

# Product catalogue

UGA SYSTEM-TECHNIK GmbH & Co. KG

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# About UGA, about us

Reliably protecting your assets





# UGA: Who we are

UGA has been protecting building penetrations with guaranteed watertight and gas-tight solutions since 1990. We develop and produce cable and pipe penetrations in Herbrechtingen in southern Germany, but we sell our products worldwide. We see ourselves primarily as a service provider: we advise our customers individually and design solutions that solve the respective problem quickly, precisely and sustainably. Quality and safety are our top priorities.

This also applies if you are faced with a complex challenge. We are happy to manufacture their solutions specifically customised for you. You can rest assured – we can fulfil any requirement. Our customers worldwide can rely on personalised and expert advice.

UGA SYSTEM-TECHNIK is a subsidiary of IWK Holding. Together, we offer our customers a broad product range that guarantees safety, stability and reliability for buildings and construction projects.

# 3 good reasons for choosing UGA

Discover our strengths for yourself.



We are solution-orientated: individual, fast and durable



We are always there for you: on site and in person



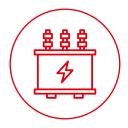
We are fully committed: as a family business with tradition and experience

# Areas of application for cable and pipe ducts

# Protection for property and critical infrastructure

Our gas-tight and watertight products ensure that penetrations into buildings are reliably sealed. We are deeply aware of our responsibility to protect our customers' property. Our cable and pipe penetrations not only protect against water ingress and gas leakage, but also keep pests and vermin out.

Our cable and pipe penetrations are therefore indispensable, especially when it comes to large buildings or buildings with important infrastructure. Our products provide protection across a wide range of areas, for example:



**Substations** 



**Power stations** 



**Industrial plants** 



**Transformer stations** 



Onshore and offshore wind turbines



Main supply line shafts

This is just a selection of the areas in which our products are used. They can also be found in schools, factories, hospitals and tunnels. In short, UGA is always the right choice when property and assets need to be reliably protected.

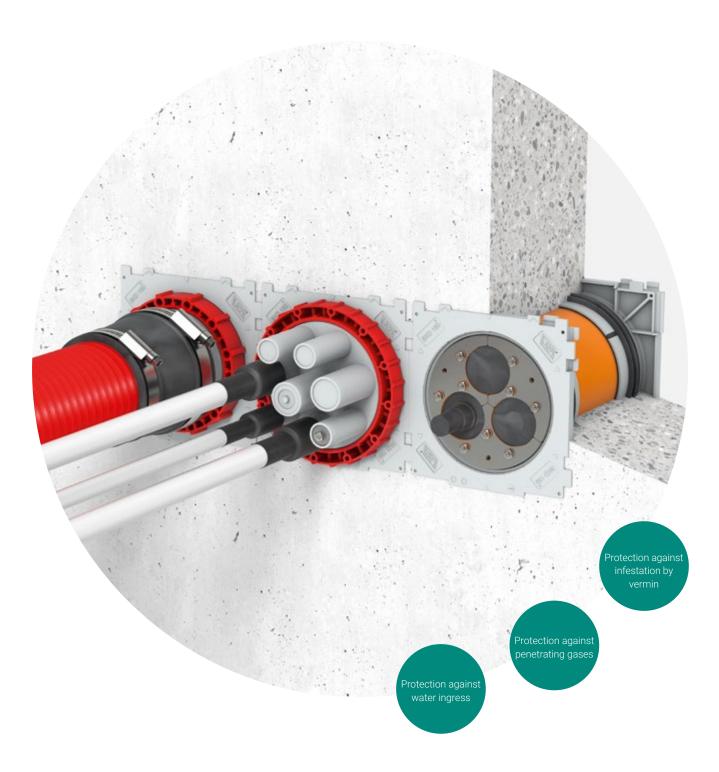
# Do you want to delve deeper?

Scan the QR code to find videos, expert interviews and other useful information about our cable and pipe transits on our website.









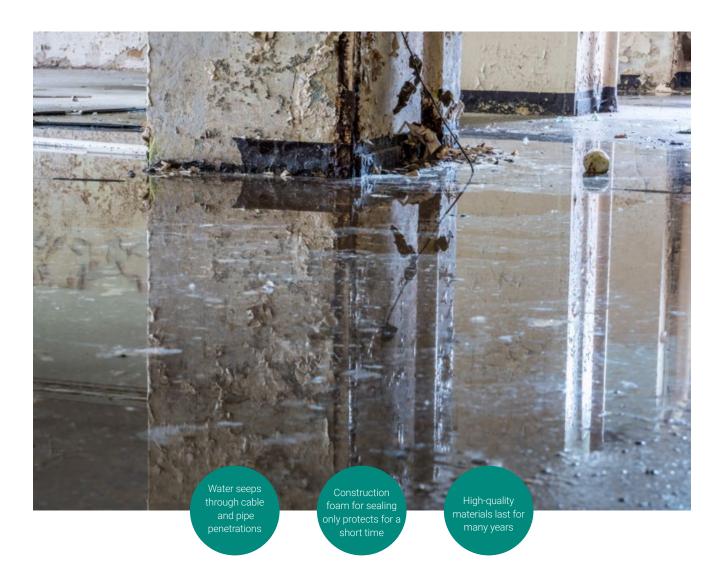
# Why gas-tight and watertight building penetrations are important

If water penetrates a building, this can have costly consequences for the interior fittings and building fabric. However, the greatest danger is a different one: water causes serious damage to electrical appliances and systems. Building penetrations are particularly susceptible where pipes and cables lead into the building. This is where penetrating water finds the path of least resistance, because often only construction foam is used for sealing, which only lasts a few years.

That's why at UGA we develop cable and pipe penetrations that are durable. They prevent water ingress and two other major hazards: toxic gases, such as radon or smoke, and vermin infestation. Our "Made in Germany" solutions reliably protect buildings and property, but can still be planned and installed quickly.







# Case study: Water ingress in a clinic

It is the nightmare of every builder or property owner: water penetrates the building and causes enormous damage. Our real-life example involves a large clinic. At first, nobody could explain where all the water, which was knee-high in the basement, was coming from. Only a subsequent search for evidence was able to clarify the cause: "It rained a lot over several days. The water saturated the soil to such an extent that the ground could no longer absorb it any more," explained one of the assessors expert. "Construction foam was used to seal the areas where the cables and pipes were laid in the building. But this no longer sealed sufficiently. This allowed the water to penetrate the building from the outside." The consequences were serious. Among other things, the CT scanner for whole-body tomography was located in the basement of the clinic.

The damage caused ran into the millions, and there was considerable downtime throughout the clinic. What conclusions could the clinic operator draw from this? Cable and pipe penetrations represent a serious weak point in the event of impending water ingress if only construction foam or other unreliable materials are used. These materials lose their protective effect within a few years. We therefore always

recommend that our customers opt for cable and pipe penetrations with German quality standards. The solutions from UGA guarantee extremely long-lasting protection against external influences – and could also have prevented the water damage in this case.



# 000

# Quality made in Germany



# **Guaranteed high quality**

We have been developing and producing all our solutions in Herbrechtingen in southern Germany since 1990. Safety and quality are our top priorities. We never lose sight of our goal: to reliably protect your property from external influences for years – with the best materials available.



# **Guaranteed worldwide distribution**

We manufacture in Germany, but our customers around the world rely on UGA. Wherever you require sealing and fire protection to German quality standards for your building, we are there for you – with international partners who guarantee a precise solution and punctual deliveries.



# **Guaranteed expert advice**

As a family-run company, we value personal customer contact and take a close look at your needs. You can rely on over 30 years of expertise in the field of sealing and fire protection – whether you need standard solutions or customised products.



# **Guaranteed fast delivery**

Do you need our products at short notice and as quickly as possible? We deliver standard solutions within 24 hours. Customised products may take longer, but we are guaranteed to keep to your project schedule – because we work with you to set the right priorities.



# **Customised solutions – customised components**

Customised production: For difficult installation situations, at UGA we develop customised products for you. With our customised parts, we ensure that your building is protected from water, gas and vermin, even if the circumstances appear challenging. To do this, we take a close look at the problem. We come to your construction site, consult with your experts and take measurements as required. We then deliver a customised solution – exactly on schedule. We also fulfil testing requirements outside of Germany. You can find more information by scanning the QR code.:



# Our products at a glance





# **Cable entries**

Simply safe: Our cable entries provide optimum and quickly available protection against external influences, preventing water ingress, gas development and vermin infestation. They can be installed with minimal effort and are particularly durable. System covers, system inserts or cable protection conduits can be easily and securely connected to wall inserts.



# Sealing inserts for cables and pipes

Flexible use: Whether in core drillings made of waterproof concrete, wall sleeves or cable entries, our sealing inserts reliably seal cables and pipes against water, gas and vermin. We offer you the right solution with the right material according to your situation. Stay flexible – the inserts can be removed so that they can be repositioned at a later date.



# Accessories

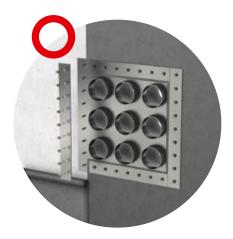
Perfectly complemented: In addition to our main products, we support you with a wide range of accessories. For example, with easy-to-install cable funnel inserts, wall collars that are leak-tight against pressing water, high-quality EPDM sleeves, stable BO-PLA installation devices and highly effective cable cleaners. Take a look at our entire inventory on our website or contact us – we will provide you with the exact solution you need.



# Our products at a glance







# Wall sleeves

Ready for use at any time: Cables and structures are routed through wall sleeves. Some of our models can also be retrofitted. All variants impress with their material quality, easy handling, individual cutting and fit-for-purpose materials: we manufacture them from plastic, fibre cement and stainless steel in the desired diameter and length.



# **Cable protection systems**

Highly resilient: Our cable protection systems protect cables from moisture and mechanical influences. They are easy to connect using wall inserts, wall sleeves and other cable protection conduits and tubes. They can also be used to connect buildings so that they are leak-tight against gas and pressing water. The systems can withstand enormous loads and can be set in concrete without any problems. They are available in 4 exact internal diameters: 80, 110, 125 and 150 mm.



# **Building earthings**

Reliably earthed: An earthing system is a basic requirement for the safe operation of electrical systems. It protects people from dangerously high voltages and currents. If the earth has a different potential than the building, the earthing system equalises this. The systems can be integrated into the building in various ways: welded or bolted as armour earthing, set in concrete or retrofitted as bushing earthing.







# **Roof entries**

Rainproof sealing: As with exterior walls, secure, professional and durable waterproofing is also essential on roofs. Due to the increasing installation of photovoltaic systems, air conditioning systems and heat pumps, more and more cables are being laid on the roof. Our roof entries provide reliable protection against damage caused by rain and moisture, whether on flat or pitched roofs.



# House lead-ins

Safely supplied: Every house needs supply lines for gas, water, electricity and telecommunications. We offer DVGW approved house lead-ins for every wall structure – from black troughs and white troughs to double and element walls. They cover all utilities, including district and geothermal heating. We are also happy to help you with broadband expansion: our fibre optic house lead-ins can even be retrofitted.



# Fire protection

One hundred per cent fireproof: Our safety elements prevent the spread of fire, smoke and gases along pipework and cable entries in industrial plants, for example. We have the right solution for a wide range of challenges – and beyond. In addition to our extensive product range, we are happy to offer you personalised advice from a fire protection expert.

# Our services for you





# **UGA** supports you in every situation



# **BIM – building information modelling**

The new way to design construction projects – simply digital. We can provide you with some of our cable and pipe transits in a CAD-compatible format. Simply configure your 2D and 3D drawings, download them and import them into your planning software. Scan the QR code for more information.





# Tender texts - ausschreiben.de

Tender texts for your specifications – simply download them quickly and easily. We provide you with our product information as tender texts. You can find the right tender texts from UGA at ausschreiben.de or by scanning the QR code.





# **Further services**

Our service goes far beyond providing standard components and customised products. What additional support do you need for your construction projects? We are happy to support you with a wide range of services that ensure the safety of your construction sites, buildings, equipment and employees and make planning easier for you. These include:



**Construction site service:** Our field service employees visit your construction site to solve the problem directly on site.



Installation services: If you would like to have a competent expert at your side during installation, simply get in touch with your contacts at UGA and we will provide you with a cost-based or flat-rate quotation. We offer you an all-round service – everything from a single source.



**Employee training:** Protect yourself from incorrect installations and unnecessary costs. We bring your team up to date in 2-hour product training sessions.



# Service for specialist planners:

We accompany your project from the planning phase onwards and support you with technical issues.. For tenders, we offer the necessary planning support for the professional installation and sealing of cables and pipes.



Fire protection advice: Don't bother with unnecessarily long research into complex topics such as functional integrity or fire resistance classes. Our fire protection experts will be happy to advise you directly on site or over the phone.



**24-hour delivery service:** Unexpected problems occur time and again on construction sites. In such cases, we recommend our 24-hour delivery service. If you order a component today, it will be with you tomorrow (applies to stock products only).

# How can we help you?

Tell us your request! Simply scan this QR code. You will find the right contact form on the website under services. You are welcome to send us an enquiry directly – we will get back to you as soon as possible.



# What UGA offers you

# **Customised solutions for every application**





# **Before**

Rigid cables without sealing: The cables were laid without sealing in a building with a black trough.

# **After**

The individual sealing insert protrudes and is suitable as a solution for entries within the black trough without to prevent it from its watertight properties.



# **Customised solutions – customised components**

Customised production: For difficult installation situations, at UGA we develop customised products for you. With our customised parts, we ensure that your building is protected from water, gas and vermin, even if the circumstances appear challenging. To do this, we take a close look at the problem. We come to your construction site, consult with your experts and take measurements as required. We then deliver a customised solution – exactly on schedule. We also fulfil testing requirements outside of Germany. You can find more information by scanning the QR code.



# Secure protection against







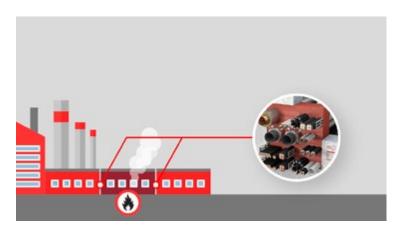


**Hazardous gases** 



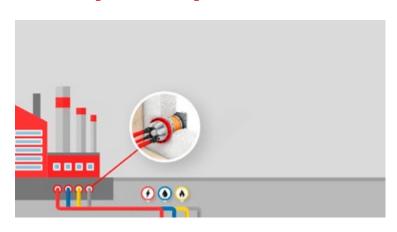
Vermin

# **Professional fire protection**



- Water and waste water pipes
- Telecommunications lines
- Power cables
- Air conditioning lines

# The best option in competition



- Reliably leak-proof and extremely durable products
- Highest quality "Made in Germany"
- Very simple installation

# Useful information for your construction project

# Waterproof concrete and load classes

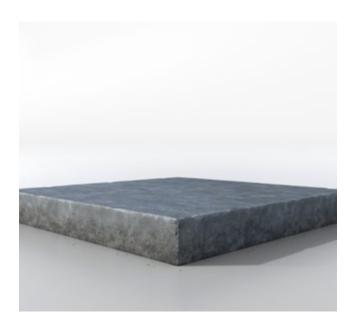
Find out here which class of waterproof concrete is suitable for which application. The main difference lies in the intensity and duration of exposure to water.

### Load class 1

In this class, waterproof concrete protects structures with a low to moderate water load. This means that the concrete is mixed and processed in such a way that it can withstand normal to slightly increased moisture levels. This normally involves buildings that could come into contact with water but are not exposed to constant or intensive loads.

# Stress class 2

For structures with a significantly higher water load, waterproof concrete of stress class 2 is used. Increased water load means the structures are exposed to permanent water contact or increased moisture, for example swimming pools, drinking water tanks or construction projects in water-rich environments. In these cases, waterproof concrete must be particularly resistant in order to prevent water from penetrating over long periods of time.







# **DIN** standards

DIN standards are important in order to be prepared for certain effects or conditions on construction sites. For example, a soil survey report may specify that construction should be carried out in accordance with DIN 18533. Or the building may have rooms in the basement areas that are particularly worthy of protection, such as archives, server rooms, etc. In these cases too, waterproofing in accordance with DIN 18533 is mandatory.

**DIN 18533:** DIN 18533 is a standard that specifies requirements for the waterproofing of components in contact with the ground, such as basement walls, foundations and entries in buildings. It defines the various water exposure classes and specifies the necessary protective measures to prevent the ingress of water. As a protective measure, liquid or sheet waterproofing materials are also applied to the exterior walls. This may be important for you as a building owner, developer or contractor for the following reasons:

**Product specifications:** The standard specifies the requirements for the waterproofing of components in contact with the ground. Cable and building penetrations fall into this category and must fulfil the respective requirements in order to prevent the ingress of water and protect the integrity of the building structure.

**Quality assurance:** The standard also serves as a quality standard for the waterproofing of buildings. As a manufacturer, we produce in accordance with this standard and thus ensure that our products fulfil the requirements for water impermeability.

**Reliability:** If you as a building owner really want to reliably and effectively prevent water from entering your building, we recommend our products – quality products from a manufacturer that complies with the legal standard.

**Legal requirements:** Many countries and regions legally require builders to comply with building standards such as DIN 18533. Use products that comply with the relevant standards, avoid legal problems and ensure that you can complete your project on schedule.

# Water exposure classes in accordance with DIN 18533

This overview will help you to better understand the protective effect of our products in different water-related situations.

### W1-E: non-pressing water

For highly permeable soils and materials: Areas where there is no permanent accumulation of water. Drainage systems are available here to regulate the flow of water.

# W2.1-E: moderately pressing water

Backwater up to 3 m (moderately pressing water): If water presses against the building component, for example in areas with poorly permeable subsoil, our products offer reliable protection. Groundwater up to 3 m (moderately pressing water): Our products also protect against rising groundwater.

# W2.2-E: pressing water

Stagnant water of more than 3 metres (pressing water): Even if the water rises higher due to damming or other reasons, our products provide the necessary protection.



# Water pressure

Not sure which product is right for you? 0.5 bar water pressure corresponds to a water column of 5 metres. If this is the case for you, a rubber press seal (GPD) with a sealing width of 30 mm would be sufficient. In addition to the water pressure, other parameters such as cable tolerances or ground settlement also have an influence on the leak-tightness. Please contact us if you have any questions – we will help you make the right choice. You can find more useful information for your construction project by scanning the QR code.



# We think ahead!





**Award** 





**German Water** Partnership



**FHRK** 



**DIN EN 9001** 







# Hydropower: The Brenz drives us

Environmentally friendly energy: With our in-house water turbines, we utilise the natural power of the Brenz River, which flows directly below our company building. In this way, we generate 400,000 kWh of clean electricity per year – and cover our entire needs.



# We are committed to sustainable material cycles

As a partner of interzero, we are successfully helping to shape the circular economy of the future by avoiding waste, securing raw materials and significantly improving our sustainability balance. With our "Made for Recycling" certification, we fulfil all the requirements of the German Packaging Act.

Together with interzero, we are making a demonstrable contribution to environmental and climate protection. We reliably take back used packaging where it actually accumulates – at our customers' premises. Packaging protects our products and is indispensable. Nevertheless, we can minimise resource consumption and environmental pollution by recycling the raw materials from our packaging across the board and returning them to the material cycle.



# References: How satisfied our customers are

The private brewery Gaffel am Dom is Cologne's most modern brewery and pub and has the most popular Kölsch brand in the catering trade. During renovation work, our customer wanted to run the cables for its photovoltaic system through the roof. The challenge: the building has a closed trapezoidal roof and thick, inflexible cables. How did we solve this problem? Scan the QR code below to find out more. Our customer is extremely satisfied after our joint project:

"With UGA, we always have a reliable partner at our side who responds quickly, takes care of us as a customer in the long term and has a customised solution for each of our highly individual applications."

## Alexander Berhardt, Project Manager at the private brewery Gaffel

In which area do you need support to secure your building or construction project? You will find the right contact person at UGA. Feel free to contact us at any time!

**Do you need more information?**Find out more about interzero and our circular economy by scanning the QR code.



**Do you need more information?**Find out more about our current customer projects by scanning the QR code.



# Our customised solutions in real-life application





























# Talk to us!



Page **23** 





# **Orders**

So you already know which product you need? Then simply send your order to us at:





# **Quotation preparation**

Would you like a quote? Please contact us by e-mail or telephone:



# Personalised advice

Do you have any questions or need personalised advice? Our experienced advisors are available for you at any time. Please give us a call:

**%** 07324 9696-0



# **International enquiry**

Does your enquiry concern a building or construction project outside Germany? Please contact our export team by e-mail! You can also find your personal trading partner on our website.

≅ export@uga.eu

www.uga.eu/contact-world

# Do you need on-site support?

Often issues cannot be resolved by phone or e-mail. Contact our technical advisors in the field and make an appointment – we will come to your construction site and we'll solve the challenge together! You can find your personal contact person and their contact details by scanning the QR code:







# **Customised solutions**

Complex installation situations require well thought-out solutions.

# **Customised solutions**

How we find the right solution for you

You will find specific examples of our customised solutions on the following pages. See for yourself how our high-quality products offer you security. Our customised solutions can also be combined with fire protection – just get in touch with us.

By the way: we not only offer products for refurbishment, but also provide customised solutions for new builds!









Fast delivery times for customised parts Personal advice with collaborative solution development Reliable seal even in difficult installation situations

Customised solutions for your requirements

# Our service for you

Complex installation situations require well thought-out solutions. UGA SYSTEM-TECHNIK is your specialist for customised parts, which we manufacture individually for you. What if you have more complex requirements than a standard core drilling? These special challenges require special drawings and occupancy tests – which our technicians will be happy to produce for you. We come to your construction site,

take measurements and deliver a customised solution. This guarantees we are able to protect any building against water and gas ingress. You benefit from our many years of experience, unique service and fast delivery times. We support you with your project from planning to realisation.



# Problem solving: On site at your construction site

With our team of technical consultants, we offer on-site consultation for customised parts. Our strength lies in solving challenging installation situations. We come to you, take measurements and deliver the perfect product for your individual requirements. You can rely on our experience and service to protect your building from water and gas ingress. Together we will master your challenges.

# 2 Construction: Quickest possible implementation

Direct solutions are our speciality at UGA. Our team starts designing your customised products immediately. Thanks to our flexibility and experience, we immediately implement any necessary adaptations. Our design and production teams work together in close co-operation – so that ultimately everything fits perfectly for you.

# 3 Production: With the highest quality

Quality and efficiency are at the centre of our production at UGA. Throughout the entire production process, we use effective quality management to ensure that every product meets our high standards. Our in-house production with certified welders enables us to manufacture products of the highest quality.

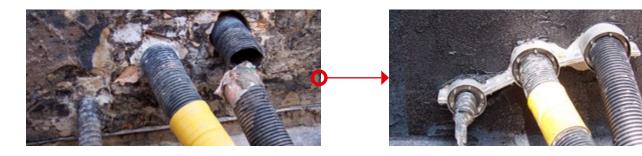
# 4 Delivery: Punctual and reliable

Thanks to the fast and efficient production process, you are guaranteed to receive your products when you need them. We also make sure that your products arrive at exactly the right place. Our supply chain is optimised to avoid long waiting times or unnecessary delays. And to ensure that everything runs smoothly, we can advise and assist with assembly if required. Or you can leave this step to us and our installation service. Our top priority is to make your process as simple and efficient as possible.

# **Advantages**

- $\,^{\circ}\,$  Reliable sealing of cables and pipes
- Easy installation even with existing cabling thanks to split version
- $\,^{\circ}\,$  Even cables running at an angle are perfectly sealed
- o Perfectly matched to the installation situation

# Product focus on wall sleeves



# **Before**

In this renovation case, corrugated cable protection pipes had already been routed through a masonry wall. These are partially torn off, leaky and therefore a safety risk for the building. The non-flat surface of the wall is particularly challenging.

# **After**

The split adhesive/levelling flange is an excellent solution for entries within the black trough to prevent it from losing its watertight properties.

## **Special features:**

- Split flange makes it perfect for retrofitting
- Seals cables and pipes that have already been laid
- Customised diameters

## **Assembled products:**

- Wall sleeve with adhesive/levelling flange in split version
- Rubber press seal (GPD) with 60 mm EPDM





# **Before**

In this example, cables that have already been laid run through an opening without a smooth surface. This makes subsequent sealing particularly difficult: the wall differences must be levelled out in three dimensions and the cables must be laid neatly.

### After

For openings on rough surfaces, our front mounting flange in a split version with a rectangular rubber press seal is used.

# **Special features:**

- Cables and pipes can already be laid before installation
- Many cables can be bundled and sorted
- Suitable for unusual surface structures

# **Assembled products:**

- Front mounting flange for retrofitting
- · Rectangular rubber press seal

# Product focus on wall sleeves





# **Before**

Sealing elliptical wall openings is difficult – they must first be levelled. In addition, there is little space for the work in this corner area. Precise work is required here!

# **After**

We also offer you suitable solutions for difficult installation situations. This corner construction with one partition can also be installed where space is limited.

## **Special features:**

- Installation possible even where space is limited
- Solution for elliptical wall openings
- Split corner construction
- High degree of individuality when customising the diameters

### **Assembled products:**

- Split stem flange
- Rubber press seal



# **Before**

In this example, cables that have already been laid run through an opening without a smooth surface. This makes subsequent sealing particularly difficult: the wall differences must be levelled out in three dimensions and the cables must be laid neatly.

### After

Angled pipe sleeves bundle the rigid cables. Thanks to the multiple split design, installation is possible despite the different laying directions of the cables.

# **Special features:**

- Cables and pipes can already be laid before installation
- Suitable for pre-laid cables due to split design
- Adapted for angled and rigid cables

# **Assembled products:**

- Stem flange
- Rubber press seal

# Product focus on wall sleeves



# **Before**

Pipes from different directions come together at this wall duct – some of them are angled. A secure seal is challenging here.

# After

Sealing of bundled pipes from different directions.

# **Special features:**

- Exact measurement to the millimetre by our trained specialists on site
- Rigidly laid pipes, some with angled sections

# **Assembled products:**

- · Wall sleeve divided into three levels
- Rectangular rubber press seals



# Wall sleeves

Would you like to find out more about our wall sleeves? You can find all our products, technical data sheets and more on our website. Simply scan the QR code.





# Sealing insert/rubber press seal

Would you like to find out more about our rubber press seals? You can find all our products, technical data sheets and more on our website. Simply scan the QR code.



Product focus on rubber press seals







# **Before**

Rigidly installed cable protection conduits with defined axial dimensions.

# **After**

The customised sealing insert is an excellent solution for entries within the black trough to prevent it from losing its watertight properties.

## **Special features:**

- Split flange is perfect for retrofitting
- Cables and pipes can already be laid before installation
- High degree of individuality when customising the diameters

# **Assembled products:**

- Split stem flange
- Eccentric rubber press seals





# **Before**

Not an easy task: many cables are fed underground here. These have to be reorganised and sealed according to the installation levels.

### After

The customised part not only seals and organises all the cables perfectly. It also leaves space to easily and safely reroute cables in the future – a saving on further work.

# **Special features:**

- Organised cable routing
- The installation of additional round rubber press seals allows for subsequent customisation
- Reserves can be introduced simply and easily

# Assembled products:

• Rectangular, split rubber press seal

# Customised solutions on the roof

We design according to your requirements!



# Swan-neck entry

This product is ideal for warm roofs. Thanks to its variable sealing levels, it adapts flexibly to your needs. You can easily adjust its height. This is particularly practical if the thickness of the thermal insulation is not yet known. Use this flexibility for your building.



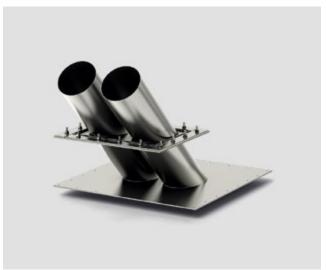
# Double flange design with multiple arrangement

Do a large number of cables need to be routed through a roof in a small space? No problem. We adapt the number, arrangement and diameter of each individual cable perfectly to your specific construction situation.



# Double flange design with angled connection piece

Every rigid cable and pipe requires a customised solution to guide it through your roof. Our double flange constructions with angled sockets are designed precisely for this purpose and adapt perfectly to any bending radius. No matter what diameter, number or angle you need, we will customise it to your requirements.



# Rectangular special gooseneck construction

Rigid cables in the tightest of spaces with customised roof openings? Our variable and square second sealing level adapts perfectly to your requirements. We also offer matching square rubber press seals.



# **Customised solutions for sandwich panels**

We seal logistics and production halls and construction containers



# Clever, simple, safe: See for yourself!

Our special lining pipe with counter flange enables an above-ground entry that can also be retrofitted if required. Thanks to the clever use of the counter flange, the components can be pressed from both the inside and the outside. This ensures optimum leak tightness. A particularly practical feature of this component is that it can also be fixed in place without welding.

When it comes to protection against vandalism or theft, our solutions are extremely secure. As the threaded rods and nuts, i.e. all the connecting elements, are on the inside, they cannot be removed from the outside. This provides optimum protection for your construction.





### **Contact search**

Your contact partners, who provide you with active support and advice, are of fundamental importance for our customised solutions. But who is responsible for you? To help you quickly find the right contact at UGA, you can search for contacts in your area. Simply scan this QR code.



# Installation situations and example applications

Our customised solutions in real-life application

































# Cable entries

Wall inserts, system covers and inserts



# There is no easier way to seal cables and pipes

You remain flexible with our modular cable entries. At the heart of the system are wall inserts, which you can combine with system covers and inserts as required. Thanks to the innovative click system, you simply plug the entries together and can arrange them on top of and next to each other in stacks – easy to plan with fixed centre distances.

You always benefit from our commitment to maximum safety: as soon as the wall inserts are set in concrete, they are gas-tight and watertight. You can then decide how you want to use the entry or whether it should remain unassigned for the time being. You can also use the bayonet system to safely and easily attach inserts or cable protection conduits at a later date.



# The wall insert - the wall component

The wall insert is the centrepiece of the cable entry. Whether the single, double, angled or flange variant, the bayonet system accepts a variety of system covers and inserts to suit suit your requirements. We will be happy to manufacture wall inserts for you according to wall thickness and application.

The bayonet catch snaps accurately into place during installation and is easier and safer to fit than a thread. It also ensures a seal between the wall insert and the rest of the system.

#### Further advantages:

- Longitudinally watertight: integrated seal (water barrier)
- Dirt-free installation thanks to the supplied cover that is leak-tight against gas and pressing water (blind plug)
- Allows better planning in your project: penetration arrangement fixed by specified centre distance
- Customisation of wall inserts on request (application, wall thickness)

# System covers - many possibilities

System covers are quick and easy to install on the bayonet connection of the wall insert. Choose the right variant for your construction project from our portfolio – the largest on the market.

The socket cover is suitable for the entry of several pipes and cables from 7 to 108 mm in diameter. The thermo-shrink sleeves supplied provide a reliable seal. Unused pipe sleeves can be fitted with sealing plugs and assigned later. If you want to securely connect smooth or corrugated cable protection conduits, choose a sleeve cover. We offer a wide range of EPDM sleeves for this purpose.

#### **Further advantages:**

- Leak-tight against gas and pressing water immediately after installation
- Secure installation thanks to bayonet catch
- Compatible with all common systems
- · Protected against self-opening and rodent damage
- Standard thermo-shrink sleeves (TM), cold shrink sleeves (KM) optionally available

# System inserts – also for subsequent sealing

The principle of the system inserts is simple and effective: when you tighten the screws, stainless steel plates press against each other and the rubber between them expands. This creates pressure that safely and permanently seals against gas and water. Thanks to the bayonet connection, the system insert is locked in place and cannot tip out.

Choose from 3 basic variants: you are flexible with the interchangeable insert, which you can also change at a later date. The insert with multilayer technology is suitable for many standard situations. You can adjust and customise it to fit any size: for up to 10 cables or pipes of different diameters.

We will be happy to customise the insert with adapted press plates for you.

## **Further advantages:**

- · Designed for high radial load (no buckling)
- Longitudinally watertight thanks to welded-on bolts and closed plate on one side
- Compatible with all common systems
- Has a sound-insulating effect, protected against rodent damage

# The benefits of our cable entries

- Easy to install: low system weight combined with high stability
- Excellent planning options: many variants and connection options
- Suitable for your projects: cable entries for all applications, wall types and wall thicknesses
- o Additional safety: can be combined with S90 fire protection
- Guaranteed: tested by the German industry association for cable and pipe entries into buildings (FHRK)





# Bayonet wall inserts



# One system for every purpose

The BKD 150 system always offers the right variant for the changing requirements on construction sites. Single, double, angular wall inserts and flange wall inserts are available. With a clear width of 150 mm, it is the most popular system on the market. For you, this also means that you have the widest choice. Our components undergo extensive testing and are tested by the FHRK in particular – for your safety.



**Product name:** BKD150-K/(L)

#### Single wall insert

Quick to install and saves you money: The one-sided connection for system covers or inserts leaves all options open to you. You are on the safe side with the blind plug supplied, as the wall insert is leaktight against gas and pressing water immediately after concreting – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together
- Cost-effective variant



Lloyd's Register



2.5 bar



70-500 mm



**Product name:** BKD150-K2/(L)

#### **Double wall insert**

Quick to install and doubly secured: With 2 connections for system covers or inserts, you have maximum flexibility. You stay on the safe side with the blind plugs supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting – even without reworking.

- System covers or system inserts can be fitted on both sides
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



Lloyd's Registe



2.5 bar



100-500 mm



**Product name:**BKD150-K2-EW/(L)

# Double wall insert for double/element walls

Thanks to the additional rubber seal in the centre, this double wall insert is also suitable for double or element walls. With 2 connections for system covers or inserts, you have maximum flexibility. After concreting, the wall insert is leak-tight against gas and pressing water - even without reworking.

- For double or panelled walls thanks to additional sealing rubber
- System covers or system inserts can be fitted on both sides
- Bundle possible by plugging together



Lloyd's Register



2.5 bar



100-500





# **Product name:**BKD150-AF-235/BE-VZ BKD150-AF-235/BE-A4

#### Mounting flange with fastening elements

You simply plug the mounting flange into a core drilling or wall opening up to a maximum diameter of 150 mm. Depending on your budget, you can choose fastenings made of stainless steel (V4A) or in a cheaper galvanised version.

- Subsequent dowelling to core drillings up to 150 mm
- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)



LRQA



2.5 bar



## Product name:

BKD150-K-S30/(L) BKD150-K-S45/(L) BKD150-K-S60/(L)

# **Angular single wall insert**

For every angle of your project: Reliably seal sloping penetrations at angles of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water.

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- One-sided mounting of system covers or system inserts
- Quick to install in waterproof concrete structures (class 1 and 2)



Lloyd's Register



2.5 bar



200-500

#### This is why high-quality cable and pipe penetrations are important

With products from UGA, you can protect your buildings from water, dangerous gases and vermin – and prevent serious damage. Find out more on our website. Simply scan the QR code.



Legend



Tested by ...



Gas- and watertight up to ... bar



Wall thicknesses from ... - ... mm



# Bayonet wall inserts





#### Product name:

BKD150-K2-S30/(L) BKD150-K2-S45/(L) BKD150-K2-S60/(L)

#### **Angular wall insert**

For every angle of your project: Double-seal sloping penetrations at an angle of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. With 2 connections for system covers or KSS systems, you have maximum flexibility. After concreting, the wall insert is leak-tight against gas and pressing water.

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- System covers or system inserts can be fitted on both sides
- Quick to install in waterproof concrete structures (class 1 and 2)



Lloyd's Register



2.5 bar



200-500



## Product name:

BKD150-K-MA125/(L) BKD150-K-MA145/(L) BKD150-K-MA170/(L)

# Clamping range:

125 = 110 mm-125 mm 145 = 130 mm-145 mm 170 = 160 mm-170 mm

## Wall insert with cuff technology

Simple elastic connection: Use a sleeve to connect empty conduits or flexible cable protection conduits. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



0.5 bar



200-500 mm



# Product name:

BKD150-K-SM110/(L) BKD150-K-SM125/(L) BKD150-K-SM160/(L)

# Wall insert with pipe fitting

Connected in no time at all: You can connect smooth-walled cable protection conduits using a pipe fitting. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



0.5 bar



200-500 mm





#### Product name:

BKD150-K-S30/MA125/(L) BKD150-K-S45/MA125/(L) BKD150-K-S60/MA125/(L) BKD150-K-S30/MA145/(L) BKD150-K-S45/MA145/(L) BKD150-K-S60/MA145/(L) BKD150-K-S30/MA170/(L) BKD150-K-S45/MA170/(L) BKD150-K-S45/MA170/(L)

#### Clamping range:

125 = 110mm-125 mm 145 = 130 mm-145 mm 170 = 160 mm-170 mm

#### Angular single wall insert with cuff technology

Flexible connection at any angle: Use a sleeve to connect empty conduits or flexible cable protection conduits to angled penetrations. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water.

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- One-sided mounting of system covers or system inserts
- 2 high-quality tensioning straps for secure fastening



0.5 bar



200-500 mm



# Product name:

BKD150-K2-KF-W1/PVC/(L)

# Double wall insert with adhesive/adhesive flange

Suitable for sealing in the black trough (DIN 18533): The 50 mm wide, all-round PVC adhesive flange is suitable for liquid sealants and non-pressing (W1) or moderately pressing water (W2.1-E). With 2 connections for system covers or KSS systems, you have maximum flexibility.

- For black troughs with liquid applied sealants in accordance with DIN 18533
- System covers or system inserts can be fitted on both sides
- Customised arrangement of the wall insert before production



1 bar



200-500







Gas- and watertight up to ... bar



Wall thicknesses

# Bayonet wall inserts





#### Product name:

BKD150-AF-NA-F+L-W(1/2)/V2A

#### Mounting flange with fixed/loose flange design

The mounting flange with integrated fixed/loose flange construction can be subsequently anchored to a core drilling or wall opening – ideal for your renovation project. The waterproofing membrane can then be professionally re-adjusted. The fixed and loose flange construction can be designed for both non-pressing water (W1) and pressing water (W2).

- Subsequent dowelling in the black trough
- One-sided connection of system covers or system inserts
- 10 mm rubber flange gasket





## Product name:

BKD150-K2-F+L-W(1/2)/V2A

# Double wall insert with fixed and loose flange design

Suitable for waterproofing in black troughs (DIN 18533): The circumferential fixed and loose flange design is suitable for sheet-type waterproofing. With 2 connections for system covers or inserts, you have maximum flexibility. You are on the safe side with the blind plugs supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting – even without reworking.

- Available for all black trough load cases in accordance with DIN 18533
- System covers or system inserts can be fitted on both sides
- Customised arrangement of the wall insert before production





#### Product name:

BKD150-ASH

## **Spacer**

More safety for bundle: The ASH Spacer increases the centre distance of the wall insert from 210 mm to 250 mm. The increased space means that larger pipes can be connected more easily. The greater spacing allows concrete to penetrate the gaps better, thus ensuring a higher level of leak-tightness.

- Spacer for BKD 150
- Increased centre distance for bundle
- Better and easier concrete compaction possible
- More space when connecting large pipes

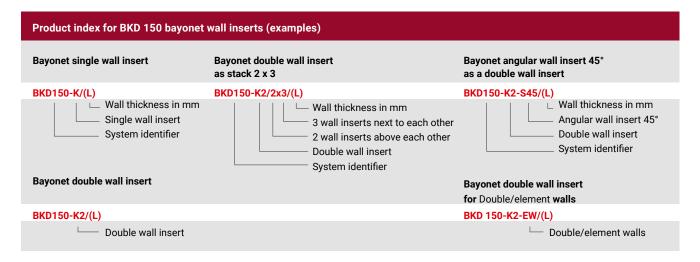


# **Abbreviations**

#### **Product index**

Abbreviation	Cancelled
F+L	Fixed-loose flange construction
SM	Pipe fitting
MA	Cuff
W1	Non-pressing water in accordance with DIN 18533
W2	Pressing water in accordance with DIN 18533
KF	Filler/adhesive flange
NA	Subsequent installation
AF	Mounting flange

# **Product index**



#### Downloads

From data sheets to installation instructions – you can find more information about our products in the download area of our website. Simply scan the QR code to get there.



(Q

Gas- and watertight



# System covers and inserts

# Suitable for your application

Thanks to their split design, system inserts are perfect for sealing cables and pipes that have already been laid.

The inserts can also be replaced at a later date and are made of high-quality materials such as A2 stainless steel and EPDM.

System covers also offer advantages: they are cost-effective and can be used flexibly in any building situation thanks to hot-shrink sleeves and collars. Another plus: the highly robust polycarbonate makes them particularly resistant.



**Product name:** BKD150-D

#### **Blind cover**

Stay flexible when plans change: A blind cover is included with all BKD150 cable entries. This allows you to seal your wall insert at a later date to make it gas-tight and watertight.

- · Blind plug for BKD 150 wall inserts
- GSS spanner required for assembly
- Inspection certificate: Lloyd's Register



Lloyd's Register



2.5 bar



# **Product name:**BKD150-D-3/59(3/3)-FHE60/400-TM

# System covers for transformer stations

Seal transformer stations safely and conveniently. This system cover includes 3 curved and flexible cable protection conduits for cables with a diameter of 26-53~mm – ideal for wall inserts set in concrete in sloping base plates. Thanks to the hot-shrink sleeves, the spiral conduits are gas- and watertight up to 0.5~bar.



- Sealing of 3 cables 26-53 mm in diameter
- GSS spanner and hot air gun required for assembly



Lloyd's Registe



0.5 bar



# Product name:

BKD150-D-1/80-TM BKD150-D-1/110-TM BKD150-D-3/59(3/3)-TM BKD150-D-7/38(7/6)-TM BKD150-D-8/35(4/2)/25(4/2)-TM

## System cover with hot-shrink sleeve

Quick and easy to install – and then immediately pressure-tight: Depending on the variant, this system cover can accommodate up to 8 cables and pipes with a diameter of 7–108 mm. Precisely fitting hotshrink sleeves reliably seal media cables with larger clamping ranges, for example. Cold-shrink sleeves are also available on request.

- 5 variants for up to 8 cables/conduits 7-108 mm in diameter
- Precisely fitting hot-shrink sleeves for immediate sealing after installation
- Doubly secured with bayonet and screw connection



Lloyd's Register



2.5 bar





#### Product name:

BKD150-D-MA40-50 BKD150-D-MA100-110
BKD150-D-MA53-63 BKD150-D-MA115-125
BKD150-D-MA65-75 BKD150-D-MA130-145
BKD150-D-MA75-90 BKD150-D-MA160-170

#### System cover with cuff technology

Your choice if you want to connect a conduit or flexible cable protection conduit: Thanks to a large selection of collars, you can connect smooth-walled pipes and corrugated pipes with a diameter of 40–170 mm. High-quality tensioning straps provide the necessary hold. The cover itself is double-secured.

- Sleeve for connecting pipes with a diameter of 40–170 mm
- 2 high-quality tensioning straps for secure fastening
- Doubly secured with bayonet and screw connection



Lloyd's Register



0.5 bar



## Product name:

BKD150-E-ZS/V2A/EPDM/1x(22-75) BKD150-E-ZS/V2A/EPDM/1x(70-110) BKD150-E-ZS/V2A/EPDM/3x(22-54) BKD150-E-ZS/V2A/EPDM/6x(4-32) BKD150-E-ZS/V2A/EPDM/9x(4-25) BKD150-E-ZS/V2A/EPDM/4x(4-32)+6x(4-20)

#### System insert with multilayer technology

If you want to seal existing cables and pipes retrospectively, this insert is your solution. Thanks to the multilayer technology, you can adapt the system insert flexibly and directly on site – this is easy thanks to its division. The insert can accommodate up to 10 cables or pipes with a diameter of 4–110 mm.





Sealing of already laid cables and pipes possible



Lloyd's Registe



2 bar



# Quality tested - guaranteed!

Our products meet the highest quality standards – for your safety. That is why you will also find the FHRK quality seal on our products. UGA SYSTEM-TECHNIK GmbH & Co. KG is a long-standing member of the Fachverband Hauseinführungen für Rohre und Kabel e. V. German association for pipe and cable building lead-ins.









Gas- and watertight up to ... bar



# System covers and inserts





# **Product name:**BKD150-E-WE/V2A/EPDM/(Z)x(D)

#### System insert with interchangeable insert

Fits your requirements too: We manufacture the interchangeable insert made of EPDM individually for you so that it reliably seals your cable situations. Another advantage: you can also replace and install the insert at a later date – for maximum flexibility.

- Customised production for numerous cable situations
- EPDM rubber insert can be replaced at a later date
- Sealing of already laid cables and pipes possible



Lloyd's



2 bar



**Product name:**BKD150-E/V2A/EPDM/(Z)X(D)

# System insert with customised press plates

Customised for you: The individual system inserts are manufactured with customised press plates to reliably seal your cable situations. We always supply the customised system inserts in a split version for installation with cables and media that have already been laid.

- Customised production for numerous cable situations
- Sealing of already laid cables and pipes possible
- Greater safety with higher loads and higher tolerances on the construction site



2.5 bar

# Maximum occupancy table: System insert with interchangeable insert

Z = number of cables/lines	D = diameter of the cables/lines
0	Blind plug possible
1	up to 110 mm
3	up to 42 mm
5	up to 34 mm
7	up to 29 mm
9	up to 24 mm

Other assignments and combinations of different diameters also possible. \\





Tested by ...



Gas- and watertight up to ... bar



# Maximum occupancy table: System insert with multilayer

**Standard variants** 

Product name	Number of cables/pipes	Cable/pipe D in mm
BKD150-E-ZS/V2A/EPDM/1x(22-75)	0-1	22-75
BKD150-E-ZS/V2A/EPDM/1x(70-110)	0-1	70-110
BKD150-E-ZS/V2A/EPDM 3x(22-54)	0-3	22-54
BKD150-E-ZS/V2A/EPDM 6x(4-32)	0-6	4-32
BKD150-E-ZS/V2A/EPDM 9x(4-25)	0-9	4-25
	0-10	
BKD150-E-ZS/V2A/EPDM 4x(4-32) + 6x (4-20)	thereof 0-4	4-32
	thereof 0-6	4-20

# Maximum occupancy table for customised press plates

Maximum occupancy

Z = number of cables/lines	D = diameter of the cables/lines
0	Blind plug possible
1	up to 122 mm
3	up to 61 mm
5	up to 47 mm
7	up to 41 mm
9	up to 32 mm
Other assignments and combinations of different diameters also possible	



# The right variant for your project

No matter how individual the requirements for your building project may be, we have the right solution for you or will be happy to manufacture it for you. Just get in touch with us. You can find your contact partner on our website.





# Additional information



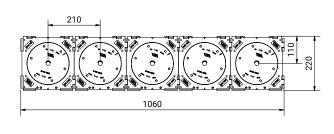
# **Technical assembly drawings**

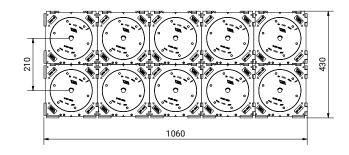
These drawings illustrate the advantages of our cable entries – such as variable bundle or the excellent ease of planning thanks to the fixed centre distances.

# Wall inserts: Stack without spacers

BKD150-K(2)/1x5/(L)

BKD150-K(2)/2x5/(L)

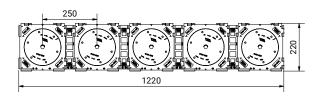


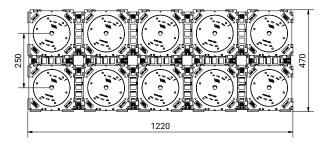


# Wall inserts: Stack with spacer

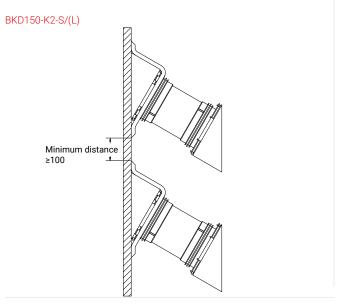
BKD150-K(2)/1x5/(L) with BKD150-ASH

BKD150-K(2)/2x5/(L) with BKD150-ASH





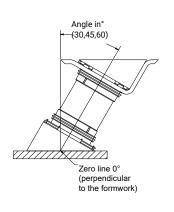
# Angular wall inserts: Minimum distance above each other





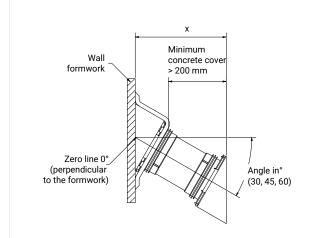
# Angular wall insert: Floor installation

BKD150-K2-S/(L)



# Angular wall insert: Wall installation

BKD150-K2-S/(L)



# Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and Practical examples illustrate our customised solutions.







BKD150-K2/(L) with system cover BKD150-D-MA100-110

## Ideal accessories

Spacers, mounting tools and more – explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.





# Bayonet wall inserts



# A compact and versatile system

The BKD 90 system always offers the right variant for the changing requirements on construction sites. Single, double, angular wall inserts and flange wall inserts are available.

This system has a clear width of 85 mm and is your choice for tight installation situations and when you have less space available. Compared to the competition, UGA offers the largest selection of system components.



**Product name:** BKD90-K/(L)

#### Single wall insert

Quick to install and saves you money: The one-sided connection for system covers or inserts leaves all options open to you. You are on the safe side with the blind plug supplied, as the wall insert is leaktight against gas and pressing water immediately after concreting – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together
- Cost-effective variant



Lloyd's Register



2 bar



60-500 mm



**Product name:** BKD90-K2/(L)

#### **Double wall insert**

Quick to install and doubly secured: With 2 connections for system covers or inserts, you have maximum flexibility. You stay on the safe side with the blind plugs supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting – even without reworking.

- System covers or system inserts can be fitted on both sides
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



Lloyd's Register



2 bar



100-500 mm



**Product name:** BKD90-K2-EW/(L)

# Double wall insert for double / element walls

Thanks to the additional rubber seal in the centre, this double wall insert is also suitable for double or element walls. With 2 connections for system covers or inserts, you have maximum flexibility. After concreting, the wall insert is leak-tight against gas and pressing water – even without reworking.

- For double or panelled walls thanks to additional sealing rubber
- System covers or system inserts can be fitted on both sides
- Bundle possible by plugging together



Lloyd's Register



2 ba



100-500 mm





#### Product name:

BKD90-AF-150/BE-VZ BKD90-AF-150/BE-4A

#### Mounting flange with fastening elements

You simply plug the mounting flange into a core drilling or wall opening up to a maximum diameter of 85 mm. Depending on your budget, you can choose fastenings made of stainless steel (V4A) or in a cheaper galvanised version.

- Subsequent dowelling to core drillings up to 85 mm
- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)



2 bar



## Product name:

BKD90-K-S30/(L) BKD90-K-S45/(L) BKD90-K-S60/(L)

## Angular single wall insert

For every angle of your project: Reliably seal sloping penetrations at angles of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- One-sided mounting of system covers or system inserts
- Quick to install in waterproof concrete structures (class 1 and 2)



Lloyd's Register



2 bar



200-500 mm



# Did you know that...

we manufacture each wall insert for you according to wall thickness? The BKD 90 system only requires a minimum wall thickness of 50 mm. Incidentally, you can find more detailed information in the relevant product data sheets on our website.





www.uga.eu

Tested



Gas- and watertight up to ... bar



Wall thicknesses



# Bayonet wall inserts





# Product name:

BKD90-K2-S30/(L) BKD90-K2-S45/(L) BKD90-K2-S60/(L)

#### **Angular wall insert**

For every angle of your project: Double seal sloping penetrations at an angle of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. With 2 connections for system covers or KSS systems, you have maximum flexibility. After concreting, the wall insert is gas and pressurised watertight.

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- System covers or system inserts can be fitted on both sides
- Quick to install in waterproof concrete structures (class 1 and 2)



Lloyd's Register



2 baı



240-500 mm



## Product name:

BKD90-K-MA50/(L) BKD90-K-MA63/(L) BKD90-K-MA89/(L) Clamping range: 50 = 40-50 mm 63 = 50-63 mm

89 = 75-89 mm

# Wall insert with cuff technology

Simple elastic connection: Use a sleeve to connect empty conduits or flexible cable protection conduits. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



Lloyd's Register

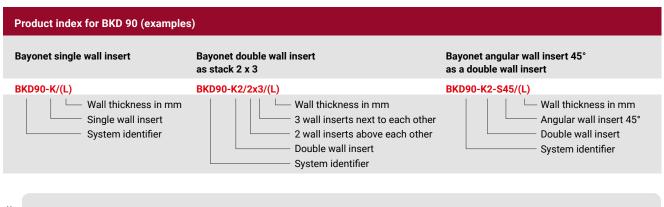


0.5 bar



200-500

# **Product index**





Tested by ... Gas- and watertight up to ... bar



Wall thicknesses from ... - ... mm



# System covers and inserts



# Suitable for your application

Thanks to their split design, system inserts are perfect for sealing cables and pipes that have already been laid. The inserts can also be replaced at a later date and are made of high-quality materials such as A2 stainless steel and EPDM.

System covers also offer advantages: they are cost-effective and can be used flexibly in any building situation thanks to hot-shrink sleeves and collars. Another plus: the highly robust polycarbonate makes them particularly resistant.



Product name:

BKD90-D

#### **Blind cover**

Stay flexible if your plans change: A blind cover is included with all BKD 90 cable entries. This allows you to seal your wall insert at a later date to make it gas-tight and watertight.

- Blind plug for BKD 90 wall inserts
- GSS spanner required for assembly
- Inspection certificate: Lloyd's Register



Lloyd's Register



bar



## Product name:

BKD90-D-1/75-TM BKD90-D-3/30(3/3)-TM BKD90-D-5/20(5/5)-TM

# System cover with hot-shrink sleeve

Quick and easy to install – and then immediately pressure-tight: Depending on the variant, this system cover can accommodate up to 5 cables and pipes with a diameter of 7–73 mm. Precisely fitting hotshrink sleeves reliably seal media cables with larger clamping ranges, for example. Cold-shrink sleeves are also available on request.



- Precisely fitting hot-shrink sleeves for immediate sealing after installation
- Doubly secured with bayonet and screw connection



Lloyd's Register



2.5 bar



# Product name:

BKD90-D-MA40-50 BKD90-D-MA50-63 BKD90-D-MA65-75 BKD90-D-MA75-90 BKD90-D-MA100-115\*

# System cover with cuff technology

Your choice if you want to connect a conduit or flexible cable protection conduit: Thanks to a large selection of collars, you can connect smooth walled pipes and corrugated pipes with a diameter of 40–115 mm. High-quality tensioning straps provide the necessary hold. The cover itself is double-secured.

- Sleeve for connecting pipes with a diameter of 40–115 mm
- 2 high-quality tensioning straps for secure fastening
- Doubly secured with bayonet and screw connection



0.5 bar

\* When ordering bundles, always be sure to order the standard and short versions for the BKD90-D-MA100-115 system cover.

# System covers and inserts





# System insert with multilayer technology

If you want to seal existing cables and pipes retrospectively, this insert is your solution. Thanks to the multilayer technology, you can adapt the system insert flexibly and directly on site – this is easy thanks to its division. The insert accommodates up to 5 cables or pipes with a diameter of 4-54 mm.



2 ba

- Product name:
- BKD90-E-ZS/SnapIn/V2A/EPDM 1x(22-54) BKD90-E-ZS/SnapIn/V2A/EPDM/ 3x(4-25) BKD90-E-ZS/SnapIn/V2A/EPDM 5x(4-20)
- Sealing of 5 cables/pipes between 4 and 54 mm
- Various inserts for flexible customisation on site
- Sealing of already laid cables and pipes possible
- Suitable for wall inserts HSI90



# System insert with interchangeable insert

Fits your requirements too: We customise the interchangeable rubber insert for you so that it reliably seals your cable situations. Another advantage: you can also replace and install the insert at a later date – for maximum flexibility.



- Customised production for numerous cable situations
- EPDM rubber insert can be replaced at a later date
- Sealing of already laid cables and pipes possible
- Suitable for wall inserts HSI90



2 ba

#### Product name:

BKD90-E-WE/SnapIn/V2A/EPDM/(Z)x(D)



# System insert with customised press plates

Customised for you: The individual system inserts are manufactured with customised press plates to reliably seal your cable situations. We always supply the customised system inserts in a split version for installation with cables and media that have already been laid.



2 har

- **Product name:**BKD90-E/SnapIn/V2A/EPDM/(Z)X(D)
- Customised production for numerous cable situations
- Sealing of already laid cables and pipes possibleMore safety with higher loads thanks to customised
- Suitable for wall inserts HSI90

pressure plates

**BKD** 90





# **Product name:**BKD90-E-WE/V2A/EPDM/(Z)x(D)

# System insert with interchangeable insert

Fits your requirements too: We manufacture the rubber interchangeable insert individually for you so that it reliably seals your cable situations. Another advantage: you can also replace and install the insert at a later date – for maximum flexibility.



- Customised production for numerous cable situations
- EPDM rubber insert can be replaced at a later date
- Sealing of already laid cables and pipes possible
- Suitable for wall insert BKD 90

# Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.



BKD 90 with fixed and loose flange design





Gas- and watertight



# Additional information

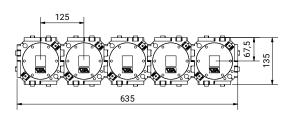


# **Technical assembly drawings**

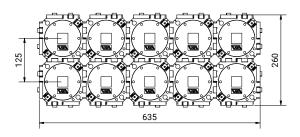
These drawings illustrate the advantages of our cable entries – such as variable bundling or the excellent ease of planning thanks to the fixed centre distances.

# Wall inserts: Bundle without spacers

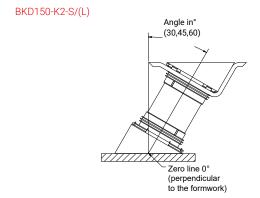
BKD90-K(2)/1x5/(L)



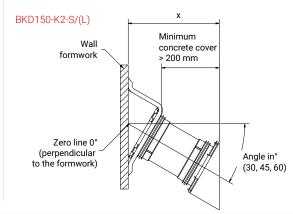
# BKD90-K(2)/2x5/(L)



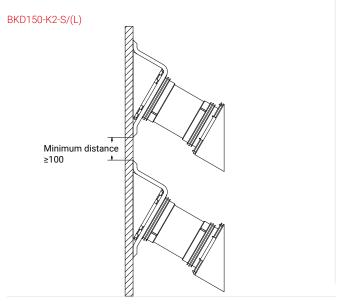
# Angular wall insert: Floor installation



# Angular wall insert: Wall installation



# Angular wall inserts: Minimum distance above each other





# Maximum occupancy table: System insert with interchangeable insert

BKD90-E-WE/SnapIn/V2A/EPDM (Z)x(D) 3 x DN 17 mm or 5 x DN 13 mm or 9 x DN 8 mm Maximum occupancy

Z = number of cables/lines	D = diameter of the cables/lines
0	Blind plug possible
1	up to 40 mm
3	up to 17 mm
5	up to 13 mm
7	up to 11 mm
9	up to 8 mm

Other assignments and combinations of different diameters also possible.

# Maximum occupancy table: System insert with multilayer technology

**Standard variants** 

Product name	Number of cables/pipes	Cable/pipe D in mm
BKD90-E-ZS/SnapIn/V2A/EPDM 1x(22-54)	0-1	22-54
BKD90-E-ZS/SnapIn/V2A/EPDM 3x(4-25))	0-3	4-25
BKD90-E-ZS/SnapIn/V2A/EPDM 5x(4-20)	0-5	44-20

# Maximum occupancy table for customised press plates

Maximum occupancy

Z = number of cables/lines	D = diameter of the cables/lines
0	Blind plug possible
1	up to 54 mm
3	up to 27 mm
5	up to 20 mm
7	up to 15 mm
9	up to 13 mm
Other assignments and combinations of different diameters also possible.	

## Ideal accessories

Spacers, mounting tools and more – explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.





# Wall inserts



# The proven cable entry

We have developed the KD 110 system to connect the most commonly used pipes with an outer diameter of 110 mm to buildings so they are leak-tight against gas and pressing water. UGA is the only manufacturer to market this size. The conical sealing system consists of a wall insert with a matching cover and insert. With a clear width of 117 mm and a smaller centre distance, this system is your choice where space is limited. Compared to the competition, UGA also offers the largest selection of system components.



**Product name:** KD110-K/(L)

#### Single wall insert

Quickly installed and money saved: The one-sided connection for system covers or inserts leaves all options open to you. You are on the safe side with the blind plug supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together
- Cost-effective variant



Fraunhofer



2.5 bar



Product name: KD110-K2/(L)

#### **Double wall insert**

Quick to install and doubly secured: With 2 connections for system covers or inserts, you have maximum flexibility. You stay on the safe side with the blind plugs supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting – even without reworking.

- System covers or system inserts can be fitted on both sides
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



Fraunhofer Institute



2.5 bar



Product name: KD110-K2-EW/(L)

# Double wall insert for double/element walls

Thanks to the additional rubber seal in the centre, this double wall insert is also suitable for double or element walls. With 2 connections for system covers or inserts, you have maximum flexibility. After concreting, the wall insert is leak-tight against gas and pressing water – even without reworking.

- For cavity or prefabricated walls thanks to additional sealing rubber
- System covers or system inserts can be fitted on both sides
- Bundle possible by plugging together



Fraunhofer Institute



2.5 bar





# Product name: KD110-K-MA115/(L) KD110-K-MA125/(L)

Clamping range: 115 = 100-115 mm 124 = 110-125 mm

#### Wall insert with cuff technology

Simple elastic connection: Use a sleeve to connect empty conduits or flexible cable protection conduits. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, wall insert is leak-tight against gas and pressing water – even without reworking.

- One-sided mounting of system covers or system inserts
- Quick installation in waterproof concrete structures (class 1 and 2)
- Simple bundle possible by plugging together



Fraunhofer Institute



0.5 bar



## Product name:

KD110-K-S30/(L) KD110-K-S45/(L) KD110-K-S60/(L)

## Angular single wall insert

For every angle of your project: Reliably seal sloping penetrations at angles of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. The one-sided connection for system covers or inserts leaves all options open to you. After concreting, the wall insert is leak-tight against gas and pressing water.

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- One-sided mounting of system covers or system inserts
- Quick to install in waterproof concrete structures (class 1 and 2)



Fraunhofer Institute



2.5 bar

#### The KD 110 is leak-proof - that's a promise!

Our wall inserts and system covers have undergone rigorous testing at the Fraunhofer Institute, which certified that our products achieved outstanding results that far exceeded the values required in practice.



Legend



Tested by ...



Gas- and watertight up to ... bar



Wall inserts





# Product name:

KD110-K2-S30/(L) KD110-K2-S45/(L) KD110-K2-S60/(L)

#### **Angular wall insert**

For every angle of your project: Double seal angled penetrations at an angle of 30°, 45° and 60°. Thanks to the polystyrene wedge and steel frame, fixing for installation is particularly easy. With 2 connections for system covers or KSS systems, you have maximum flexibility. After concreting, the wall insert is leak-tight against gas and pressing water.



Fraunhofer



2.5 bar

- Safe installation of rigid, large cables/pipes
- Inclined penetration at angles of 30°, 45° and 60°
- System covers or system inserts can be fitted on both sides
- Quick to install in waterproof concrete structures (class 1 and 2)



#### Product name:

KD110-K2-F+L-W(1/2)/(L)/V2A

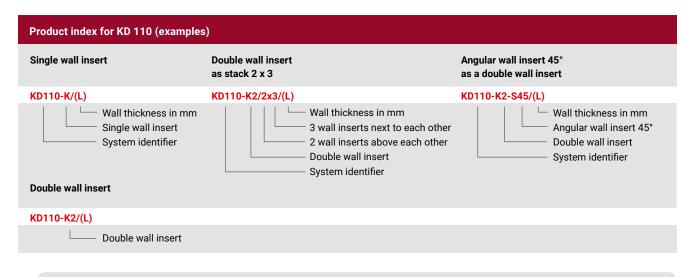
#### Double wall insert with fixed and loose flange design

Suitable for waterproofing in black troughs (DIN 18533): The circumferential fixed and loose flange design is suitable for sheet-type waterproofing. With 2 connections for system covers or inserts, you have maximum flexibility. You are on the safe side with the blind plugs supplied, as the wall insert is leak-tight against gas and pressing water immediately after concreting - even without reworking.



- Available for all black trough load cases in accordance with DIN 18533
- System covers or system inserts can be fitted on both sides
- Customised arrangement of the wall insert before production

# **Product index**





Tested



Gas- and watertight up to ... bar



# System covers and inserts



# Suitable for your application

Thanks to their split design, system inserts are perfect for sealing cables and pipes that have already been laid. The inserts can also be replaced at a later date and are made of high-quality materials such as A2 stainless steel and EPDM.

System covers also offer advantages: they are cost-effective and can be used flexibly in any building situation thanks to hot-shrink sleeves and collars. Another plus: the highly robust polycarbonate makes them particularly resistant.



**Product name:** KD110-D

#### **Blind cover**

Stay flexible if your plans change: All KD 110 cable entries are supplied with a blind cover Scope of delivery. This allows you to seal your wall insert at a later date to make it gas-tight and watertight.

- Blind plug for KD 110 wall inserts
- GSS spanner required for assembly
- Test certificate: Fraunhofer Institute



Fraunhofer Institute



2.5 bar



# Product name:

KD110-D-DGM110

# System insert pipe

Sealing of a dimensionally stable pipe with an outer diameter of 110 mm in a KD 110 wall insert.

- Retrofitting possible
- GSS spanner required for assembly
- o Inspection certificate: Lloyd's Register



Lloyd's Register



2.5 bar



#### Product name:

KD110-D-1/80-TM KD110-D-3/46(3/3)-TM KD110-D-7/32(3/3)/25(4/3)-TM

# System cover with hot-shrink sleeve

Quick and easy to install – and then immediately pressure-tight: Depending on the variant, this system cover can accommodate up to 7 cables and pipes with a diameter of 7–78 mm. Precisely fitting hotshrink sleeves reliably seal media cables with larger clamping ranges, for example. Cold-shrink sleeves are also available on request.

- Variants for up to 7 cables/pipes with a diameter of 7–78 mm
- Precisely fitting hot-shrink sleeves for immediate sealing after installation
- Secured by screw connection



Fraunhofer Institute



2.5 bar



# System covers and inserts





#### Product name:

KD110-D-MA65-75 KD110-D-MA75-89 KD110-D-MA100-115 KD110-D-MA115-125

#### System cover with cuff technology

Your choice if you want to connect a conduit or flexible cable protection conduit: Thanks to a large selection of collars, you can connect smooth-walled pipes and corrugated pipes with a diameter of 65–125 mm. High-quality tensioning straps provide the necessary hold. The cover itself is double-secured.

- Sleeve for connecting pipes with a diameter of 65–125 mm
- 2 high-quality tensioning straps for secure fastening
- Secured by screw connection



Fraunhofer Institute



0.5 bar



# Product name:

 $\mathsf{KD110}\text{-}\mathsf{E}\text{-}\mathsf{WE}/\mathsf{EPDM}/(\mathsf{Z})\mathsf{x}(\mathsf{D})$ 

# System insert with interchangeable insert

Fits your requirements too: We manufacture the interchangeable insert made of EPDM individually for you so that it reliably seals your cable situations. Another advantage: you can also replace and install the insert at a later date – for maximum flexibility.

- Customised production for numerous cable situations
- EPDM insert can be retrofitted
- Sealing of already laid cables and pipes possible
- Suitable for wall inserts KD 110



Fraunhofer Institute



2 bar

# Why is it called KD 110 and not BKD 110?

In short: our 110 does not have a bayonet system. The big advantage is that it is significantly more space-saving than the BKD 150, for example, which can make all the difference when every millimetre counts on the construction site and precision is required. One of the reasons for this is the smaller centre distance for stacks. You can find out more on our website.



egend:



Tested by ...



Gas- and watertight up to ... bar



# Maximum occupancy table: System insert with interchangeable insert

**Maximum occupancy** 

Z = number of cables/lines	D = diameter of the cables/lines
0	Blind plug possible
1	up to 110 mm
3	up to 48 mm
5	up to 36 mm
7	up to 32 mm
9	up to 26 mm
Other assignments and combinations of different diameters also possible.	

# Our products at work





KD110-K2/3x4/(L) with system cover KD110-D-DGM110

KD110-K2/3x6/(L) with system cover KD110-D-1/80-TM



# Additional information



# **Technical assembly drawings**

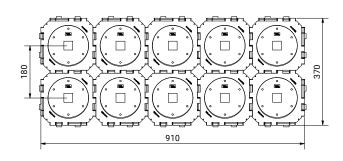
These drawings illustrate the advantages of our cable entries – such as variable bundle or the excellent ease of planning thanks to the fixed centre distances.

# **Wall inserts: Stack without Spacers**

KD110-K(2)/1x5/(L)

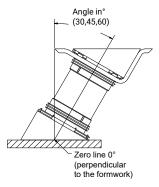
# 910

# KD110-K(2)/2x5/(L)

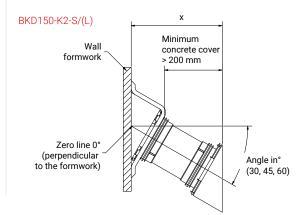


# Angular wall insert: Floor installation

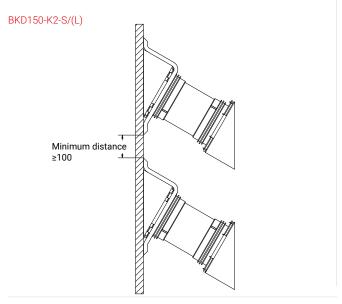




# Angular wall insert: Wall installation



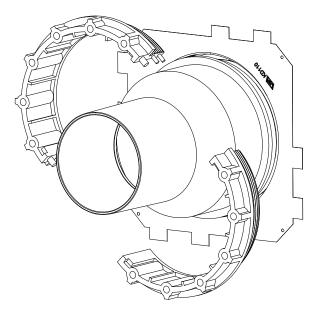
# Angular wall inserts: Minimum distance above each other





# Special feature of the KD 110: System cover with split nut

The system cover of the KD110 is the only system cover of the cable entries that can be split and therefore also retrofitted.



# Centre distance - cable entries in comparison

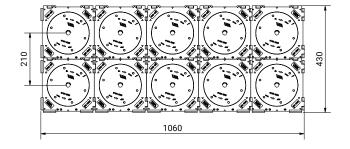
By reducing the centre distance of the KD 110, we create more space for cable entries compared to the BKD 150. In figures, this means that the KD 110 system requires 150 mm less space in length and 60 mm less in height than the BKD 150 system.

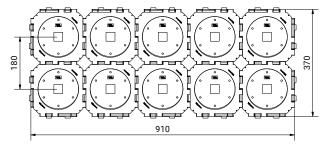
# BKD150

BKD150-K(2)/2x5/(L)

# KD110

KD110-K(2)/2x5/(L)





#### Ideal accessories

Spacers, mounting tools and more – explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.





Sealing inserts
Rubber press seals (GPD) |
Annular sealings (RRD)



# Sealing inserts

Rubber press seals (GPD) and annular sealings (RRD)



# Seals reliably to keep them gas-tight and watertight. during or after installation

Whether in core drillings made of waterproof concrete, wall sleeves or cable entries, with our sealing inserts, you are equipped for all applications. They seal cables and pipes quickly and reliably against gas and pressing water and protect them at the same time – against rodent damage, for example. Press plates and an elastomer element in between are pressed together for this purpose. The resulting pressure seals cables and pipes permanently. We use welded-on bolts, which enables

us to guarantee 100 per cent leak-tightness even under high water pressure. As pipes are not usually installed straight, they can still be angled by up to 8° even with the sealing inserts. This allows them to compensate for building subsidence, for example. With our sealing inserts, you remain flexible: they can be removed and can therefore be refitted at a later date.



# Rubber press seals: For securely sealed cables

Our rubber press seals (GPD) seal all common core bore diameters and inner casing diameters. The GPDs are available with multilayer technology, interchangeable insert or completely customised sizes.

Multilayer technology allows you to select the cable diameter as required. Simply remove as many rubber elements as necessary. A major advantage over similar systems on the market is that the base body of our seal and the multilayer inserts are separate, making them easier to install. With our seals with interchangeable inserts, you can even change the assignment after installation. This allows you to seal cables and pipes in a variety of ways.

We only use high-quality materials for our customised rubber press seals: all metal parts are made of stainless steel and the rubber sealing elements are made of EPDM. On request, we can also use NBR, EPDM, silicone or FPM rubber approved for drinking water.

# Annular sealings: For securely sealed pipes

You can seal pipes quickly and reliably with our annular sealings (RRD). RRDs are gas- and watertight and suitable for all common smooth-walled and corrugated media pipes for sealing in a core drilling in waterproof concrete (BKL-1 and -2) or a wall sleeve.

Our RRDs are available for smooth-walled and corrugated pipes in various sealing widths (20/40/60) with segmented stainless steel press plates. This allows you to split the press plates at a later date in order to fit them to pipes that have already been laid.

A special feature of our RRD for corrugated pipes is that an integrated support ring stabilises the shape of the pipe during installation – it thus acts as additional tear-out protection.



Some of our sealing inserts – both rubber press seals and annular sealings – can be ordered as blind plugs. These can be used, for example, to seal core drillings or uncovered wall sleeves to keep them gas-tight and watertight. An overview of these inserts can be found at the end of this brochure on **page 90**.

# **Beneficial features of our inserts**

- Leak-tight against pressing water and gas,
   e.g. radon-tight
- Sound-insulating
- Rodent protection

- o Absorption of small axial movements
- ° Can accommodate an angle of up to 8°
- ° Can be dismantled: reassignment possible

# Rubber press seals

# Customised

# The seal for every application

Freely select the outer and inner diameter dimensions – customised to the millimetre. Whether square, oval or round: there is nothing that does not exist. This GPD is available in various gasket widths (30/60/90 mm), as well as in closed and split versions (for retrofitting).



**Product name:**GPD(A)/G/30/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 30 mm, split

30 mm GPD rubber press seal in a split version for sealing cables or pipes that have already been laid. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- · High-quality workmanship due to stud welding



FHRK



2.5 bar



30 mm



**Product name:**GPD(A)/30/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 30 mm, closed

30 mm GPD rubber press seal in a non-split version for sealing cables or pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



2.5 bar



30 mm



**Product name:**GPD(A)/G/60/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 60 mm, split

60 mm GPD rubber press seal in a split version for sealing cables or pipes that have already been laid. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm





# **Product name:**GPD(A)/60/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 60 mm, closed

60 mm GPD rubber press seal in a non-split version for sealing cables or pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm



**Product name:**GPD(A)/30/V2A/EPDM 1x(D)

#### Rubber press seal GPD 30 mm, closed

30 mm GPD rubber press seal in a non-split version for sealing cables or pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding



FHRK



2.5 bar



30 mm



# According to your wishes - in shape and size

Whether a different outer or inner diameter, whether square, round or oval – we are happy to manufacture the rubber press seals (GPD) according to your requirements. An eccentric arrangement of the entry is also possible. You can also find further examples in our customised solutions brochure. If you have any questions, please contact us!







Gas- and watertight up to ... bar



Sealing width from ... mm

#### Customised





**Product name:**GPD(A)/G/30/V2A/EPDM 1x(D)

#### Rubber press seal GPD 30 mm, split

30 mm GPD rubber press seal in a split version for sealing an already installed cable or pipe. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding



FHRK



2.5 bar



30 mm



**Product name:**GPD(A)/60/V2A/EPDM 1x(D)

#### Rubber press seal GPD 60 mm, closed

60 mm GPD rubber press seal in a non-split version for sealing cables or pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm



**Product name:**GPD(A)/G/60/V2A/EPDM 1x(D)

#### Rubber press seal GPD 60 mm, split

60 mm GPD rubber press seal in a split version for sealing an already installed cable or pipe. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application. We guarantee you a reliable and durable seal.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm

#### with interchangeable inserts



#### The seal for every moment

Our rubber press seals with split interchangeable inserts ensure maximum flexibility. The rubber press seal, which is also split, can be fitted regardless of the subsequent assignment. The interchangeable insert is chosen according to cable or pipe assignment. You can change the assignment at any time by replacing the interchangeable insert. Cost-effective advantage: the number of holes does not affect the price of the interchangeable insert.

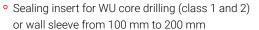


#### Product name:

GPD93/G/60/WE50/V2A/EPDM (Z)x(D) GPD100/G/60/WE65/V2A/EPDM (Z)x(D) GPD125/G/60/WE85/V2A/EPDM (Z)x(D) GPD137/G/60/WE85/V2A/EPDM (Z)x(D) GPD150/G/60/WE110/V2A/EPDM (Z)x(D) GPD200/G/60/WE125/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 60 mm with interchangeable insert

60 mm GPD rubber press seal with interchangeable insert in a split version for cables or pipes that have already been laid. Assembly is also possible after installation work. This GPD is easy to install thanks to a precisely fitting hole around the GPD base body.



- Retrofitting and/or reserve holes in the interchangeable insert
- Availability in a wide range of standard variants
- No surcharge on drilling



FHRK



2 bar



60 mm

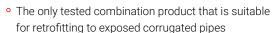


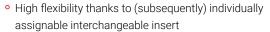
#### Product name:

GPD-CV93/G/60/WE50/V2A/EPDM (Z)x(D) GPD-CV137/G/60/WE85/V2A/EPDM (Z)x(D)

#### Rubber press seal GPD 60 mm with CV connector

60 mm GPD rubber press seal with CV connector in a split version for retrofitting to exposed corrugated pipes. Assembly is also possible after the installation work. Supplied with a drill plug for use as a blind plug. Suitable for exposed corrugated pipes with an outer diameter (OD) of 110 mm and corrugated pipes with an OD of 160 mm.





• No surcharge for additional boreholes



LGA Building Technology



0.5 bar



60 mm



#### Did you know that...

... the difference between V2A and V4A stainless steel lies in the composition? Both consist of chromium, nickel and steel. However, V4A stainless steel also contains molybdenum, which makes it particularly resistant to salt water, chlorine and chemicals. All of our sealing inserts are available in both variants – to suit your requirements!







Gas- and watertight



Sealing width from ... mm

#### with multilayer technology

#### The seal for every situation

Seal cables and pipes of any size with precision – our tried-and-tested multilayer technology allows you to select the cable diameter as required. Simply remove as many rubber elements as you need to achieve the desired diameter. If you do not want to cover a hole or blind seal a core drilling, leave the rubber parts in the seal.

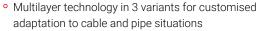


#### Product name:

GPD80/G/40/ZS/V2A/EPDM 1x(4-32) GPD80/G/40/ZS/V2A/EPDM 2x(4-25) GPD80/G/40/ZS/V2A/EPDM 3x(4-20)

# Rubber press seal GPD 40 mm with multilayer technology GPD80-ZS

Split version for cables or pipes that have already been laid. The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.



- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with an inner diameter of 80 mm



Lloyd's Register



2 bai



40 mm



#### Product name:

GPD100/G/40/ZS/V2A/EPDM 1x(22-54) GPD100/G/40/ZS/V2A/EPDM 1x(20-65) GPD100/G/40/ZS/V2A/EPDM 3x(4-32) GPD100/G/40/ZS/V2A/EPDM 2x(4-32)+2x(4-25) GPD100/G/40/ZS/V2A/EPDM 2x(4-32)+3x(4-20) GPD100/G/40/ZS/V2A/EPDM 8x(4-20)

# Rubber press seal GPD 40 mm with multilayer technology GPD100-ZS

Split version for cables or pipes that have already been laid.

The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.

- Multilayer technology in 6 variants for customised adaptation to cable and pipe situations
- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with inner diameter 100 mm



Lloyd's Register



2 bar



40 mm



#### **Product name:**

GPD125/G/40/ZS/V2A/EPDM 1x(22-54) GPD125/G/40/ZS/V2A/EPDM 3x(4-32) GPD125/G/40/ZS/V2A/EPDM 6x(4-25) GPD125/G/40/ZS/V2A/EPDM 10x(4-20)

# Rubber press seal GPD 40 mm with multilayer technology GPD125-ZS

Split version for cables or pipes that have already been laid.

The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.

- Multilayer technology in 4 variants for customised adaptation to cable and pipe situations
- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with inner diameter 125 mm



Lloyd's Register

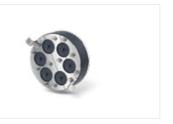


2 bar



40 mm





#### Product name:

GPD150/G/40/ZS/V2A/EPDM 3x(22-54) GPD150/G/40/ZS/V2A/EPDM 6x(4-32) GPD150/G/40/ZS/V2A/EPDM 9x(4-25) GPD150/G/40/ZS/V2A/EPDM 1x(22-75) GPD150/G/40/ZS/V2A/EPDM 1x(75-110) GPD150/G/40/ZS/V2A/EPDM 4x(4-32)+6x(4-20)

#### Rubber press seal GPD 40 mm with multilayer technology GPD150-ZS

Split version for cables or pipes that have already been laid. The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.

- Multilayer technology in 6 variants for customised adaptation to cable and pipe situations
- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with inner diameter 150 mm



Lloyd's Register





40 mm



#### Product name:

GPD160/G/40/ZS/V2A/EPDM 3x(22-54) GPD160/G/40/ZS/V2A/EPDM 6x(4-32) GPD160/G/40/ZS/V2A/EPDM 9x(4-25) GPD160/G/40/ZS/V2A/EPDM 4x(4-32)+6x(4-20)

#### Rubber press seal GPD 40 mm with multilayer technology GPD160-ZS

Split version for cables or pipes that have already been laid. The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.

- Multilayer technology in 4 variants for customised adaptation to cable and pipe situations
- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with inner diameter 160 mm



Lloyd's Register





40 mm



#### A personalised multilayer

As usual, our multilayer inserts are available in our tried-and-tested standard sizes. Alternatively, we can also plan them individually according to your requirements accurate to the millimetre and a perfect fit. Please feel free to contact us!







Gas- and watertight up to ... bar



Sealing width

#### Customised with multilayer technology





Product name: GPD200/G/40/ZS/V2A/EPDM 3x(22-54) +4x(4-25)+3x(4-20)

# Rubber press seal GPD 40 mm with GPD200-ZS multilayer technology

Split version for cables or pipes that have already been laid. The cable diameters are infinitely variable: remove individual rubber elements until the desired diameter is reached.

- Multilayer technology in 1 variant for customised adaptation to cable and pipe situations
- Multilayer inserts also act as flexible placeholders for later installation
- Two metal tabs protect against slipping and serve as a mounting aid
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve with inner diameter 200 mm



Lloyd's Register



2 har



40 mm



#### **Customised solutions – customised components**

Customised production: For difficult installation situations, we at UGA develop customised products for you. With our customised parts, we ensure that your building is protected from water and gas ingress, even if the circumstances appear challenging. To do this, we take a close look at the problem. We come to your construction site, consult with your experts and take measurements. We then deliver a customised solution – exactly on schedule. You will find more information behind the by scanning the QR code with your mobile phone.



#### Combination and special application products





#### Product name: GPD-VS(A)/G/60/V2A/EPDM (Z)x(D)

#### Rubber press seal Very Small GPD-VS 60 mm

Split version for cables or pipes that have already been laid. Assembly is also possible after the installation work. This GPD provides a durable and reliable seal for very small cables. Especially for small core drillings, full drillings or wall sleeves with a small inner diameter (< 50 mm).

- Hexagon socket screws make assembly easier with this small product
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 20 mm to 50 mm
- · Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations



Leipzig





60 mm



Product name: GPD(A)/60/F/V2A/EPDM 1x(D)

#### Rubber press seal GPD 60 mm with overlapping flange, closed

Non-split version for sealing a cable or pipe. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding
- Overlapping flange for easier installation and a level finish to the wall



FHRK





60 mm



#### As specialised as your project

No challenge is too great for us: our combination and special application products are proof of UGA's versatility. One example is our GPD-VS: it very tightly and reliably seals small cables even after installation. It is also used for laying fibre optic cables in the GPD-FttH product set.. The highlight: this little helper makes the use of foam or epoxy resins superfluous. Find out more in our brochure on house lead-ins.







Gas- and watertight up to ... bar



Sealing width

#### Combination and special application products





**Product name:**GPD(A)/G/60/F/V2A/EPDM 1x(D)

# Rubber press seal GPD 60 mm with overlapping flange, split

Split version for sealing an already installed cable or pipe. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design depending on the diameter of the cable or pipe
- High-quality workmanship due to stud welding
- Overlapping flange for easier installation and a level finish to the wall



FHRK



5 bar



60 mm



**Product name:** GPD(A)/60/F/V2A/EPDM (Z)x(D)

# Rubber press seal GPD 60 mm with overlapping flange, closed

Non-split version for sealing cables or pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design enables sealing in numerous cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm



**Product name:**GPD(A)/G/60/F/V2A/EPDM (Z)x(D)

# Rubber press seal GPD 60 mm with overlapping flange, split

Split version for sealing cables or pipes. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design enables sealing in numerous cable and pipe situations
- High-quality workmanship due to stud welding
- High flexibility, even when retrofitting



FHRK



5 bar



60 mm





# **Product name:**GPD(A)/60/F+L/W(1/2)/V2A/EPDM 1x(D)

# Rubber press seal GPD 60 mm with fixed and loose flange, closed

Non-split version for sealing a cable or pipe. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application.

- GPD with integrated fixed/loose flange construction for sheet and liquid waterproofing materials
- For the black trough load case for non-pressing water (W1: in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E) and pressing water (W2: DIN 18533 W2.1-E, DIN 18533 W2.2-E)
- High degree of customisation when adapting the diameters
- High flexibility, even when retrofitting



FHRK



5 bar



60 mm



**Product name:**GPD(A)/60/KF/W1/V2A/EPDM 1x(D)

# Rubber press seal GPD 60 mm with adhesive/levelling flange, closed

Non-split version for sealing a cable or pipe. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application.

- GPD with integrated adhesive flange for liquid sealing materials
- For the black trough load case for non-pressing and moderately pressing water in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E and DIN 18533 W2.1-E
- High degree of customisation when adapting the diameters
- High flexibility, even when retrofitting



FHRK



2.5 bar



60 mm

#### Quality tested - guaranteed!

We know how important safe house lead-ins are. They can prevent serious consequential damage and even reduce running costs. That's why many of our products have been tested by the FHRK (German association for pipe and cable building lead-ins). You can find out more using the QR code – simply scan it with your mobile phone.



egend:



Tested by ...



Gas- and watertight up to ... bar



Sealing width from ... mm

#### Combination and special application products





#### Product name:

TDD86/30/F/WE/ V2A/EPDM (Z)x(D) TDD102/30/F/WE/ V2A/EPDM (Z)x(D) TDD127/30/F/WE/ V2A/EPDM (Z)x(D) TDD152/30/F/WE/ V2A/EPDM (Z)x(D)

#### Trapezoidal sheet metal roof entry TDD 30 mm

Non-split version for sealing in a variety of cable situations. Suitable for standard circular hole saw diameters of 86 mm, 102 mm, 127 mm and 152 mm. The product has been specially developed to achieve a seal on containers and trapezoidal sheet metal roofs.

- Sealing insert for sheet metal and trapezoidal sheet metal
- Suitable for standard circular hole saw diameters
- Retrofitting and/or reserve holes in the interchangeable insert
- Overlapping flange with integrated foam rubber for easier installation



0.5 ha



30 mm



#### Product name:

GPD(A)/90/V2A/EPDM (Z)x(D

#### **GPD 90 mm closed**

Non-split version for sealing cables and pipes. Assembly is only possible during installation work. The GPD comes in a wide range of variants for every area of application.

- Maximum safety thanks to 90 mm rubber to accommodate various factors such as strong vibrations or very high loads
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



5 bar



90 mm



#### Product name:

GPD(A)/G/90/V2A/EPDM (Z)x(D)

#### GPD 90 mm split

Split version for sealing cables or pipes that have already been laid. Assembly is also possible after the installation work. The GPD comes in a wide range of variants for every area of application.

- Maximum safety thanks to 90 mm rubber to accommodate various factors such as strong vibrations or very high loads
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Customised press plate design ensures reliable sealing in all kinds of cable and pipe situations
- High-quality workmanship due to stud welding



FHRK



5 bar



90 mm





#### Product name:

GPD100/90/2in1/ (A1)/WE54/V2A/ EPDM Zx(D) GPD125/90/2in1/ (A1)/WE65/V2A/ EPDM Zx(D) GPD150/90/2in1/ (A1)/WE85/V2A/ EPDM Zx(D) GPD200/90/2in1/ (A1)/WE110/V2A/ EPDM Zx(D)

# Rubber press seal GPD 90 mm 2in1 with two pressing stages

Non-split version for retrofitting a cable protection conduit.

In the first stage, a cable protection conduit is connected from the inside or outside and can be crimped. The product has an interchangeable insert in pressing stage 2, which acts as a blind plug. As soon as cables are laid, a customised interchangeable insert can be ordered and tightened with the second pressing stage.



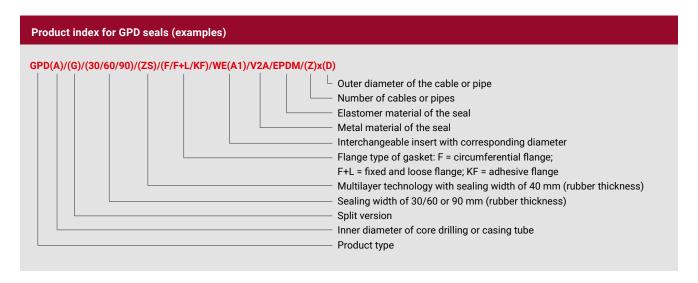
2 bar



90 mm

- Both sides can be pressed individually using two independent pressing stages
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in standard sizes
- No additional costs due to further drilling

#### **Product index**





Tested by ...



Gas- and watertight up to ... bar



Sealing width from ... mm





# Maximum occupancy table GPD individual (examples)

GPD OD (A)		Maximum cable	Order number split GPD with 60 mm EPDM		
	Z = 1	Z = 3	Z = 5	Z = 9	
60 mm	up to 34 mm	up to 20 mm	up to 12 mm	up to 8 mm	GPD60/G/60/(Z)x(D)
80 mm	up to 45 mm	up to 25 mm	up to 16 mm	up to 12 mm	GPD80/G/60/(Z)x(D)
100 mm	up to 66 mm	up to 30 mm	up to 22 mm	up to 15 mm	GPD100/G/60/(Z)x(D)
125 mm	up to 87 mm	up to 40 mm	up to 35 mm	up to 22 mm	GPD125/G/60/(Z)x(D)
150 mm	up to 112 mm	up to 50 mm	up to 40 mm	up to 28 mm	GPD150/G/60/(Z)x(D)
200 mm	up to 162 mm	up to 70 mm	up to 60 mm	up to 43 mm	GPD200/G/60/(Z)x(D)
250 mm	up to 212 mm	up to 85 mm	up to 70 mm	up to 50 mm	GPD250/G/60/(Z)x(D)
300 mm	up to 260 mm	up to 119 mm	up to 90 mm	up to 68 mm	GPD300/G/2/(Z)x(D)
350 mm	up to 300 mm	up to 141 mm	up to 110 mm	up to 80 mm	GPD350/G/2/(Z)x(D)
400 mm	up to 350 mm	up to 166 mm	up to 125 mm	up to 90 mm	GPD400/G/2/(Z)x(D)
450 mm	up to 400 mm	up to 188 mm	up to 146 mm	up to 104 mm	GPD450/G/2/(Z)x(D)
500 mm	up to 450 mm	up to 212 mm	up to 163 mm	up to 120 mm	GPD500/G/2/(Z)x(D)

# Maximum assignment table GPD with interchangeable insert (examples)

GPD OD (A)	Maxir	num cable/pipe dia	Order number split GPD against pressing water							
	Z = 3	Z = 5	Z = 9							
100 mm	up to 22 mm	up to 17 mm	up to 12 mm	GPD100/G/60/WE65/(Z)x(D)						
125 mm	up to 30 mm	up to 24 mm	up to 16 mm	GPD100/G/60/WE65/(Z)x(D)						
150 mm	up to 42 mm	up to 34 mm	up to 24 mm	GPD150/G/60/WE110/(Z)x(D)						
200 mm	up to 50 mm	up to 38 mm	up to 27 mm	GPD200/G/60/WE125/(Z)x(D)						
(A) Outer diameter GPD = inner di	ameter core drilling	or wall sleeve								
(A1) Outer diameter of interchang	geable insert									
(Z) Number of cables to be sealed										
(D) Diameter of the individual cables										
Other combinations with different diameters are also possible.										

#### Would you like to know more?

Further information can be found in the product data sheets and installation instructions in the download area of our website. Scan this QR code to get there.



# Rubber press seals (GPD)

#### Additional information

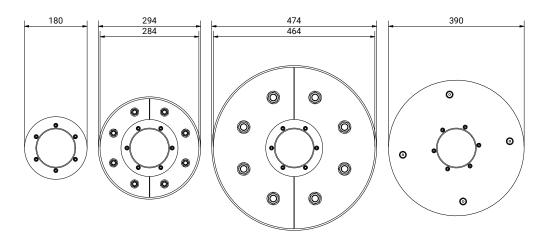


#### **Technical drawings**

These sketches illustrate the structure of our rubber press seal with flange. Here you will also find a drawing of the sealing widths (cross-section).

#### Flange sizes of the GPD for core drilling with a diameter of 150 mm

Dimensions depending on flange type for core drilling with 150 mm diameter



F = Covering flange

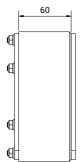
F+L W1 = Fixed and loose flange for non-pressing water F+L W2 = Fixed and loose flange for pressing water (W2)

Adhesive and filler flange for pressing water (W2. 1-E)

#### Rubber thicknesses of the GPD with cross-sections 30/40/60



40 Ø



Press plate thickness 5 mm each

Sealing width / rubber thickness 30 mm Sealing width / rubber thickness 40 mm Press plate thickness 5 mm each

Only for GPD with onion slices

Sealing width / rubber thickness 60 mm Press plate thickness 5 mm each

GPD-VS and GPDs with interchangeable inserts or flanges are only available with 60 mm rubber thickness.

# Annular sealings

for smooth - walled pipes

#### The reliable seal

Annular sealings are ideal for connecting and sealing your standardised KG or cable protection conduits.



#### Product name: RRD(A)/20/V2A/EPDM 1x(D)

#### Annular sealing 20 mm

Provides reliable sealing of core drillings for a pipe. Assembly is possible both during the installation work and retrospectively. These annular space seals are gas-tight and watertight and, even under radial load, are suitable for all common media pipes for sealing in a core drilling in waterproof concrete (BKL-1 and -2) or a wall sleeve.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in a wide range of standard variants
- High-quality workmanship due to stud welding



FHRK



1 ba



20 mm



**Product name:** RRD(A)/40/V2A/EPDM 1x(D)

#### Annular sealing 40 mm

Provides reliable sealing of core drillings for a pipe. Assembly is possible both during installation work and retrospectively. These annular space seals are gas-tight and watertight and, even under radial load, are suitable for all common media pipes for sealing in a core drilling in waterproof concrete (BKL-1 and -2) or a wall sleeve.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in a wide range of standard variants
- High-quality workmanship due to stud welding



FHRK



2.5 bar



40 mm



Product name: RRD(A)/60/V2A/EPDM 1x(D)

#### Annular sealing 60 mm

Provides reliable sealing of core drillings for a pipe. Assembly is possible both during the installation work and retrospectively. These annular space seals are gas- and watertight and, even under radial load, suitable for all common media pipes for sealing in a core drilling in waterproof concrete (BKL-1 and -2) or a wall sleeve.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in a wide range of standard variants
- High-quality workmanship due to stud welding



FHRK



5 bar



60 mm

# Annular sealings

#### for corrugated pipes



#### The patented seal with integrated stabilisation

With the patented annular sealing system for corrugated pipes (RRD-WD), you can securely connect corrugated cable protection conduits. The integrated support ring stabilises the shape of the corrugated pipe during installation and also secures it against tearing out. Our annular sealings for corrugated pipes are available in sealing widths of 40 mm and 60 mm.



#### Product name:

RRD-WR100/G/40/V2A/EPDM 1x(D) RRD-WR125/G/40/V2A/EPDM 1x(D) RRD-WR150/G/40/V2A/EPDM 1x(D) RRD-WR200/G/40/V2A/EPDM 1x(D)

#### 40 mm annular sealing for corrugated pipes

Provides a reliable seal for corrugated cable protection conduits that have already been installed. Assembly is also possible after the installation work. The integrated support ring protects the corrugated pipe from deformation and damage and also acts as tear-out protection.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in standard variants
- Installation aid and removal protection with patented stainless steel ring
- High-quality workmanship due to stud welding



LGA Building Technology



0.5 bar



40 mm



#### Product name:

RRD-WR100/G/60/V2A/EPDM 1x(D) RRD-WR125/G/60/V2A/EPDM 1x(D) RRD-WR150/G/60/V2A/EPDM 1x(D) RRD-WR200/G/60/V2A/EPDM 1x(D) RRD-WR250/G/60/V2A/EPDM 1x(D)

#### 60 mm annular sealing for corrugated pipes

Provides a reliable seal for corrugated cable protection conduits that have already been installed. Assembly is also possible after the installation work. The integrated support ring protects the corrugated pipe from deformation and damage and also acts as tear-out protection.

- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve in standard variants
- Installation aid and removal protection with patented stainless steel ring
- High-quality workmanship due to stud welding



LGA Building Technology



0.5 bar



60 mm

#### Even more variants for your applications

The complete list of all available variants can be found in the relevant product data sheets on our website in the Downloads section. You can easily search for them there by scanning the QR code. Do you also need a customised solution? Talk to us!







Gas- and watertight up to ... bar



Sealing width

# Annular sealings (RRD)

#### Additional information



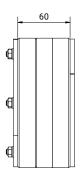
#### **Technical drawings**

These sketches illustrate the structure of our annular sealings.

Rubber thicknesses of RRD seals in cross-sections of 20 mm, 40 mm and 60 mm







Sealing width / rubber thickness 20 mm

Sealing width / rubber thickness 40 mm (2x 20 mm) Press plate thickness 5 mm each

RRD-WR also has a metal support ring

Sealing width / rubber thickness 60 mm (3x 20 mm) Press plate thickness 5 mm each

RRD-WR also has a metal support ring

#### Want to know more details?

Dimensional drawings, videos and product data sheets can also be found on our website. All our standard products are listed there with the relevant information – including certificates and installation instructions.

Scan the QR code to go directly to the annular sealings.





# Dimension table outer pipe diameter in mm (D)

		ı													
	Material/pipe type	Copper pipes	Steel tubes	Steel tubes with 2-layer PE coating	Steel tubes with 3-layer PE coating	Steel pipes with pipe fitting	SML and TML pipes	Ductile iron pipelines	Hard PE pipes for district heating pipelines depending on manufacturer	Vitrified clay pipes Standard design	Reinforced vitrified clay pipes	PE pipes HDPE PE 63 PE 80 PE 100	KG 2000 HT/ KA pipes KG pipes	PVC pressure pipes PN 4-25	PP PVC-C ABS
DIN	/EN	1057	10255	10287	10285	1123-2	877	545		1230	1230	12201	19534	19532	19561
		12449	10220					598					19538		16891
								969							19531
Customs	DN														
	4	4													
	6	6	10.2	13.8	15.2										
	8	8	13.5	17.1	18.5										
3/8	10	10	16 17.2	20.8	22.2							10		16	
	12	12										12			
1/2	15	15 18	20 21.3	24.9	26.3				110			16		20	
3/4	20		26.9	30.5	31.9				90/125			20		25	
	22	22													
1	25	28	33.7	37.3	38.7				90/125			25		32	
1 1/4	32	35	42.4	46	47.4				110/125			32		40	40
1 1/2	40	42	48.3	51.9	53.3	42	48		110/125			40	40	50	50
2	50	54	60.3	63.9	65.3	53	58		125/140	78+/-3		50/63	50	63	
2 1/2	65		76.1	79.7	81.1				140/160	105+/-4					
	70	70				73									
	75	76.1										75	75	75	75
3	80	88.9	88.9	92.5	93.9	89	83	89	160/180						
	90											90	90	90	90
4	100	108	114.3	117.9	119.3	102	110	118	200/225	132+/-4					
	110											110	110	110	110
5	125	133	139.7	143.7	145.1	133	135	144	225/250	160+/-4		125	125	140	125
6	150	159	165.1	172.3	173.7	159	160	170	250/280	187+/-5					
	160											160	160	160	160
8	200	219	219.1	223.1	224.5	219	210	222	315/355	242+/-5	262+/-5	200	200	225	200
	225											225			

# Annular sealings (RRD)

Additional information



	Material/pipe type	Copper pipes	Steel tubes	Steel tubes with 2-layer PE coating	Steel tubes with 3-layer PE coating	Steel pipes with pipe fitting	SML and TML pipes	Ductile iron pipelines	Hard PE pipes for district heating pipelines depending on manufacturer	Vitrified clay pipes Standard design	Reinforced vitrified clay pipes	PE pipes HDPE PE 63 PE 80 PE 100	KG 2000 HT/KA pipes KG pipes	PVC pressure pipes PN 4–25	PP PVC-C ABS
10	250	267	273	277.4	278.4	273	275	274	400/450	296+/-6	318+/-6	250	250		250
12	300		323.9	328.3	329.7	324	326	326	450/500	350+/-7	374+/-7	315	315		315
14	350		355.6	360	361.4			378	500	404+/-7	430+/-7	355			
16	400		406.4	410.8	412.2		429	429	560/630	460+/-8	490+/-8	400	400		400
	450							480		516+/-8	548+/-8	450			
	500		508	512.4	513,8			532		573+/-9	607+/-9	500	500/560		500
	600		610					635		681+/-12	721+/-12	600	630		630
	630											600	630		630
	700							738		790+/-15	831+/-15	600			
	800							842		895+/-17	941+/-17	800			

#### All information without guarantee!

Millimetre specifications separated by slashes (e.g. 160/180) indicate the different possible outside diameters for the respective pipe type. Please always state the actual outside diameter of the pipe when ordering.

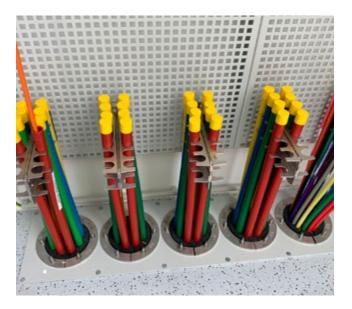


RRD 150/G/40/V2A/EPDM/1x110



#### Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.



GPD150/G/60/F/WE110/V2A/EPDM8x20 GPD150/G/60/F/WE110/V2A/EPDM16x16



GPD600/G/60/V2A/EPDM/10x125



GPD100/G/60/WE65/V2A/EPDM/ (Z)x(D)



GPD-CV93/G/60/WE50/V2A/EPDM/ (Z)x(D): for sealing exposed corrugated pipes

#### Ideal accessories

Explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.



# Sealing inserts for plugging

#### core drillings and wall sleeves

#### So that you remain flexible

Some of our sealing inserts – both rubber press seals and annular sealings – can be ordered as blind plugs. This allows you to seal core drillings or uncovered wall sleeves so they are gas-tight and watertight, for example.



**Product name:** GPD(A)/30/B/V2A/EPDM

#### Rubber press seal 30 mm in blind design

30 mm rubber press seal in blind design for sealing a WU core drilling (class 1 and 2) or a wall sleeve of 50 mm to 1200 mm.

- High-quality workmanship thanks to stud welding
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm



FHRK



2 baı



30 mm



**Product name:** GPD(A)/60/B/V2A/EPDM

#### Rubber press seal 60 mm in blind design

60 mm rubber press seal in blind design for sealing a WU core drilling (class 1 and 2) or a wall sleeve from 50 mm to 1200 mm.

- High-quality workmanship thanks to stud welding
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm



FHRK



5 bar



60 mm



#### Product name:

GPD100/G/60/B/WE65/V2A/EPDM GPD125/G/60/B/WE85/V2A/EPDM GPD150/G/60/B/WE110/V2A/EPDM GPD200/G/60/B/WE125/V2A/EPDM

# Rubber press seal GPD 60 mm with interchangeable insert in blind design

60 mm rubber press seal with interchangeable insert in blind design for sealing a WU core drilling (class 1 and 2) or a wall sleeve. A new interchangeable insert can be reordered for subsequent use.

- High-quality workmanship thanks to stud welding
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve from 50 mm to 1200 mm
- Retrofitting and/or reserve holes in the interchangeable insert



**FHRK** 



2 bar



60 mm





#### Blind fastener with star grip

Blind fastener with star grip for closing a WU core drilling (class 1 and 2) or a wall sleeve.

- Tool-free assembly thanks to star grip
- Sealing insert for WU core drilling (class 1 and 2) or wall sleeve



bar



30 mm

#### Product name:

 BV80/30
 BV117/30

 BV90/30
 BV120/30

 BV100/30
 BV125/30

 BV110/30
 BV130/30



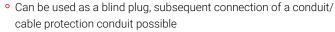
#### Product name:

RRD150/40/BV/V2A/EPDM/1x110 RRD200/40/BV/V2A/EPDM/1x110 RRD200/40/BV/V2A/EPDM/1x125 RRD200/40/BV/V2A/EPDM/1x160

#### Annular RRD seal 40 mm in blind design

40 mm annular sealing with blind plug for sealing a WU core drilling (class 1 and 2) or a wall sleeve.

If the blind plug is removed, a pipe with a corresponding diameter can be installed and sealed at a later date. Other sizes on request.



- High-quality workmanship due to stud welding
- Sturdy blanking plug made of thick-walled PVC



2.5 bar



40 mm



#### Why blind plugs?

Exposed pipes are a potential hazard for buildings. Water, vermin and more can penetrate and cause damage. Sealing with construction foam, however, is not an advisable alternative, because it can make later reassignment of the pipes time-consuming. Another plus: the blind plugs have a sound-insulating effect.







Gas- and watertight up to ... bar



Sealing width from ... mm



# Wall sleeves for setting in concrete | for retrofitting



# Wall sleeves

#### for setting in concrete and retrofitting



#### Installing pipes through walls - or through ceilings and foundations

Get all the preparations done for laying cables and pipes – with our wall sleeves, you can create openings in walls, ceilings and floor slabs. In contrast to core drilling, you do not damage the reinforcement and the wall openings are more precise. We can supply wall sleeves made of plastic, fibre cement or stainless steel in the desired diameter and length to suit your requirements.

Whether for watertight concrete structures or black troughs: you can use our wall sleeves for all wall structures. Are you planning new buildings or do you need a solution for existing buildings and renovations? In either case, you can use our wall sleeves to create a gas-tight and watertight connection to the wall – even longitudinally watertight! Our stainless steel wall sleeves also allow you to make multiple arrangements.



#### Wall sleeves for setting in concrete

Wall sleeves for setting in concrete are your first choice if you are planning a new build. We offer a wide range of sizes and materials, from stainless steel to fibre cement. We customise our products to the wall thickness for optimum installation flush with the formwork.

We can also customise the diameters of our stainless steel wall sleeves outside the standard delivery programme and exactly to your specifications. Even non-straight penetrations are no challenge for us: with the single or double-sided bevel cut, the transit through the wall, floor or ceiling can simply be set at an angle.

#### Wall sleeves for retrofitting

Our wall sleeves for retrofitting are ideal for renovations. No matter where you want to renovate in your building, you can use our wall sleeves in all types of walls, floors and ceilings. Simply install the wall sleeve on an existing surface. Our split version wall sleeves are the ideal solution for cables and pipes that have already been laid.

We also take care of everything else, because the required EPDM packings and additional sealants are available from us for any type of substrate. This means we cover every type of wall.

#### Our wall sleeves and DIN 18533

DIN 18533 is the basis for long-term protection against water ingress for components in contact with the ground – and our specification for the production of wall sleeves. A soil survey will determine which load case your project needs to be waterproofed to and which impact class you require. But rest assured: at UGA you will find the right solution for all cases. We supply wall sleeves for non-pressing water, pressing water and moderately pressing water classes.

Further information on DIN standards, necessary specifications and interesting facts for your construction project can be found in our brochure "About UGA, about us".

#### For precise and clean wall openings

- · Holds dimensions for exact inside diameters the perfect preparation for the subsequent use of sealing systems
- $^{\circ}\,$  No reworking necessary thanks to clean wall finish without unevenness
- o Reduced risk of leaks in the event of concreting faults (e.g. blowholes)



### Wall sleeves

#### for setting in concrete

#### Wall duct in new buildings

Wall sleeves for setting in concrete are your first choice if you are planning a new build. We offer a wide range of sizes and materials, from stainless steel to fibre cement. We customise our products to the wall thickness for optimum installation flush with the formwork. Practical extra: Some of our plastic and stainless steel wall sleeves are also available with a PE dirt cover. This prevents dirt and concrete slurry from getting into the wall sleeve.



# **Product name:** FU-FZ/(G)/(A)/U(L)

#### Fibre cement wall sleeve

Fibre cement wall sleeve in closed and split version.

The special material enables optimum bonding with concrete.

Optional matching PE covers to protect against dirt and concrete slurry are also available.

- Very high leak-tightness due to fibre cement wall sleeve made of special material for optimum connection with concrete
- For waterproof concrete structures (class 1 and 2)
- Availability in a wide range of standard variants





#### Product name:

FU-KFR/100/U300 FU-KFR/100/U500 FU-KFR/150/U300 FU-KFR/200/U300 FU-KFR/200/U300 FU-KFR/200/U500

#### Plastic wall sleeve

High flexibility on site: The FU-KFR wall sleeve can be customised to all wall thicknesses or extended as required thanks to the integrated sleeve. The wall sleeve has a sawing area with guides and a length scale, making installation quick and easy. The supplied sealing caps protect the wall sleeve from soiling during the shell construction phase.

- Optimally designed inner wall to accommodate the UGA sealing systems
- With adhesive flange to DIN 18533
- Use in buildings to be constructed



#### Plastic wall sleeve

Plastic wall sleeve is high-quality and solid-walled made of rigid PVC. Product is only available in a non-split version, i.e. cables and pipes can only be pulled in after concreting. The product is supplied with PE covers to protect against dirt and concrete slurry.

- Very high leak-tightness thanks to two lip seals and mechanical roughening in the centre
- Low weight
- For waterproof concrete structures (class 1 and 2)
- Available in five different sizes



FHRK

#### Product name:

FU-K/80/U(L) FU-K/100/U(L) FU-K/125/U(L) FU-K/150/U(L) FU-K/200/U(L)





**Product name:** FU/F+L/W2/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet sealing materials. Product is only available in a non-split version, i.e. cables and pipes can only be pulled in after concreting.

- For the black trough load case for moderate and pressing water in accordance with DIN 18533 W2.1-E, DIN 18533 W2.2-E
- M20 bolt and 10 mm plate material, fixed flange 160 mm circumferential, loose flange 150 mm circumferential
- High degree of customisation when adapting diameters and multiple arrangements



Lloyd's Register



**Product name:** FU/F+L/W1/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet sealing materials. Product is only available in a non-split version, i.e. cables and pipes can only be pulled in after concreting.

- For the black trough load case for non-pressing water in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E
- M12 bolt and 6 mm plate material, fixed flange 70 mm circumferential, loose flange 60 mm circumferential
- High degree of customisation when adapting diameters and multiple arrangements



Lloyd's Register



#### **Special requirements? No problem!**

Do you need wall sleeves in multiple arrangements, with a special angle or with customised dimensions? We manufacture customised wall sleeves according to your requirements. Take a look at our brochure on customised solutions. Or get in touch with your contact person.



egend:



## Wall sleeves

#### for setting in concrete





**Product name:** FU/(G)/(A)/U(L)/O(L)/V2A

#### Wall sleeve with central flange

Wall sleeve with central flange for setting in concrete in non-split or split version (G). In the split version, cables and pipes may already have been laid before concreting – the wall sleeve has a split surface. The product is supplied with PE covers to protect against dirt and concrete slurry.

- Dimensionally stable wall sleeve with stainless steel central flange
- For waterproof concrete structures (class 1 and 2)
- Central flange is 100 mm circumferential
- High degree of customisation when adapting diameters and multiple arrangements



**Product name:** FU/KF/(A)/U(L)/O(L)/V2A

#### Wall sleeve with adhesive/levelling flange

Wall sleeve with adhesive/filler flange for liquid sealing materials. Product is only available in a non-split version, i.e. cables and pipes can only be pulled in after concreting. The product is supplied with PE covers to protect against dirt and concrete slurry.

- For the black trough load case for non-pressing and moderately pressing water in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E and DIN 18533 W2.1-E
- Adhesive flange = 120 mm circumferential, 6 mm panel material
- High degree of customisation when adapting diameters and multiple arrangements



Leipzig

#### Would you like to know more?

Further information can be found in the product data sheets and assembly instructions in the download area of our website. Scan this QR code to get there.





#### for retrofitting



#### Wall penetration in existing buildings

We won't leave you out in the rain on the construction site. As your reliable partner, we are always at your side to find customised solutions for every type of wall and location.

Practical extra: Some of our wall sleeves are also available with a PE dirt cover. This prevents dirt and concrete milk from getting into the wall sleeve.



**Product name:** FU-NA/(A)/U(L)/O(L)/V2A

#### Stem flange

Front mounting flange in closed design for retrofitting with 10 mm packings for renovation measures for inappropriate breakouts and core drilling. Cables and pipes can only be pulled in or laid after installation.

- For waterproof concrete load classes 1 and 2
- Circumferential flange 60 mm, M8 countersunk head wall tie V4A,
   10 mm EPDM rubber insert
- High degree of customisation when adapting diameters and multiple arrangements



Lloyd's Register



**Product name:** FU-NA/G/(A)/U(L)/O(L)/V2A

#### Stem flange

Pre-wall flange in split version with 10 mm packings for renovation measures for improper break-outs and core drilling. Cables and pipes may already be laid. Due to the split design of the front mounting flange, cables and pipes that have already been laid pose no problem.

- For waterproof concrete load classes 1 and 2
- Circumferential flange 60 mm, M8 countersunk head wall tie V4A,
- 10 mm EPDM rubber layer
- High degree of customisation when adapting diameters and multiple arrangements



Lloyd's Register



#### It's the combination that makes the difference!

Do you want to seal both the black trough and a media pipe at the same time? This is possible with our rubber press seals (GPD) as combination or special application products. Just take a look at the sealing inserts brochure. Please contact us if you have any questions!





#### for retrofitting





**Product name:** FU-NA/(G)/KF/(A)/U(L)/O(L)/V2A

#### Wall sleeve with adhesive/levelling flange

Wall sleeve with adhesive/levelling flange, available in split or non-split version. The product is suitable for renovation measures and subsequent cable and pipe laying when using liquid sealing materials. The split version of the product is only possible in accordance with DIN 18533. In the split version, cables and pipes can already be laid; in the non-split version, laying is only possible after installation.

- Adhesive flange = 120 mm circumferential, 6 mm panel material
- High degree of customisation when adapting diameters and multiple arrangements





**Product name:** FU-NA/F+L/W2/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet waterproofing materials for retrofitting. Product is ideal for renovation measures for penetrations in projects with sheet-type waterproofing materials for moderately pressing and pressing water in accordance with DIN 18533. Cables and pipes can only be pulled in or laid after installation.

- For the black trough load case for moderate and pressing water in accordance with DIN 18533 W2.1-E, DIN 18533 W2.2-E
- M20 bolt and 10 mm plate material, fixed flange 160 mm circumferential, loose flange 150 mm circumferential
- High degree of customisation when adapting diameters and multiple arrangements



**Product name:** FU-NA/F+L/W1/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet waterproofing materials for retrofitting. Product is ideal for renovation measures for penetrations in projects with sheet-type waterproofing materials for non-pressing water in accordance with DIN 18533. Cables and pipes can only be pulled in or laid after installation.

- For the black trough load case for non-pressing water in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E
- M12 bolt and 6 mm plate material, fixed flange 70 mm circumferential, loose flange 60 mm circumferential
- High degree of customisation when adapting diameters and multiple arrangements





**Product name:** FU-NA/F+L/G/W2/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet waterproofing materials for retrofitting. Product is ideal for renovation measures for penetrations in projects with sheet-type waterproofing materials for moderately pressing and pressing water in accordance with DIN 18533. Due to the split version, cables and pipes that have already been laid do not pose a problem.

- For the black trough load case for moderate and pressing water in accordance with DIN 18533 W2.1-E, DIN 18533 W2.2-E
- M20 bolt and 10 mm plate material, fixed flange 160 mm circumferential, loose flange 150 mm circumferential
- · Customised adjustment of diameter and multiple arrangement



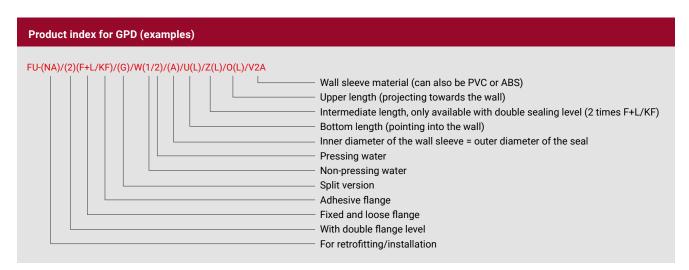
**Product name:** FU-NA/F+L/G/W1/(A)/U(L)/O(L)/V2A

#### Wall sleeve with fixed/loose flange construction

Wall sleeve with fixed/loose flange construction for sheet waterproofing materials for retrofitting. Product is ideal for renovation measures for penetrations in projects with sheet-type waterproofing materials for non-pressing water in accordance with DIN 18533. Due to the split design, cables and pipes that have already been laid do not pose a problem.

- For the black trough load case for non-pressing water in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E
- M12 bolt and 6 mm plate material, fixed flange 70 mm circumferential, loose flange 60 mm circumferential
- · Customised adjustment of diameter and multiple arrangement

#### **Product index**





for retrofitting



#### Specifications for flange constructions in accordance with DIN 18533

OD pipe or cable fed	ID wall sleeve	Pressing v	vater (W2)	Non-pressin	Moderately pressing water (W2.1-E)	
through		OD fixed flange	OD loose flange	OD fixed flange	OD loose flange	OD adhesive flange
0-63 mm	100 mm	425 mm	415 mm	245 mm	235 mm	345 mm
0-85 mm	125 mm	450 mm	440 mm	270 mm	260 mm	370 mm
0-112 mm	150 mm	475 mm	465 mm	295 mm	285 mm	395 mm
0-162 mm	200 mm	525 mm	515 mm	345 mm	335 mm	445 mm
0-212 mm	250 mm	575 mm	565 mm	395 mm	385 mm	495 mm
0-260 mm	300 mm	625 mm	615 mm	445 mm	435 mm	545 mm
0-310 mm	350 mm	677 mm	667 mm	497 mm	487 mm	597 mm
0-350 mm	400 mm	727 mm	717 mm	547 mm	537 mm	647 mm
0-400 mm	450 mm	777 mm	767 mm	597 mm	587 mm	697 mm
0-450 mm	500 mm	827 mm	817 mm	647 mm	637 mm	747 mm



#### In the spotlight: the split fibre cement wall sleeve

The split version of the fibre cement wall sleeve is ideal for sealing already laid cables and for uneven wall breakthroughs. This product is impressive: 1) it can seal many cables at the same time; 2) it is cost-efficient; and 3) it seals perfectly.



# Our products at work



FU-FZ100/G/U(L) with mounting set



FU-NA/F+L/W1/100/U(L)



FU-NA/150/1x4/080

# Wall sleeves

#### Additional pages

#### **Technical assembly drawings**

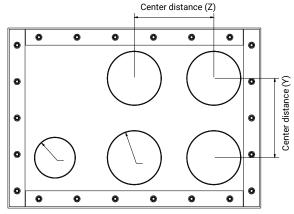
These drawings illustrate the advantages of our wall sleeves – such as variable centre distances or available flange sizes.

#### Wall section with explanation of the upper length/lower length

# Wall Sleeve Under length U(L) Upper length O(L) wall sleeve

# Variable number, diameter and centre distances of the wall sleeves

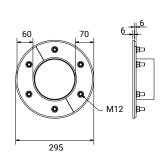
Front view of fixed flange with multiple arrangement



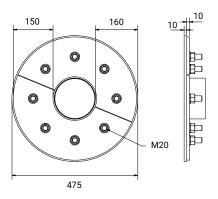
Variable number, diameter and center distances of the lining tubes possible

#### Flange sizes of wall sleeves

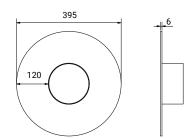
Fixed and loose flange non-pressing water W1



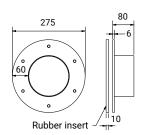
#### Fixed and loose flange pressing water W2



Adhesive/levelling flange moderately pressing water W2.1-E



Stem flange





#### Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.





 $FU-FZ/G/(A)/U(L) \\ FU-NA/G/(A)/O(L)$ 



FU-NA/G/(A)/1x3/O(L)

#### Ideal accessories

Spacers, mounting tools and more – explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.



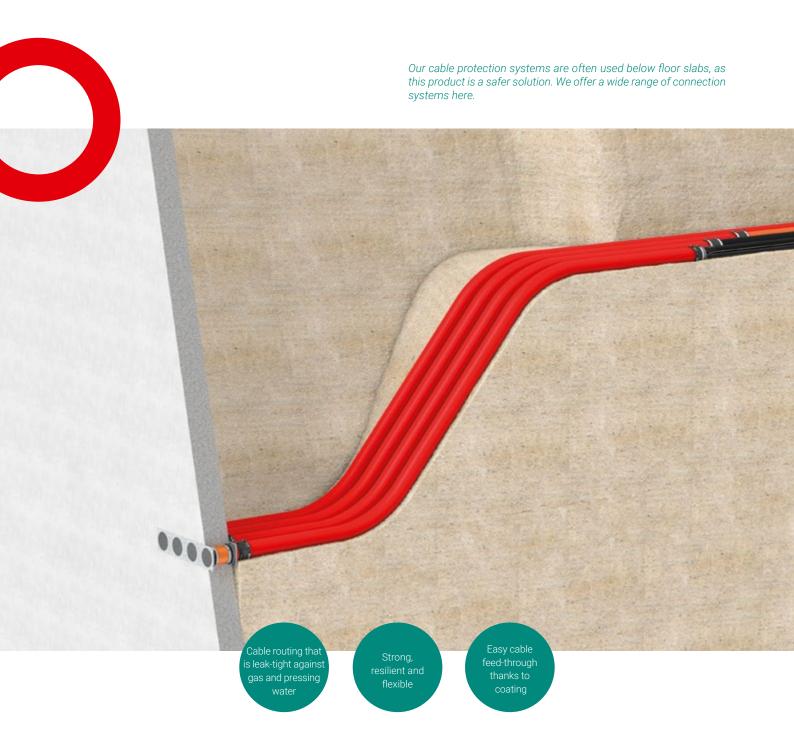


# Cable protection systems 80 mm | 110 mm | 125 mm | 150 mm



# Cable protection systems

with 80, 110, 125 and 150 mm inner diameter



#### Reliably protects against moisture and mechanical stress

You can easily connect our cable protection systems (KSS) with a wide range of connection components: with wall inserts, wall sleeves and other cable protection conduits and tubes. This allows you to lay your cables optimally protected against external influences. This allows you to create connections between buildings at any time that are leak-tight against gas and pressing water.

The KSS system is available in 4 exact internal diameters: 80, 110, 125 and 150 mm. All cable protection conduits feature high mechanical load-bearing capacity and flexibility. They can be set in concrete without any problems.



#### Resilient, proven, flexible

The cable protection system consists of a flexible plastic spiral hose that allows you to lay cables so they are gas-tight and watertight (up to 2.5 bar).

We have also developed our cable protection conduits to be extremely robust to meet the high demands of your construction projects. They can therefore be set in concrete without any problems. Our system is also highly resistant to sharp edges and other mechanical influences.

You also remain flexible in your projects. If you want to change a cable assignment, no time-consuming excavation work is necessary. Thanks to the smooth inner coating (KSS Superslide), cables can be pulled through easily.

All our cable protection systems are brine and seawater resistant and resistant to a wide range of chemicals – so you can use them without hesitation. They also have a dimensionally stable crush resistance in accordance with DIN-EN 61386-24. Depending on the hose diameter selected, the minimum bending radius is 0.5 to 1 metre.

We are happy to supply the KSS in customised lengths. Extensions are also available with EPDM sleeves with optional stainless-steel pipe strap. Please contact us with your requirements, because with the variety of combinable connection systems, UGA's cable protection system is unique on the market.

# Technical information on our cable protection systems

Easy cable pulling: Our KSS Superslide internal coating offers you outstanding properties for pulling through cables to be laid. We have proven this in a certified test in accordance with DIN-EN ISO 8295:2004/10. The slip coefficient for our standard coating is a very good 0.57 – ideal for most applications. If you attach even more importance to ease of movement, choose our system with Pro coating. The best value here is an exceptional 0.39.

Flexible and dimensionally stable at the same time: the combination of soft PVC and rigid PVC enables us to achieve excellent crimp resistance for our cable protection systems. With our KSS150-S-Pro cable protection system, you even get an apex compressive strength of over 750 N and a connection up to 2.5 bar.

#### Your advantages with the cable protection system

- Secure connections that are leak-tight against gas and pressing water
- Optimum cable protection for building and earth movements
- ° Wide range of connection options
- $^{\circ}\,$  Lightweight cable pull thanks to KSS Superslide
- Simple subsequent changes to the cable assignment possible



### Cable protection systems

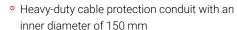




**Product name:** KSS150-S/(L)

#### Cable protection system KSS150

The KSS150 cable protection system is a flexible plastic spiral conduit for gas-tight and watertight cable laying. With its large number of connection options, the KSS system can be flexibly connected to conduit systems or cable entries. The system is compatible with all common cable protection conduits.



- Smooth KSS Superslide inner coating for optimum cable tension
- Extremely robust against sharp edges and other external influences during processing on the construction site



ΙRΩΔ



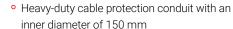
1 ha



**Product name:** KSS150-Pro/(L)

#### Cable protection system KSS150 Pro

The KSS150 Pro cable protection system is a flexible plastic spiral conduit for gas-tight and watertight cable laying in extreme construction situations. With its large number of connection options, the KSS System Pro can be flexibly connected to conduit systems or cable entries. The system is compatible with all common cable protection conduits. It is also possible to perform static calculations for pipes.



- Smooth KSS Superslide inner coating for optimum cable tension
- Extremely robust against sharp edges and other external influences during processing on the construction site



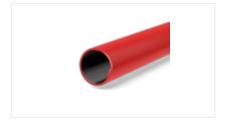
LRQA



2.5 ba



750 N



**Product name:** KSS125-S/(L)

#### Cable protection system KSS125

The KSS125 cable protection system is a flexible plastic spiral conduit for gas-tight and watertight cable routing. With the large number of connection options, the KSS system can be flexibly connected to conduit systems or cable entries. The system is compatible with all common cable protection conduits.

- Heavy-duty cable protection conduit with an inner diameter of 125 mm
- Smooth KSS Superslide inner coating for optimum cable tension
- Extremely robust against sharp edges and other external influences during processing on the construction site



1 bar





#### Product name: KSS110-S/(L)

#### Cable protection system KSS110

The KSS110 cable protection system is a flexible plastic spiral conduit for gas-tight and watertight cable routing. With the large number of connection options, the KSS system can be flexibly connected to conduit systems or cable entries. The system is compatible with all common cable protection conduits.

- Heavy-duty cable protection conduit with an inner diameter of 110 mm
- Smooth KSS Superslide inner coating for optimum cable tension
- Extremely robust against sharp edges and other external influences during processing on the construction site



1 bar



Product name: KSS80-S/(L)

#### Cable protection system KSS80

The KSS80 cable protection system is a flexible plastic spiral conduit for gas-tight and watertight cable laying. With the large number of connection options, the KSS system can be flexibly connected to conduit systems or cable entries. The system is compatible with all common cable protection conduits.

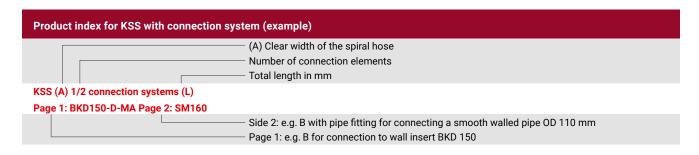
- Heavy-duty cable protection conduit with an inner diameter of 80 mm
- Smooth KSS Superslide inner coating for optimum cable tension
- Extremely robust against sharp edges and other external influences during processing on the construction site



LROA



#### **Product index**





Tested

Gas- and watertight up to ... bar



Crest compressive strength larger than...

### Cable protection systems



#### Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.



KSS150 with connection system BKD150-D-MA



KSS110 with connection system KD110-D-MA

#### Would you like to know more?

Further information can be found in the product data sheets and assembly instructions in the download area of our website. Scan this QR code to get there.



### **©** Cable protection systems

#### Additional information



#### **Technical data**

Our cable protection system has been specially developed and tested. The following table provides an overview of the most important data.

Product name	Clear width in mm	Weight g/m	Bending radius mm	Wall thickness mm	Crest pressure according to DIN EN ISO 61386-24	Leak- tightness in bar	Roll length in m
KSS80-S	80	approx. 1900	540	6 ± 1	Type 250	1	50
KSS110-S	110	approx. 2900	740	6.8 ± 1	Type 250	1	25
KSS125-S	125	approx. 3600	830	6.9 ± 1	Type 250	1	25
KSS150-S	150	approx. 4700	990	7.7 ± 1	Type 250	1	25
KSS150-Pro	150	approx. 5500	1,000	8.4 ± 1	Type 750	2.5	25







KSS150-Pro with connection system BKD150-D-MA



### Secure house connections through cellars or walls

Our BO-PLA floor slab entry system seals on both sides and is suitable for buildings without a basement and with a solid floor slab. The cable protection system is already integrated in it, thus fulfilling the requirements of energy suppliers and allowing cables and pipes to pass safely underneath the floor slab. You can find out more about our house lead-ins in the relevant brochure.

#### Ideal accessories

Spacers, assembly tools and more – explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.



# Cable protection systems

### Additional information



### **Compatibility of the systems**

The following table tells you which connection element is suitable for which KSS system.

Connection		KSS variants						
system	Description	KSS150- Pro	KSS150	KSS125	KSS110	KSS80	Pictures	
BKD150-K	Connection of system covers and system inserts from BKD150 for setting in concrete in floor slabs or walls	x	x	x	x		0	
KD110-K	Connection of system covers and system inserts from KD110 for setting in concrete in floor slabs or walls				х		0	
BKD90-K	Connection of system covers and system inserts from BKD90 for setting in concrete in floor slabs or walls					х	. 1	
BKD150-K-S-MA	Connection of system covers and system inserts from BKD150 for setting in concrete in floor slabs or Walls (rigid cables)	X	X	х	х			
KD110-K-S-MA	Connection of system covers and system inserts from KD110 for setting in concrete in floor slabs or walls (rigid cables)				х			
BKD90-K-S-MA	Connection of system covers and system inserts from BKD90 for setting in concrete in floor slabs or walls (rigid cables)					x		
BKD150-D-MA	Connection to bayonet wall insert BKD150	x	x	х	х		0)	
KD110-D-MA	Connection to wall insert KD110				х		0	
BKD90-D-MA	Connection to bayonet wall insert BKD90					x	0))	
D1/75	Connection cover with 1 pipe sleeve and hot-shrink sleeve for cables with DN 24-74 mm					x		
D1/80	Connection cover with 1 pipe sleeve and hot-shrink sleeve for cables with DN 26-78 mm	x	х	х	х		0	
D1/110	Connection cover with 1 pipe sleeve and hot-shrink sleeve for cables with DN 56–108 mm	x	x	x	x			
D3/30	Connection cover with 3 pipe sleeves and hot-shrink sleeve for cables with DN 12–29 mm					x		
D3/46	Connection cover with 3 pipe sleeves and hot-shrink sleeve for cables with DN 16-44 mm				x			
D3/59	Connection cover with 3 pipe sleeves and hot-shrink sleeve for cables with DN 22-57 mm	x	x	х			3	
D5/20	Connection cover with 5 pipe sleeves and hot-shrink sleeve for cables with DN 7–19 mm					х		
D7/32/25	Connection cover with 7 pipe sleeves and hot-shrink sleeve, three pipe sleeves for cables with DN 12–30 mm and four pipe sleeves for cables with DN 7–23 mm				х			
D7/38	Connection cover with 7 pipe sleeves and hot-shrink sleeve for cables with DN 9-37 mm	x	x	x				



Connection		KSS variants						
system	Description	KSS150- Pro	KSS150	KSS125	KSS110	KSS80	Pictures	
D8/35/25	Connection cover with 8 pipe sleeves and hot- shrink sleeves, 4 pipe sleeves for cables with DN 7–34 mm and 4 pipe sleeves for cables with DN 7–24 mm	х	х	х				
R/110	PVC pipe section with OD of 110 mm for connection to a pipe fitting or to a core drilling/ wall sleeve using a sealing insert				x		0	
R/125	PVC pipe section with OD of 125 mm for connection to a pipe fitting or to a core drilling/ wall sleeve using a sealing insert			х				
R/160	PVC pipe section with OD of 160 mm for connection to a pipe fitting or to a core drilling/ wall sleeve using a sealing insert	х	х					
FU-K/110	Roughened plastic wall sleeve DN110 made of PVC for setting in concrete in floor slabs or walls				х			
FU-K/125	Roughened plastic wall sleeve DN125 made of PVC for setting in concrete in floor slabs or walls			х				
FU-K/150	Roughened plastic wall sleeve DN110 made of PVC for setting in concrete in floor slabs or walls	x	x					
SM/110	Connection incl. pipe fitting SM 110 (for smooth - walled pipes 110 mm)				X			
SM/125	Connection incl. pipe fitting SM 125 (for smooth - walled pipes 125 mm)			x	х			
SM/160	Connection incl. pipe fitting SM 160 (for smooth - walled pipes 160 mm)	х	х					
GPD125	PVC pipe section with an OD of 90 mm and GPD 125 for connection to a core drilling/wall sleeve					x		
GPD150	PVC pipe section with an OD of 110 mm and GPD 150 for connection to one core drilling/wall sleeve				х		OD	
GPD200	PVC pipe section with an OD of 160 mm and GPD 200 for connection to one core drilling/wall sleeve	x	x	x				
MA (75-89)	EPDM sleeve with a clamping range from 75–89 mm					х		
MA (105-120)	EPDM sleeve with a clamping range from 105–120 mm				x			
MA (120-137)	EPDM sleeve with a clamping range from 120–137 mm			x				
MA (160-170)	EPDM sleeve with a clamping range from 160–170 mm	x	x					

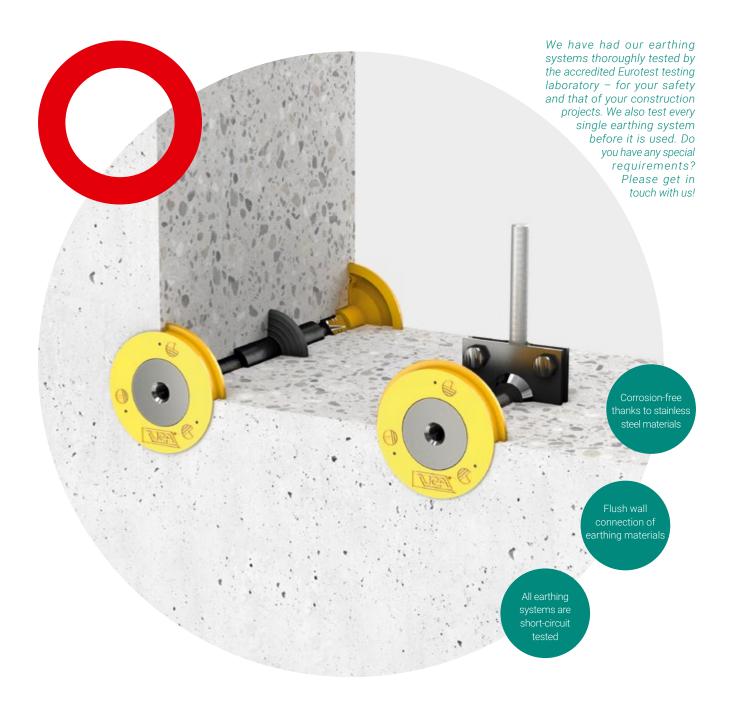




Building earthings
Armour earthing | Bushing earthing |
Connecting elements



#### Armour earthing, bushing earthing and connection elements



#### Safely earthed in all circumstances

Whether in existing or new buildings, an earthing system is a basic requirement for the safe operation of their electrical systems. Above all, however, it protects people from dangerously high voltages and currents. The principle: If the earth has a different electrical potential to the building, this must be equalised. We place the highest value on safety: we subject every earthing system to a short-circuit test – for your protection and that of your property.

Our high-quality building earthings (GE) can be integrated into your construction project in various ways: welded or bolted as armour earthing, set in concrete or even retrofitted to set an earthing rod or connect the internal earthing system to an external one. Of course, we also offer suitable connection elements for connecting common earthing materials.



#### **Armour earthing**

Secure your projects efficiently with our tried-and-tested armour earthing system. With this earthing connection point, you can securely connect metal reinforcement rods or earthing straps in concrete or reinforced concrete structures and integrate them into the earthing system.

Depending on your requirements, you can choose from our product variants, which can either be attached to the reinforcement structure with a flat round connector or welded directly to the reinforcement. After concreting, you can simply connect standard earthing material to the connection thread and create a connection that complies with regulations.

#### Further advantages:

- Can be screwed or welded for optimum flexibility during installation
- Compatible with common earthing materials
- Ideal for use in concrete or reinforced concrete structures

#### Feed-through earthing

If you need to earth conductive parts that pass through a wall or other barriers, entry earthing is your choice. You can set it in concrete or retrofit it as required. For example, you can also connect earthing devices outside buildings to the equipotential bonding of buildings.

After concreting or retrofitting, you can simply connect standard earthing material and create a connection in accordance with regulations.

#### Further advantages:

- Integrated water barrier for entries to be set in concrete
- Available for different wall thicknesses
- Waterproof concrete stress class 1 and 2





We offer the right connection elements for each of our building earthings. These allow you to connect common earthing materials such as earthing straps or wires to our products. You will find an overview of these connection elements at the end of this brochure on **page 120**.

#### Put your trust in our building earthings

- Every earthing device short-circuit tested at UGA
- o Available in flexible lengths
- o Formwork aid for every earthing device to be concreted
- o Permanent marking with yellow signal colour and earthing symbol



#### Armour earthing

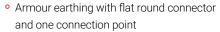
#### Safe and proven

Secure your projects efficiently with our tried-and-tested armour earthing systems. With these earthing connection points, you can securely connect metal reinforcement rods or earthing straps in concrete or reinforced concrete structures and integrate them into the earthing systems.



#### **GE-P**

Earthing connection point with flat round connector and one connection point. Connection without welding to concrete armouring or earthing strap using flat round connector. For connecting earthing systems, down conductors and armouring. Rigid earthing connection point for flush embedding in concrete.



- For connection threads M12 and M16 (connection element optionally available)
- Waterproof concrete stress class 1 and 2



Short-circuit



120-550 mm



#### **GE-A**

Earthing connection point with connection bolt for welding to a reinforcement with a connection point for flush embedding in concrete. The stainless steel version impresses with its resistance to corrosion.



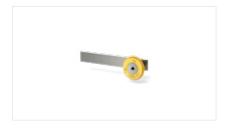
- For connection threads M12 and M16 (connection element optionally available)
- Waterproof concrete stress class 1 and 2



Short-circuit



For M16 with 31.36 kA/ 100 ms



#### GE-AB

Earthing connection point with earthing strap for welding to a reinforcement with a connection point for flush embedding in concrete. The stainless steel version impresses with its resistance to corrosion.

- Reinforcement earthing with earthing strap
- For connection threads M12 and M16 (connection element optionally available)
- Waterproof concrete stress class 1 and 2



Short-circuit tested



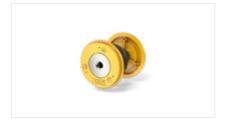
For M16

#### Feed-through earthing



#### For setting in concrete or retrofitting

If you need to earth conductive parts that pass through a wall or other barrier, entry earthing is your choice. You can set it in concrete or retrofit it as required.



#### **GE-D**

Insulated bushing earthing for setting in concrete with water barrier.

The stainless steel version impresses with its resistance to corrosion.

- Insulated bushing earthing
- For connection threads M12 and M16 (connection element optionally available)
- Watertightness to the concrete



Short-circuit tested

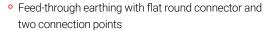


100-500



#### GE-D-P

Bushing earthing with flat round connector and two connection points. Connection without welding to concrete reinforcement using round flat connector. Suitable for flush embedding in concrete.



- For connection threads M12 and M16 (connection element optionally available)
- Waterproof concrete stress class 1 and 2



Short-circuit tested



100-500 mm

#### Do you need a different solution?

Please feel free to contact us. We can also manufacture your customised earthing system.

You can find your personal contact on our website. Simply scan the QR code with your mobile phone.



egenu.



**RWE Eurotest** 



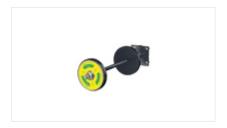
Overall length of ...



Wall thicknesses from ...- ... mm

#### Feed-through earthing





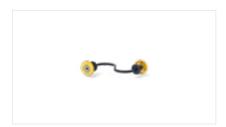
#### **GE-ND**

Bushing earthing system for retrofitting. Rigid stainless steel entry. Installation in the wall through full bore.

- · Bushing earthing system for retrofitting
- For connection threads M12 and M16 (connection element optionally available)



100-42



#### **GE-FD**

Flexible earthing system with water barriers and two connection points for more flexibility. Installation for offset connection points. Suitable for flush embedding in concrete.

- Flexible, insulated bushing earthing system with water barrier and two connection points
- For connection threads M12 and M16 (connection element optionally available)
- Waterproof concrete stress class 1 and 2



Short-circuit



200 mm



#### GE-ND/F+L/W(1/2)/(L)/V4A/M(12/16)

Bushing earthing system for retrofitting. Rigid stainless steel entry. Installation in the wall through full bore. Connection to building waterproofing (black trough) in accordance with DIN 18533 possible using fixed and loose flange.

- Bushing earthing system for retrofitting
- For the black trough load case for non-pressing water (W1: in accordance with DIN 18533 W1.1-E, DIN 18533 W1.2-E) and pressing water (W2: DIN 18533 W2.1-E, DIN 18533 W2.2-E)
- For connection threads M12 and M16 (connection element optionally available)





#### Connecting elements



#### The perfect addition

We offer the right connection elements for each of our building earthings. This allows you to connect common earthing materials such as earthing straps or wires to our products.



#### **GE-ABM**

Connection element for connection point on a building earthing for cables with cable lugs, for example.

- · Connection element for building earthing
- For connection thread M12



#### **GE-FRV**

Connection element for connection point to building earthing in the form of a flat round connector.

- · Connecting element for building earthing
- For connection thread M12

#### Downloads

From data sheets to installation instructions – you can find more information about our products in the download area on our website. Simply scan the QR code to get there.







#### Additional information

#### Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.



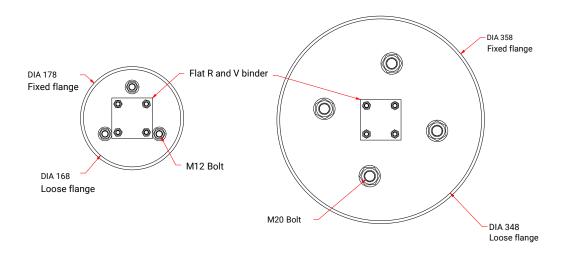
Special construction of a building earthing for transmission system operators



Building earthing: GE-D, GE-AB and GE-P

#### Earthing for retrofitting with fixed and loose flange constructions

GE-ND/F+L/W(1/2)/(L)/V4A/M(12/16)



#### Ideal accessories

Explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.





# Roof entries Flat roofs | pitched roofs



### Roof entries

or flat and pitched roofs



#### For every roof: Flexible and reliably leak-tight

We offer our roof entries for both flat and pitched roofs. Professional, reliable and secure sealing is essential here in particular, just as it is for external walls. Due to increasing installation of photovoltaic and air conditioning systems, heat pumps, etc., more and more cables are being laid on the roof. Another reason: in the course of urban densification, more and more existing buildings are being extended and more technology is being placed in the upper area of the buildings.

The requirements for green roofs and urban gardening are also becoming more stringent – for example with regard to the impermeability of roofs.

There may also be roofing requirements concerning standing water, fire protection (e.g. clearances) or weather influences (e.g. UV radiation) that affect your choice of products. Whatever your projects look like, UGA has the right solution for you.



#### Roof entries for flat roofs

Flat roofs have a pitch of less than 10°. They occur as a warm roof (non-ventilated roof), where the waterproofing lies directly on the thermal insulation, or as a cold roof (ventilated roof), where the waterproofing layer lies directly on the supporting structure. They are also available as inverted roofs with external thermal insulation above the roof waterproofing. This makes flat roofs particularly suitable for accommodating technical building equipment.

Which UGA product you need for your project depends on many factors – such as the utilities, the number of pipes and the roof structure. The roof can also have several sealing levels. This is why all our products can be ordered with a second flexible sealing layer. Depending on the thickness of the insulation, you can even adjust the height of this on site.

#### **Further advantages:**

Flexible adaptation to the respective cable situation with 360° swivelling gooseneck

- Wide range of internal diameters from 100-300 mm available
- Maximum safety thanks to versions with double sealing
- Customisation of the overall height and the second sealing level possible

#### Roof entries for pitched roofs

Pitched roofs have a pitch greater than 20° and are usually covered with roof tiles. We replace individual roof tiles with our products to feed media lines (mobile phones), lines for PV systems or solar thermal systems to and seal them professionally.

You can use our products flexibly for roof pitches from 15° to 45°. Depending on the number of cables, you can choose between single and multiple feed-throughs. We offer two basic sealing options for these entries: our tried and tested sealing inserts or thermo-shrink technology.

#### **Further advantages:**

Customisation of tile shape and colour possible

- Flexible installation thanks to cable retraction in a 360° radius
- Reliable sealing via system cover and hot-shrink sleeves or rubber press seal with interchangeable insert

#### You benefit from our roof entries

- ° Customised configurations for your application in addition to the standard version
- Personal advice on sealing technology
- ° Quick appraisals from in-house fire protection experts if required



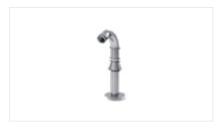
### Roof entries

#### for flat roofs



#### **Double protection, flexibly customisable**

Which UGA product you need for your project depends on many factors – such as the utilities, the number of pipes and the roof structure. The roof can also have several sealing levels. This is why all our products can be ordered with a second flexible sealing layer. Depending on the thickness of the insulation, you can even adjust the height of this on site.



**Product name:** SHDD(A)/VZ/Seperate

#### Gooseneck in separate parts

Suitable for flat roofs with waterproofing membranes for adhesive flange constructions. The gooseneck in separate parts can be swivelled 360° and adapts to the roof and cable situation. The overall height is adjustable with a clearance of 350 mm.

- Flexibility during installation thanks to individual parts
- 120 mm circumferential adhesive flange to DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



Comb.



Adjustable



**Product name:** SHDD(A)/VZ/Assembled

#### Gooseneck assembled

Suitable for flat roofs with waterproofing membranes for adhesive flange constructions. When assembled, the gooseneck can be swivelled 360° and adapts to the roof and cable situation. The overall height is adjustable with a clearance of 350 mm.

- Quick installation on the roof thanks to assembled components
- Adhesive flange 120 mm circumferential in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



Comb.



Adjustable



**Product name:** SHDD(A)/KF/F+L/W1

# Gooseneck with adhesive/levelling flange and fixed/loose flange construction

Suitable for flat roofs with waterproofing membranes for adhesive flange constructions and fixed/loose flange constructions. The overall height is adjustable with a clearance of 350 mm. Lower sealing level consisting of adhesive flange 120 mm circumferential and second sealing level with fixed/loose flange construction 70 mm circumferential.

- Double sealing for the second level
- Can be swivelled 360° and adapts to the roof and cable situation
- Both sealing levels in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



Comb.

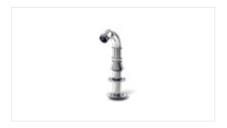


Adjustable



Second sealing level





**Product name:** SHDD(A)/2F+L/W1

#### Gooseneck with double fixed/loose flange construction

Suitable for flat roofs with waterproofing membranes for fixed/loose flange constructions. The overall height is adjustable with a clearance of 350 mm and the second sealing level is height-adjustable.

- Double sealing for the second level
- Can be swivelled 360° and adapts to the roof and cable situation
- Two fixed/loose flange constructions 70 mm circumferential in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



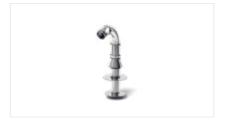
Comb.



Adjustable



Second sealing level



Product name: SHDD(A)/2KF/W1

#### Gooseneck with double adhesive/adhesive flange

Suitable for flat roofs with waterproofing membranes for adhesive flange constructions. The gooseneck can be swivelled 360° and adapts to the roof and cable situation. The overall height is adjustable with a clearance of 350 mm and the second sealing level is height-adjustable.

- Double sealing thanks to height-adjustable adhesive flange construction for the second level
- Two adhesive flanges 120 mm circumferential in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



Comb.



Adjustable



Second sealing level



### In the spotlight: The height-adjustable second sealing level

All products with a second sealing level have the following special feature: this level is height-adjustable. This is an advantage, for example if you have a warm roof and do not yet know exactly how thick the insulation will be.

With our height-adjustable second sealing level, you remain flexible because it can still be adjusted during installation.







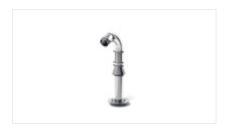


Second sealing level available

### Roof entries

#### for flat roofs





**Product name:** SHDD(A)/F+L/W1

#### Gooseneck with fixed/loose flange construction

Suitable for flat roofs with waterproofing membranes for fixed/ loose flange constructions. The gooseneck with fixed/loose flange construction can be swivelled 360° and adapts to the roof and cable situation. The overall height is adjustable with a clearance of 350 mm.

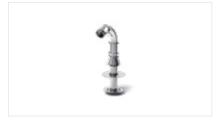
- Quick assembly thanks to assembled components
- Fixed and loose flange 70 mm circumferential in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- · Available inner diameters: 100, 150, 200, 300 mm



Comb.



Adjustable



**Product name:** SHDD(A)/F+L/KF/W1

### Gooseneck with fixed/loose flange construction and adhesive/levelling flange

Suitable for flat roofs with waterproofing membranes for adhesive flange constructions and fixed/loose flange constructions. The overall height is adjustable with a clearance of 350 mm. Lower sealing level consisting of fixed and loose flange 70 mm circumferential and second level adhesive flange with 120 mm circumferential.

- Double sealing for the second level
- Can be swivelled 360° and adapts to the roof and cable situation
- Both sealing levels in accordance with DIN 18533 W1 for non-pressing water/DIN 18531
- Available inner diameters: 100, 150, 200, 300 mm



Comb.



Adjustable



Second sealing level



**Product name:** FU-NA/KF/F+L

# Wall sleeve with fixed/loose flange construction and adhesive/levelling flange

Wall sleeve with two sealing levels for subsequent dowelling on insulated flat roofs with two sealing levels. The lower sealing level is designed as an adhesive/levelling flange and the upper sealing level as a fixed/loose flange construction W1.

- Fixed flange 70 mm circumferential, loose flange 60 mm circumferential, 6 mm panel material
- Adhesive flange = 120 mm circumferential, 6 mm panel material
- High degree of customisation when adapting diameters and multiple arrangements



Comb.



Second sealing level





### Product name:

FU-NA/2F+L

#### Wall sleeve with two fixed/loose flange constructions

Wall sleeve with two sealing levels for subsequent dowelling on insulated flat roofs with two sealing levels. The lower and upper sealing levels are designed as a fixed/loose flange construction W1.

- Fixed flange 70 mm circumferential, loose flange 60 mm circumferential, 6 mm panel material
- High degree of customisation when adapting diameters and multiple arrangements



Comb.



Second sealing level



#### Product name:

TDD-WE

#### Trapezoidal sheet metal roof entry with interchangeable insert

Trapezoidal sheet metal roof entry with interchangeable insert for sealing containers and trapezoidal sheet metal roofs. Suitable for standard circular hole saw diameters 86 mm, 102 mm, 127 mm and 152 mm, available in several versions.

- Quick and easy installation
- Entry of cables of different diameters possible
- Subsequent occupancy and/or reserve holes possible in interchangeable insert



#### We have your solution!

Do you have special requirements such as multiple feed-throughs or angles, or does every millimetre count in your construction project? We are happy to manufacture our feed-throughs according to your ideas. Care for a preview? In our special solutions brochure, you will find special product variants that go beyond the standard. Get in touch with us!



www.uga.eu







Second sealing level available

### Roof entries

#### for flat roofs





**Product name:** FDD(A)-KF

#### Flat roof entry with insulation

For flat roofs with waterproofing membranes for adhesive flange constructions. Cables can be pulled into the insulated head section at a radius of 360°. The height adjustability and the second sealing level can be realised with the accessory component FDD(A)-IDE-KF.

- Adhesive flange 120 mm circumferential made of V2A sheet metal
- Subsequent cable entry without additional sealing element
- Available inner diameters: 100, 160 mm
- For warm roofs, the in-roof element with FDD-IDE-KF insulation is also required



Comb.



Adjustable



Second sealing level



**Product name:** FDD(A)-FF

#### Flat roof entry with insulation

For flat roofs with waterproofing membranes for foil flange. Cables can be pulled into the insulated head section at a radius of 360°. The height adjustability and the second sealing level can be realised with the accessory component FDD(A)-IDE-KF.

- Foil flange with different materials
- Subsequent cable entry without additional sealing element
- Available inner diameters: 100, 160 mm
- For warm roofs, the in-roof element with FDD-IDE-KF insulation is also required



Comb.



Adjustable



Second sealing level



**Product name:** FDD(A)-IDE-KF

#### In-roof element with insulation

In-roof element with insulation for flat roofs with waterproofing membranes for adhesive flange.

- Internal element for FDD-FF and FDD-KF for roof structure
- ${\color{blue} \circ}$  Adhesive flange 120 mm circumferential made of V2A sheet metal
- Available inner diameters: 100, 160 mm



#### for pitched roofs



#### Customisable, securely sealed

You can use our products flexibly for roof pitches from 15° to 45°. Depending on the number of cables, you can choose between single and multiple feed-throughs. We offer two basic sealing options for these entries: our tried-and-tested sealing inserts or thermo-shrink technology.



Product name: MSD-Universal/125

#### Multiple gable roof entry Universal

For sealing numerous cable and pipe situations on pitched roofs (15°-45°). Cable entry is possible in a radius of 360°. Universal pitched roof entry for all types of roof tiles.

- Flexible base plate is available in different colours and adapts to any roof tile shape
- Lower pipe section with outer diameter of 125 mm
- System cover and hot-shrink sleeve(s) for sealing cables or pipes from DN 16 mm to DN 78 mm or a GPD with interchangeable insert



Choice of



Product name: MSD/110

#### Multiple gable roof entry

For sealing numerous cable and pipe situations on pitched roofs (15°-45°). Cables can be pulled in at a radius of 360°.

- High level of customisation thanks to wide range of colours and tile shape
- Lower pipe section with outer diameter of 110 mm
- System cover and hot-shrink sleeve(s) for sealing cables or pipes from DN 16 mm to DN 78 mm or a GPD with interchangeable insert



Choice of



Choice of shape

Our pitched roof penetrations blend harmoniously and attractively into your project - that's a promise. We are happy to adapt the tile shape and colour to your individual ideas and specifications. Get in touch with us!









Choice of roof tile colour



Choice of roof tile shape



for pitched roofs



### Maximum GPD assignment with interchangeable insert (example)

GPD OD (A)	Maximum cable/pipe diameter			Order number split GPD against pressing water		
	Z=3	Z=5	Z=9			
150 mm	up to 42 mm	up to 34 mm	up to 24 mm	GPD150/G/60/WE110(Z)x(D)		
(Z) Number of cables to be sealed						
(D) Diameter of the individual cables						

#### Our products at work





FU-NA/KF/F+L/2x200/V2A

SHDD200/2KF/V4A

#### **Downloads**

From data sheets to assembly instructions – you can find more information about our products in the download area of our website.

Simply scan the QR code to get there.





#### Additional information



#### Installation situations and example applications

See our services for yourself in real-life application: the following installation situations and practical examples illustrate our customised solutions.



No challenge is too big for us – and every one of them can be mastered with UGA products. As you can see, we are at your side, even if there are no standard solutions. For more information, please take a look at our brochure for customised solutions.

#### Useful information for your construction project

We are guaranteed to find the right solution for your project. It is always important for us to comply with all applicable standards and requirements. Of course, we are always on hand to advise you. You can also find out about the most important standards in advance on our website – we have compiled everything you need to know here. Simply scan the QR code with your mobile phone



### Roof entries

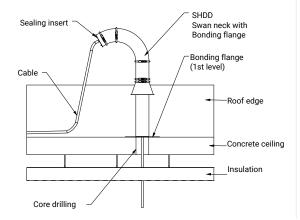
#### Additional information

### **Technical assembly drawings**

These drawings illustrate the advantages of our roof entries.

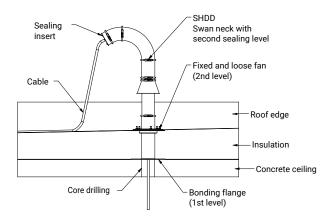
# Cold roof installation situation: Flat roof with gooseneck, one sealing level

#### SHDD(A)/VZ/Assembled



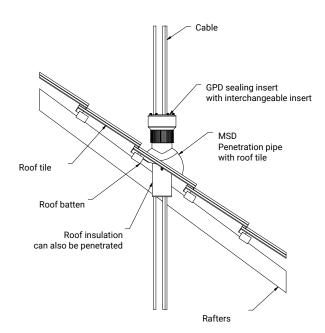
# Installation situation warm roof: Flat roof with gooseneck, two sealing levels

#### SHDD(A)/KF/F+L/W1



#### Installation situation: pitched roof with multiple pitched roof entry

MSD-Universal/125

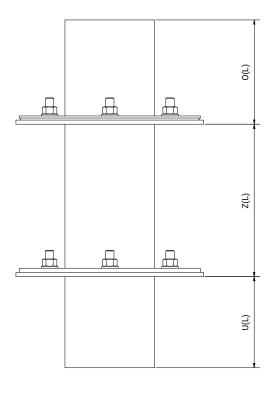




#### **Technical assembly drawings**

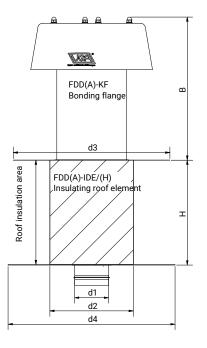
Wall sleeve with double flange construction for subsequent dowelling on insulated flat roofs with two sealing levels

#### FU-NA/2F+L incl. explanation of intermediate length



#### **FDD** dimensional sketch

Video
instructions
Simply scan
the QR code!



#### Dimension table for standard sizes FDD (mm)

	н	В	d4	d3	d2	d1
	FDD-IDE	FDD	FDD-IDE	FDD	FDD-IDE	FDD-IDE
DN100	300	410	480	450	240	98.5
DN160	300	475	540	510	400	158.5

Other variants are available on request. Get in touch with us!

#### Ideal accessories

Explore our range of accessories and practical extras on our website.

Simply scan the QR code to get there.









### House lead-ins

#### Supply lines for gas, water, electricity and telecommunications





#### Installing pipes through walls - or through floor slabs

Every house needs supply lines for gas, water, electricity and telecommunications. We offer fully certified house lead-ins for every wall structure in accordance with DVGW approval, from black troughs and white troughs to cavity and prefabricated walls.

The house lead-in consists of a shell component and a sealing insert. They cover all utilities, including district and geothermal heating. Do you need a solution for a broadband expansion? Our fibre optic house lead-ins can also be retrofitted.



#### **Savings**

With our single-compartment house lead-ins, you can lay various supply lines in your building, from gas, water and electricity to fibre optic connections. Our house lead-ins reliably seal your cables and pipes in accordance with the water exposure. Our solutions are gas-tight and watertight.

If you want to install a house lead-in in a building with a basement, you can also run the cables through the basement wall into the house at a later date. If you are planning your house without a basement, our floor slab entry with integrated wall collar and cable protection conduit is the ideal solution for buildings with a solid floor slab.

#### Multiple compartments

Our multi-compartment house lead-ins are the ideal solution for your single-family home. This allows you to either run several utilities into your house together or assign individual utilities multiple times. You can also leave a section unoccupied so that it can be occupied later, for example for fibre optic expansion. This means you are also equipped for the future. This compact and integrated design not only saves space, but is also easy on your wallet.

#### Further advantages:

- Space-saving introduction of supply lines
- Safe gas-tight and watertight installation with certified testing
- Subsequent reassignment possible without time-consuming work
- Maximum installation safety with Quadro-Secura® products: installation possible without a torque spanner thanks to the turn-stop system

#### Fibre optic house lead-in

Fibre optic expansion is more topical than ever and will remain so for the future. Unfortunately, safety-relevant factors such as sealing technology are often forgotten. We have a range of products that fulfil every requirement for a professional, sealed connection in your home.

We are the only supplier to offer a foam-free version. We also use tried-and-tested products for fibre optic sealing. We test our house lead-ins ourselves. In addition, we have them approved by reputable testing institutes in order to offer you the best possible safety.

#### How to find the right product

- · Building with or without basement?
- Building with a basement: How is the wall constructed? How thick is the wall?
- How many utilities are to be sealed?
- Which utilities need to be sealed?

Good to know: Many of the products are labelled with symbols to indicate the assignment of the trade seal. It couldn't be easier to install house lead-ins!

#### The benefits of our house lead-ins

- $\,^{\circ}\,$  Versatile solutions for every house connection
- o Reliably gas-tight and watertight

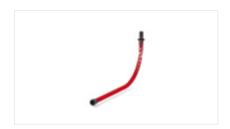
House lead-ins can also be retrofitted without any problems

### House lead-ins



#### The secure house connection through the wall or the floor slab

You can run a variety of supply lines into your building using our single-compartment house lead-ins. In most cases, you can also retrofit our single-compartment house lead-ins. Only floor slab house lead-ins for buildings without a basement must be installed before the concrete is poured. With our wall house lead-ins, you can also carry out core drilling at a later date.

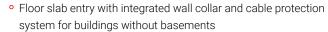


#### Product name:

BO-PLA80/(L) BO-PLA100/(L) BO-PLA125/(L) BO-PLA150/(L)

#### BO-PLA(A)/(L)

The BO-PLA floor slab entry system seals on both sides and is suitable for buildings without a basement and with a solid floor slab. The integrated cable protection system fulfils the requirements of energy suppliers and allows cables and pipes to enter safely below the floor slab. It offers more flexibility thanks to individual hose lengths for non-standardised cable and pipe trenches. An intelligent complete system massively minimises plastic waste.









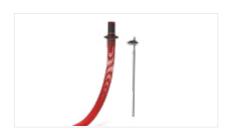
**-** .



Water 2.5 bar



Gas 1 bar



#### **BO-PLA installation device**

The BO-PLA installation device simplifies the installation of a floor slab feed-through. The hose clamp and rubber holder make it possible to attach various pipe elements, and a telescopic steel rod allows the optimum height to be individually set. The taper on the lower ground spike and the widened upper end of the pipe enable optimum hammering.

- High stability thanks to 2 mm walls
- Height-adjustable telescopic pole
- Complementary product to BO-PLA(A)/(L)



#### Product name:

FHE20-(2)TM/(L) FHE30-(2)TM/(L) FHE38-(2)TM/(L) FHE45-(2)TM/(L) FHE65-(2)TM/(L) FHE80-(2)TM/(L)

#### FHE(A)-(2)TM/(L)

Flexible house entry with hot-shrink sleeve for mortaring/concreting. Enables gas-tight and watertight insertion of all types of cables or pipes. An expansion sealing coating ensures a better connection with concrete or mortar. Available with cold- or hot-shrink technology on one or both sides.

- Flexible cable protection conduit with rigid PVC spiral and soft PVC sheath
- House lead-in for WU core drilling (class 1 and 2) or openings for mortar installation
- Available with one or two hot-shrink sleeves





#### Quadro-Secura® Nova E1

sealing on both sides

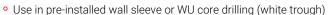
The Quadro-Secura® Nova E1 single-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. Rigid or flexible DN 75 casing pipes can be connected. The low construction weight enables easy installation.

• Single-compartment house lead-in for buildings with basement,



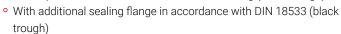
Tested







**DVGW** 





#### Quadro-Secura® Nova E2

The Quadro-Secura® Nova E2 single-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. Rigid or flexible DN 75 casing pipes can be connected. The low construction weight enables easy installation.



Tested





DVGW

- Single-compartment house lead-in for buildings with basement, sealing on both sides
- Use in pre-installed wall sleeve or WU core drilling (white trough)



#### Secure house connection through basement or wall

Our BO-PLA floor slab entry system seals on both sides and is suitable for buildings without a basement and with a solid floor slab. The cable protection system is already integrated, thus fulfilling the requirements of energy suppliers and allowing cables and pipes to pass safely underneath the floor slab. You can find out more about our cable protection systems in the relevant brochure.



Gas- and watertight (up to ... bar)



DVGWapproved

### House lead-ins

### Single-compartment house lead-ins





#### Quadro-Secura® Nova R1

The Quadro -Secura® Nova R1 single-compartment house lead-in seals on one side and is suitable for installation in buildings without basements. The house lead-ins feature rigid, tear-proof casing pipes to maintain the bending radii, and the media pipe can be replaced at a later date.

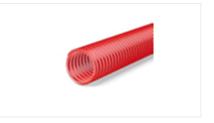


- Single-compartment house lead-in for buildings without a basement
- Use in structures still to be constructed from waterproof concrete





DVGW



#### Product name:

FHE20-S/(L) FHE30-S/(L) FHE38-S/(L)

FHE45-S/(L)

FHE65-S/(L) FHE80-S/(L) FHE100-S/(L)

#### FHE(A)-S/(L)

Flexible cable protection conduit as a stable conduit system for outdoor use. ID = 20-110 mm with a standard length of 600 mm. Available with cold- or hot-shrink technology on one or both sides.

- High resistance to chemicals, brine or soil conditions
- Flexible and sturdy cable protection conduit with rigid PVC spiral and soft PVC jacket



#### Quadro-Secura® E-Quick

The Quadro-Secura® E-Quick single-compartment house lead-in with injection system is available in six versions - for the gas lead-in options from HEK RMA and Schuck, for water, FTTX, electricity and telecommunications - and can be installed without an additional clamping device. This is made possible by the Easy Fix system and the ITL system for optimum contact pressure. This renovation house entry can also be used with standard hollow bricks without backfilling.

- Refurbishment house entry with internal sealing
- With sealing flange to DIN 18533 (black trough)
- Simple installation without additional clamping device





#### Quadro-Secura® Quick/X

The Quadro-Secura® Quick/X single-compartment house lead-in with injection system is the flexible renovation solution and the first choice for new connections in existing buildings. It is designed for use in the most common wall types with sealing in accordance with DIN 18533 W2.1-E or for waterproof concrete core drilling. The Quadro-Secura® Quick/X is suitable for all cable types or water pipes and the Easy Fix system enables simple, quick and secure installation.

- Refurbishment house entry the all-rounder
- With sealing flange to DIN 18533 (black trough)
- Simple installation without additional clamping device



#### Quadro-Secura® Quick/G

The Quadro-Secura® Quick/G single-compartment house lead-in with injection system is the flexible renovation solution and the first choice for new connections in existing buildings. Quadro-Secura® Quick/G enables the simultaneous introduction of gas house lead-in combinations and fibre optic cables/pipes. Quadro-Secura® Quick/G is available in the variants RMA/Schuck DN 25, VAF Voigt DN 25 and Burger DN 25 + DN 32. The Easy Fix system enables simple, quick and safe installation.

- Refurbishment house lead-in for gas combinations
- With sealing flange to DIN 18533 (black trough)
- Simple installation without additional clamping device





Gas- and watertight (up to ... bar)



DVGWapproved

### House lead-ins

#### Single-compartment house lead-ins





#### Quadro-Secura® Quick/O

Quadro-Secura® Quick/O is the product of choice whenever waste disposal pipes in existing buildings need to be renovated. The single-compartment house lead-in with injection system is suitable for sealing DN 110 and DN 160 sewer pipes. Thanks to the Easy Fix system, installation is quick, easy and safe in the most common wall types with sealing in accordance with DIN 18533 W2.1-E or for waterproof concrete core drilling.

- Refurbishment house entry for waste disposal pipes
- With sealing flange to DIN 18533 (black trough)
- Simple installation without additional clamping device



#### Quadro-Secura® Quick/H

The Quadro-Secura® Quick/H single-compartment house lead-in with injection system promises maximum flexibility and safety and is supplied with a sleeve pipe. It can accommodate either multiple sealing inserts or smooth-walled district heating pipes. In the latter case, sealing is achieved using an adapter sleeve. Rigid or flexible casing pipes can be connected to the sleeve pipe itself. Relining is possible with the Quadro-Secura® Quick/H.

- Refurbishment house entry with sleeve pipe
- With sealing flange to DIN 18533 (black trough)
- Simple installation without additional clamping device



#### Multi-compartment house lead-ins



#### The safe house connection for multiple utilities

With our multi-compartment house lead-ins, you benefit from maximum safety in every respect. The majority of our house lead-ins are DVGW-approved and guaranteed gas-tight and watertight. To ensure that nothing goes wrong during installation, you can install some of our house lead-ins with the Turn Stop System without the need for a torque spanner. And you are also equipped for the future, as you can retrofit our house lead-ins at a later date.

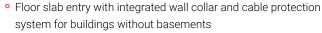


#### Product name:

BO-PLA80/(L) BO-PLA100/(L) BO-PLA125/(L) BO-PLA150/(L)

#### BO-PLA(A)/(L)

The BO-PLA floor slab entry system seals on both sides and is suitable for buildings without a basement and with a solid floor slab. The integrated cable protection system fulfils the requirements of energy suppliers and allows cables and pipes to enter safely below the floor slab. It offers more flexibility thanks to individual hose lengths for non-standardised cable and pipe trenches. The intelligent complete system massively minimises plastic waste.





Socket-free installation below the floor slab



Tested



Water 2.5 bar



Gas 1 bar



#### **BO-PLA installation device**

The BO-PLA installation device simplifies the installation of a foundation entry. The hose clamp and rubber holder make it possible to attach various pipe elements, and a telescopic steel rod allows the optimum height to be individually set. The taper on the lower ground spike and the widened upper end of the pipe enable optimum hammering.

- High stability thanks to 2 mm walls
- Height-adjustable telescopic pole
- Complementary product to BO-PLA(A)/(L)

#### Do you need a different solution?

We can also manufacture your customised house lead-in. Please feel free to contact us. To find your personal contact on our website, simply scan the QR code with your mobile phone.



egend:



Tested by ...



Gas- and watertight (up to ... bar)

## House lead-ins

### Multi-compartment house lead-ins





#### Quadro-Secura® Nova 1

The Quadro-Secura® Nova 1 multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. The house lead-ins are electrically non-conductive thanks to their highperformance plastic construction. The low construction weight enables easy installation.



- Multi-compartment house lead-in for buildings with basements
- Use in pre-installed wall sleeve or WU core drilling (white trough)
- With additional sealing flange to DIN 18533 (black trough)







#### Quadro-Secura® Nova 1/wide

The Quadro-Secura® Nova 1/wide multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. The house lead-ins are electrically non-conductive thanks to their high-performance plastic construction. The low construction weight enables easy installation.



Tested





DVGW

- · Multi-compartment house lead-in for buildings with basements, ideal for cavity/prefabricated walls
- Use in pre-installed wall sleeve or WU core drilling (white trough)
- With additional sealing flange in accordance with DIN 18533 (black trough)



#### Ouadro-Secura® Nova 2

The Quadro-Secura® Nova 2 multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements and is made of high-performance plastic, making it electrically nonconductive. The low construction weight enables easy installation.

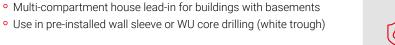


Tested





DVGW







#### Quadro-Secura® Nova 1-M

The Quadro-Secura® Nova 1-M multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. The house lead-ins are electrically non-conductive thanks to their high-performance plastic construction. The low construction weight enables easy installation.



Tested





DVGW

- Multi-compartment house lead-in for buildings with basements; for multiple occupancy of different utilities
   Use in pre-installed wall sleeve or WU core drilling (white trough)
- With additional sealing flange to DIN 18533 (black trough)



#### Quadro-Secura® Nova 2-M

The Quadro-Secura® Nova 2-M multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements. The house lead-ins are electrically non-conductive thanks to their high-performance plastic construction. The low construction weight enables easy installation.



Tested





DVGW

- Multi-compartment house lead-in for buildings with basements; for multiple occupancy of different utilities
- Use in pre-installed wall sleeve or WU core drilling (white trough)



#### Did you know that ...

... Quadro-Secura® multi-compartment house lead-ins are characterised, among other things, by their extremely simple installation? For example, the integrated Turn Stop System makes the use of a torque spanner superfluous.







Gas- and watertight (up to ... bar)



DVGWapproved

## House lead-ins

#### Multi-compartment house lead-ins





#### Quadro-Secura® Nova 1-FW

The Quadro-Secura® Nova 1-FW multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements.

- Multi-compartment house lead-in for buildings with basements; for district/geothermal heating utilities
- Use in pre-installed wall sleeve or WU core drilling (white trough)
- With additional sealing flange to DIN 18533 (black trough)



Tested





#### Quadro-Secura® Nova 2-FW

The Quadro-Secura® Nova 2-FW multi-compartment house lead-in seals on both sides and is suitable for installation in buildings with basements.

- Multi-compartment house lead-in for buildings with basement; for district heating/geothermal heating utilities
- Use in pre-installed wall sleeve or WU core drilling (white trough)



Tested





#### Quadro-Secura® Nova R4

The Quadro-Secura® Nova R4 multi-compartment house lead-in as a series version seals on one side and is suitable for installation in buildings without basements. The house lead-ins feature rigid and tear-proof casing pipes to maintain the bending radii. The media pipe can be replaced at a later date.

- Multi-compartment house lead-in in a series design for buildings without basements
- Use in structures still to be constructed from waterproof concrete
- Also available in the versions Quadro-Secura® Nova R3 and R2



Tested





DVGW



#### Fibre optic house lead-ins



#### The future-proof home connection for fast Internet

The expansion of fibre optics in Germany is gathering pace. To ensure that the fibre optic connection to your home (FTTH) is professionally sealed, we have developed a variety of products to meet every requirement.

We are the only supplier to offer a foam-free version. We also use tried-and-tested products for fibre optic sealing. Our house lead-ins are tested both internally and externally by independent testing institutes in order to offer our customers the best possible safety.



#### Product name:

SPE16/1x(7-14)/700 SPE16/1x(7-14)/1200 SPE16/3x7/700 SPE16/3x7/1200

#### Fibre optic house lead-in SPE16

With this product, we make fibre optic installation efficient and safe. Above all, the extremely fast installation and the fact that the use of mechanical pressing eliminates the need for foaming are impressive.

- Retrofit fibre optic sealing entry for full bore in waterproof concrete (class 1 and 2) with a diameter of 25 mm
- Flexible rubber nipple for speed pipes (1x speed pipes 7–14 mm or 3x speed pipes 5–7 mm)
- Suitable for black troughs with liquid-applied sealants in accordance with DIN 18533 for non-pressing (W1) and moderately pressing water (W2.1-E)
- Available in 2 standard sizes, suitable for fibre optic cables



MFPA Leipzig



1 bar



100-1200 mm



#### **GPD-FTTH house insertion set**

Split version with 60 mm rubber thickness. The product set includes a fibre optic cable cover to cover the drill hole in the interior. It is ideal for sealing fibre optic cables with an outer diameter of 7 mm and 10 mm in a hole or wall sleeve with an inner diameter of 25 mm. Both holes have blind plugs. The product is also suitable for retrofitting.

- Quick and easy installation without foam or epoxy resin
- Optimum bending radius for fibre optic cables in the fibre optic cover
- Dismantling is possible at any time



Water 2.5 bar



Gas 1 bar

#### Would you like to know more?

You can find further information in the product data sheets and installation instructions in the download area of our website. Scan the QR code to get there.





Tested by ...



Gas- and watertight (up to ... bar)



Wall thicknesses from ... - ... mm



DVGWapproved

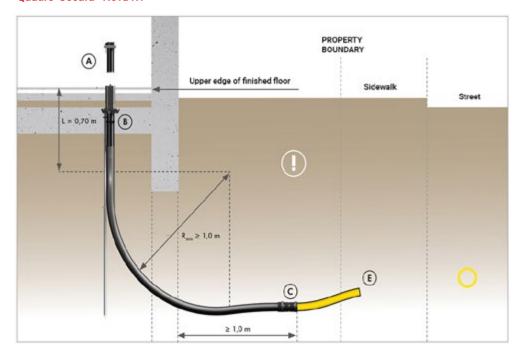
## House lead-ins



#### **Installation situations**

See our services for yourself in real-life application: the following installation situations illustrate our reliable solutions.

#### Quadro-Secura® Nova R1

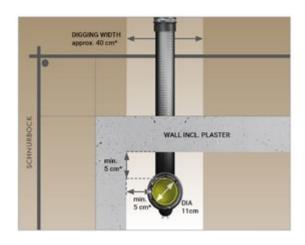


#### **ATTENTION!**

No inspection shafts, drainage pipes or other lines may be laid in the area of the house connection route.

It is also technically possible to extend the rigid protective pipes under the floor slab, but please always consult your utility company.

#### Positioning the body shell



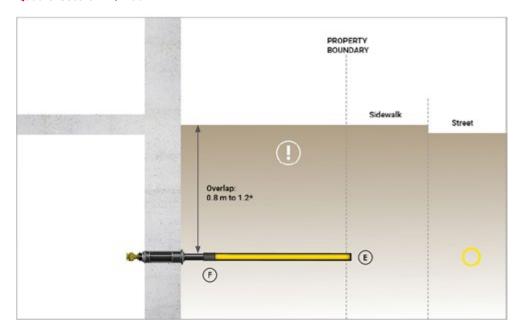
#### **IMPORTANT!**

The grid operators are responsible for the installation of the respective house connections!

\* Please coordinate the exact dimensions with your utility company.



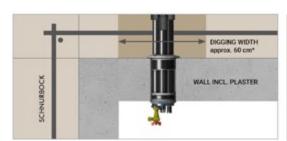
#### Quadro-Secura® E1/wide



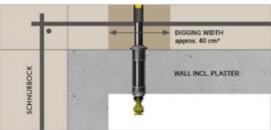
#### **ATTENTION!**

No inspection shafts, drainage pipes or other lines may be laid in the area of the house connection route.

#### Positioning Quadro Secura® Nova 1/wide



#### Positioning Quadro-Secura® E1/wide



#### **IMPORTANT!**

The grid operators are responsible for the installation of the respective house connections!

\* Please coordinate the exact dimensions with your utility company.









B Body shell

C Connection sleeves D Jacket pipe end plugs (E) Gas ring plug

F Double socket

www.uga.eu

## House lead-ins

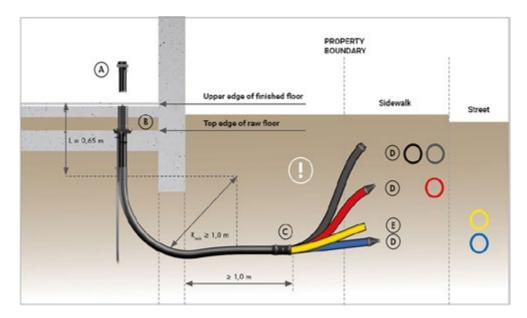


#### **Installation situations**

See our services for yourself in real-life application: the following installation situations illustrate our reliable solutions.

#### For buildings without a basements

#### Quadro-Secura® Nova R4

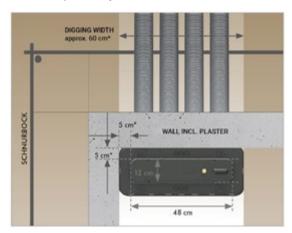


#### ATTENTION!

No inspection shafts, drainage pipes or other lines may be laid in the area of the house connection route.

It is technically possible to extend the rigid protective pipes – even under the floor slab – but please always consult your utility company.

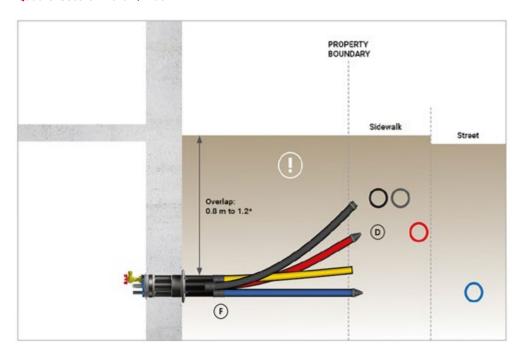
#### Positioning the body shell





#### For buildings with basements

#### Quadro-Secura® Nova 1/wide

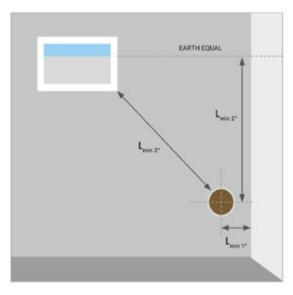


#### **ATTENTION!**

No inspection shafts, drainage pipes or other lines may be laid in the area of the house connection route.

\* Please coordinate the exact dimensions with your utility company.

#### Installation clearances in the basement



#### **Distances for Quadro-Secura® Nova**

 $L_{min1}$  = Distance to the wall  $\ge 15$  cm

 $L_{min2}^{}$  = Overlap ground level - water pipe

= 0.8 m to 1.2 m or after consultation with the respective utility companies

≥ Recommendation: Distance from window to core drilling  $L_{min3}$ 

#### Distances for Quadro-Secura® E

 $L_{min1}$  = Distance to the wall  $\ge 10$  cm

 $L_{min2}$  = Overlap ground level - water pipe

= 0.8 m to 1.2 m or after consultation with the respective utility companies

 $L_{min3} \ge$  Recommendation: Distance from window to core drilling

≥ 0.8 m







Foam, bricks and plugs | Cable and combi boxes | Sleeves and bandages | Soft and mortar bulkheads and cushions



## **6** Fire protection

#### From foam and plugs to cable and combi boxes



Our cable entries, roof entries and sealing inserts can be combined with fire protection. We are happy to offer you personalised advice and fire protection training.





Available in fire resistance class

#### Our products for your safety

Fire protection is an essential part of construction projects. These safety elements are designed to prevent the spread of fire, smoke and gases along pipelines and cable entries, especially in buildings and industrial plants.

We have the right solutions for a wide range of challenges – and more. With our broad product portfolio and the advice of our fire protection experts, we offer you a package that provides you with comprehensive fire protection. UGA is a distributor for

leading fire protection manufacturers and can supply you with a comprehensive system package.

Certify yourself and your employees with our fire safety training programmes. We have the right fire safety training course for every utilities sector – at your premises or in our training rooms.



#### Foam, stones and plugs

Quick to install and reusable: Our systems are suitable for every phase of a building's life – whether as an interim solution or for permanent use. They are completely dust- and fibre-free and are therefore suitable for every area of a building. This is why our customers in industry, administration, telecommunications and electrical engineering opt for our innovative, intumescent (self-foaming and heat-protecting) fire protection products.

#### Further advantages:

- Can be combined with cable entries and sealing inserts from UGA
- Very flexible in use and suitable for penetration seals with frequently changing occupancy
- No coating of the surfaces required
- · Dust- and fibre-free installation

#### Cable and combi boxes

For the joint and clean entry of electrical cables and pipelines: Our ready-to-install and fire-resistant cable and combi boxes are ideally suited for installation in rooms with requirements for technical cleanliness – such as server and data centres or rooms with variable occupancy You simply seal the joints with dimensionally stable, non-combustible building materials such as mortar, plaster, concrete and foam.

#### **Further advantages:**

- Suitable for retrofitting
- Numerous sizes available for maximum planning flexibility
- Subsequent occupancy possible
- · Cables and pipes permitted at zero distance

#### **Cuffs and bandages**

These fire protection products are used to seal off flammable supply and disposal pipes and tubes, such as for waste water, rainwater, drinking water, gas, heating, cooling, compressed air or pneumatic post.

Our fire protection collars are made of fire-resistant material and are designed to swell in the event of a fire. As a result, they effectively seal the entry and stop the spread of fire. Fire protection bandages, on the other hand, are wrapped around cables and pipes to insulate them from flames, smoke and heat development. They can be used in wall and ceiling penetrations as well as on electrical installation systems in buildings and on roofs.

#### **Further advantages:**

- Space-saving, as they allow zero clearance to other utilities
- Fire protection collars can be partially or completely mortared into the ceiling
- · Versatile areas of application

#### Soft and mortar bulkheads and cushions

Fire protection mortar prevents a fire from spreading from one section to the next. With this penetration seal, you can protect almost all media with different diameters and insulations in walls and ceilings in accordance with the approval. The soft penetration seal is a fire protection coating that can be applied flexibly. It provides additional protection for a product or surface. The coating also has an insulating effect and effectively retains the heat of a fire.

Fire protection cushions are made of non-combustible glass fabric and are filled with high-quality mineral wool. They are suitable for sealing off cable entries in walls and ceilings.

#### Further advantages:

- Reusable fire protection cushions as temporary and permanent partitioning
- · Large entries can be protected by soft and mortar bulkheads
- Low weight load on surrounding component with soft bulkhead

#### Our fire protection products keep you safe

- Fire protection sealing of all types of cable and pipe penetrations
- Approved and tested products
- Advice and training directly from UGA employees: engineers, specialist fire protection planners and fire protection construction managers are on hand to provide you with their expertise



## **6** Fire protection

Foam, stones and plugs

#### Fibre- and dust-free, versatile in use

Quick to install and reusable: Our systems are suitable for every phase of a building's life – whether as an interim solution or for permanent use. They are completely dust- and fibre-free and are therefore suitable for every area of a building.



#### **ZZ-WUM20-(B)**

Effective cable installation support ZZ W20. Vertical installation of cables with functional integrity E30 to E90, for room heights > 3.5 m, without additional strain relief loops. Available in widths from 350 mm to 750 mm.



- Material savings of up to 15% due to elimination of the strain relief loops
- Clean, fibre-free processing
- Simpler alternative to the installation method in accordance with DIN 4102-12



E30, E60, E90

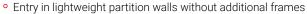


DIN



#### ZZ cable box

ZZ C60-DE (ZZ fire protection box). For cables with maximum bulkhead sizes: lightweight partition wall (500 x 500 mm); solid wall (500 x 500 mm); solid ceiling (500 x 500 mm). Product dimensions:  $200 \times 200 \times 100$  mm.



- For cables of all types and diameters
- Well suited for partitioning with frequently changing occupancy
- Plannable opening size



S90

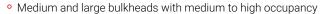


DIN



#### ZZ M21-S90 combi bulkhead

ZZ fire protection bricks 170 BDS-N. For cables with maximum bulkhead sizes: lightweight partition wall (875 x 575 mm); solid wall (1,000 x 1,000 mm); solid ceiling (700 x  $\sim$  mm). Product dimensions: 170 x 120 x 60 mm.



- · Mixed layouts of cables and non-combustible pipes
- Partitions with frequently changing occupancy



S90



DIN



Comp.

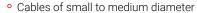




#### **ZZ C11-EN**

ZZ-DoBo BDS-N. For cable and pipe applications with maximum bulkhead sizes: lightweight partition wall (DN 100 mm); solid wall (DN 100 mm); solid ceiling (DN 100 mm). Product dimensions: DN 100 x L 150 mm.





- Entries in lightweight partition walls
- Partitions with frequently changing occupancy



S90

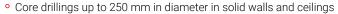


DIN



#### **ZZ fire protection plug BDS**

ZZ M10-DE (ZZ fire protection plug). For cable and pipe applications with maximum bulkhead sizes: lightweight partition wall (DN 240 mm); solid wall (DN 240 mm); solid ceiling (DN 240 mm), Priowall (DN 240 mm). Product dimensions: DN 250 mm.



- Mixed layouts of cables and non-combustible pipes
- · Partitions with frequently changing occupancy



S90, El120



DIN, EN



Comp.



#### Flexible use in your project

Our fire protection can be combined in many ways with our sealing solutions. For example, you can combine our BKD 150 with fire protection of protection class S90. We would be happy to advise you on the right solution for your building.







Proof of usability



Compatibility with seals



Foam, stones and plugs





#### ZZ M30-S90 combination penetration seal

ZZ-330/fire protection foam 2K NE. For cable and pipe applications with maximum cable penetration seal dimensions: lightweight partition wall (270 x 270 mm, DN 300 mm); solid wall (270 x 270 mm, DN 300 mm); solid ceiling (270 x 270 mm, DN 300 mm). In addition, maximum combination penetration seal dimensions of 450 x 500 mm each.



S90, El120



DIN, EN



Comp.

- Quick and easy sealing of component openings
- Highly exposed bulkheads
- Sealing of difficult-to-access and irregular openings



#### Did you know that ...

... our cable boxes are available in over 100 different dimensions? This ensures that there is the right size and box for every application. This means that fire protection can be easily integrated into walls and ceilings as early as the planning phase.



Fire resistance class



Proof of usability



Compatibility with seals



#### Cable and combi boxes



#### Ready to install, flexible planning, can also be retrofitted

For the joint and clean entry of electrical cables and pipelines: Our ready-to-install and fire-resistant cable and combi boxes are ideally suited for installation in rooms with requirements for technical cleanliness – such as server and data centres or rooms with variable occupancy. You simply seal the joints with dimensionally stable, non-combustible building materials such as mortar, plaster, concrete or foam.



#### Cable and pipe penetration seal Kombibox S/S+

Ready-to-install combined penetration seal for wall and ceiling penetrations – individual and group installation as well as symmetrical, centred installation. F90 solid wall made of masonry, concrete, steel or aerated concrete: d  $\geq$  100 mm. F90 lightweight partition wall: d  $\geq$  100 mm (max. projection 8.5 cm). F90 solid ceiling concrete, reinforced or aerated concrete: d  $\geq$  150 mm (max. projection 6 cm) or (the following does not apply to Kombi S+) in ceilings  $\geq$  200 mm, also asymmetrical, flush with the underside of the ceiling.



S90



DIN

- 100% bulkhead occupancy
- Fire protection during the construction phase
- Dust-free cable post-installation



#### Cable and pipe penetration seal Kombibox R6/R6+

Ready-to-install combination penetration seal for core drilling in walls and ceilings – individual and group installation as well as symmetrical, centred installation. F90 solid wall made of masonry, concrete, steel or aerated concrete d  $\geq$  100 mm. F90 lightweight partition wall d  $\geq$  100 mm (max. projection 8.5 cm). F90 solid ceiling concrete, reinforced or aerated concrete: d  $\geq$  150 mm (max. projection 6 cm) or not for combination in ceilings  $\geq$  200 mm, also asymmetrical, flush with the underside of the ceiling.



S90



DIN

- 100% bulkhead occupancy
- Fire protection during the construction phase
- Dust-free cable post-installation



#### Cable and pipe insulation Kombibox D/D+

Ready-to-install combined penetration seal for wall penetrations. F90 solid wall made of masonry, concrete, steel or aerated concrete d  $\geq$  100 mm, individual and group installation – symmetrical, centred installation. F90 lightweight partition wall d  $\geq$  100 mm, individual and group installation – symmetrical, centred installation (max. projection 8.5 cm).



S90



DIN

- 100% bulkhead occupancy
- Fire protection during the construction phase
- Dust-free cable post-installation



#### Cuffs and bandages



#### Versatile use, reliable partitioning

These fire protection products are used to isolate flammable supply and disposal pipes – such as pipes for waste water, rainwater, drinking water, gas, heating, cooling and compressed air or tubes for pneumatic post.



#### **Konfix Pro fire protection connector**

Konfix Pro mixed installation connector. For isolating disposal pipes in mixed installations using fire protection collars/pipe collars for cast iron pipes with transition to flammable pipes. Utilities: water.

- For mixed installation in accordance with Newsletter 02/2012 DIBt
- Subsequent mounting on standard Konfix connectors
- At zero distance from other penetration seals (supply and ventilation penetration seals)



S90



DIN



#### Fire protection collars FS-M R1

For sealing off supply/disposal lines for flammable pipes. Utilities: waste water, rainwater, drinking water, gas, heating, cooling, pneumatic post. Available in the dimensions: 32 to 315 mm.

- For solid walls and ceilings, drywalls and wooden beam ceilings
- For 2 x 45° bends, via socket, CV connector and electrofusion socket
- At zero distance from the same and other partitions



S90, EI90



DIN, EN



#### Fire protection collars FS-M R2

For sealing off supply/disposal lines for flammable pipes. Utilities: waste water, rainwater, drinking water, gas, heating, compressed air, pneumatic post. Available in the dimensions 32 to 160 mm.

- For solid walls and ceilings, drywalls and wooden beam ceilings
- With 2 x 45° bends, via socket, CV connector and electrofusion socket
- Partially or completely mortared into ceilings (flush with lower edge of ceiling)



R90



DIN





#### Rollit fire protection bandage

For sealing off supply/disposal lines with fire protection bandage for combustible and non-combustible pipes. Utilities: waste water, drinking water, gas, heating, compressed air, sprinklers.

- Sealing in accordance with the applicable pipework directive
- Particularly advantageous for penetration seals in larger or rectangular component openings
- Variably adaptable to pipe dimensions



**R90** 



DIN



#### Fire protection bandage ISO Pro

For sealing off supply/supply lines for combustible and non-combustible pipes. Utilities: rainwater, drinking water, heating, cooling.

- Variably adaptable to pipe and insulation dimensions
- Extensive areas of application for the fire protection system
- Allows zero separation in the system



R90



DIN



Comp.



## **6** Fire protection





#### Lightweight, reusable and suitable for large entries

Penetration seals with fire protection mortar prevent a fire from spreading from one section to the next. The soft penetration seal is a fire protection coating that has an insulating effect and thus effectively retains the heat of a fire. Fire protection cushions are suitable for fire-resistant sealing of cable entries in walls and ceilings.



#### Mineral wool

The mineral fibre made of rock wool is used for the fire protection sealing of cavities and slots in cable, pipe and combination penetration seals as well as joints in walls and ceilings.

- Quick and easy to process
- Heat and sound insulating
- Sound-absorbing
- Resistant to ageing
- Chemically neutral
- Open to diffusion



El60 to El120



DIN FI



#### **KLIMAROCK louvre mat**

Aluminium-laminated rock wool mat for insulating air conditioning and ventilation ducts, pipelines in building services such as heating and hot water and drinking water and waste water pipes.

- Thermally insulating
- Sound-absorbing
- Water repellent
- Pressure resistant
- Flexible
- Uniform in insulation thickness
- · Manufactured in AS quality



F90



DIN



#### **PYRO-SAFEDG CR 1.5**

Fire protection fabric for use as a wrap for cables and non-combustible pipes with combustible insulation.

- Flexible
- Tear resistant
- Reaction from approx. 150 °C



S90



DIN



Comp.





#### Fire protection fabric

Fire protection fabric for use as cable bandage indoors and outdoors.

- Easy application with brush, roller or airless sprayer
- Proven functional capability of at least 30 years
- · Coating of all types of cables without the use of a primer
- Economic application
- Solvent-free, contains no halogens
- Free from asbestos, lead, mercury, hexavalent chromium and polybrominated biphenyl ether
- Does not release toxic fumes



S90, E190



DIN, EN



#### Fire protection silicone

Preventive fire protection, elastic and pressure-tight sealing of noncombustible pipes in wall and ceiling penetrations, as well as flexible sealing of component joints in interior and exterior areas.

- Permanently elastic
- Resistant to ageing
- Gastight
- Voltage-free
- Temperature resistant
- Vibration-resistant
- Not paintable
- One-component silicone sealant



F90



DIN

#### At your side with fire protection advice.

Don't bother with unnecessarily long research into complex topics such as functional integrity or fire resistance classes. Our fire protection experts will be happy to advise you directly on site or over the phone.

You can find your contact person on our website. Simply scan the QR code with your mobile phone.





Fire resistance class



Proof of usability



Compatibility with seals

## **6** Fire protection

#### Soft and mortar bulkheads and cushions





#### Fire protection acrylate

Flexible fire protection sealing of structural joints indoors and outdoors and for sealing connections and joints with moderate expansion stress and without constant moisture exposure: e.g. between concrete, masonry and fibre cement. Also suitable for bonding expanded polystyrene ("Styrofoam") to absorbent substrates. The water-dilutable fire protection acrylate is odourless and free of halogens, solvents, isocyanates and silicone.



- Can be painted over with many paint systems
- Very good storage stability
- Resistant to ageing and weathering
- Good UV resistance



F90



DIN



#### Joint cord

Fire protection seals in ceilings and load-bearing and non-load-bearing solid walls for movement joints between components with similar loads and deformations and for joints between components with shear loads, which can be designed as stepped joints (multi-stage joints) and as linear butt joints (single-stage joints).



• Elastic



F30, F120, El30, El120



DIN, EN



#### **PYRO-SAFE BIOBAG**

Fire protection cushion for the fire protection closure of component openings and as a temporary cable penetration seal approved by the building authorities.

- Reusable
- Particularly flexible
- Installation is particularly easy and dust-free, no tools are required
- The partitioning system can also be easily installed with access from only one side
- If the system is only used for temporary partitioning, the cushions can be reused without any problems



S90



DIN



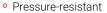
Comp.





#### Mineral fibre boards

Pre-coated mineral fibre boards are used as system boards for cable, pipe and combination penetration seals approved by the building authorities. Dimensions of the product:  $1,000 \times 600 \times 50$  mm.



- Water repellent
- Heat and sound insulating
- Dimensionally stable in temperature changes
- Vibration damping
- Chemically neutral
- Open to diffusion



FON



DIN



#### **PYRO-SAFE FLAMMOTECT A**

Universally applicable indoors and outdoors as a weather-resistant ablation coating for cable, pipe and combination penetration seals approved by the building authorities and as a universal protective coating for cables and cable support structures to prevent fire propagation in the event of a short circuit or external fire exposure.



F90



DIN

- Available in three viscosities
- For indoor and outdoor use
- Resistant to moisture, freeze/thaw cycles, UV radiation and various oils and chemicals
- Solvent-free, contains no halogens
- Does not release toxic fumes
- Has no effect on other building materials such as polyethylene (PE) and polyvinyl chloride (PVC)



Fire resistance class



Proof of usability



Compatibility with seals



#### Additional information



#### Table comparison DIN 4102/EN 13501

National class in accordance with DIN 4102-1	Building authority requirement	European class in accordance with DIN EN 13501-1	Additional requirements	
			no smoke	no burning fall-off/ dripping
A1 (non- combustible)	non-flammable	A1	x	x
A2 (non- combustible)	non-flammable	A2-s1, d0	X	x
		B-s1, d0 or C-s1, d0	x	x
		A2-s2, d0 or A2-s3, d0		x
		B-s2, d0 or B-s3, d0		x
D44)	flame retardant	C2-s2, d0 or C-s3, d0		x
B1*)		A2-s1, d1 or A2-s1, d2	x	
		B-s1, d1 or B-s1, d2	x	
		C-s1, d1 or C s1, d2	x	
		A2-s3, d2 / B -s3, d2 / C-s3, d2		
B2*)	flammable	D-s1, d0 or D-s1, d0		x
		D-s3, d0 or E		x
		D-s1, d1 or D-s2, d1		
		D-s3, d1 or D-s1, d2		
		D-s2, d2 or D-s3, d2		
		E-d2		
B3**)	highly flammable**)	F**)		

 $<sup>^{\</sup>star}$ ) Information on high smoke development and burning dripping/falling off is specified in the proof of usability and in the labelling .

#### Would you like to know more?

Further information can be found in the product data sheets and installation instructions in the download area of our website. Scan this QR code to get there.



<sup>\*\*)</sup> Highly flammable building materials must not be used. This does not apply if they are no longer highly flammable in combination with other building materials.



#### Certification in accordance with fire resistance class S 90

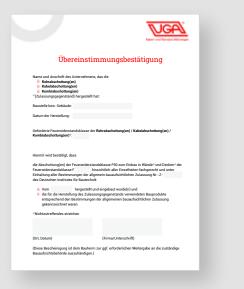
Expert evaluation on fire protection products in combination with sealing technology





Our tip: Installer certificate/declaration of conformity

A sample of these certificates can be found on the last page of the respective certificate.



Ideal accessories

Explore our range of accessories and practical extras on our website. Simply scan the QR code to get there.











Product name: MK(A)

#### Wall collar MK

Hydrostatic sealing of steel, cast iron, copper, plastic, glass fibre reinforced concrete, concrete and vitrified clay pipes through walls, ceilings, floors, manhole entries, swimming pools and groundwater basins. The UGA wall collar is the right solution wherever a wall sleeve or core drilling can no longer be retrofitted. Wall collar MK for pipe outer diameter 32–1450 mm. Supplied with corresponding metal clamping straps.

0

4 hai

- · Leak-tight against pressing water
- Radon-tight
- Numerous sizes



#### Product name:

KT(A)/(L) (adhesive sleeve)

KT(A)-SM-EFL/(A)/(L) (pipe fitting, single lip seal)

KT(A)-SM-MFL/(A)/(L) (pipe fitting, multiple lip seal)

#### **Cable funnel insert KT**

The KT cable funnel allows cables to be inserted quickly, reliably and gently into conduit ducts. The rounded edges prevent damage to the cable insulation. The KT cable funnel inserts are available in three different sizes with three different sleeve variants for pipes with outer diameters of 110 mm, 125 mm and 160 mm. Several elements can be stacked on top of and next to each other to form a package. Unused cable funnel inserts can be easily sealed with a sealing insert.

- Protection of the cable insulation
- Bundle possible
- No additional formwork aids necessary



Product name: MA (A1-A2)/(A3-A4)

#### **EPDM** sleeves

High-quality EPDM sleeves for connecting or joining smooth-walled pipes, corrugated pipes and cable protection systems. Available in various sizes in a clamping range of 40–250 mm.

- Simple gas-tight and watertight connection and joining possible
- High-quality EPDM sleeves with a defined clamping range for various applications
- Use of high-quality tensioning straps made of V4A stainless steel



0.5 bar

#### Want to know more?

You can find further information in the product data sheets and installation instructions in the download area of our website. Scan this QR code to get there.





Product name	Product description	Areas of application
3-finger (partitioned) shrink sleeves AK	Hot-shrink technology for sealing three cables in one system cover socket, available in different variants.  AK35/3F/2-12 for system cover BKD150-D-8/35/25; suitable for cables with an outer diameter of 2–11 mm  AK50/3F/5-22 for system covers BKD150-D-8/35/25 and BKD150-D-7/38; suitable for cables with an outer diameter of 5–21 mm  AK75/3F/8-29 for system cover BKD150-D-3/59; suitable for cables with an outer diameter of 8–28 mm	
4-finger (partitioned) shrink sleeves AK	Hot-shrink technology for sealing four cables in one system cover socket, available in different variants.  AK35/4F/2-13 for system cover BKD150-D-8/35/25; suitable for cables with an outer diameter of 2–12 mm  AK50/4F/5-20 for system cover BKD150-D-8/35/25 and BKD150-D-7/38, suitable for cables with an outer diameter of 5–19 mm  AK75/4F/8-29 for system cover BKD150-D-3/59, suitable for cables with an outer diameter of 8–28 mm	
Spacer ASH for cable protection systems	Spacer ASH 2 x 3 for KSS150/110/125 for positioning and fixing a maximum of 6 KSS hoses, 3 next to each other and 2 above each other. For the following variants:  ASH170/2x3: KSS150 ASH140/2x3: KSS125 ASH125/2x3: KSS110	
Spacer ASH for wall insert variants	Spacer for the BKD 150 wall insert variants, increases the centre distance by 40 mm to a total of 250 mm.	

















Product name	Product description	Areas of application
Aquagard primer	Primer for sealing core drillings.  The primer penetrates deep into the capillaries and air bubbles in the concrete and seals them permanently watertight. This prevents water from travelling around the sealing insert.  The primer is applied with a brush or roller.  1 litre for 4.0 m² (type 1710)  1/3 litre for 1.5 m² (type 1711)	
Aquagard special varnish	Special solution for sealing core drillings. The Aquagard special solution seals the surface of the core drill hole and at the same time protects any cut reinforcement steel from corrosion. The special sealer is applied with either a brush or a roller.  1 litre for 3.5 m² (type 1715)  1/3 litre for 1.0 m² (type 1716)	
CV connector 110	CV connector for sealing exposed DN 110 corrugated pipe ends with sealing insert (not included).	
CV connector 160	CV connector for sealing exposed DN 160 corrugated pipe ends with sealing insert (not included).	
Disassembly set M8	Disassembly aid for easy and safe disassembly of sealing inserts with M8 threaded bolts. Usable length up to 100 mm, consisting of 2 pieces in a set.	
Disassembly set M6	Disassembly aid for easy and safe disassembly of sealing inserts with M6 threaded bolts. Usable length up to 100 mm, consisting of 2 pieces in a set.	
Torque spanner assembly set GPD/RRD	Metal case with the following contents: torque spanner 4–20 Nm, 1/4 inch; extension 1/4 inch 150 mm; socket spanner bit SW 10 (M6) long version; socket spanner bit SW 13 (M8) long version	
Hinged face spanner GSS	For mounting all system covers and KSS systems; with adjustable handle.	



Product name	Product description	Areas of application
Lubricant	Bag of neutral soap-based lubricant for sealing inserts; fill quantity 10 grams.	
Rubber stopper	EPDM rubber plugs for closing openings in sealing inserts. Available in various rubber thicknesses and diameters.	
HandyMax cartridge gun (2KNE, ZZ330)	HandyMax 2K cartridge gun for 2K coaxial cartridges (5:1), e.g. 380 ml, suitable for ZZ 330 fire protection foam (2K NE).	<b>6</b>
Cable cleaner 1 litre	For cleaning all types of cables, even with stubborn dirt. Odourless and evaporates without leaving any residue. Fill quantity 1,000 ml. Density at 20 °C: 0.764 g/cm3. Flash point: > 61 °C. Evaporation rate: 60. Labelling: Xn.	
Cold-shrink sleeves	For quick and easy installation without tools, in all weathers. Gas-tight and watertight up to 2 bar. Available for all system covers.	
Metal tensioning strap	Metal tensioning strap for fastening fire protection fabrics and bandages in compliance with approvals, 100 m long x 15 mm wide.	<b>6</b>
Mixer attachment 2K	Mixer attachment 2K for 2K coaxial cartridges, suitable for ZZ 330 fire protection foam (2K NE).	<b>6</b>

















Product name	Product description	Areas of application
Mounting set FU-FZ	UGA mounting set for split fibre cement wall sleeves. Installation set available for all wall thicknesses up to an internal diameter of 450 mm.	
OTTOPUR Cleaner for fire protection foams	OTTOPUR Cleaner for fresh PUR foams, 500 ml. OTTOPUR Cleaner is suitable for easy removal of fresh, uncured PUR foams, e.g. for ZZ 330 fire protection foam (2K NE).	<b>6</b>
Power Max cartridge gun	Rechargeable PowerMax cartridge gun 2K for 2K coaxial cartridges (5:1), e.g. 380 ml, incl. rechargeable battery, suitable for ZZ 330 fire protection foam (2K NE).	<b>6</b>
Sikadur®-31-CF	Solvent-free thixotropic two-component adhesive and repair mortar based on epoxy resin. Available in 1.2 kg.	
Sikaflex®-11 FC Purform®	Cartridge containing 300 ml of elastic sealant for optimising wall surfaces and for bonding our components to all types of wall.	
Tensioning strap	Tensioning strap available in various sizes.	
Step flap	UGA step flap for sealing inserts to protect against slipping. Various sizes available in a set of 2 pieces.	
Tangit M3000	Two-component polyurethane-based resin. Self-filling compound that expands up to five times its volume. Ideal for watertight and gas-tight sealing of smaller wall and floor penetrations.	
Hot-shrink sleeves	UGA hot-shrink sleeves for cables and pipes in various sizes.	



Product name	Product description	Areas of application
Hot-shrink sleeve set	UGA hot-shrink sleeve set for system covers of cable entries. Two hot-shrink sleeves for DN 35 mm and two hot-shrink sleeves for DN 25 mm.	
Locking clips	Locking clips for approval-compliant fastening of metal tensioning straps when using fire protection fabrics and bandages, 1,000 pieces.	8
Sealing plug	For sealing unused system cover spigots. Can be quickly removed again when refitting. Version available for all system covers.	
Interchangeable insert	UGA interchangeable insert made of EPDM rubber for sealing inserts with interchangeable insert. Available with rubber thickness 60 mm as: WE50, WE65, WE85, WE110, WE125. The interchangeable inserts can be supplied blind or with customised assignment.	
WEICON Flex 310 M <sup>®</sup> Super Adhesion	Cartridge containing 290 ml of elastic adhesive and sealing compound based on MS polymer. For use on black troughs (thick bitumen coating) for tested products with subsequent flange.	
Sealing plugs	EPDM rubber Sealing plugs (rubber thickness 3 mm) available for all flange constructions.	
Multilayer insert	UGA multilayer insert made of EPDM rubber for sealing inserts and BKD150 system inserts. Available with a rubber thickness of 40 mm as: ZS4-20, ZS4-25, ZS4-32, ZS22-54.	















www.uga.eu

## We are here for you:

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