

Food industry

Quality without compromise

● Cable entry plate
KDL/H-VA FDA

More information at

murrplastik.com

murrplastik®
Simply Smart Systems





The brand murrplastik®

Industry-focused Future-proof Customized

Manufacturing is the driving force in our fast-moving, connected world. More so than nearly any other sector of the economy, industry lies at the heart of continuous innovation and change. To survive long term, you have to be able to react to ever-changing developments and conditions flexibly and with foresight. The highest level of economic know-how is just as indispensable here as powerful machines and reliable production facilities.

With over 60 years of experience in the development, production and sale of smart cable management systems and individual components, at murrplastik® we support companies worldwide in optimizing their work processes.

For the customers, this means protected investments, long-lasting machines and shorter downtimes as the basis for a future-proof, up-to-date corporate development.



Contents

The brand murrplastik

Industry-focused, future-proof, customized 02

Table of contents

04

Who we are

We create room for progress – Simply Smart Systems 05

Standards and directives

Hygienic Design / ECOLAB® / EHEDG / FDA approval 06

Protection classes according to DIN EN 60529 07

In focus: Food industry

Safety and health protection 08

Product development process Hygienic Design 10

Hygienic and health safety 14

Customized cable entry systems 16

Innovation meets hygiene: HygienicLine Dynamics 18

murrplastik products for the food industry

Cable entry systems and grommets 20

Cable entry plates made of stainless steel 22

Cable fittings 22

HygienicLine Dynamics systems 23

Laser labeling systems 24

Stainless steel cable labeling 25

Type plates made of stainless steel 25

Detectable label plates made of polypropylene 27

Cable ties and cable tie tools 28

Service

Customized system solutions 30

Webshop

Our entire range at a click – shop.murrplastik.de 32

murrplastik worldwide

Our locations 34

Who we are

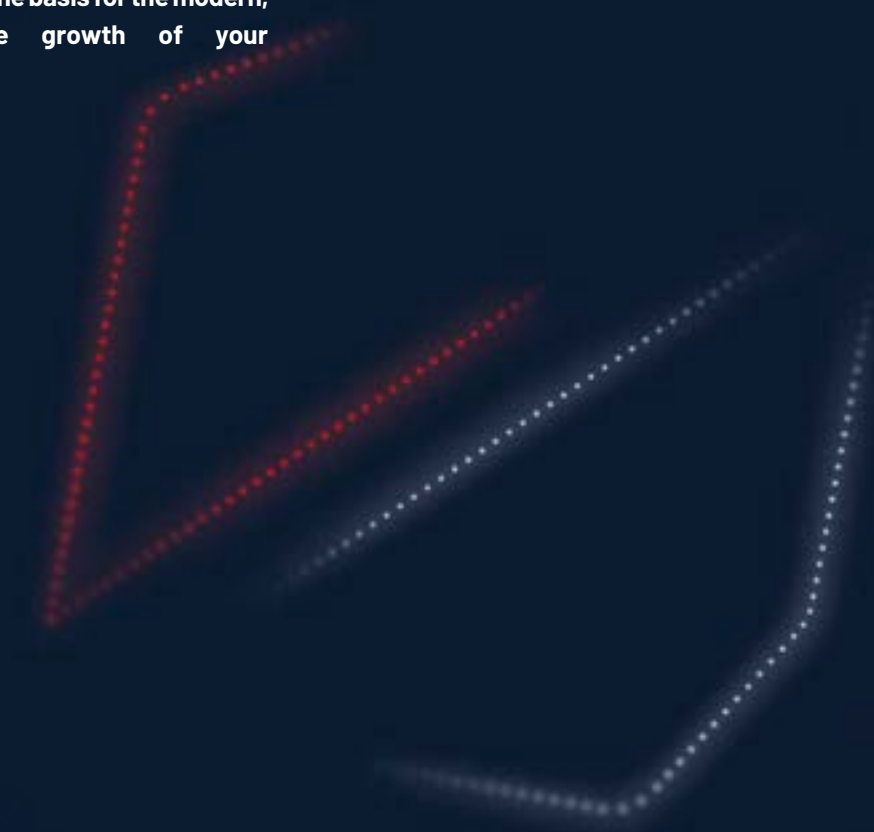


We create room for progress Simply Smart Systems

Building on the development of the first computer-assisted labeling system and our decades of experience in the field of intelligent cable management, murrplastik® offers not only individual solutions but also complete cable management solutions – everything from one source.

In close cooperation with our experts, we will find the optimum solution for you and your requirements. Comprehensive consulting is just as much a part of our service portfolio as the rapid implementation, maintenance and support of the systems in case of a service issue.

That is how we can ensure the basis for the modern, future-proof, progressive growth of your company.



Hygienic Design

Hygienic design is a concept in the food and pharmaceutical industry that aims to design machines, systems and components in such a way that they are easy to clean and the risk of contamination is minimized. It includes

smooth, angled surfaces, large radii, corrosion-resistant materials, easy disassembly and assembly and suitable seals to ensure hy-gienic standards.

ECOLAB®

ECOLAB® is a global leader in water, hygiene and energy technologies and services. Companies all over the world in the food service, food processing, catering, healthcare, industrial and oil and gas markets choose ECOLAB products and services to keep their work environment clean and safe, work more efficiently and achieve sustainability goals.

However, ECOLAB® is not only a manufacturer of its own products, but also one of the leading standardization institutes for hygien-ically critical industrial sectors. Among other things, the company offers a testing service that manufacturers can use to certify their products.

EHEDG

Since 2021, murrplastik® has been a member of the European Hygienic Equipment Design Group to support hygiene measures during the production and packaging of food. The main task of the EHEDG is to contribute to hygienic construction and design in all areas of food production and thus ensure the safe production of food. The EHEDG also supports

European legislation and its requirement for hygienic handling, processing and packaging of food with the aid of hygienic machinery and a hygienic environment (EC Directive 2006/42/ EC for machines, EN 1672-2 and EN ISO 14159 for hygiene requirements).

FDA compliance

FDA compliance refers to the approval of the US Food and Drug Administration (FDA) for the sale and use of medical products in the United States. The FDA is a federal agency responsible for monitoring and regulating food, drugs, medical devices, blood products, veterinary drugs and other products to protect public health.

FDA compliance ensures that products meet the health and safety standards set by the agency. This is an important regulatory step to ensure that products available on the US market meet the required quality and safety standards



1. Digit	Contact protection	Foreign particle protection
0	No protection	
1	Protected against solid foreign objects of 50 mm (1.97 in) and larger	The object probe, a sphere of 50 mm (1.97 in) in diameter, must not fully penetrate. 
2	Protected against solid foreign objects of 12.5 mm (0.49 in) and larger	The object probe, a sphere of 12.5 mm (0.49 in) in diameter, must not fully penetrate. 
3	Protected against solid foreign objects of 2.5 mm (0.09 in) and larger	The object probe of 2.5 mm (0.09 in), shall in no way penetrate. 
4	Protected against solid foreign objects of 2.5 mm (0.09 in) and larger	The object probe of 1.0 mm (0.04 in), shall in no way penetrate. 
5	Dust-protected	The ingress of dust is not fully prevented; however, it must not penetrate to such an extent that satisfactory operation or safety are impaired. 
6	Impervious to dust	No ingress of dust. 

2. Digit	Brief description	Water protection
0	No protection	
1	Protected against vertical falling drops of water	Drops which fall vertically must not have any harmful effect. 
2	Protected against diagonally falling spray (up to 15°)	Drops which fall vertically must not have any harmful effects if the housing is inclined at an angle of up to 15° at either side of the perpendicular. 
3	Protected against diagonally falling spray (up to 60°)	Water which is sprayed at an angle of up to 60° from either side of the perpendicular must not have any harmful effects. 
4	Protected against spray from all directions	Water splashing against the enclosure from one direction shall have no harmful effect. 
5	Protected against jets of water (nozzle)	Water which is sprayed in a jet against the housing from any direction must not have any harmful effects. 
6	Protected against strong water jets (flooding)	Water projected in powerful jets from any direction against the housing shall have no harmful effects. 
7	Protected against the effect of temporary immersion in water	Water must not penetrate to an extent that will cause harmful effects if the housing is temporarily submerged in water under pressure and under time conditions. 
8	Protected against the effect of permanent submersion in water	Water must not penetrate to such an extent that it will cause harmful effects if the housing is permanently submerged in water. 
9K	Protection against highly pressurized water/steam jet cleaning	IP x9K acc. to DIN 40050: Water jet at 0°/30°/60°/90°, cycle: 30 sec. each, distance: 10–15 cm water vol.: 14–16 liters (3.70 – 4.22 gal) per min., water temp.: 80 °C +/- 5 °C (176 °F +/- 9 °F), water pressure: 80-100 bar 

Highest requirements on safety and health protection

The food industry is characterized by demanding environmental conditions and the highest technical requirements. That is why we focus on durability, tightness, cleanability and disinfectability in our material selection and design. Our reliable and effective components and systems contribute to this through specific material developments and designs, avoid downtime in the production process as well as recalls and adverse health effects for consumers.

When it comes to hygiene, safety and cleanliness, we make no compromises in the food industry. Our products meet the highest requirements, strictest hygiene regulations, guidelines and certification programs for food safety and health protection. These include: FDA compliant materials, Hygienic Design (based on EHEDG), EC1935/2004, EU10/2011, protection class up to IP69K and Ecolab.



Our focus in the product development process

The perfect interaction of material selection and design makes our products high quality and safe. The focus is on cleanability, tightness up to IP69K, temperature, hydrolysis and media resistance as well as corrosion protection (stainless steel V2A and V4A, aluminum).

To avoid constructional weak points, we develop suitable materials and build our components in a hygienic design. We avoid steps, edges, furrows, dead spaces, rough surfaces and cracks so that no critical substances and no germs can be transferred. The smooth and polished surfaces are easy to clean and disinfect. We round corners and angles with a sufficient minimum radius of 3 mm. Dirt, food residues and water accumulation hardly stand a chance with us. Potential contaminations are clearly visible on our products.

The corrosion-free cable entry system for the insertion of preassembled cables in a very stable and robust design made of stainless steel and FDA compliant material for the food industry.

- ✓ **Assembly with plug connectors**
- ✓ **Easy to clean**
- ✓ **IP 69K** (highest protection)



● Cable entry plate
KDL/H-VA FDA





Cable entry systems and holders

When developing our products and systems for the food and beverage industry, we paid particular attention not only to complete customizability but also to hygienic design that meets the standards.

Our corrosion free cable entry system is the ideal solution for the highly specialized requirements of the industry. FDA compliant stainless steel guarantees media resistance, health safety and electromagnetic compatibility (EMC). The multi-part frame ensures easy assembly and high packing density, while the integrated strain relief protects cables and plugs - for maximum reliability, maintenance free operation and a long service life.



Since 2021, murrplastik® has been a member of the European Hygienic Equipment Design Group to support hygiene measures during the production and packaging of food.

Hygienic and health safety

Material resistance tests prove the hygienic and health safety of our products. To prevent damage to human health, our components and materials are characterized by high and reliable media resistance or material resistance with low wear. They are resistant to aggressive cleaning agents, acids and bases as well as oils and greases. Components made of plastic, stainless steel or aluminum ensure effective corrosion protection. But also temperature and hydrolysis resistance of the materials are part of it.

Quality and safety control is an important requirement to ensure the good reputation of food. The proper hygienic design and maintenance of production facilities is a prerequisite for meeting these requirements. To assist the industry in these matters, the EHEDG has developed and published a wide range of practical guidance on appropriate hygienic design in various areas of food production facilities and production infrastructure. We share these guidelines and are therefore a member of the EHEDG.



Cable entry systems
customize to your
requirements.



Cable entry plate
KDP/S-FDA-HD



Unique: Flexible in size, shape, hole pattern and material.

Our innovative range of cable entry systems – FDA conformity combined with hygienic design. Also customized.

murrplastik is the only manufacturer with a range of FDA compliant cable entry systems made of stainless steel or plastic for cables with and without connectors. Manufactured in Hygienic Design (based on EHEDG) with application specific customized products!

KDP ON DEMAND

The custom-made cable entry plates are the only cable entry systems in the world that can be completely customized in terms of size, shape, features and material. They are used wherever extremely quick and cable-friendly assembly with high packing density is required.

"KDP on Demand" is also manufactured in accordance with strict Hygienic Design and FDA directives.



Innovation meets hygiene

Engineers are constantly challenged to develop new and better solutions to achieve optimum results in hygiene-sensitive industries. In cooperation with Stäubli Robotics, Murrplastik Systemtechnik GmbH has developed HygienicLine Dynamics, an innovative cable retraction system that will significantly change the future of the food industry.

In collaboration with Stäubli Robotics, HygienicLine Dynamics was developed – a cable retraction system that completely dispenses with protective sleeves and opts instead for innovative materials and Hygienic Design. Using high quality stainless steel and blue materials ensures optimum FDA compliance, consistent hygienic design, long life and easy maintenance. The use of detectable material ensures a high level of production reliability, as direct action can be taken in case of complications.



FDA compliance

Using high quality stainless steel and blue materials ensures optimum FDA compliance.



Easy assembly

The ease of assembly allows for greater efficiency and cost savings.



Production safety

The use of detectable material ensures a high level of production reliability, as direct action can be taken in case of complications.



Hygienic Design

The cable retraction system completely dispenses of protective sleeves and opts instead for innovative materials and Hygienic Design.



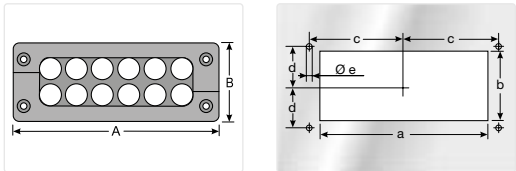
Cable entry system type KDL/H-VA-FDA

Variants: 7



Product information

- The corrosion-free cable entry system for the insertion of preassembled cables in a very stable and robust design made of stainless steel and FDA compliant material for the food industry.
- 2-piece or 3-piece frame
 - Easy assembly
 - High packing density for up to 12 cables
 - Integrated strain relief
 - Made of FDA compliant material especially for the food industry
 - Suitable for standard cut-outs for 24-pin and 16-pin industrial connectors
 - Suitable grommet: KDT/X-FDA



Conformities and approvals



Cable entry system type KDL/D-FDA

Variants: 7

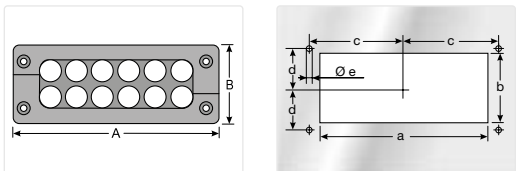


Product information

- 2-piece or 3-piece frame
- Easy assembly
- Use in the food and pharmaceutical sectors
- Protection class: IP 65 (with suitable grommets and cables)
- Thermal stability: -40°C - +80°C
- Material: Frame: PP / Block: TPE
- RoHS compliant
- Made in Germany

Suitable for standard cutouts for 24- and 16-pin industrial connectors as well as one special size (single row)

- Suitable grommet: KDT/X-FDA

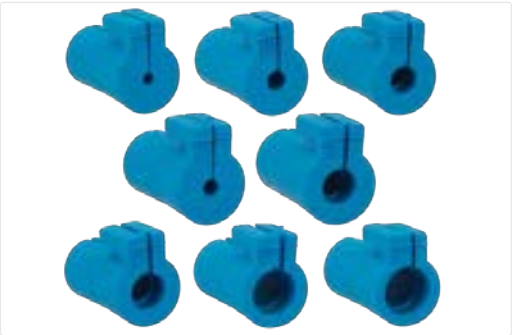


Conformities and approvals



KDT/X-FDA cable entry grommet

Variants: 32



Product information

1-piece cable entry grommet for pre-assembled cables combined with the cable entry system KDL/H-VA FDA made of FDA compliant material for the food industry.

- Pre-assembled cables can be easily inserted or fed through e.g. in control cabinets.
- The grommets are retrofitted around the cable.
- Made of FDA compliant material especially for the food industry
- -40°C - +80°C
- Thermoplastic elastomer (TPE)

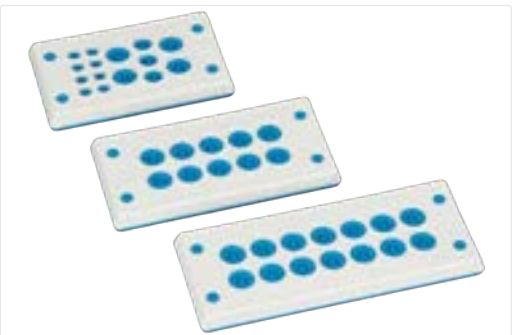


Conformities and approvals



Cable entry plate plastic type KDP/Z FDA

Variants: 13

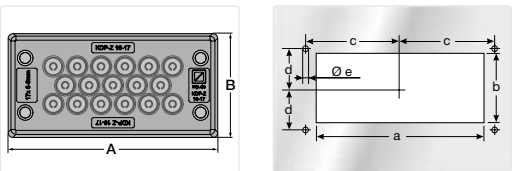


Product information

Very flat cable entry plate made of plastic with a 2-component design and best properties

- Enormous time savings in assembly
- High packing density
- Large wire diameter ranges
- Especially for use in the food and pharmaceutical sectors
- Protection class: IP 67
- Thermal stability: -30 °C to +70 °C
- Material: Frame: Polypropylene (PP) / Seal TPE
- RoHS compliant
- UV resistant
- Made in Germany

- Suitable for standard cut-outs for 24-, 16- and 10-pin industrial connectors
- Assembly with clips or M5 screws possible



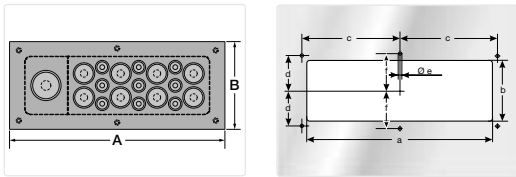
Conformities and approvals





Cable entry plate FDA Hygienic

Variants: 5



Conformities and approvals



Product information

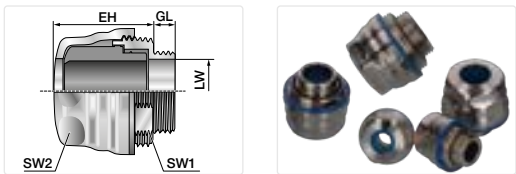
The Hygienic FDA stainless steel version is particularly suitable for applications in the food and pharmaceutical sectors. Based on the Hygienic Design with polished edges and integrated threaded bolts, no screws are visible from the outside in order to reduce dirt edges and facilitate cleaning.

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel.

- High packing density
- Large wire diameter ranges
- Good strain relief
- Protection class: IP65 & IP69K (with suitable cables)
- Based on the Hygienic Design
- FDA compliant

Type WKM-FDA (metal version)

Variants: 9



Conformities and approvals



Product information

The WKM/FDA cable fitting is suitable for use in all areas where the accumulation of microorganisms and dirt must be avoided, for example in the pharmaceutical, food and chemical industries, as well as in biotechnology and cleanroom technology.

The WKM/FDA cable fitting features the following advantages:

- Hygienic Design
- FDA compliant
- EHEDG
- High temperature resistance

*Suitable lock nut must be ordered separately.

HygienicLine Dynamics systems

Variants: 1



Conformities and approvals



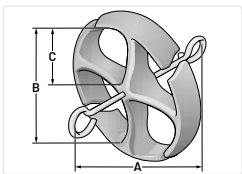
The HygienicLine Dynamics retraction system is manufactured in Hygienic Design and has been specially developed for hygienically sensitive industries. The use of electropolished stainless steel and high performance plastics makes the surface even smoother and ensures an abrasion-resistant application.

Further advantages:

- Easy cleaning without dirt edges due to Hygienic Design
- Resistance to acids and alkalis
- Use of FDA compliant and detectable materials
- System meets the requirements of EC 1935/2004, EC 10/2011 and EC 2023/2006
- Resistance to high temperatures and pressures
- High quality thanks to the use of stainless steel
- Easy handling and minimization of assembly errors
- Subsequent assembly and disassembly of cables and wires possible
- Good torsional strength and high dynamics ensure a longer service life for all components

HygienicLine Dynamics cable routing

Variants: 1



Conformities and approvals



Product information

The cable routing is attached to the HygienicLine Dynamics retraction system to ensure the safe routing of cables and wires. The use of high-performance plastics makes the surface even smoother and ensures an abrasion-resistant application.

Further advantages:

- Easy cleaning without dirt edges due to Hygienic Design
- Use of FDA compliant and detectable material
- Subsequent assembly and disassembly of cables and wires possible
- Simplified maintenance



mp-LM 3

Variants: 2



Product information

Economical laser labeling system for the automated processes of individual print jobs for the project-specific labeling of most murrplastik plastic labels.

Scope of delivery

- Laser labeling system
- USB cable
- Power cord
- 2 m extraction hose
- Receiving container (catch tank)
- Separator plates for mixed loading (3 pcs)
- Operating Instructions

Technical data

- Laser power: 3 watts
- Laser source: Nd:YAG / pulsed
- Wavelength emissions: 1064 nm
- Cooling: Air
- Printable area: 120 x 120 mm
- Operation duration: ca. 52 s
- (1 frame KS 4/18 L, TrueType Arial, 342 characters, 6 ea. label)
- Laser class: 1
- Ports: USB, Ethernet
- Input voltage: 100 – 240 V AC
- Dimensions (HxWxD): 475x795x300 mm
- Weight: 17.5 kg
- Storage temperature: min. 0 °C / max. 50 °C (max. 24h)
- Transport: The unit should not be exposed to shocks or vibrations.
- Operating temperature: min. 15 °C / max. 35 °C
- Humidity: 10 – 85 % without condensation

Conformities and approvals

Accessories and spare parts for mp-LM

Variants: 25



mp-LM cleaning set

Contains 1x murrplastik microfiber cloth, 1x MP-LM cleaning brush and 5x MP cleaning cloths (damp) for cleaning laser labeling systems. The application is explained in the video "How to use the murrplastik cleaning set".

mp-LM F suction and filter unit

Robust suction unit for the mp-LM series to extract harmful dust, gases and vapors that can develop during the laser labeling process. Highly recommended for the labeling of KST, EST, ESK, LES, LA, LAM and LM.

mp-LM separator plates set

Contains 5 separator plates, which are necessary for separating materials for mixed loading in the magazine.

mp-LM receiving container (catch tank)

Receiving container for labeling mats, especially designed for the labeling process of the mp-LM.

EST stainless steel type plate

Variants: 10



Product information

V4A stainless steel label plates to be used as type plates. Fastened with either rivets or screws.

Marking is only possible with a laser marking system (e.g. mp-LM*, pulsar) or with an engraving system suitable for engraving stainless steel (e.g. CAM).

Special design for demanding environments like

- Chemical and petrochemical industry
- In the mining industry
- In the ship building industry
- In wind energy plants
- In the food industry

* Maximum marking size of the mp-LM series = 120 x 120 mm

A suction and filter unit is absolutely necessary for laser cutting to comply with legal regulations on health protection.

Conformities and approvals



ESK cable designation on stainless steel

Variants: 13



Product information

Stainless steel signs for cable marking. Mounted with cable ties. The labels are applied to a plastic carrier and are suitable for labeling with a laser of the mp-LM line.

Special design for demanding environments like

- Chemical and petrochemical industry
- In the mining industry
- In the ship building industry
- In wind energy plants
- In the food industry

A suction and filter unit is absolutely necessary to comply with legal regulations on health protection.

Conformities and approvals

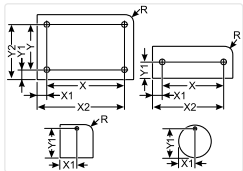




LES rectangular without radius

Variants: 3

[GO TO PRODUCT](#)



Conformities and approvals



Product information

Stainless steel labels made of V4A with a material thickness of 0.8 mm. Fastened with either rivets or screws.

Labeling is only possible with a laser labeling system (e.g. mp-LM*, pulsar).

Special design for demanding environments like

- Chemical and petrochemical industry
- In the mining industry
- In the ship building industry
- In wind energy plants
- In the food industry

A suction and filter unit is absolutely necessary to comply with legal regulations on health protection.

Label plate KSM (Polypropylene) / KSM-D (Polypropylene)

Variants: 25

[GO TO PRODUCT](#)



Conformities and approvals



Product information

High-quality label to attach with cable ties directly onto the cables.
The KSM labels are a product that is used for the subsequent labeling.
Also available as easily detectable KSM-D labels. The detectability is realized by iron dust, which is detectable either electromagnetically or radiologically.
The material Polypropylene (PP) is intended only for labels created with the MP laser system.

The KSM PP-V0 articles have an increased UV resistance.

Detectable label plate KSD-D (Polypropylene)

Variants: 11

[GO TO PRODUCT](#)



Product information

High-quality detectable label to attach with detectable cable ties directly onto the cables.

KSD label applications

The KSD label is a product designed for the subsequent marking of cables; it features a low-profile. The low-profile design requires that cable ties must not be tightened with a force higher than (50–60 N / 5–6 kg). Since for these small cable diameters the force intensifies at the tongues considerably, you must observe the recommended areas of application.

The material Polypropylene (PP) is intended only for labels created with the MP laser system.

Conformities and approvals





Cable tie, type KBM

Variants: 3

[GO TO PRODUCT](#)



Product information

The KBM metal cable tie is ideally used for EMC solutions. It creates greater contact surface area for discharging sheath currents.

The metal cable tie is also ideal for use in the food industry. With its food-safe properties, it ensures safe applications in areas where cleanliness and hygiene are of the utmost importance.

Conformities and approvals



Cable tie tool for metal cable ties type KBW/M

Variants: 1

[GO TO PRODUCT](#)



Product information

The robust cable tie tool typeKBW/M is specially designed for the KBM metal cable ties and has a manual cutting mechanism.

Detectable cable tie type KB-D

Variants: 5

[GO TO PRODUCT](#)



Product information

High quality detectable cable ties to attach with detectable labels directly onto the cables. The cable ties are both magnetically and X-ray detectable. The blue color makes the cable ties and fragments of them clearly visible and easy to identify.

The KB-D cable ties are ideally suitable for use with the KSD-D and KSM-D labels, which are also detectable. These labels are made of polypropylene (PP) and are intended exclusively for la-beling with the MP laser systems.



Conformities and approvals



Cable tie tool for plastic cable ties type KBW / KKBW

Variants: 2

[GO TO PRODUCT](#)



Product information

The KBM and KKBW cable tie tool simplifies the installation of plastic cable ties.

KBW 1K:

- Automated cutting mechanism made of metal
- Plastic housing

KKBW:

- Manual cutting device
- Metal housing



Service

Working together to develop and implement solutions. The complete solution.

Strong together. murrplastik® at your side

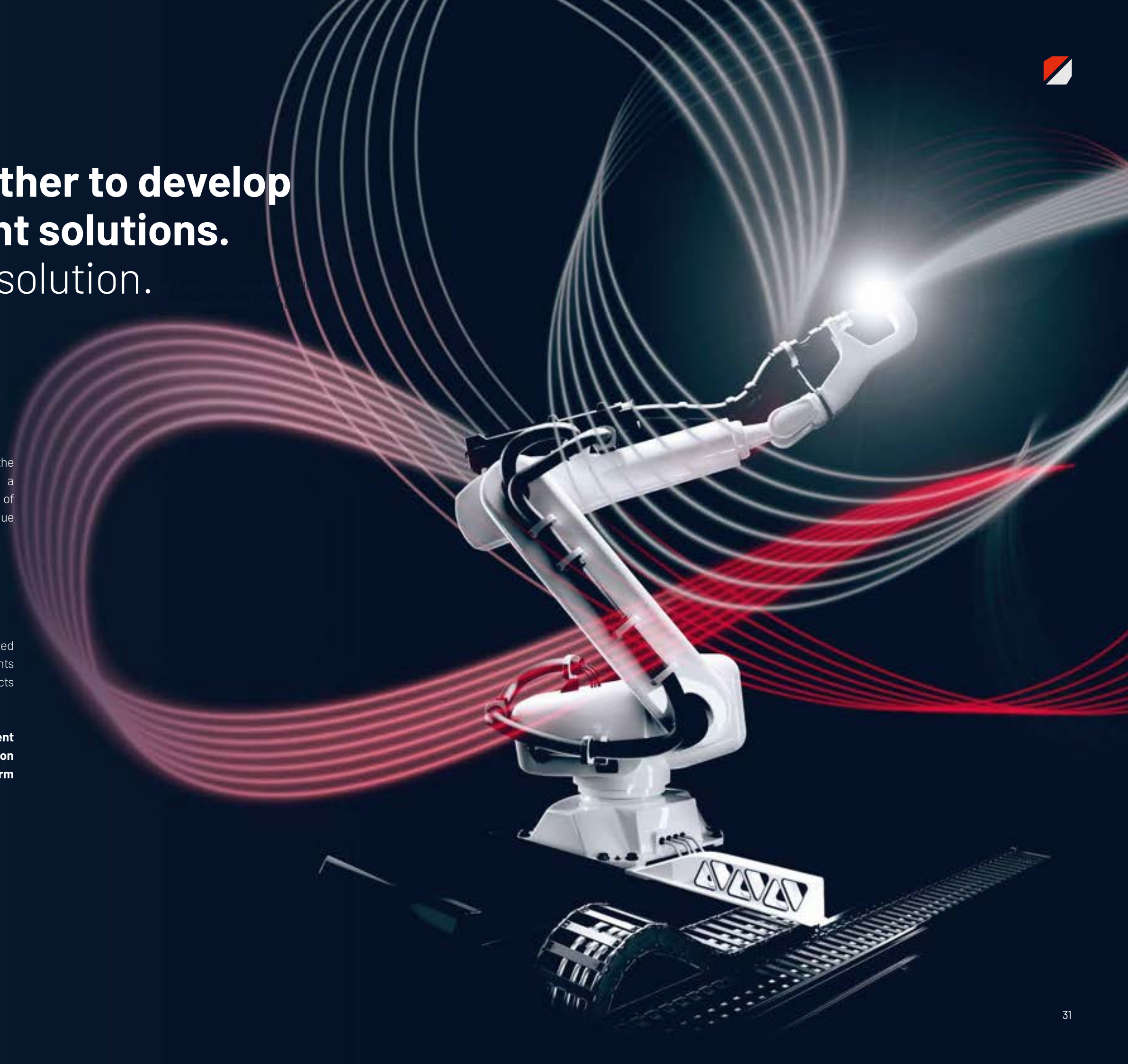
In our complex and fast-moving world, the development of innovative solutions and a comprehensive understanding of the challenges of tomorrow determine which companies will continue to be successful in the future.

Our promise:

**Customized system solutions in an
automated world.**

In addition to the fast and uncomplicated provision of individually manufactured components and complete systems, we work on your projects with you.

**Together with our experts from different
departments, we develop the perfect solution
for your requirements and ensure long-term
growth.**





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