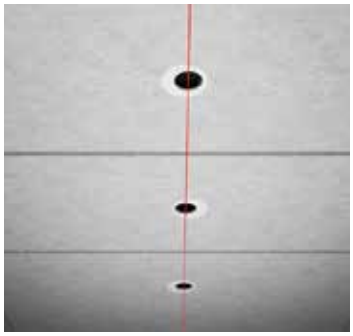
4

1 System HaloX® 100 with multi-conduit entry
2 HaloX® 180 system with 190 tunnel
3 HaloX® 250 system with 325 tunnel
4 HaloX® creates a secure installation compartment for luminaires and loudspeakers in concrete ceilings and walls.

The concrete installation housing offers secure installation space for loudspeakers and luminaires with LED, halogen or compact fluorescent lamps and their operating devices in ceilings and walls.

HaloX® creates the space required for modern lighting and sound solutions. Due to its modular and flexible structure, the system offers a solution for virtually all installation diameters and installation depths.

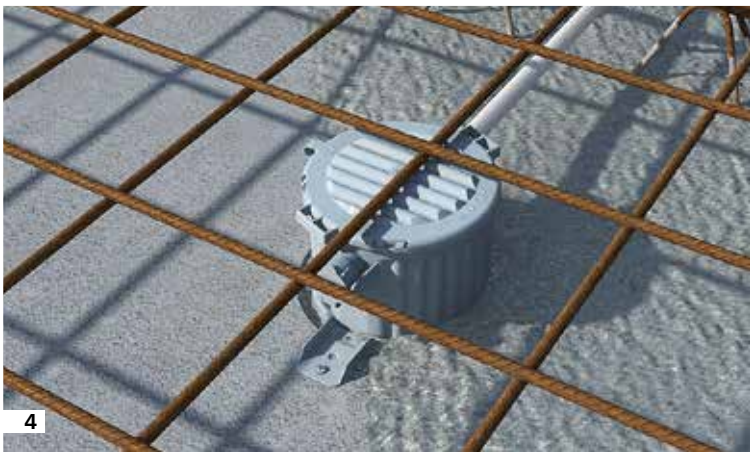
Choosing the appropriate housings and accessories is extremely simple. The HaloX® housing system is available in three basic types - HaloX® 100, HaloX® 180 and HaloX® 250 - together with a tunnel for the secure fastening of operating devices (e.g. LED drivers).



Increase of the installation depth by means of extension rings.

Making the ceiling cut-outs (e.g. with 1083-10) in compliance with the laying tolerance.

Animation



HaloX® installation kit. For subsequent installation in slab ceilings.

The **HaloX® installation kit** can be retrofitted in existing slab ceilings (from thickness 50 mm) with or without a transformer tunnel. Be sure to take into account the ceiling thickness and the structural alteration of the ceiling (e.g. fire protection and statics).

- For subsequent installation in filigree ceilings
- Minimal effect on statics
- Enables convenient short-term planning changes
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth

1 A core-drilled hole (Ø 150–160 mm) is cut into the slab ceiling.
2 Front parts and extension rings are combined according to the ceiling thickness and installation depth.
3 Place the housing in the core drilling and fasten.
4 The housing attached to the reinforcement now sits firmly and precisely in place.

HaloX® 100 installation kit
1281-20

1 A core-drilled hole (Ø 150–160 mm) is cut into the solid ceiling.
2 The universal opening cutter is used to create precisely fitting conduit entries for the corresponding conduit sizes.
3 Front parts and extension rings are combined according to the ceiling thickness and installation depth.
4 The complete housing with the mounted installation conduit is inserted into the core drilling.
5 Then the free space is filled with concrete and compacted.

The **HaloX® concrete installation housing for solid concrete ceilings** can be inserted into existing and retrofitted core drillings.

- For subsequent installation in solid ceilings
- Minimal effect on statics
- Quick installation with snap-in connections
- Robust construction, ideal for use on building sites
- Large selection of opening sizes up to Ø 100 mm

HaloX® housing
for core drillings in solid ceilings
1290-30

for exact entries for cables and conduits
Universal opening cutter Art. no 1085-80

Signal cover. The solution for a clean ceiling appearance after plastering.

The **signal cover** ensures a clean ceiling appearance and avoids time-consuming rework on the installation opening after plastering.

As an accessory item for the HaloX® installation housings, the signal cover is simply inserted into the already opened front part after formwork removal from the rough ceiling or wall. Thus, the installation opening is securely closed and protected against penetration of plaster.

Three signal bristles, in combination with the bright red colour, ensure that the installation opening in the plastered rough ceiling or wall can be found quickly and easily.

The installation opening can be opened with one targeted blow of the hammer without destroying the surrounding plaster pattern.

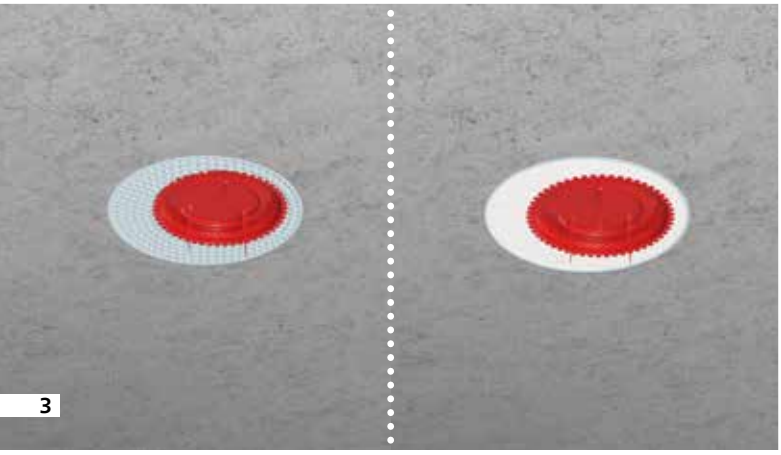
With one turn of the knife edge, cleaning residues are removed effortlessly. The flexible signal cover can then be removed easily and cleanly. Its specially serrated edge structure preserves the plaster edge.

- Stable and robust clamping in installation diameters of 68 mm, 75 mm and 80 mm.
- For use in fixed HaloX® front parts, universal HaloX® front parts and other installation openings
- Stable signal bristles and strong colouring for easy retrieval from the plaster surface
- Reusable, easy to clean

Product information


1


2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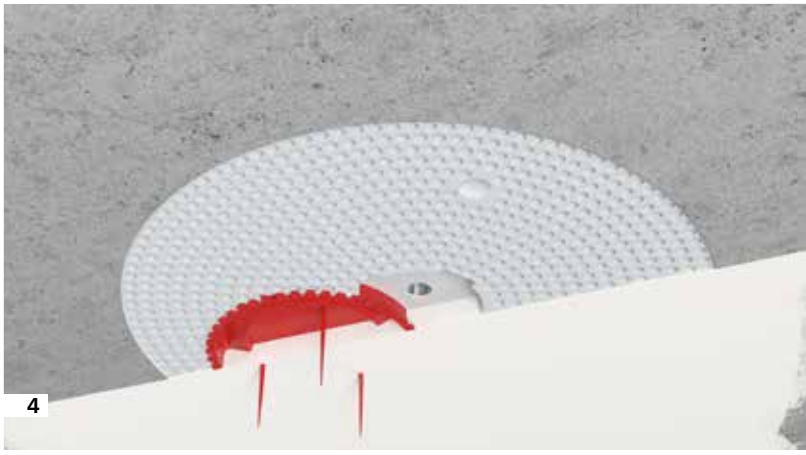
4

1 After formwork removal and pull-in of the supply conduits, the signal cover is inserted into the installation opening.
2 The red signal bristles are flexible during the smoothing process and do not hinder this work step but, at the same time, are stable enough to keep the position in the plaster surface recognisable.

3 In addition to being able to use HaloX® front parts with fixed exit opening, these can also be inserted into universal HaloX®- front parts.
4 In addition to being able to use HaloX® front parts with fixed exit openings, these can also be inserted into universal HaloX® front parts.

Signal cover
1281-31/-32/-33

Ø 68 mm

Ø 75 mm

Ø 80 mm

Universal installation housings for concrete ceilings and walls. Variable for various installation accessories.

The **universal installation housings** allow easy and secure installation of many applications for which no concrete installation solutions are commercially available. Devices such as touch panels for smart home applications, for example, can be optimally installed via the installation opening that can be made in the mineral fibreboard.
Universal installation housings also provide the perfect solution for other applications used for control, lighting or sound systems of rooms and buildings.

The fitting of the universal installation housings is similar to that of the junction casings, so that both the planning and the fitting can be carried out just as easily.

The housing system is equally suited for installations in on-site mixed concrete and in precast concrete elements, as well as for use in walls and ceilings, so that the system has no restrictions here either. The universal mineral fibreboard can be easily and precisely opened for the relevant applications using a jigsaw. A peripheral groove in the mineral fibreboard determines the maximum possible cut-out.


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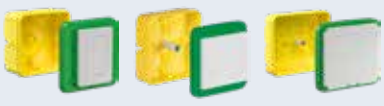
1 The housing in the concrete is flush-mounted with the mineral fibreboard.
2 The support element prevents it from being pressed inward while the concrete is being cast.

3 The front plates are easy to process, ensuring the ability to create flexible cut-outs.
4 The groove in the mineral fibreboard marks the maximum installation area.

Universal installation housing with mineral fibreboard
1223-22/1224-22

Universal installation housing with mineral fibreboard
1295-22/1296-22/1297-22

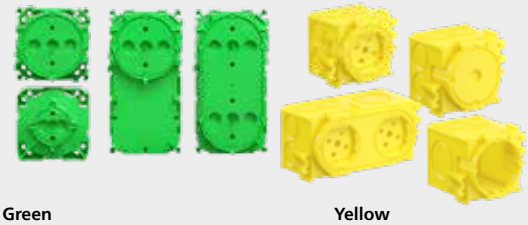


Universal installation housing with mineral fibreboard
1297-../1298-..

For creating exact entries
Step drill Art. no 1284-32

The KAISER colour system.

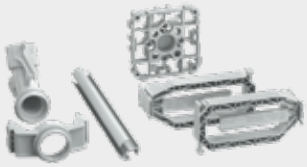
The different colours of the individual components make correct installations easier.



Green
Front parts for fixing to the formwork.

Yellow
Box and casing rear parts for wall installation.

Red
Box rear parts for ceiling installation.



Grey
Intermediate parts and attachment accessories.

Installation in walls.

Ø 48.5 mm

B² one-gang junction boxes for system magnet
1262-03

Ø 68.5 mm

B² one-gang junction boxes for system magnet
1263-03

Ø 83.5 mm

B² one-gang junction boxes for system magnet
1264-03

Ø 48.5 mm

B² one-gang junction box with plaster skin
1262-01

Ø 68.5 mm

B² one-gang junction box with plaster skin
1263-01

Ø 83.5 mm

B² one-gang junction box with plaster skin
1264-01

Ø 48.5 mm

B² one-gang junction box without plaster skin
1262-02

Ø 68.5 mm

B² one-gang junction box without plaster skin
1263-02

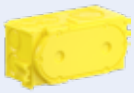
Ø 83.5 mm

B² one-gang junction box without plaster skin
1264-02

B² electronics box for system magnet
1263-13

B² electronics box with plaster skin
1263-11

B² two-gang junction box for system magnet
1263-23



B² two-gang junction box with plaster skin
1263-21

Conduit connector 60°
1266-25

Conduit connector
1261-21/26/32/40

Conduit transition coupling Ø 32 mm
1263-32

Conduit connector 90°
1262-20/25/32

Wall feed-through
(For manufacturer: KRASO®)
https://www.kraso.de

Installation in walls.

System magnet adapter
(For the manufacturer Nevoga®)
HWDPMMW16 / HWDPM16
1200-01

System magnet adapter
(For the manufacturer Syspro®)
TYPE 1, TYPE 2/M12, TYPE 2/M16
1200-02, 1200-03, 1200-04

System magnet adapter
(For the manufacturer PFEIFER)
Mofi® 12
1200-05

System magnet adapter
(For the manufacturer Rüde)
Z mounting anchor
https://www.ruede.de

Accessories.

System magnet
1299-69
System magnet PLUS
1299-70

142 distance piece
1261-18

Plaster compensation ring
1261-60

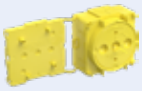
Counter bearing
1261-11

Extension element 10 to 50 mm
1261-10

Extension element 48.5 mm for system magnet
1261-02

Universal Extension element
1261-06/07/08/09

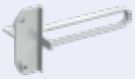
Prefabricated room modules.



One-gang box Flat 45
1256-01

One-gang junction box Flat 45
1266-01

Wall light connection box Flat 45
1246-01



Fixing and support element Flat 45/80
1256-08

Fixing and support element Flat 45/120
1256-12

Expanding dowel
1217-02

Signal cover
1181-35
1181-60

Installation in ceilings.

Large slab ceiling box 115
1227-16

Large slab ceiling box 115
1227-55

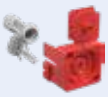
Large slab ceiling box 105
1227-54

Slab ceiling box for retrofitting
1247-01

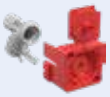
End and transition bush
1261-82

End and transition bush
1261-83

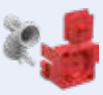
End and transition bush
1261-84



Wall and ceiling transition 30°
1261-92

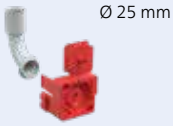


Wall and ceiling transition 30°
1261-93



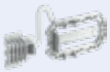
Wall and ceiling transition 30°
1261-94

Wall and ceiling transition 90°
1261-95



Wall and ceiling transition 90°
1261-96

Wall and ceiling transition 90°
1261-97



Prefix® universal support seats
1261-00

Wall to ceiling transition
1261-12

Wall to ceiling transition
1261-16

Wall to ceiling transition
1261-14

Oval funnel
1261-42

Oval funnel
1261-43

Central transition casing
326 x 104 x 118 mm
9914.10

Central ceiling boxes
(For the Dutch market)
AT1032, AT1036

www.kaiser-elektro.org/bbwerksfertigung

Installation housing for precast concrete.

www.kaiser-elektro.org/bbeinbaugehaeuse

Installation dimension up to Ø 180 mm | Adhesive attachment.

HaloX® 180
1282-71

HaloX® 180 with 190 tunnel
1282-72

HaloX® 180 with 325 tunnel
1282-73

HaloX® 180 extension rings
1282-25/50

HaloX® 180 replacement mineral fibreboard
1282-27

Installation dimension up to Ø 180 mm | Magnet attachment.

HaloX® 180
1282-74

HaloX® 180 with 190 tunnel
1282-75

HaloX® 180 with 325 tunnel
1282-76

HaloX® 180 extension rings
1282-25/50

System magnet
1299-69

System magnet PLUS
1299-70

Installation dimension up to Ø 250 mm | Adhesive attachment.

HaloX® 250
1283-71

HaloX® 250 with 325 tunnel
1283-73

HaloX® 250 extension rings
1283-25/50

HaloX® 250 replacement mineral fibreboard
1283-27 | p..28

Installation dimension up to Ø 250 mm | Magnet attachment.

HaloX® 250
1283-74

HaloX® 250 with 325 tunnel
1283-76

HaloX® 250 extension rings
1283-25/50

System magnet
1299-69

System magnet PLUS
1299-70

Ø 68 mm

Signal cover
1281-31

Ø 75 mm

Signal cover
1281-32

Ø 80 mm

Signal cover
1281-33

Tools.

Universal Opening cutter
1085-80

Punch pliers
1286-33

Punch pliers
1286-34

Stripping pliers AMZ 2
1190-02

www.kaiser-elektro.org/werkzeuge

Reamer
1284-34/35/36

Step drill
1284-32

Hole punch and expanding dowel fitting tool
1284-62/63

Nail inserter
1284-69/68

Installation housings.

www.kaiser-elektro.org/bbeinbaugehaeuse

Universal installation housings.

Universal installation housings
90 x 90 x 70 mm
1223-22

Universal installation housings
150 x 90 x 70mm
1224-22

Universal installation housings
128 x 128 x 86 mm
1295-22

Universal installation housings
180 x 180 x 90 mm
1296-22

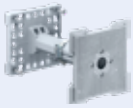
Universal installation housings
250 x 220 x 90mm
1297-22

Universal installation housings
258 x 188 x 135mm
1298-37

Universal installation housings
258 x 188 x 200mm
1298-38

Universal installation housings
408 x 308 x 135mm
1297-34

Universal installation housings
408 x 308 x 235mm
1297-35



Telescope support
9957

Installation housings for retrofitting. Installation dimension up to Ø 100 mm.

HaloX® 100 installation kit
1281-20

HaloX® housing for core drillings in solid ceilings
1290-30

Well-informed.
KAISER Service.

When you decide to use KAISER products, you always receive comprehensive service as well. This allows both you and your customers to take advantage of all the benefits we offer.

Videos on products and applications as well as helpful tips & tricks for your everyday work. Here we clearly show all product and processing advantages, installation instructions, certificates and declarations of performance as well as conformity that make the product perfect. Intelligent product filters in the online catalogue help you select products. Our BIM data, tender texts and CAD data are important building blocks for your digital planning.

- Online product catalogue
- Download of digital media
- Seminars, trade fairs and events
- Technical sales and service consultation
- Article master data and price information
- Tender texts
- BIM data
- CAD data

Systems and solutions for professional electrical installation work.

KAISER has been developing and producing systems and products as the basis for good installation work since 1904. Planners and fitters all over the world use our practice-oriented solutions for their daily work in all installation areas.

Energy efficiency.

Innovative KAISER products help you to ensure compliance with the requirements of EU Directives and national regulations, such as the German Energy Act for Buildings (GEG, formerly EnEV).

Radiation protection.

Use of the new radiation-protection one-gang boxes allows the radiation protection of the wall to be maintained without additional shielding measures.

Fire protection.

KAISER fire protection systems provide reliable solutions for electrical installations in fire protection walls and ceilings.

Construction.

KAISER has corresponding product system solutions for safe, durable and practical use in redevelopment, renovation and modernisation projects.

Sound insulation.

KAISER's innovative sound insulation boxes ensure compliance with the construction requirements for sound insulation walls, as well as for built-in installations.

Concrete construction.

Complete systems for on-site mixed and precast concrete. Fully optimised to professional electrical installation work.

Technical information and advice

All current further information on products, system solutions and communication media can be found on our website at **www.kaiser-elektro.de**

For additional questions or information, our team of technical consultants will be happy to assist you and look forward to talking to you: **+49 (0) 23 55 809 61** · **technik@kaiser-elektro.de**

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