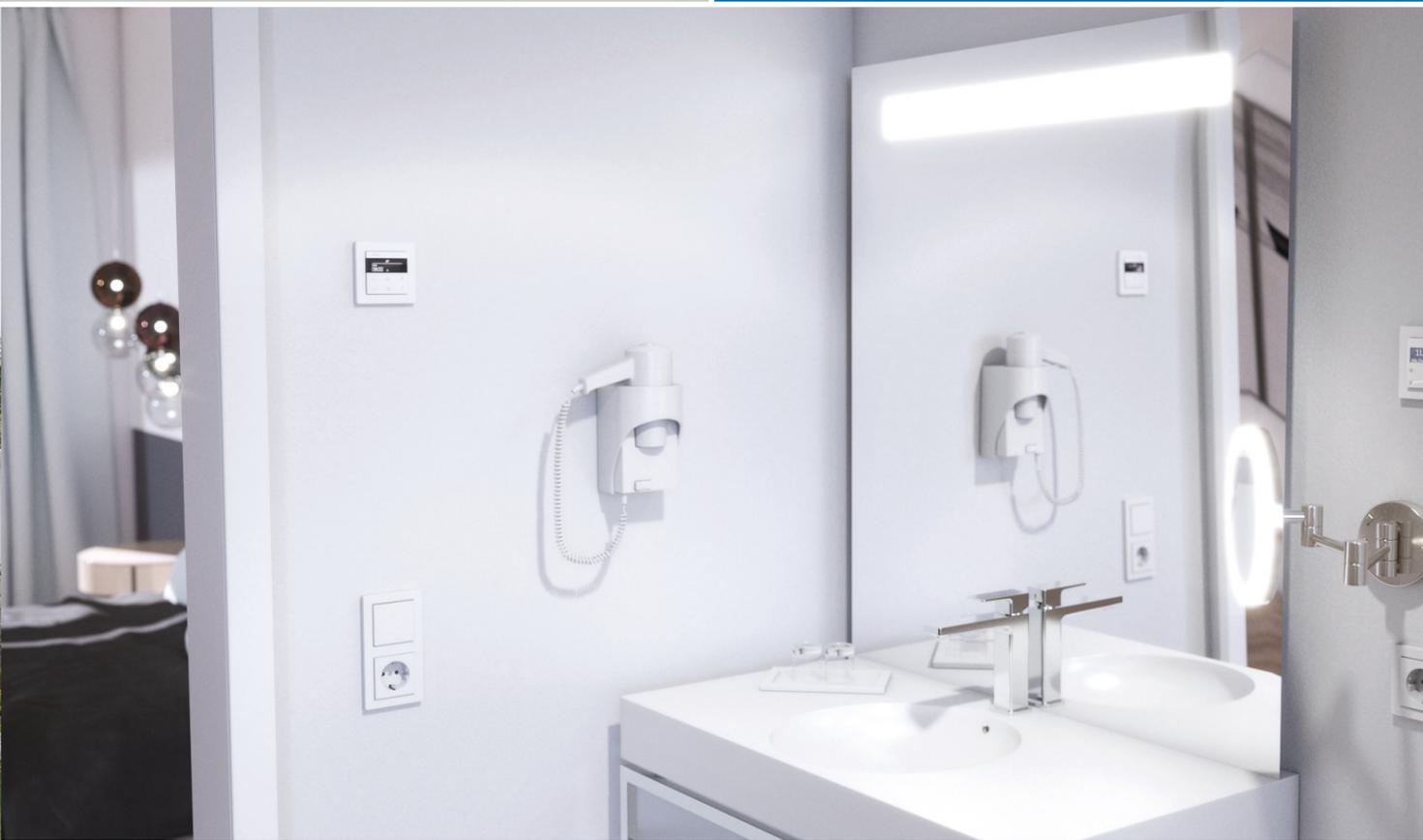


System Flat 45.

The system for serially prefabricated room modules made of concrete.





Modular prefabrication.

Prefabricated garages, prefabricated bathrooms and living space modules.

For prefabricated garages, prefabricated bathrooms and living space modules, industrially prefabricated concrete modules are manufactured in the factory production with dimensional accuracy. The high degree of pre-planning, industrial prefabrication in a protected environment and prefabrication

with regard to the assembly of built-in 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.



Shorter construction times with room modules

At a time when construction is to be accelerated at all levels according to the federal government, modular space solutions prefabricated in the factory are becoming more and more important. Modular construction has energy, structural, resource-saving and, above all, economic advantages that can account for up to 15 percent of construction costs. Housing associations see this as an opportunity to create housing more quickly and efficiently. In addition, the costs can be better calculated due to the ready-made modules and the construction times can be shortened by up to 30 percent.

For planning, implementation and operation.

Support throughout the entire building life cycle with KAISER BIM data.

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

The user can directly access the information section on tendering and planning on the KAISER homepage via the link <https://to.kaiser-elektro.de/planung>.

At <https://kaiser.partcommunity.com>, 3D Multi-BIM CAD data are available. Autodesk Revit users can also use the BIMcatalogs.net content plugin. In addition to downloading product data, you can also configure products to suit your specific requirements. After configuring the product, the corresponding CAD model can be generated together with a PDF data sheet and incorporated into the planning and documentation.

All changes in BIM are directly reflected in the orders of magni-

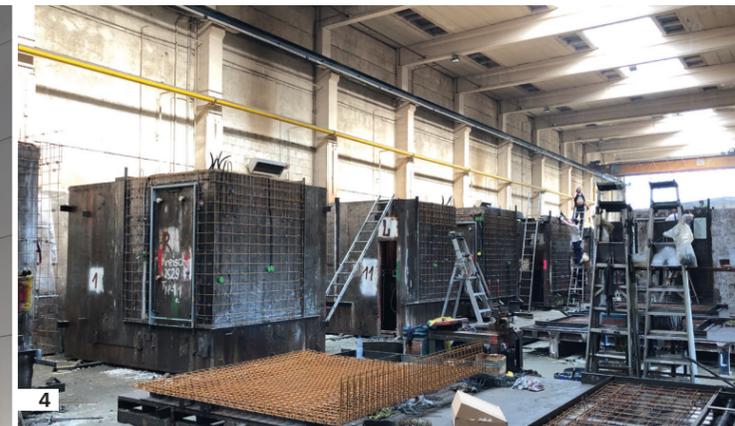
tude, quantities and costs of the construction project. This allows all project participants to be informed rapidly and also ensures precise cost, schedule, and quality control.

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

KAISER - THE BASIS FOR GOOD INSTALLATION.

Learn more about the planning tools. Scan QR code or visit: to.kaiser-elektro.de/planung





System Flat 45.

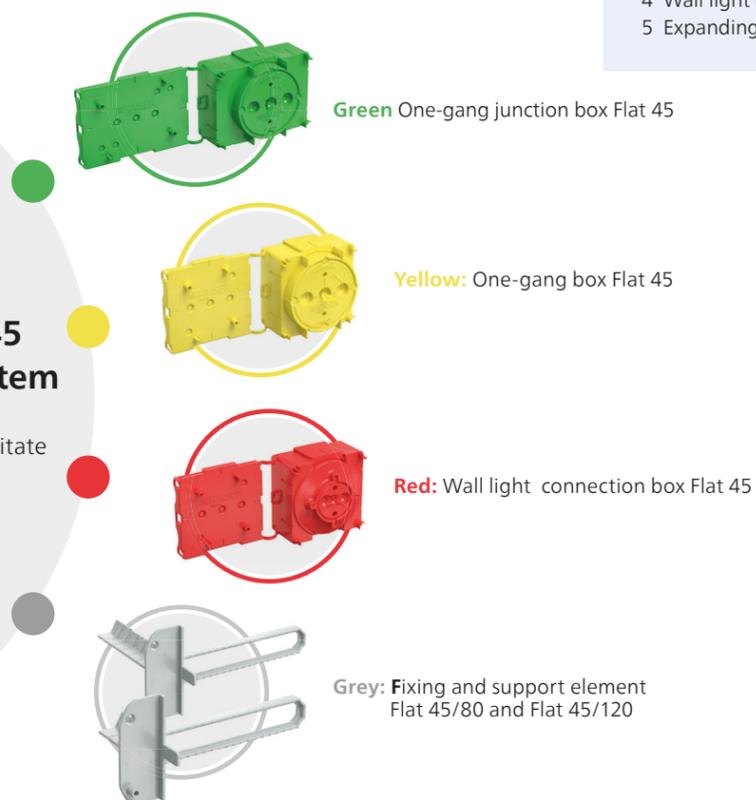
- 1 One-gang junction box Flat 45
- 2 Fixing and support element Flat 45/80 and Fixing and support element Flat 45/120
- 3 One-gang box Flat 45
- 4 Wall light connection box Flat 45
- 5 Expanding dowel

- 1 Prefabricated garages and living modules.
- 2 Prefabricated bathroom.

- 3 Tipping piston production of prefabricated garages or living modules.
- 4 Production line for prefabricated bathrooms.

The KAISER Flat 45 colour coding system

The different colours of the individual components facilitate correct assembly.



Prefabricated garages

Prefabricated garages have become increasingly popular in recent years, as they are no longer off-the-peg models, but offer a great deal of design freedom with different types of plaster, gates, roof structures, windows, doors and electrical installations in single, double or open-plan versions. They are also used as cellar replacement rooms or enclosures for technical equipment.



Prefabricated bathrooms

Plug-and-play is now common practice for prefabricated concrete bathrooms. The complete wall tiles, the sanitary objects, the supply and disposal piping as well as the electrical supply lines with sockets, switches, ceiling and wall outlets are already integrated into the respective module. The precise master computer-controlled and -monitored production in the factory allows the material quantities to be used in a resource-saving manner and lean components to be produced. Thus, wall thicknesses of only 50 mm are possible. This applies in particular to hotels, nursing homes and homes for the elderly, sanatoriums, clinics, hospitals, student residences, but also to rental housing.

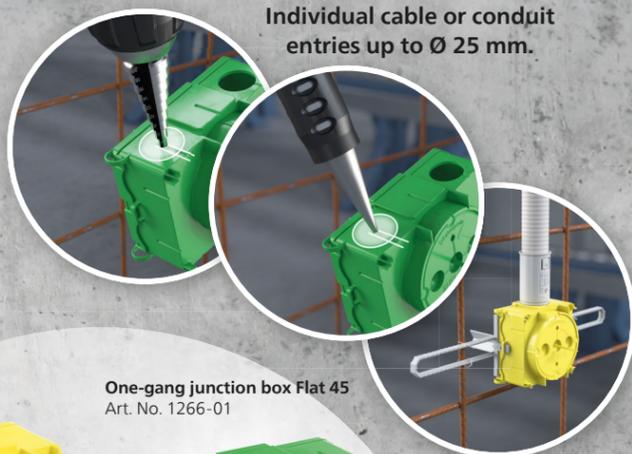
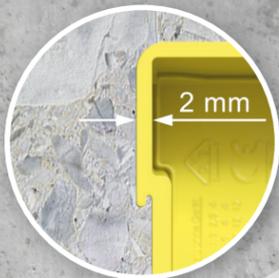


Find out more about the solution area. Scan QR code.

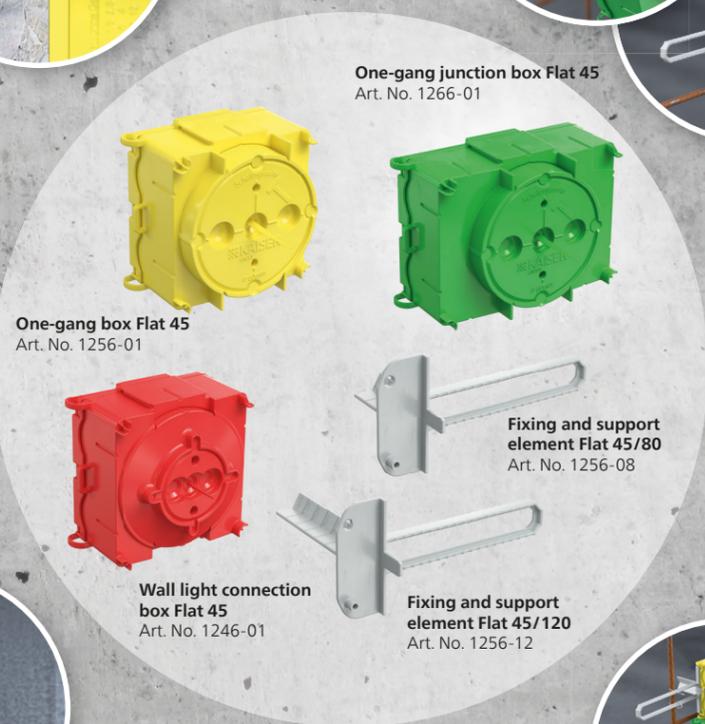
System Flat 45.

NEW

Robust article design with 2 mm wall thickness.



Individual cable or conduit entries up to Ø 25 mm.



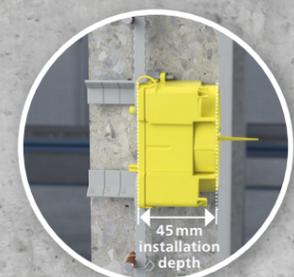
One-gang junction box Flat 45
Art. No. 1266-01

One-gang box Flat 45
Art. No. 1256-01

Wall light connection box Flat 45
Art. No. 1246-01

Fixing and support element Flat 45/120
Art. No. 1256-12

Fixing and support element Flat 45/80
Art. No. 1256-08



Uniform system installation depth of 45 mm.



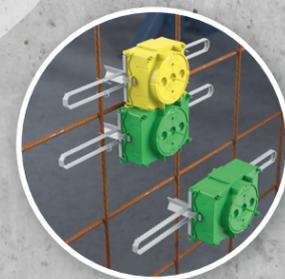
Secure position maintenance with counterpressure to the formwork.



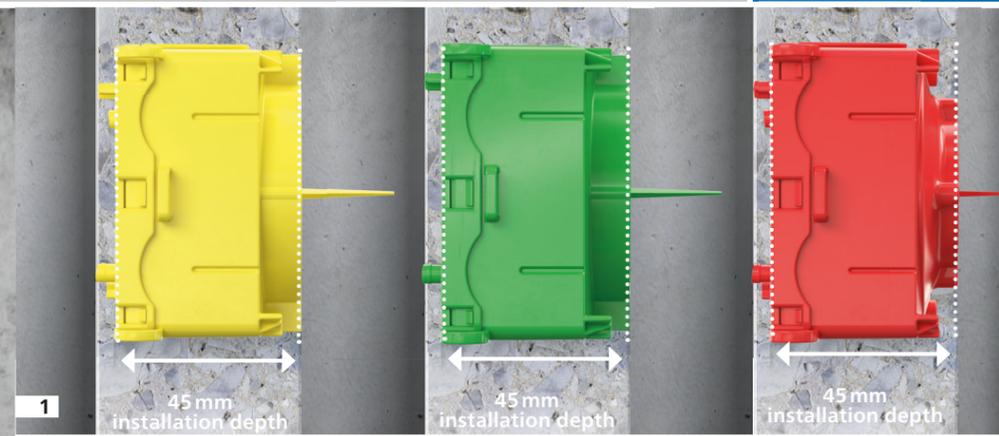
Stable signal bristle and strong colouring to make it easy to find again.



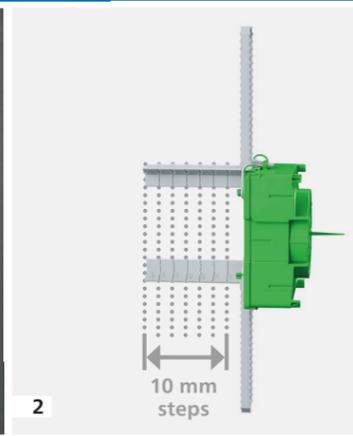
Centre marking for easy alignment using laser spirit level.



Stable connection with combinations.



1 45 mm installation depth



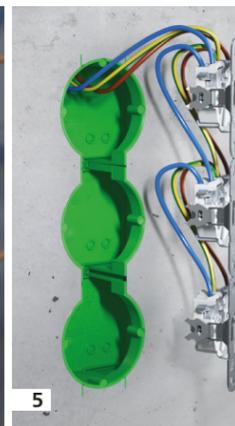
2 10 mm steps



3 max. 25mm



4



5



6

- 1 Uniform system installation depth of 45 mm - For a consistent electrical installation in particularly thin walls.
- 2 Exact position retention with rear securing by using fixing and support element Flat 45. Can be shortened in 10 mm steps.
- 3 Individual cable or conduit entries up to Ø 25 mm on the box body..

- 4 ... absolutely sealed against concrete with KAISER conduit connectors (1261-21, 1261-26, 1263-32).
- 5 Convenient installation of pre-wired installation accessories in multiple combinations by ...
- 6 ... means of a subsequently breakable bridge.

One-gang box Flat 45
Art. No. 1256-01 **NEW**



Fixing and support element Flat 45/80
Art. No. 1256-08 **NEW**



One-gang junction box Flat 45
Art. No. 1266-01 **NEW**

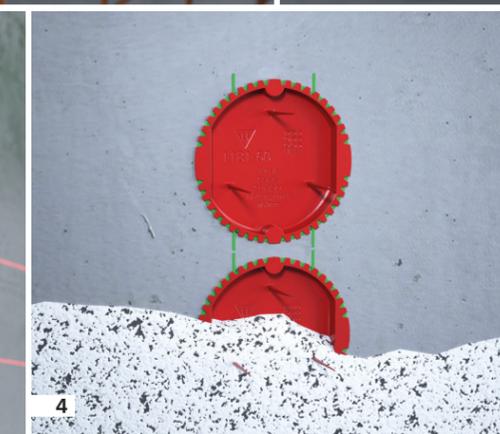
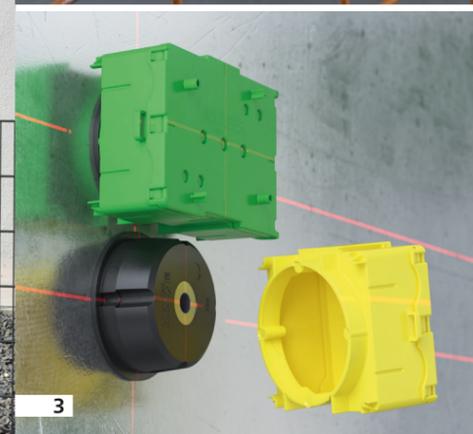
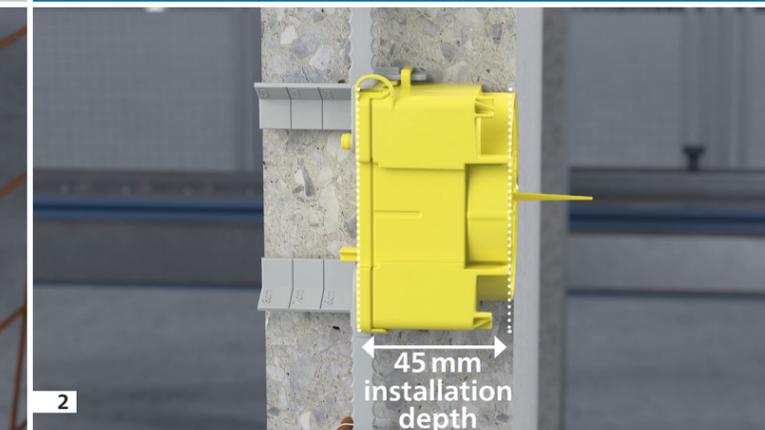
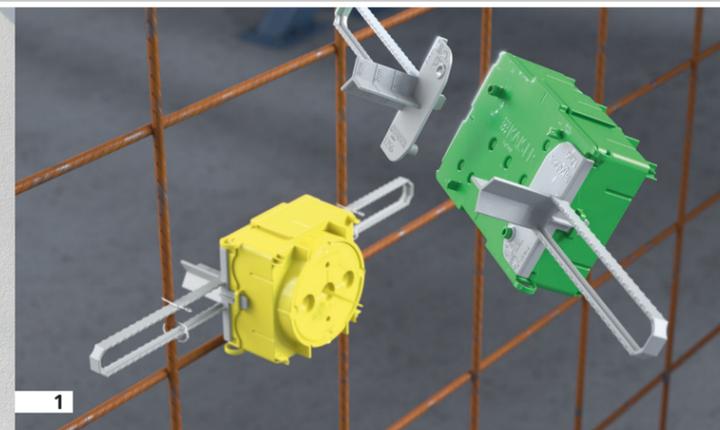


Wall light connection box Flat 45
Art. No. 1246-01 **NEW**



Fixing and support element Flat 45/120
Art. No. 1256-12 **NEW**





Prefabricated garages.

Due to the low wall thickness of prefabricated garages of max. 80 mm, the available usable space is increased by up to 14 percent compared to a conventional garage. The most important advantage for many builders, however, is the price, which is up to 40 per cent lower than a corresponding conventional masonry building. So it is not surprising that almost 60,000 prefabricated garages are sold in Germany every year.

Due to their installation depth of max. 45 mm, the new **KAISER Flat 45 system boxes** are optimised for the low wall thicknesses of prefabricated concrete garages. Their robustness withstands the high concrete pressure exerted on the fixtures by the flowable, high-compaction concrete used in production. Fixing to the reinforcement or by means of a holding magnet to the core formwork guarantees a secure hold for both upright carcass formwork and tilt-piston productions. Thus, a prefabricated garage prepared in this way can basically be produced according to the plug-and-play principle.

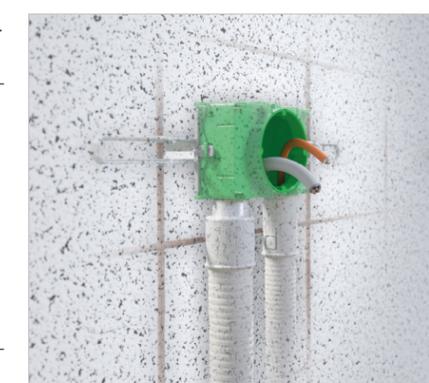


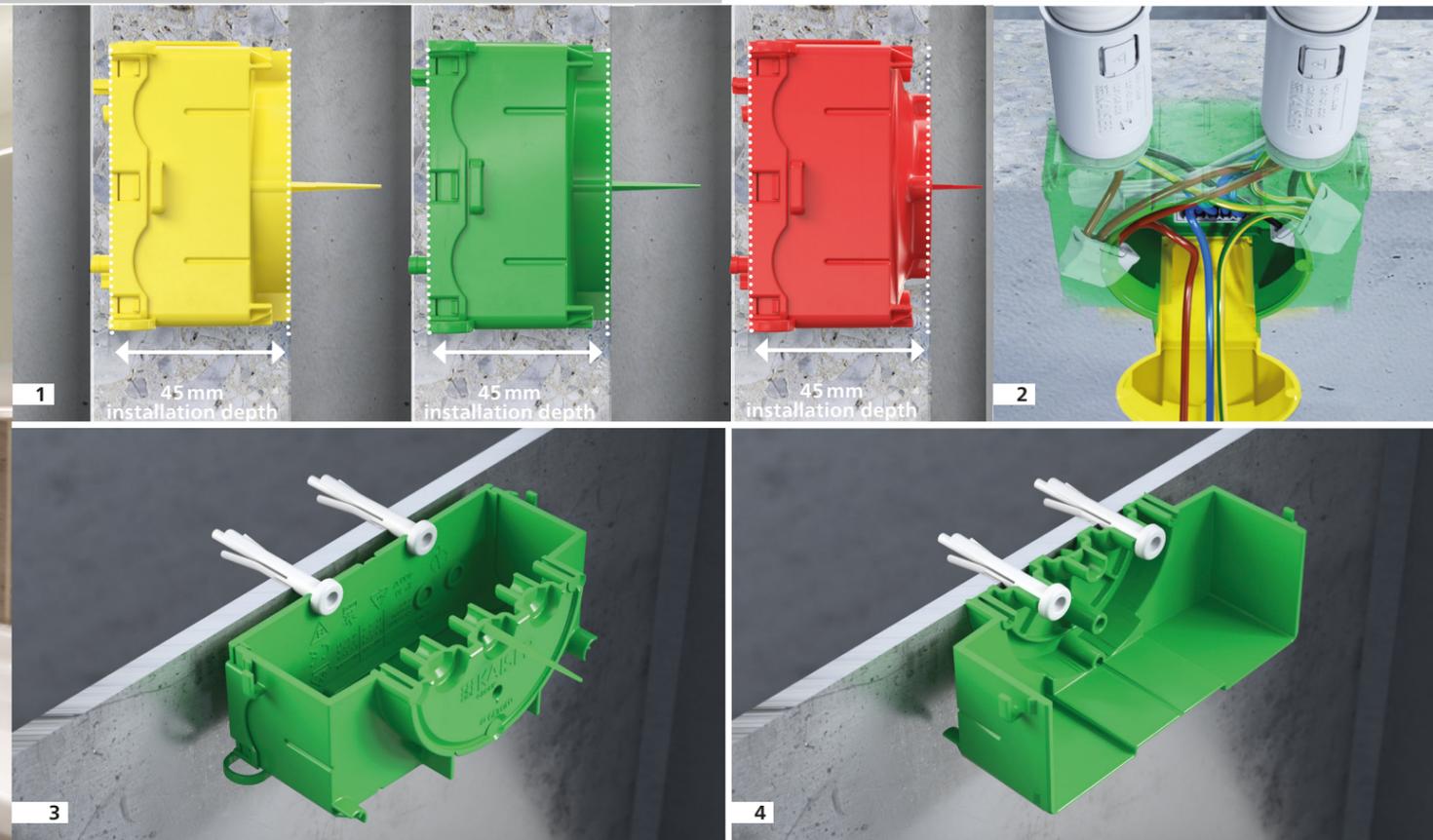
- 1 By means of the KAISER push-button connection, the Flat 45 fixing and support elements can be easily attached to the Flat 45 system boxes.
- 2 Exact position retention with rear securing by using fixing and support element Flat 45.

- 3 Fixing by magnet (Art. No. 1281-61) for a secure hold on the formwork.
- 4 The signal cover (Art. No. 1181-60) protects the inside of the box when applying the spray plaster.
- 5 Universal VDE cover (Art. No. 1184-90) for using the Flat 45 system boxes as junction boxes.

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 with the aid of the **Flat 45 fixing and support element** and securely fastened with wire rods. For this purpose, the fixing and support elements Flat 45 can simply be attached to the back of the Flat 45 system boxes using the proven KAISER push-button connection.

With the **conduit transition coupling 32 mm** (Art. No. 1263-32), 32 mm conduits can also be securely connected to the **one-gang junction box Flat 45**. 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.





Prefabricated bathrooms.

Especially with prefabricated bathrooms, which are delivered fully equipped and ready for connection and are simply placed 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. Particularly cost-saving and construction time-reducing are objects in which bathrooms of the same type are required in larger quantities.

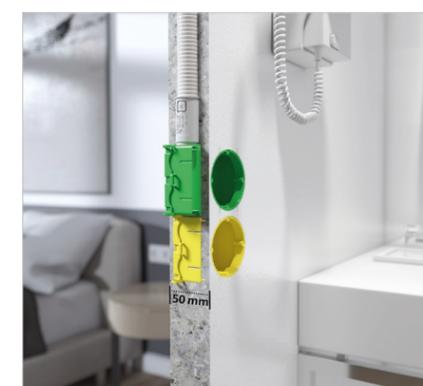
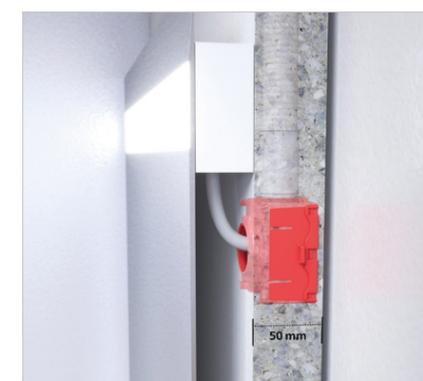


- 1 Uniform system installation depth of 45 mm. For a common electrical installation in particularly thin walls.
- 2 One-gang junction box Flat 45 with generous lateral terminal compartment for convenient accommodation of conductors and connection terminals.

- 3 Fixing at the rear by means of KAISER expanding dowels (Art. No. 1217-02).
- 4 Fixing at the front by means of KAISER expanding dowels (Art. No. 1217-02).

The required **KAISER one-gang, one-gang junction and wall light connection boxes Flat 45** must therefore not exceed an installation depth of 45 mm. High-frequency compaction of the highly flowable concrete used also generates high concrete pressure and requires secure fastening of the fixtures. As with the prefabricated garages, the robust **Flat 45 system boxes have proven themselves.**

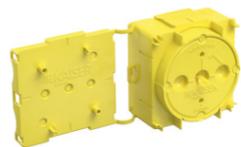
Fastening to the formwork is done on the front or rear side by means of expansion dowels, rivets or threaded screws.



Electrical installation in prefabricated concrete room modules. **At a glance.**

One-gang box Flat 45

- For use in walls from 5 cm
- Fixing and support elements Flat 45 by push-button connection
- 1-piece with moulded rear part
- Standardised combination distance 71 mm
- with 4 screw domes



NEW

Length x width x depth	81 x 73.4 x 45 mm
Exit opening Ø	60 mm
Markings for wires and cables up to Ø 25 mm	6
Number of parts	1
VDE	Yes
Art. No.	1256-01
Packaging inner/dispatch	- / 100

One-gang junction box Flat 45

- For use in walls from 5 cm
- With lateral terminal compartment
- Fixing and support elements Flat 45 by push-button connection
- 1-piece with moulded rear part
- Standardised combination distance 71 mm
- with 4 screw domes

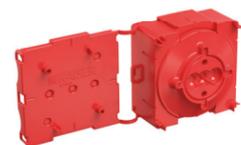


NEW

Length x width x depth	106 x 73.4 x 45 mm
Exit opening Ø	60 mm
Markings for wires and cables up to Ø 25 mm	6
Number of parts	1
VDE	Yes
Art. No.	1266-01
Packaging inner/dispatch	- / 100

Wall light connection box Flat 45

- For use in walls from 5 cm
- Fixing and support elements Flat 45 by push-button connection
- 1-piece with moulded rear part



NEW

Length x width x depth	81 x 73.4 x 45 mm
Exit opening Ø	35 mm
Markings for wires and cables up to Ø 25 mm	6
Number of parts	1
VDE	Yes
Art. No.	1246-01
Packaging inner/dispatch	- / 100

Fastening and support elements Flat 45

- For wall thicknesses 8 cm and 12 cm
- Lateral outriggers for positioning and fixing to reinforcement
- Rear support element for bracing between the formworks
- Exact shortening to other wall thicknesses due to integrated dimension indication
- Fixing and support elements Flat 45 by push-button connection

NEW

Can be used for the following articles:

- One-gang box Flat 45 | Art. No. 1256-01
- One-gang junction box Flat 45 | Art. No. 1266-01
- Wall light connection box Flat 45 | Art. No. 1246-01



Fixing and support element Flat 45/80



Fixing and support element Flat 45/120

Length x width x depth	121.7 x 60 x 53 mm	121.7 x 60 x 93.3 mm
Number of parts	1	1
For wall thickness	8 cm	12 cm
Art. No.	1256-08	1256-12
Packaging inner/dispatch	- / 100	- / 100

Expanding dowel

- For quick fixing to steel formwork
- 1-piece made of plastic
- For boxes, casings, bushes etc.
- Drill hole size required Ø 5.5 mm



Diameter	5.5 mm
Art. No.	1217-02
Packaging inner/dispatch	500 / 2500

Magnet

- For clamp attachment in the box
- For anti-shock fixing of one-gang junction boxes in horizontal formwork
- Adhesive force of 900 N
- Magnet remains on the formwork table after formwork removal
- Centering device for correct positioning during automated production



Art. No.	1261-81
Packaging inner/dispatch	- / 5

Adhesive foil

- For anti-shock fixing of boxes and casings in horizontal formwork
- For vertical formwork, additional bracing must be provided using a support element and abutments
- Degreasing formwork
- Double-sided adhesion



Art. No.	1219-00
Packaging inner/dispatch	200 / 1000

Signal cover

- Reusable
- Protects interior of box, screwing dome and screw heads when plastering



For installation opening	35 mm	60 mm
Art. No.	1181-35	1181-60
Packaging inner/dispatch	- / 50	50 / 1000

Conduit sealing cap

- For sealing conduit ends
- Halogen-free



DIN EN conduit Ø	20 mm	25 mm	32 mm
Art. No.	1273-43	1273-44	1273-45
Packaging inner/dispatch	100 / 1000	50 / 250	50 / 250

Conduit connector

- For punching out markings without tools
- Accepts rigid and flexible conduits
- Art. No. 1261-21 replaces Art. No. 1261-20 and Art. No. 1261-26 replaces Art. No. 1261-25



DIN EN conduit Ø	20 mm	25 mm
Art. No.	1261-21	1261-26
Packaging inner/dispatch	- / 100	- / 100

**Conduit transition coupling
Ø 32 mm**

- For tool-free connection of Ø 32 mm conduits to the B² one-gang junction boxes 1262-XX and 1263-XX
- Accepts rigid and flexible conduits
- Damping of conduit vibrations during the compaction process
- Prevents the conduits from penetrating the B² one-gang junction boxes and thus avoids subsequent conduit shortening



DIN EN conduit Ø	32 mm
Art. No.	1263-32
Packaging inner/dispatch	- / 100

End and transition bushing

- For connecting conduits at transition points
- Slot for system magnet (Art.-No. 1299-69) and system magnet PLUS (Art.-No. 1299-70)
- Large adhesive surface
- For overhead installation in solid walls
- With closing cover to prevent ingress of foreign bodies
- Combinable end and transition bushes as well as wall and ceiling transition 30°
- Two slots for Prefix® system accessories
- Suitable for all types of formwork
- Two nail domes



Length x width x depth	53 x 64 x 48 mm	53 x 64 x 48 mm	53 x 64 x 49 mm
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
Art. No.	1261-82	1261-83	1261-84
Packaging inner/dispatch	- / 100	- / 100	- / 100

Wall and ceiling transition 30°

- For connecting conduits at transition points
- Slot for system magnet (Art.-No. 1299-69) and system magnet PLUS (Art.-No. 1299-70)
- Large adhesive surface
- For overhead installation in solid walls
- With closing cover to prevent ingress of foreign bodies
- Combinable end and transition bushes as well as wall and ceiling transition 30°
- Two slots for Prefix® system accessories
- Suitable for all types of formwork
- Two nail domes



Length x width x depth	80 x 64 x 86.5 mm	81 x 64 x 86.5 mm	86 x 64 x 91 mm
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
Art. No.	1261-92	1261-93	1261-94
Packaging inner/dispatch	- / 100	- / 100	- / 100

Oval funnel

- For the simple connection of DIN EN conduits with tolerance compensation for wall-wall and wall-ceiling transitions
- For installation on the side formwork
- Accepts rigid and flexible DIN EN conduits
- With closing cover to prevent ingress of foreign bodies



DIN EN conduit Ø	20 mm	25 mm
Art. No.	1261-42	1261-43
Packaging inner/dispatch	- / 100	- / 100

Universal VDE cover

- For all one-gang, one-gang junction and junction boxes
- With central exit for light hook
- Flat cover edge
- Surface roughened



Diameter	92 mm	92 mm
Screw spacing	60 / 67 mm	60 / 67 mm
Fire resistance	850 °C	850 °C
Halogen-free	-	Yes
VDE	Yes	Yes
Art. No.	1184-90	1184-77
Packaging inner/dispatch	25 / 250	25 / 250

Waterproof cover Ø 90 mm

- Central entry with sealing caps
- For countersunk screws Ø 4 mm



Diameter	90 mm
Screw spacing	67 mm
Fire resistance	850 °C
Halogen-free	Yes
Art. No.	1174-99
Packaging inner/dispatch	10 / -

Spring cover

- With permanent elastic spring



Diameter	72 mm	85 mm	95 mm
for box Ø	60 mm	70 mm	80 mm
Art. No.	1159-25	1174-25	1184-25
Packaging inner/dispatch	50 / 500	50 / 500	25 / 250

Plug-in covers

- Break-out openings for cables and light-hooks
- Plug-in depth min. 3 mm max. 15 mm



Diameter	35 mm	60 mm
Art. No.	1148-93	1259-96
Packaging inner/dispatch	25 / 100	25 / 250

10–50 mm extension element

- For installation of overhead one-gang junction boxes
- Can be attached to one-gang junction boxes or abutment by means of push-button connection



Horizontal installation height	10 mm
Vertical installation height	50 mm
Art. No.	1261-10
Packaging inner/dispatch	- / 50

Abutment without special glue

- For installation of overhead one-gang junction boxes
- For fixing to formworks



Art. No.	1261-11
Packaging inner/dispatch	- / 50

Universal extension element

- For installation of overhead one-gang junction boxes
- Height adjustable in increments of 5 mm



Length (+box installation height)	105 - 170 mm	175 - 300 mm	105 - 170 mm	175 - 300 mm
Fixing with hot glue on the formwork table	Yes	Yes	Yes	Yes
Can be attached to one-gang junction boxes or the abutment by means of push-button connection	-	-	Yes	Yes
Art. No.	1261-06	1261-07	1261-08	1261-09
Packaging inner/dispatch	- / 50	- / 50	- / 50	- / 50

Screw box

- Suitable for fixing accessories and covers
- Self-tapping Ø 3.2 mm
- Corrosion-resistant in accordance with German DIN VDE standard
- RoHS compliant



Length	15, 25, 40 mm
Filled with appliance screws +/- per 100 pcs	Yes
Art. No.	2472-91
Packaging inner/dispatch	- / 8

Hole punch and expanding dowel fitting tool

- For concrete construction installation
- For fixing to steel formwork with expanding dowel 1217-02
- For all boxes, casings, bushes, etc.



Length	150 mm	340 mm
Art. No.	1284-62	1284-63
Packaging inner/dispatch	- / 1	- / 1

Device screws +/-

- Self-tapping Ø 3.2 mm
- Countersunk head with PZ1/S combination drive
- Surface double-treated
- Corrosion-resistant in accordance with German DIN VDE standard



Length	15 mm	20 mm	25 mm	40 mm
Art. No.	2472-15	2472-20	2472-25	2472-40
Packaging inner/dispatch	100 / 10,000	100 / 10,000	100 / 10,000	100 / 10,000

Step drill

- For concrete construction installation
- For manufacturing conduit entry openings
- Can be adapted for battery-powered drills



DIN EN conduit Ø	10 – 40 mm
Art. No.	1284-32
Packaging inner/dispatch	- / 10

Universal opening cutter for plastics

- for manufacture of exact entry openings
- For low-voltage cables of Ø 4 - 7.5 mm
- For NYM cables up to 5 x 2.5 or 7 x 1.5
- For NYY cables up to 5 x 2.5
- For DIN EN conduits (flexible) with outer Ø of up to 20/25 mm
- With 1/4" chuck size for battery-powered drills



For exact entry openings	4 – 22.5 mm
Art. No.	1085-80
Packaging inner/dispatch	- / 10

Punch pliers

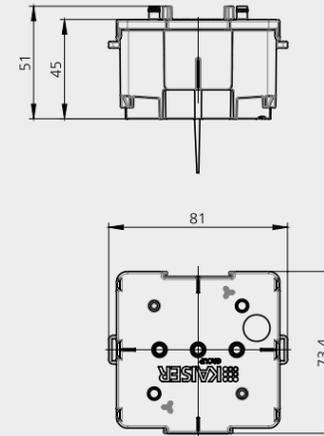
- For concrete construction installation
- For the production of exact entries for installation pipes
- With plate ejector
- Punch bits exchangeable



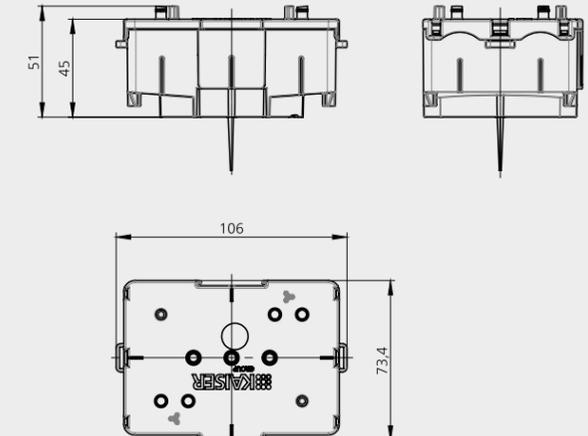
DIN EN conduit Ø	20 mm	25 mm
Art. No.	1286-33	1286-34
Packaging inner/dispatch	- / 1	- / 1

System Flat 45 - Dimensions

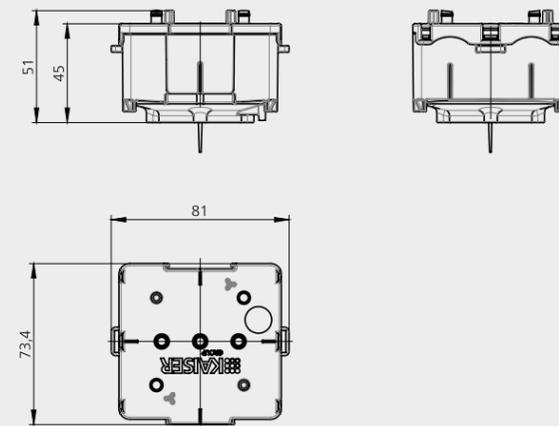
One-gang box Flat 45
Art. No. 1256-01



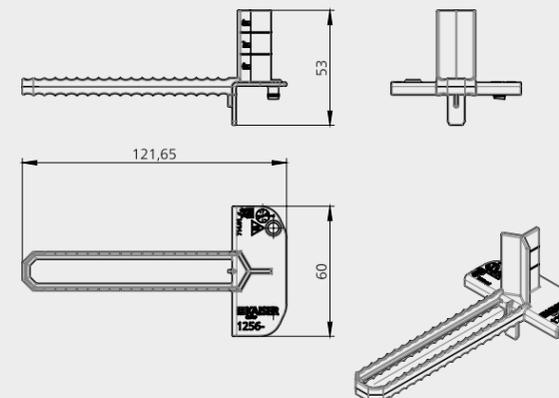
One-gang junction box Flat 45
Art. No. 1266-01



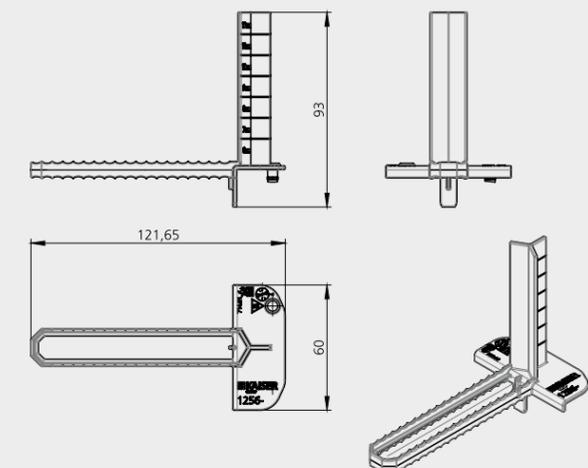
Wall light connection box Flat 45
Art. No. 1246-01



Fixing and support element Flat 45/80
Art. No. 1256-08



Fixing and support element Flat 45/120
Art. No. 1256-12



Systems and solutions for professional electrical installation

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



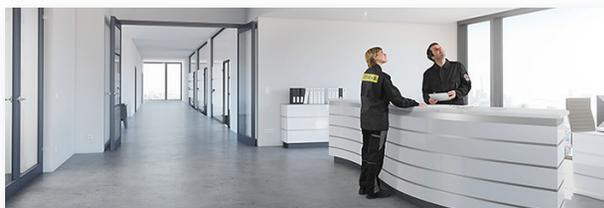
Energy efficiency.

Innovative KAISER products help you to ensure compliance with the requirements of EU Directives and national regulations such as the Energy Savings Regulations (EnEV).



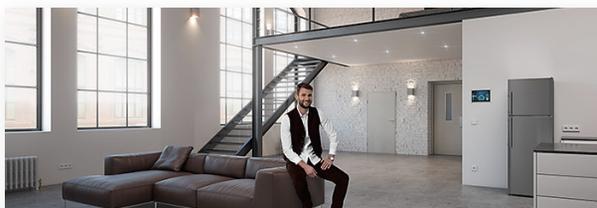
Radiation protection.

The use of the new radiation protection 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 matching 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 concrete, precast concrete and prefabricated room modules. Fully optimised to professional electrical installation work.

Technical information and advice

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

For any additional questions or information, please do not hesitate to contact our technical support team who will be happy to assist you: **+49 (0) 23 55 / 809-61** · technik@kaiser-elektro.de

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