

# solution

CUSTOMER MAGAZINE 01 | 2023

Customer communications  
in a changing world

Hey chatbot!  
Hey customer!

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**NEW!** The UNI Dicht TRI  
for a wide range of EMC  
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**Best in class:** PFLITSCH  
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**Cable routing** in all  
dimensions with PFLITSCH  
cable trunking

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# Dear Customers, Business Partners and Friends,

The year 2023 is meanwhile well under way with stimulating ideas and input from within and without. We've pushed ahead with solutions, improved our performance and strengthened connections. People are at the centre of everything we do. Customers who we've once again managed to inspire with innovations like the UNI Dicht TRI and CABseal, the splittable cable entry. You can find out more from page 6 and from page 8.

A team who embrace customer focus, not forgetting all the individuals who see our company from a variety of perspectives and find their own definition of a success story reflected in us. All of these people together exemplify our success and help drive us forward – every single day.

It was a great honour for us to be awarded the TOP 100 Innovation Award.

Turn to page 18 for a detailed account of the independent judging panel's verdict. Innovations are the doing of people who ask questions and search for solutions. Yet innovation is inevitably also about focusing on customers and their needs. Even the best ideas won't get us anywhere if they don't match your requirements. We urge you to engage closely with us for this reason. Talk to us about future challenges or about one of the many different issues we've packed into our current customer magazine.

We look forward to hearing from you!

Best regards,

*Roland Lenzing and Mathias Stendtke*  
Managing Partners  
PFLITSCH GmbH & Co. KG

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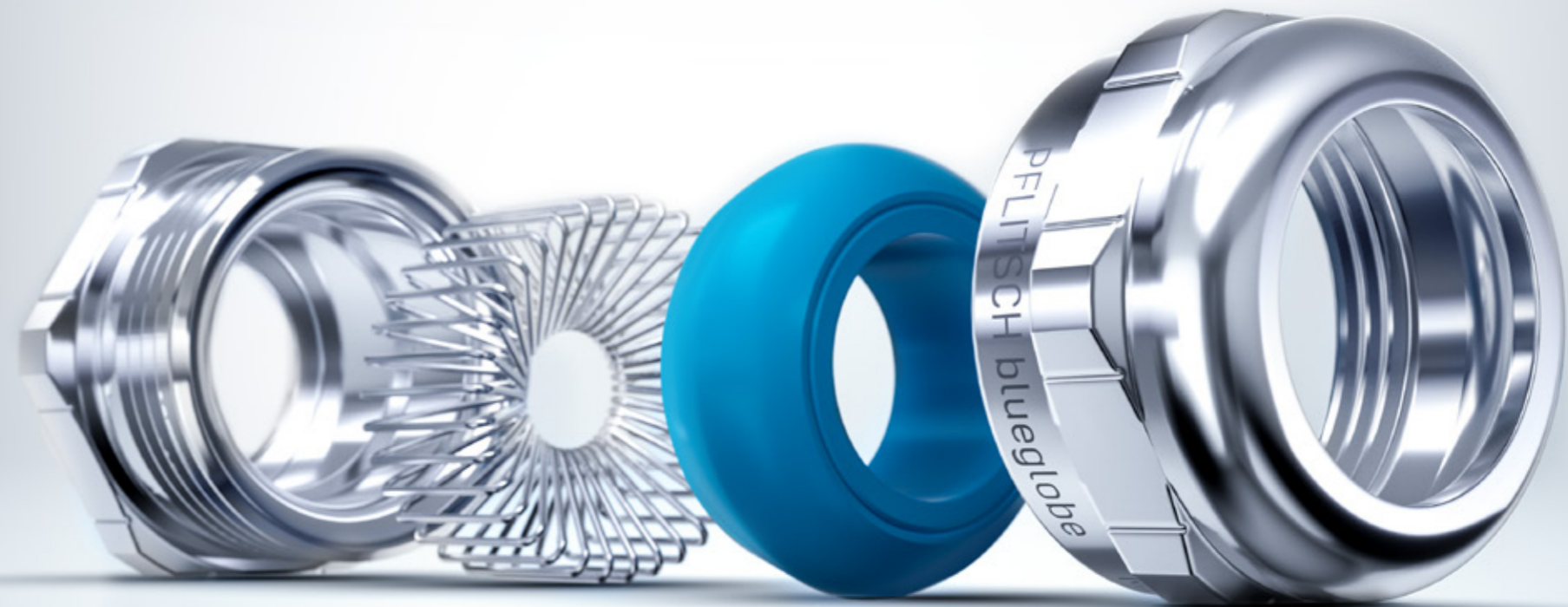
# blueglobe TRI passthe Cat. 8.2 test

Good news for all customers using our blueglobe TRI, or planning to do so in the future.

Our PFLITSCH blueglobe TRI EMC cable gland has just passed the Cat 8.2 test – renewed confirmation of its quality, especially when it comes to cable shield contacting. The test was performed by GHMT, an accredited testing laboratory. This makes PFLITSCH the only manufacturer of EMC cable glands to date to have passed the Cat. 8.2 test.

### What does the Cat. 8.2 test involve?

Cat 8.2 data cables are Ethernet cables that achieve high transmission speeds of up to 40 gigabits per second. They are mainly used in computer centres for this reason. The test examines whether using the blueglobe TRI EMC cable gland can impair these high transmission speeds. It was established that a Cat. 8.2 cable also complies with the limits laid down by IEC 61156-9 Ed. 1.0 up to 2 GHz when a blueglobe TRI is installed. One point worth mentioning is that, compared to Cat. 7<sub>A</sub> data cables, the transmission frequency has increased from 1 GHz to 2 GHz and the limits to be complied with are much stricter.



# New: The PFLITSCH UNI Dicht TRI

Minimum size, maximum screening attenuation

PFLITSCH has been supplying effective EMC solutions ever since the mid-eighties. With its development and implementation of the new UNI Dicht TRI cable gland, the company is once again anticipating changing customer needs when it comes to electromagnetic compatibility and is further expanding the UNI Dicht cable gland system. The growing level of automation and the general trend towards miniaturisation coupled with advancing digital communication as well as networked production and control systems add up to a significantly higher risk of electromagnetic interference. EMC is set to play an increasingly key role in cable management as a result. The number of potential EMC applications will rise accordingly – and with them the demand for specific solutions which, on the one hand, meet individual requirements for effective screening attenuation and, on the other, integrate highly developed all-round properties.

## UNI Dicht – looking back to see ahead

Yet how can we manage to develop such an enormous variety of customised EMC solutions in the face of rapid technological advances? Well, as a leading expert in cable management, PFLITSCH has already set the course here in the past, so to speak. Part of the solution is the UNI Dicht. This proven, groundbreaking, modular system of cable glands has a unique advantage for users, namely its comprehensive range of variants and models. The UNI Dicht system was first introduced back in 1965 and has been continuously developed ever since in order to meet the evolving needs of the market and customers. Today, the UNI Dicht series is indispensable as a cable entry system in mechanical and plant engineering.

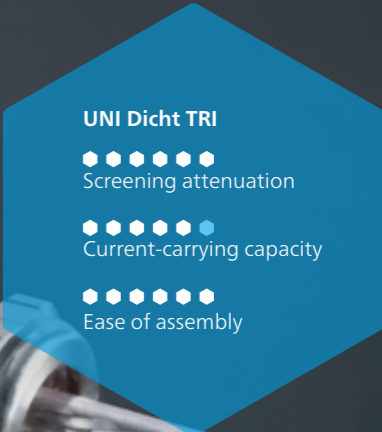
## Effective EMC shielding has a name: TRI

Part two of the solution is the TRI, PFLITSCH's patented triangular spring. It owes its name to the bend in the spring, which is triangular in shape. The same TRI spring has already proven itself in another PFLITSCH product solution – the blueglobe TRI cable gland, which has set new standards in the world of EMC cable glands. In several respects: thanks to the durable 360° contact with the cable shield over a large area, which is based on the mechanical separation between strain relief and screening, it now also ensures exceptional attenuation properties in the UNI Dicht TRI – even in the upper frequency range. It thus prevents electromagnetic interference from being radiated into the cable and subsequently penetrating the equipment to which the latter is connected. The high current-carrying capacity, which is likewise a result of the contacting method and the very low resistance, is a further safety aspect. This guarantees reliable discharge of undesirably high shield currents at the enclosure or control cabinet. Last but not least, this solution also scores in terms of efficiency. Assembly is quick, simple and error-free, saving time and money.

## UNI Dicht TRI – the best of both worlds in one cable gland

By uniting the superior properties of both concepts, PFLITSCH has succeeded in creating a new series of EMC cable glands. The UNI Dicht TRI's compact dimensions make it perfect for use wherever installation space is limited. The continuation of the cable shield is likely to be a further point in its favour for some users because the cable only needs to be stripped at the TRI spring's contact point. Others will appreciate its suitability for plugs in combination with small cable diameters: each size of the UNI Dicht TRI cable gland covers an above-average screening and sealing range. As far as ease of assembly is concerned, it should be noted that the TRI spring allows the positioning

of the cable to be easily corrected during installation and that when the pressure screw is tightened, the anti-twist protection locks the cable in position. For plant engineering companies exporting to North America and Canada, the fact that UL approval has been applied for is important to ensure that the UNI Dicht TRI complies with national safety regulations. The UNI Dicht TRI opens a new, exciting chapter in PFLITSCH's EMC success story, which is linked with high expectations – after all, with its highly developed and innovative DNA, this new addition to the portfolio has excellent credentials.



## UNI Dicht TRI

Contacting	Stainless steel TRI springs
Gland body	Brass, nickel-plated
Sealing insert	TPE, silicone
Temperature range	- 40 °C to 130 °C (TPE) - 55 °C to 200 °C (silicone)
Type of protection	IP 68 up to 10 bar, Type 4X
Connection thread	M16 to M25
Sealing range (min./max.)	4.0 mm to 20.5 mm

PFLITSCH at SPS 2022

# Spotlight on CABseal and LevelEx AC



Can't find the right cable entry?  
The solution: **Hall 2, stand 439**

**CABseal**  
The new cable entry from PFLITSCH



The PFLITSCH booth at SPS 2022 went under the banner of “easy installation for automation”. The exhibit centred around two product innovations that live up to this claim in every respect: a splittable cable entry and an explosion-proof cable gland for armoured cables.





The LevelEx AC – a newly launched, explosion-proof cable gland for armoured cables – made a convincing impression alongside the CABseal, the main product highlight.

Smart Production Solutions (SPS) is the key trade fair for the automation and robotics industry, held every year in Nuremberg, Germany. Its good reputation derives from the fact that the entire bandwidth of digital automation – from simple sensors to complete smart production systems – is exhibited there, both the status quo of what's feasible today and the possibilities of a fully digitalised industry.

Given this importance, it's not surprising that SPS is a must-attend event in PFLITSCH's trade fair calendar. All the more so in 2022, when two exceptional product highlights took centre stage to be introduced to interested fair-goers, the trade press and PFLITSCH's own sales partners. The undisputed star of the show was the new splittable CABseal cable entry, although the new LevelEx AC – an explosion-proof cable gland for

armoured cables – also enjoyed its share of the limelight. Both solutions play a crucial role in PFLITSCH's endeavours to expand individual product ranges to create a complete overall portfolio – with the LevelEx AC being a prime example of this in the LevelEx range.

An exclusive kick-off event held on the evening before the fair served to get the PFLITSCH sales partners who had made the trip to SPS in tune with the CABseal. Thanks to the exciting way in which it was showcased, this product highlight attracted the undivided attention of everyone present. And that's not all: with its outstanding features and customer benefits, the new splittable cable entry aroused genuine enthusiasm. One essential aspect here was the opportunity not only to inspect the product in person but also to install it and gain a first-hand impression of how amazingly easy it is to assemble.

The PFLITSCH booth party was the venue for the CABseal's next appearance. A professional cover band provided the perfect soundtrack. A football table awakened the sporting spirit among the guests while drinks fit for the occasion ensured everyone was in the right party mood. For PFLITSCH's trade fair team, this was of course a welcome opportunity that was taken advantage of to conduct numerous in-depth sales talks with customers and generate a large number of promising contacts.

The response triggered by the CABseal hasn't gone unnoticed, even among our competitors. After all, it was prominently advertised at the hall entrance with a clear message on a huge banner measuring 8 x 2.4 metres. The spotlight may have been trained on the CABseal for most of the time, yet the LevelEx AC was certainly not confined to the sidelines. On the contrary. With so many product advantages – such as a novel viewing window that makes assembly easier and safer – it met with keen interest from experts on explosion protection in cable management. And so, looking back, we can rightly say that PFLITSCH's presence at SPS 2022 was a complete all-round success.



The CABseal combines flexibility with ease of assembly thanks to a modular system of four frames and dozens of grommets. With its wide temperature tolerance and high UV resistance, it also provides reliable and effective protection in both indoor and outdoor use.

PFLITSCH at MEE 2023 in Dubai

# Quality convinces demanding industries

With 800 international exhibitors, three interesting conferences and a special exhibition on five key technologies, Middle East Energy in Dubai from 7 to 9 March kicked off the 2023 trade fair year very successfully. More than 800 participating firms presented their product solutions to over 25,000 trade visitors from almost all GCC countries plus India and Pakistan. PFLITSCH solutions were on show at the German Pavilion in Hall 1.

In keeping with the trade fair's main target group – namely the oil & gas, chemical and renewable energy sectors – the PFLITSCH team led by Jörn Zimmermann provided interested industry professionals with insights into the innovative LevelEx explosion-proof cable gland as well as the special AC variant for armoured cables. This solution scores with a very compact design, only a few parts and exceptional ease of assembly – no comparison with the market's established Ex d and Ex e cable glands that often seem very bulky. The CABseal – PFLITSCH's new, splittable cable entry which comes in four sizes and allows up to 40 cables to be fed simply and safely into control cabinets – likewise attracted considerable interest among visitors.

As is traditionally the case with PFLITSCH, this solution impresses with a high IP 66 protection rating, optimum strain relief and durability even in adverse environments.

The extensive blueglobe series with sizes from M8 to M85 for cable diameters from 3 mm to 77 mm and permissible operating temperatures from -55 °C to +200 °C also turned out to be a particular magnet. Not atypically for the industry, the focus was on the reliable Ex-e II cable glands as well as the EMC variants with their unique TRI spring contact and very high screening attenuation.

Our verdict on MEE: PFLITSCH solutions are perfect for the Arab world's very high requirements and demanding applications.



Not only the CABseal but also the PFLITSCH blueglobe series with its wide range, reliability and unique spring design clearly impressed visitors to MEE Dubai



# Connector specialist ILME plays it safe when it comes to cable entries



Dirk Offermann and Patrick Rieckhoff of ILME with a connector kit

## Spotless symbiosis

In many cases, stainless steel is still the premium material in food and process engineering when it comes to Hygienic Design. However, plastics with similarly good properties are now displacing this expensive solution, as ILME's current connector family demonstrates: these connectors benefit from considerable price and weight advantages and are equipped with a special cable entry – one that has been fully developed in line with EHEDG guidelines.

From the point of view of Hygienic Design and in view of the necessity to clean them, production plants in the food and chemical industries should as far as possible do without connectors. "But that's totally unrealistic in practice, because there are always modules of a plant that need to be replaced at some point", says Dirk Offermann, Product Manager at ILME. In order to achieve a high level of product safety despite this, components are needed that also offer maximum process reliability. "So we developed the T-TYPE HYGIENIC rectangular connectors specifically for the food industry."

ILME, with its headquarters in Milan and subsidiaries in Germany, France, Great Britain and Scandinavia, as well as China, Japan and South Korea, is one of the leading European manufacturers of industrial connectors and produces solutions for a very wide range of industries, including mechanical engineering, automotives, materials handling, automation, rail, wind and, of course, the food and beverage sector. "The task of selecting the right components for use in the food and beverage industry is subject to the strictest safety regulations designed to prevent food contamination during production", explains

Patrick Rieckhoff, Chief Technical Officer at ILME's German subsidiary in Wiehl near Cologne.

"The cleanability and resistance of materials to alkaline or acidic cleaning agents or disinfectants are among the most important properties required." This is why the components used in these plants should meet the requirements laid down in, for example, EHEDG Guideline No. 32, HACCP and FDA 21 CFR 177.2600 and 21 CFR 177.1520.

## New development – customisable with over 80 MIXO series modular inserts

"We addressed this when developing our current T-TYPE HYGIENIC series and brought our expertise in the production of thermoplastic enclosures to bear", Rieckhoff explains. The connectors are compatible with standard metal enclosures, but designed for F+B splash zones in accordance with FDA 21 and EHEDG 32. They are available in four common sizes with protection rating IP 65, IP 66 or IP 69. "In combination with our MIXO modular contact inserts, more than 80 different modules with contacts for power, signals, data transmission and pneumatics are available. Even RJ45 connectors can be individually combined."

A lot of know-how has gone into the design of the connector enclosure alone: "We have consistently reduced the crevice dimensions to almost zero to ensure their cleanability. The closing levers were also modified accordingly, without sacrificing robustness or closing reliability." Even the relief of the ILME logo was smoothed and "flattened" to achieve the smoothest possible surface. And parts at risk of being lost have been given a special colour and made with metallic particles so they can be easily seen and recovered.



### Impressed by the EHEDG-certified cable entry

Another challenge in Hygienic Design is the perfect cable entry. Here, ILME trusts in the technological expertise and edge of PFLITSCH from Hückeswagen, Germany. This medium-sized company is also committed to providing the best solutions for demanding industries and has launched its “blueglobe CLEAN Plus”, the first cable gland to be fully EHEDG-certified.

In addition to the stainless steel version, a plastic variant with equally good product properties has also been available for some time – but at a much lower price. “And we’ve been highly impressed by it”, says Dirk Offermann. And this elegant component produces flush transitions between the cable and the connector enclosure.

“The CLEAN Plus cable gland is one of the few components that we buy in”, explains Offermann, referring to ILME’s 95%+ vertical integration that gives the company maximum independence from supply chains. “In recent times, this has proven to be particularly effective, because we have been able to deliver to our clients the entire time.” ILME’s experts are so impressed with PFLITSCH’s solution that they have even included the blueglobe CLEAN Plus in their own catalogue. “We make no secret of it when we offer top-quality components made by other companies in addition to our own.”

### Significantly lower price – less weight

“In order to meet the EHEDG’s stringent specifications, we broke new ground with our blueglobe CLEAN Plus and then succeeded in having it certified as the first all-in-one cable gland”,

explains Heiko Emde, Market Segment Manager Food and Pharma – Hygienic Design at PFLITSCH. The gland body is optionally made of the high-quality stainless steel 1.4404/AISI 316L or – as for ILME – of food-grade, FDA-compliant plastic. The cable gland boasts a significantly lower price as well as reduced weight. This variant is currently available in sizes from M16 to M32 for cable diameters from 7.0 mm to 23.0 mm.

Very smooth surfaces with a roughness of  $Ra < 0.8 \mu m$  and rounded contours on the spanner flats ensure better cleaning efficiency. For the sealing inserts and washers, PFLITSCH uses plastics that comply with FDA 21 CFR § 177.2600 and are suitable for contact with foodstuffs in accordance with EU Regulation 10/2011. Technical features include compliance with the exacting protection ratings IP 66, IP 68 (at 15 bar) and IP 69, a large sealing insert that provides exemplary cable protection and the better-than-average strain relief that prevents the cable from slipping out of the cable gland, such as can happen if a connector is disconnected by tugging the cable instead of pulling out the connector.

### Hygienic Design plus aesthetics

“Compared with other hygienic cable glands, our solution is very compact, which also benefits the design”, notes Emde. Smooth, gently curved and crevice-free surfaces accentuate the product both visually and haptically. Thanks to these features, the blueglobe CLEAN Plus received the iF Award for good product design. “This also fits in very well with our demands for a coherent product design”, says Dirk Offermann emphasizing the decision in favour of the PFLITSCH product.

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We broke new ground with our blueglobe CLEAN Plus and then succeeded in having it certified as the first all-in-one cable gland.

Heiko Emde, PFLITSCH





Managing Partners Roland Lenzing and Mathias Stendtke are delighted with the TOP 100 award.



Reputation-enhancing testimonial

## TOP 100: PFLITSCH receives award for Germany's most innovative SMEs

Are a company's innovations a product of chance or systematically planned? And how can good ideas be transformed into marketable products? These are the two decisive questions for winning the TOP 100 seal. With convincing answers to both of them, PFLITSCH succeeded in bringing the coveted TOP 100 award to Hückeswagen. The independent judging panel chose us as one of Germany's top innovators.

“This award means a great deal to us. For 30 years now, it has embodied the innovative strength of small and medium-sized enterprises. The fact that we now belong to this circle is clear confirmation of our corporate policy and future focus – especially since we’ve been building on a pioneering success story for generations and have managed to maintain our growth trajectory in spite of the turbulent developments in the last few years”, explains Roland Lenzing, Managing Partner of PFLITSCH.



#### Always in step with the times

The newest addition to the PFLITSCH product range: CABseal, the splittable cable entry.

#### Ahead of its time

Winning one of the most important innovation awards is simultaneously a tribute to more than a century of corporate history, in which inventive spirit and a passion for innovation have traditionally played a dominant role. Now in the 4th generation, this spirit reveals all its power in combination with a sustainable concept for the company’s future development. We have succeeded in recognising industrial trends early on and in targeting growth markets. A product range that evolves rapidly to keep abreast of future requirements and a team that drive this evolution are fundamental here. “Amongst other things, we managed to convince the eminent judging panel with our ‘Climate of Innovation’. We think ‘out-of-the-box’ and decide quickly, meaning we use state-of-the-art machinery and technologies and reassess our capacity in good time. Our preference for following new developments sooner rather than later is reflected in our product range as well as internally. That’s why the TOP 100 panel also honoured us for our ‘Innovative Processes/Organisation’,” reports co-Managing Partner Mathias Stendtko.

Overall, PFLITSCH was able to convince the panel in three out of five categories. ‘Innovation-friendly Senior Management’ rounds off the triad alongside ‘Climate of Innovation’ and ‘Innovative Processes/Organisation’.

#### Strategically clever thinking

For an organisation as a whole to act with foresight is hard work. The decision-making process at PFLITSCH is data-driven – no matter whether it’s the expansion of our two manufacturing sites we’re talking about or the increasing depth of digitalisation in connection with reliability and cybersecurity – and it takes place in development cycles that leave room for new developments as well as fitting in with the 10-year plan. “We strike a good balance between tradition and innovation. Our shared values and the way we do business are long-established: we show appreciation to employees and business partners, recognise performance and encourage individual development. We employ innovative measures to guide PFLITSCH into the future as a brand and as an employer,” Lenzing adds. The latest highlight is the expansion of the company’s product range with the splittable CABseal cable entry, which rounds off the quality portfolio and positions PFLITSCH as a single-source supplier.

#### All for one

Following on from awards like the ‘Großer Preis des Mittelstandes’ (SME Grand Prix) or the ‘Region’s Top Employer’, the TOP 100 seal of quality came as a great honour and was the outcome of a special team achievement – which is how we generally view success at PFLITSCH. After all, behind such awards are invariably a team that ask the right questions and come up with answers. Stendtko cannot praise them highly enough: “Thanks to our unbeatable staff!”, “They are our biggest asset and if it wasn’t for each individual’s ability to develop, we couldn’t possibly achieve our development goals. The TOP 100 award was earned by our TOP 350 employees with their passion for innovation.”

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We show appreciation to employees and business partners, recognise performance and encourage individual development.

*Roland Lenzing*

#### About the TOP 100 competition

Ever since 1993, compamedia has been awarding the TOP 100 seal for special innovative strength and above-average innovation success to medium-sized companies. Professor Nikolaus Franke has served as the competition’s scientific director since 2002. Franke is founder and director of the Institute for Entrepreneurship & Innovation at Vienna University of Economics and Business. With 26 research awards and more than 200 publications, he is one of the world’s leading innovation researchers. Ranga Yogeshwar, the renowned science journalist, is TOP 100’s mentor. The Fraunhofer Gesellschaft for the Promotion of Applied Research and BVMW, the German association for small and medium-sized businesses, are project partners. German business magazines manager magazin and impulse support the assessment of participants as media partners. For more information, go to [www.top100.de](http://www.top100.de). This year’s winners were announced in February 2023, with the official TOP 100 awards ceremony scheduled to take place on 23 June 2023 in Augsburg as part of the German SME Summit.



Ideal solution for combined  
explosion protection and EMC shielding

## The PFLITSCH LevelEx TRI cable gland

PFLITSCH's LevelEx series has just gained another new addition. Following the launch of the LevelEx AC for armoured cables in 2022, the range of explosion-proof cable glands is now being expanded to include a further variant that also offers effective EMC shielding. Its name: LevelEx TRI.

Like all LevelEx variants, the LevelEx TRI is designed for use in potentially explosive atmospheres and has the necessary certifications for this purpose. Unsurprisingly, PFLITSCH is targeting sectors such as the gas and chemical industries, food and pharmaceuticals, feed production and sawmills. One key aspect here is the LevelEx TRI's approval for ignition protection types "Ex d (flameproof enclosure)", "Ex e (increased safety)" and "Ex ta (dust ignition protection by enclosure)", in other words it closes the gap to the blueglobe TRI Ex-e II, which corresponds to the "increased safety" ignition protection type. These specific ignition protection properties are particularly relevant wherever the cable gland is used for motors, lighting, sensors, measuring devices, etc. The new LevelEx TRI additionally ensures effective shielding of electromagnetic interference.

### Combining the proven with the proven

PFLITSCH has been a pioneer for many years now when it comes to highly developed EMC shielding. The increased importance of effective EMC protection was recognised long ago against the background of mounting risks due to the growing level of automation and advancing digital communication. The blueglobe TRI, in particular, has set new standards in the market for EMC cable glands.

It was therefore only natural that we should combine the advantages of the LevelEx principle with those of the TRI spring as a way to also achieve effective EMC shielding for explosion-proof cable glands with the "Ex d" ignition protection type.

After all, the patented TRI spring – the heart of the blueglobe TRI – had clearly demonstrated its EMC shielding ability and laid the foundation for this successful design principle. It ensures durable and low-impedance 360° contact with the cable shield over a large area and is responsible not just for the effective EMC screening attenuation but also for the high current-carrying capacity that is crucial for reliable discharge of undesirably high shield currents at the enclosure or control cabinet. The latter is no less important than screening attenuation, because insufficient current-carrying capacity would cause the cable gland to overheat, leading to negative impacts on EMC protection as well as damage of other kinds. These are not the sole advantages of the TRI spring, which enables more durable contact by paving the way for the mechanical separation between strain relief and sealing on the one hand and screening on the other. Since the cable only has to be stripped at the contact point, the shielding can be continued uninterrupted and easy correction of the positioning is possible during installation.



### EMC shielding and explosion protection on one level

The blueglobe TRI's immense importance for EMC protection is similar to that of the LevelEx when it comes to explosion protection.

The LevelEx TRI not only meets essential basic requirements such as successful pressure resistance testing at 30 bar for 10 seconds as well as over-pressure testing at 48.6 bar; it also scores with a number of unique arguments. It is instantly apparent that the LevelEx TRI has significantly smaller dimensions than comparable models from competitors, making it ideally suited for space-saving installation – an invaluable advantage especially when space is limited. The secret here lies in the clear and compact design with only five components and captive sealing elements. This also has benefits for assembly, which is accordingly simple and quick, saving time and money.

### Ease of assembly on principle

Ease of assembly is a significant aspect for PFLITSCH that was taken into account right from the development stage – by means of large spanner flats, low tightening torques and constant compression owing to the metallic stop. Any twisting of the sealing inserts or the cable during installation is prevented.

The full-circumference soft press sealing providing exemplary cable protection due to the innovative, two-level cascading sealing principle is a novel feature of the LevelEx TRI that fits it perfectly for explosion protection. When the pressure screw is tightened, the pressure sleeve deforms the sealing element, ensuring excellent tightness of seal and strain relief to the cable. The LevelEx TRI has a seamless sealing range from 7 mm to 56 mm. The wide range of operating temperatures from  $-60\text{ }^{\circ}\text{C}$  to  $+130\text{ }^{\circ}\text{C}$  is a further advantage.

### Optimum solution, ideal price-performance ratio

With its above-average specific and universal properties, the new LevelEx TRI is the ideal solution whenever effective EMC shielding is stipulated in addition to reliable explosion protection. Last but not least, this newest addition to the LevelEx series dispels any lingering doubts about its outstanding potential with a convincing price-performance ratio. The new LevelEx TRI will be available from spring 2023 in sizes M16 to M63.



- » The LevelEx TRI complies with ignition protection types "Ex d" for flameproof enclosure, "Ex e" for increased safety and "Ex ta" for dust ignition protection by enclosure
- » Type of protection IP 66, IP 68 (10 bar, 1 hour) acc. to EN 60529, Type 4X
- » Equipment Group II, Categories 2 G2 1D, Zone 1, Zone 2, Zone 21 and Zone 22
- » ATEX, IECEx and VDE approvals
- » Wide range of applications and operating temperatures
- » Gland body: brass and stainless steel
- » Thread: metric and NPT



The new PFLITSCH LevelEx TRI cable gland for effective EMC shielding and reliable explosion protection

Does the topic of current-carrying capacity in the high-voltage electrical system give you

# Hot Flushes?

WE'VE GOT SOMETHING FOR YOU.



# Hey chatbot! Hey customer!

## What PFLITSCH thinks about automated processes in customer communications

From Google Search to augmented reality – modern, groundbreaking technologies based on artificial intelligence have developed at a breathtaking pace. As an innovative solution and service provider, we at PFLITSCH are always open to new ideas and technologies that can help make our products and production methods better, more efficient and more sustainable. Before reaching a decision, however, we weigh up very carefully whether a specific technology represents real progress for us. This applies just the same to automated processes such as chatbots for use in marketing and sales.

But what exactly is a chatbot? Chatbots are intelligent systems that simulate and process human conversation, either written or spoken. As automated digital assistants, they mimic human interaction with the aim of automating mundane processes. Based on artificial intelligence, they learn as they go, so that the quality of their recommendations and responses is gradually enhanced. Especially in marketing and sales, they are increasingly integrated into our everyday experience when it comes to answering customer queries, recommending products and services, making sales or even collecting feedback from users. Yet chatbots are a sensitive issue and have drawbacks as well as benefits.

### Chatbots – hot or not?

Chatbots have an unbeatable advantage, namely their unlimited availability. As computer programs, they are able to work 24/7. They can reply to customer queries quickly and efficiently or suggest solutions to problems – indeed to anything that's needed to improve customer satisfaction and

promote customer loyalty.

Having said that, chatbots may be able to simulate human interactions but they cannot capture all the nuances of human language and behaviour. If the issue is too complex, there is a risk that people will feel misunderstood or ignored. This lack of emotion and empathy can stand in the way of long-lasting and strong relationships with loyal customers.

### Cost versus creativity

On the other hand, chatbots are far more cost-effective than human customer service representatives, because they demand no wage for their services and they never take time off sick. They are particularly useful when assigned repetitive tasks – such as answering frequently asked questions or checking purchase orders – because they give customer service staff more time to get to grips with complex problems. In short, companies using chatbots can save on personnel costs and concentrate resources on other important activities.

We're well aware of this at PFLITSCH, but we're also conscious of a serious flaw: chatbots lack the human intuition and creativity to react flexibly to unexpected situations or complaints. This is because they are programmed to recognise certain pre-identified questions and provide appropriate answers. If a more specific issue arises or a complex query does not fit the script – and this tends to be the order of the day at PFLITSCH – chatbots can only give inaccurate or inappropriate answers that simply exacerbate the problem. The customer ends up feeling frustrated.





### A question of technology

Overstretched customer services are a headache for customers and companies alike. Chatbots clearly have the edge here. They are scalable and can be precisely adapted to a company's customer care needs, meaning they can answer even high query volumes simultaneously. However, that applies more to the B-to-C sector and less to firms like PFLITSCH operating in the B-to-B market. Major retail platforms such as Zalando, for example, face the daily challenge of having to answer several thousand customer queries as fast as possible.

Chatbots, on the other hand, are heavily reliant on technology. In the event of technical problems such as connection failures, cyber attacks or programming and software errors, there is a risk that the system will break down completely, significantly impairing the customer experience – and in all probability driving people away. What's more, it takes considerable time and resources to implement a chatbot – a sizeable investment, especially in the early days. And since chatbots learn by doing, it's essential to have clean and representative data available to train them.

### Data mining versus data privacy

Chatbots are designed to respond to customers' individual needs. They do this by gathering and analysing data from past interactions, and then generating personalised answers and recommendations. In other words, they can be fundamental for building customer loyalty.

The downside of all this are serious concerns about data security. Data breaches or privacy violations have disastrous effects on a company's relationship with its customers. On the one hand, chatbots need access to customer data while on the other, misuse of this data must be prevented come what may.

Overall, chatbots can play a useful role in marketing and sales, especially for repetitive tasks or where prompt customer support is key. Put simply, they're with us and they're here to stay. PFLITSCH evaluates chatbots – like any other innovation – in terms of whether they make sense for the company. However, the use of chatbots in marketing and sales is not a priority for us right now. This is because, as a quality supplier and an internationally recognised expert in cable management, we develop and implement solutions that are precisely tailored to each customer's requirements.

By listening carefully to what our users are saying, we get a first-hand understanding of what it is they're looking for. This personal contact forms the basis for our business success. That's why we make every effort to optimise personal interactions with customers.

What are your views on chatbots in marketing and what wishes do you have for the future? We look forward to hearing what you think!

# Benvenuti a PFLITSCH Italia!

A separate Sales unit in Italy was set up at the beginning of the year with the aim of raising awareness of the PFLITSCH brand among our Italian customers. An independent Italian sales partner has been responsible for this in the past, with the result that the PFLITSCH brand has tended to fade into the background. We've been serving the Italian market for 70 years now and products such as the blueglobe cable gland system and the UNI Dicht modular system have become genuine best-sellers in Italy too.

Apart from our overall portfolio, which includes a wide range of quality cable entry, cable transit, cable routing and cable protection products, we also offer specific solutions that are explicitly designed to meet individual user requirements. We back these up with sound technical advice and precisely tailored services such as our component assembly service, which add real value for our customers. Visitors to our website [www.pflitsch.de](http://www.pflitsch.de) are invited to get a glimpse of our entire product portfolio and set up a personal user account in myPFLITSCH, our password-protected area, where they can search for and order products quickly and easily.

Direct selling in Italy is in the hands of Simona Pozzi and Jorge Rivas, with several advantages all round: we're now closer to our customers and better placed to deliver what they need. What's more, now that the intermediate distribution step has been eliminated, we are in a position to offer stable prices and attractive pricing models. Last but not least, PFLITSCH stands for high delivery dependability and performance. We're not reliant on fragile international supply chains because PFLITSCH products are manufactured at our own plants in Hückeswagen.

**PFLITSCH will be exhibiting at SPS Italia in Parma from 23 to 25 May.**

The emphasis there will be on our new cable entry solutions as well as EMC shielding and explosion protection. The event will also be a good opportunity to get to know our new sales representatives, who now serve the Italian market from our base in Milan.

**sps**  
ITALIA  
smart production solutions



Sales Manager **Simona Pozzi** is your local contact in Milan

**Jorge Rivas**, our Area Sales Manager America & Southern Europe, completes our Italian sales team



Do high cable installation costs in your high-voltage electrical system bring you

# grey hair?

**WE'VE GOT SOMETHING FOR YOU.**





# Practical machines and tools save effort, time and costs

The cost-effective way to assemble PFLITSCH cable trunking

Steel or stainless steel cable trunking facilitates safe and clear cable routing through machinery and equipment. PFLITSCH provides effective support to machine manufacturers who assemble this cable trunking themselves in the form of mobile machines and practical tools enabling efficient, precise and gentle work processes.

Cable trunking is frequently adapted to different installation situations by cutting it to length with a saw or an angle grinder. This is complicated and time-consuming – and it means unnecessary work as well as a risk of injury for the fitter. PFLITSCH's customised tools and mobile machines are a well thought-out, groundbreaking overall solution enabling more efficient work processes. These clever little helpers impress with efficient assembly, a rapid return on investment, better installation results and higher quality.

### Clearly visible benefits

Customers who opt for PFLITSCH tools essentially profit from greater cost-effectiveness because they save time and money when installing their trunking. They are also able to make more efficient use of materials and reduce the amount of waste, because the trunking can be precisely positioned before it is cut and miscuts are avoided. And since these machines and tools offer effortless, quiet and safe handling, fitters are better protected against occupational accidents.

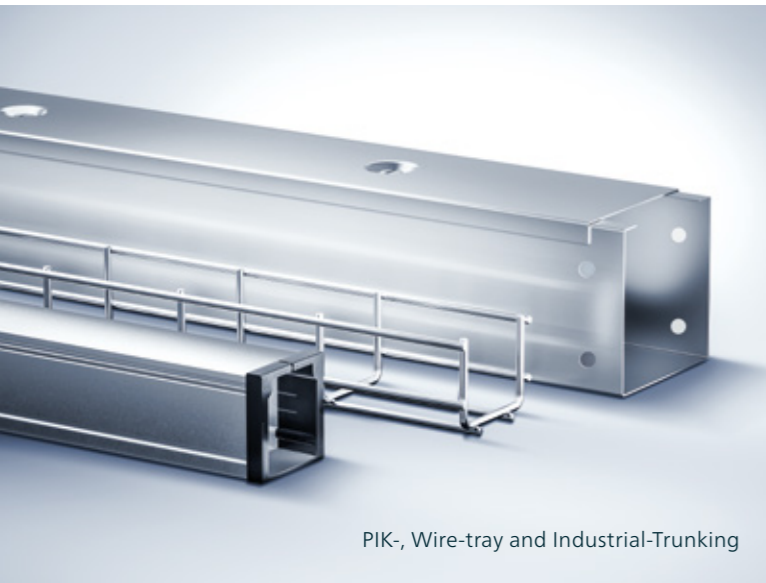
### More and more customers convinced by total cost of ownership

Companies using PFLITSCH tools frequently tell us how happy they are with them – especially where the total cost of ownership is concerned. If you look at the investment holistically, PFLITSCH's single-source solutions compare extremely well: although our high-quality trunking systems are more expensive than conventional standard products, the product diversity, comprehensive accessories, practical tools and component assembly services add up to a convincing bottom line.

PFLITSCH customers regularly confirm that the PFLITSCH system is not only better, but also cheaper, particularly when multiple cable trunking systems have to be assembled. With low-cost trunking, the customer saves on the product but pays more for machining, because unanticipated extra work is the norm. In other words, PFLITSCH's high quality pays off for the customer in the end.

Cutting cable trunking with the aid of PFLITSCH's machines is very simple and safe. The trunking bodies and covers are pushed into the contours in the cutting plate, then secured and cut to length in next to no time. The trunking keeps its shape throughout, so that there is no longer any need to bend it back again after cutting it to the required length. The cuts are clean and burr-free, meaning complex reworking of the edges by the fitter can be dispensed with.





PIK-, Wire-tray and Industrial-Trunking

### 1 MiniCut – for PIK-Trunking

The compact PIK-Trunking system is considered a better option than installation in conduits because it can be opened along its entire length for easy cable laying. Using the MiniCut (photo 1), trunking can be machined cleanly to any length from 15/15 mm to 60/60 mm. The cutter can be operated with a manual or a manual hydraulic drive or with a mains-operated or battery-powered hydraulic unit. Since very little physical effort is needed, the cutting process

### 2 MultiCut – customised cutting plates for customer trunking

The MultiCut (photo 2) was developed by PFLITSCH for customers who want to process multiple cable trunking systems belonging to the Industrial-Trunking and PIK-Trunking series on a single machine. The cutting plates for these systems are individually tailored to each customer's needs. Each cutting plate can have different contours depending on the user's cable trunking cross section, e.g. 60 mm x 60 mm for PIK-Trunking or 75 mm x 75 mm for Industrial-Trunking. The compact MultiCut cutting machine is designed for manual and manual hydraulic operation or can be driven by a mains-operated hydraulic unit.

### 3 MaxiCut – for efficient, high-volume machining

Machine manufacturers where many different cable trunking systems are serially assembled take advantage of the proven MaxiCut with its integrated hydraulic unit (photo 3). The handy workshop trolley, featuring a workbench and a large work table, has space for storing all the required cutting plates for Industrial- and PIK-Trunking as well as drawers for tools. A height-adjustable support surface helps to align the cable trunking sections precisely during machining. When the digital longitudinal stop becomes available shortly, this will have further advantages for positioning.

### 4 Battery-powered tool – for open Wire-tray Trunking

PFLITSCH's open Wire-tray Trunking – made of up to 6 mm thick galvanised steel or stainless steel wires – is often the product of choice in plants and industrial buildings if there is no need to meet high protection requirements or whenever the cables must have adequate air circulation. Our Wire-tray Trunking is available in a variety of cross sections and designs. It can be custom-assembled with the aid of just two tools – a bolt cutter and a wrench. Sections of wire that are not needed are simply released and the trunking bent into the required shape. Bends, offsets and reduced cross sections are easy to achieve in this way. The individual segments are screwed together with connectors so that the trunking forms a strong, customised cable routing system.

Our manual hydraulic, battery-powered Wire-tray Trunking shears (photo 4) are even more convenient: any wires that are not wanted can be cut out of the trunking cleanly and in a matter of seconds simply by pressing a button. This tool makes low-burr cuts that require absolutely no costly reworking. The 330°-rotatable tool head is easy to use, even on already installed Wire-tray Trunking. The high-performance battery can be recharged in just 15 minutes.



1 The MiniCut is designed for cutting the 10 cross sections of the compact PFLITSCH PIK-Trunking system – manually, mains-operated or battery-powered.

2 The cutting plates for the MultiCut – pictured here with an manual hydraulic, battery-powered drive – are individually manufactured by PFLITSCH depending on the respective customer's trunking systems: for example, 150 mm x 100 mm for Industrial-Trunking and 40 mm x 40 mm for PIK-Trunking as shown here. Available with manual drive, manual hydraulic drive and hydraulic unit.

3 The MaxiCut for high-volume cutting is accommodated in a handy workshop trolley with a workbench and features an integrated manual hydraulic drive – for efficient machining of PFLITSCH trunking systems on site.

4 The practical battery-powered tool makes it easy to cut out unwanted wires from PFLITSCH Wire-tray Trunking during installation.

#### Service

Users can enter all details of their trunking such as the type, size, quantity, needs, etc. on our website [www.pflitsch.de/de/kabelfuehrung/maschinen-werkzeuge/anfrageformular/](http://www.pflitsch.de/de/kabelfuehrung/maschinen-werkzeuge/anfrageformular/) to obtain a personal cost calculation and recommendations.

Customers who only need PFLITSCH machines temporarily due to their order situation can also rent them separately.

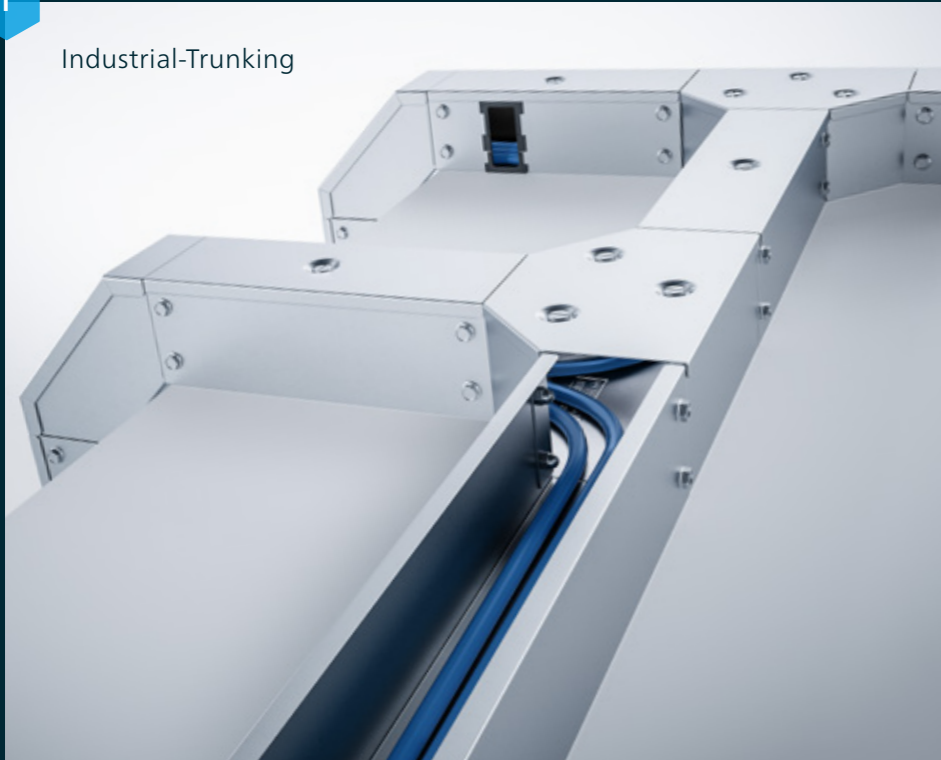
Do strong vibrations in your high-voltage electrical system cause you **shivers?**

**WE'VE GOT SOMETHING FOR YOU.**



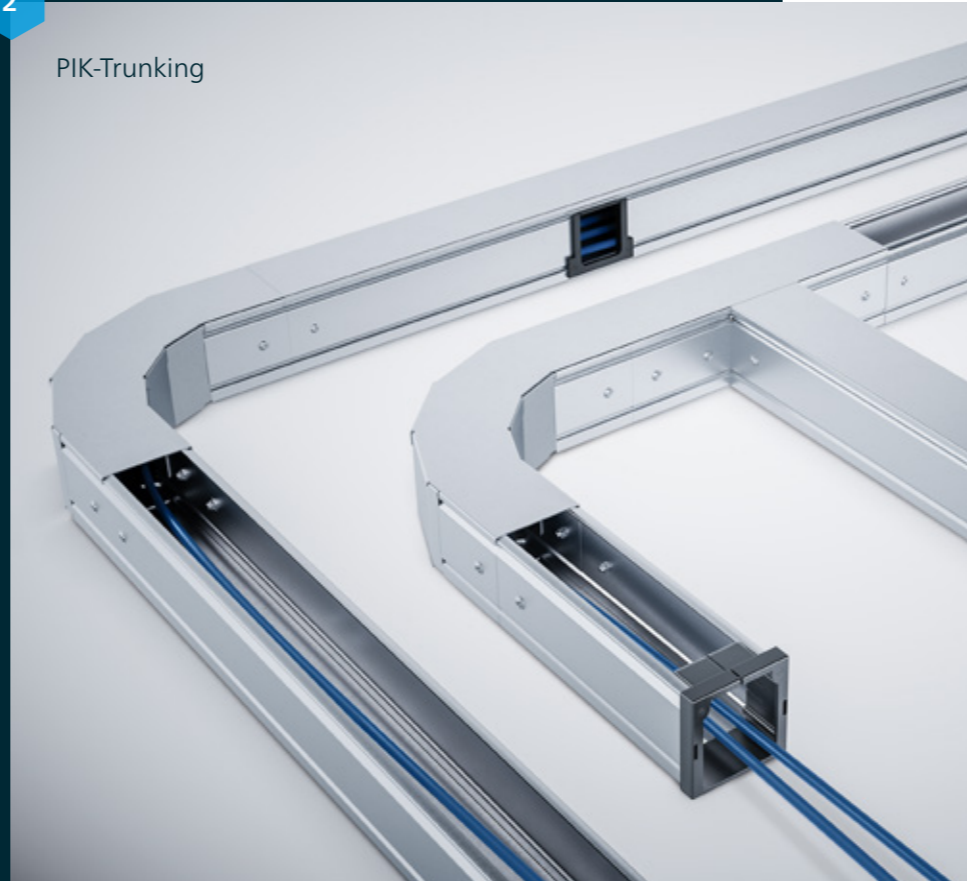
1

Industrial-Trunking



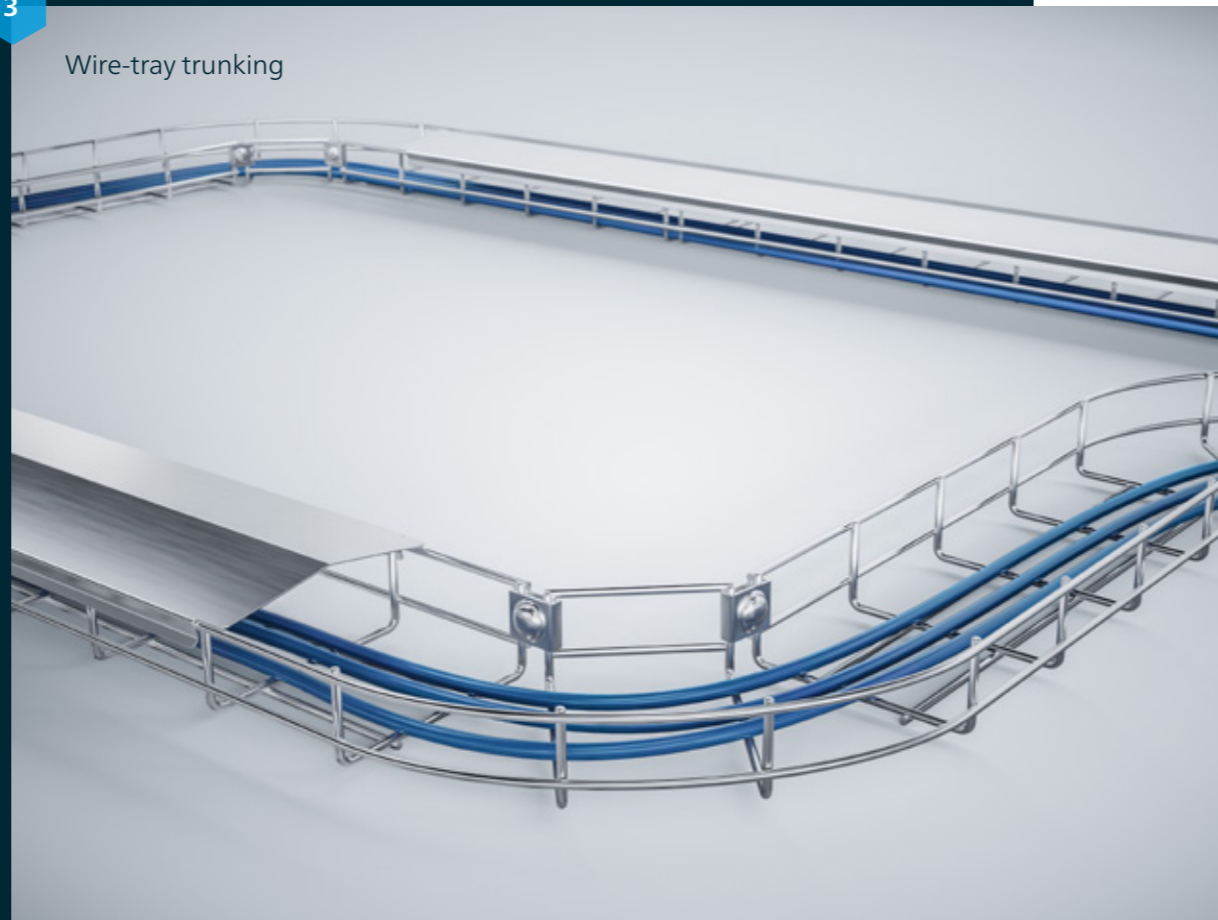
2

PIK-Trunking



3

Wire-tray trunking



# All good things come in threes.

Cable trunking for safe installation in industrial plants

Automated processes and machinery require large numbers of data, control and power cables to be routed through plants. Safety, ease of assembly and modifiability are just three of today's user demands that PFLITSCH meets with its three cable trunking systems, assembly tools and component assembly service.

Cable routing in industrial environments is a broad field: different numbers and types of cable, from vulnerable fibre-optic cables to large cross-section power cables and from signal cables to large cable bundles – all of these must be reliably protected and routed over long distances across plants right up to the last sensor in a machine. Closed cable trunking sections made of sheet steel or stainless steel protect the cables over the entire route and have removable covers. Pre-assembled cables can be easily inserted and removed in this way, and any necessary modifications made to the cables already installed. International certifications are likewise important.

### Industrial-Trunking: the benchmark for high requirements

With 13 different cross sections ranging from 50 mm x 50 mm to 600 mm x 150 mm and around 80 accessory fittings and cover versions, our Industrial-Trunking system offers the right solution for every application. The comprehensive edge protectors and low-burr design protect cables from becoming damaged. Telescopic components and adjustable elbow accessory fittings can be used to simply and reliably compensate the dimensional deviations in a machine. Clip-in separating walls are available to facilitate clearly structured and orderly routing of data, control, power and other cables.

PFLITSCH's Automobile-Trunking is a special variant of the Industrial-Trunking system. It conforms to the works standards of numerous car manufacturers and is used in automated production lines and robotic systems as tread-resistant floor trunking with a footfall load of up to 1,200 N and anti-slip channelled sheet covering (slip resistance class R10).

Made of galvanised 2 mm sheet steel, it is extremely strong and has a step height of less than 200 mm when floor-mounted with support legs and channelled sheet covering. With its seven cross sections from 100 mm to 600 mm wide, a standardised base perforation pattern and universal partition walls, this robust trunking can be combined with other PFLITSCH trunking systems.

**PIK-Trunking: perfect all-round protection for small cable volumes**

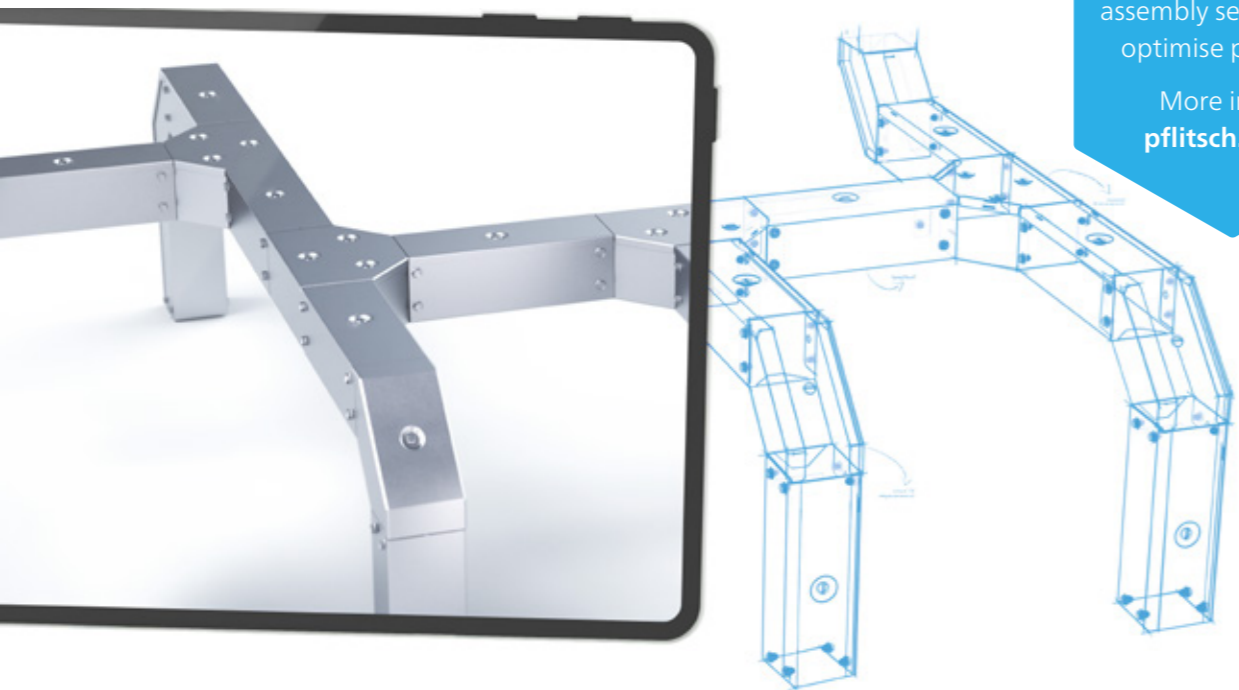
PFLITSCH Installation Trunking (PIK for short, from the German name) is designed for routing just a few cables – especially when only limited installation space is available. Unlike cabling systems that use piping, PIK-Trunking can be opened along its entire length. Its cover is simply clipped on and sits securely even when the trunking is installed vertically and subject to vibration. PIK is available in ten cross sections from 15 mm x 15 mm to 200 mm x 60 mm. Elbows, T connections and accessory fittings enable enclosed cable routing in all directions – even around corners and at junctions. Connectors provide equipotential bonding between all trunking components. Edge protectors prevent damage to cables even in the event of vibration. The easy assembly using retaining clips gives a certain amount of leeway for adjustments.

**Wire-tray Trunking: open for more flexibility**

Open Wire-tray Trunking – made of up to 6 mm thick galvanised steel or stainless steel wires – is another cable routing option that enables routes to be configured very quickly and flexibly. It is the solution of choice if there is no need to meet high protection requirements or whenever the cables must have adequate air circulation. The system is also UL- and DNV-approved for use in demanding onshore and offshore installations. Wire-tray Trunking is available in cross sections from 53 mm x 46 mm to 620 mm x 110 mm and heights of 60 mm and 100 mm, and also as U-, C-, G-shaped and flat Mini Wire-tray Trunking from 40 mm x 20 mm. Our Z-shaped trunking is designed for applications in the food and pharmaceutical industries, where the emphasis is on easy-to-clean installations.

All Wire-tray Trunking can be custom-assembled with the aid of just two tools. Sections of wire that are not needed are simply released and the trunking bent into the required shape. Bends, offsets and reduced cross sections are easy to achieve in this way. The individual segments are screwed together with connectors so that the trunking forms a strong, customised cable routing system.

Component assembly service helps optimise processes  
More info at [pflitsch.de/en](http://pflitsch.de/en)



Insertable bending plates, radius limiters, partition walls, mounting plates and roof-shaped or flat covers protect the cables laid. For applications in the food industry, PFLITSCH has developed special fixing brackets so that the trunking can be installed as hygienically as possible.

**Component assemblies: process optimisation on site**

The component assembly service available from PFLITSCH offers even greater convenience and savings potential. It enables process optimisation on site, because the customer's production sequences can be planned more precisely and human resources deployed more efficiently. The customer moreover saves on storage costs for the trunking components and profits from simpler purchasing because, once designed, the component assemblies can be reordered at any time

under one order number.

The cable trunking is planned in 3D on the CAD screen using PFLITSCH's easyRoute tool and can be integrated virtually into the future machine environment. PFLITSCH uses the resulting design data as the basis for costing, quotation preparation and production at its automated "Trunking Competence Centre". Here, the trunking components become pre-assembled component assemblies that PFLITSCH delivers on time at an agreed fixed price.

The numbered assemblies can be easily and safely installed in the customer's machine under construction. PFLITSCH also designs and manufactures customised components at affordable prices, for example to connect a trunking layout precisely to a control cabinet, so that the customer's metalwork is reduced to a minimum.



# The blueglobe cable gland from PFLITSCH.



No matter what complaints unsafe high-voltage wiring systems cause you, the **blueglobe cable gland** from **PFLITSCH** is the right remedy. Thanks to safe EMC shielding, high current-carrying capacity, the best vibration resistance and exemplary ease of assembly, it is guaranteed to work - without risks or side effects. We give you a special promise on this: **PFLITSCH GUARD – SAFETY IN THE HIGH-VOLTAGE NETWORK.**

[www.pflitsch.de/en](http://www.pflitsch.de/en)



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