



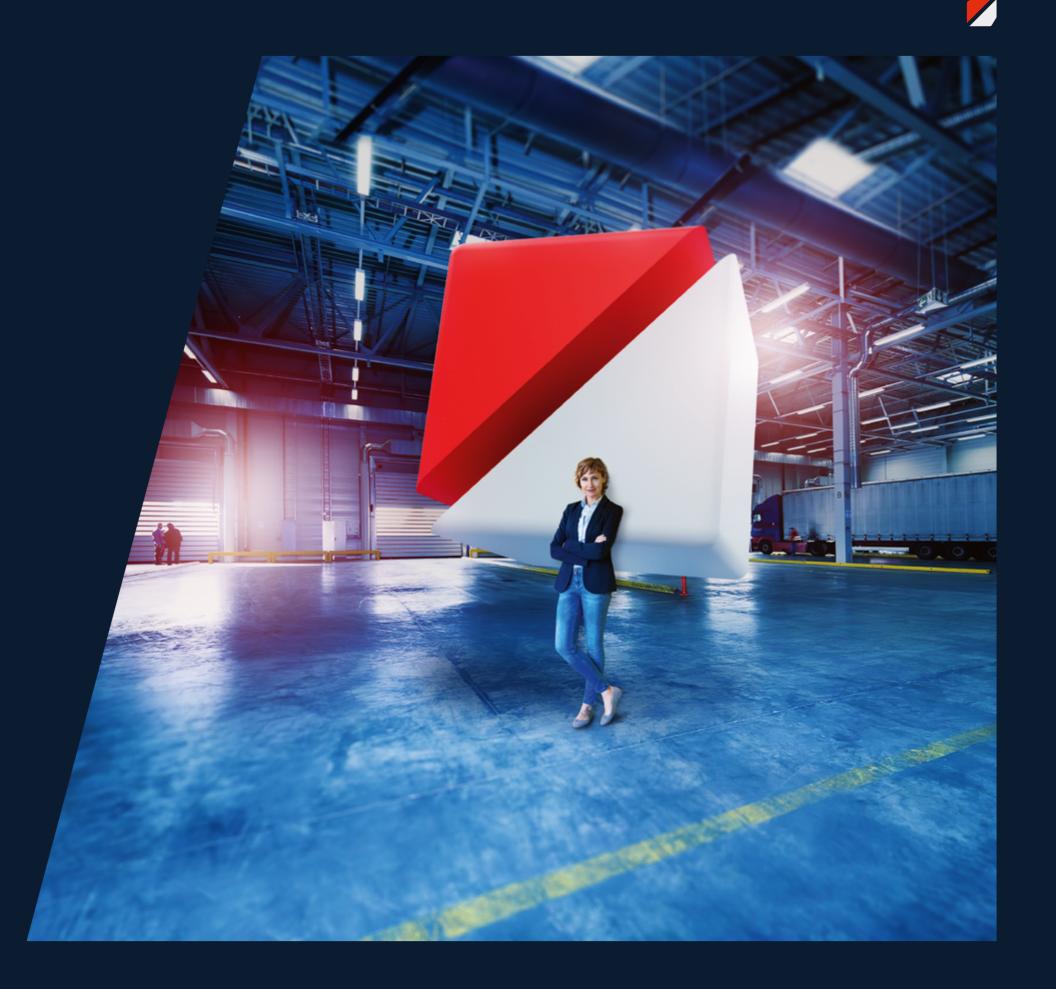
The brand murrplastik®

# Industry-focused Future-proof Customized

Manufacturing is the driving force in our fast-moving, connected world. Moreso 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.



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# 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 hygienic 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 hygienically 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 (1.97 in) in diameter, must not fully penetrate.	Charles of the Charle
3	Protected against solid foreign objects of 2.5 mm (0.49 in) and larger	The object probe of 2.5 mm (0.10 in), shall in no way penetrate.	
4	Protected against solid foreign objects of 2.5 mm (0.49 in) and larger	The object probe of 1.0 mm (0.10 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.	000

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.	(P3)
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.	1000
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.	
6K	Protected against strong water jets (high pressure)	Water from any direction, strong jet directed against housing, must not have any harmful effects, specifically under increased pressure.	
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.	
7M	Protected against the effect of temporary immersion in water with movement	Water must not enter in a quantity that causes a harmful effect when the housing is temporarily submerged under water under pressure and time conditions, especially during movement / water pressure fluctuations.	
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 seconds each, distance: 10 – 15 cm (3.94 – 5.91 in) water volume: 14 – 16 liters (3.70 – 4.22 gal) per minute, water temperature: 80 °C +/- 5 °C (176 °F +/- 9 °F), water pressure: 80-100 bar	-1000

Food industry

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 pre-assembled 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)

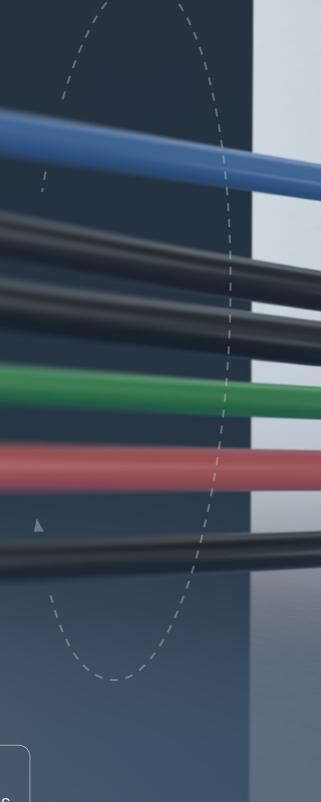




# Hygienic and health safety

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 and order online **now.** 

Customized cable entry systems

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 complica-





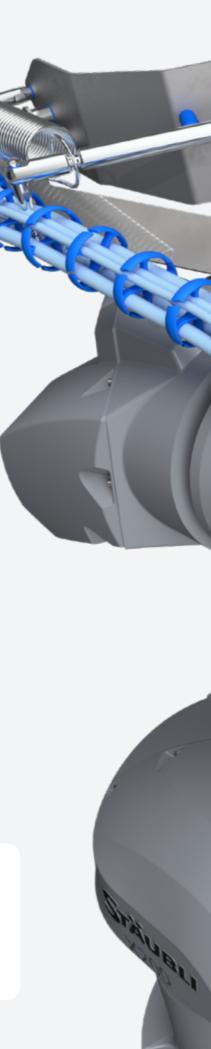
# **FDA** compliance

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.



The cable retraction system

completely dispenses of protective sleeves and opts instead for innovative materials and Hygienic Design.

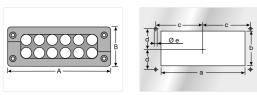


#### Cable entry system type KDL/H-VA-FDA

Variants: 7







The corrosion-free cable entry system for the insertion of pre-assembled 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







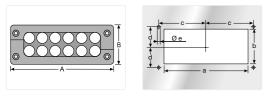
# Made in Germany IP

#### 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









#### Conformities and approvals







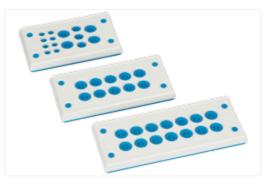
1-piece cable entry grommet for pre-assembled cables combined with the cable entry system KDL/H-VA FDA made of FDA compliant material for the food industry.

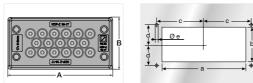
- Pre-assembled cables can be easily inserted or fed through e.g. in control cabinets.
- The grommets are retrofitted around the cable.
- Made of FDA compliant material especially for the food industry
- -40°C +80°C
- Thermoplastic elastomer (TPE)

#### 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









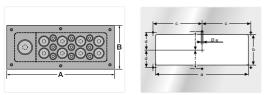


#### Cable entry plate FDA Hygienic

Variants: 5







- · Good strain relief
- · Protection class: IP65 & IP69K (with suitable cables)
- FDA compliant

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

- Based on the Hygienic Design













#### **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.

Theuse of electropolished stainless steel and high-performance plastics makes the surface even smoother and ensures an abrasion-resistant application.

#### Further advantages:

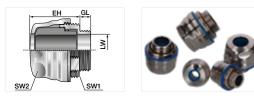
- Easy cleaning without dirt edges due to Hygienic Design
- Resistance to acids and alkalis
- Use of FDA compliant and detectable materials
- System meets the requirements of EC 1935/2004, EC 10/2011 and EC 2023/2006
- Resistance to high temperatures and pressures
- · High quality thanks to the use of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

### Type WKM-FDA (metal version)

Variants: 9







Conformities and approvals

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 cable routing

Variants: 1







#### **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.

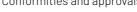
#### Further advantages:

- 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

Conformities and approvals

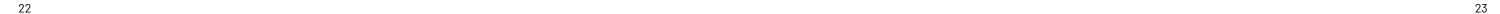














#### mp-LM 3

Variants: 2





Conformities and approvals

#### **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
- (1frame 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 vibra-
- Operating temperature: min. 15 °C / max. 35 °C
- Humidity: 10 85 % without condensation

### 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".

GO TO PRODUCT

#### 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 pro-

 $Highly\, recommended\, for\, the\, labeling\, of\, KST,\, EST,\, ESK,\, LES,\, LA,\,$ 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)

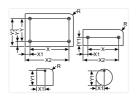
Receiving container for labeling mats, especially designed for the labeling process of the mp-LM.

#### **EST stainless steel type plate**

Variants: 10







Conformities and approvals



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

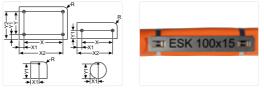
A suction and filter unit is absolutely necessary for laser cutting to comply with legal regulations on health protection.

#### 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





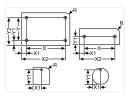


#### LES rectangular without radius

Variants: 3







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







Conformities and approvals





High-quality label to attach with cable ties directly onto the ca-

The KSM labels are a product that is used for the subsequent la-

Also available as easily detectable KSM-Dlabels. 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









#### **Product information**

High-quality detectable label to attach with detectable cable tiesdirectly 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 reguires 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





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

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





 $The {\it robust}\, cable\, tie\, tool\, type KBW/M\, is\, specially\, designed\, for\, the$ KBM metal cable ties and has a manual cutting mechanism.

#### Detectable cable tie type KB-D

Variants: 5





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 labeling with the MP laser systems.



Conformities and approvals





## Cable tie tool for plastic cable ties type KBW / KKBW GO TO PRODUCT



Variants: 2



#### **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



in the future.

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.

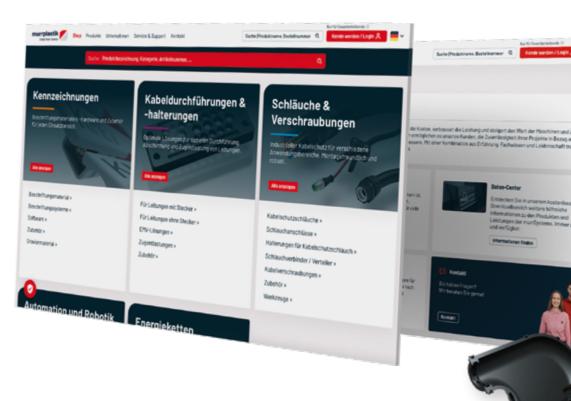
Together with our experts from different departments, we develop the perfect solution for your requirements and ensure long-term growth.



#### Webshop

# Simply Smart Systems shop.murrplastik.de

**Are you already familiar with the murrplastik® online shop?** There, you will find a practical overview of all our products. Additional information and smart functions, such as individual configuration and 3D models, will help you in your selection and ordering.



#### **Award-winning Performance**

Our innovative strength impresses not only our customers. Several products have received the German Innovation Award. What a distinguished way to highlight our experts' outstanding performance.

## Your benefits at a glance:

- Subscribe Order your products at your own pace and in the quantity you need
- Create quotations Easily create and save your own quotation
- CAD-Data View and download individual 3D models of your desired product
- Product details see all relevant details about our products at a glance
- Service & Support If you have any questions, our team of experts is always ready to help

KIME

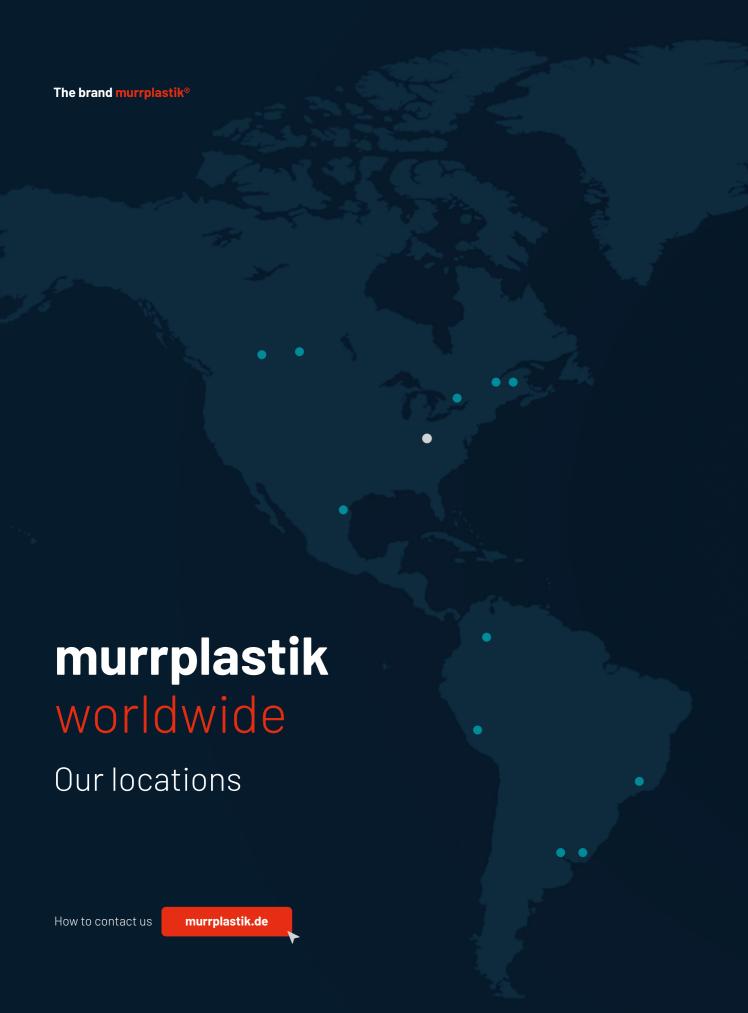
- Set your desired delivery date Choose your individual delivery dates easily and conveniently
- Express shipping for urgent deliveries We are there for you, even when it has to go quickly
- Order again Store your orders under "My account" to quickly find and duplicate any orders already placed

# Our entire range for food technology at a click



Energy chains, labeling systems, cable entry systems and more. The innovative world of murrplastik® is just a click away. Simply open **shop.murrplastik.de** in your browser or scan the QR code.

shop.murrplastik.de



Headquarters Germany

#### Murrplastik Systemtechnik

Oppenweiler +49 7191/482-0 info@murrplastik.de

France

#### Murrplastik S.à.r.l.

Richwiller +33 389 570010 info@murrplastik.fr

Switzerland

#### Murrplastik AG

Willisdorf

+41 52 6460646 info@murrplastik.ch USA

# Murrplastik Systems Inc. Milford (Ohio)

+15132013069

customerservice@murrplastik.com

Spain

#### Murrplastik S.L.

Donostia - San Sebastián +34 943 444837 info@murrplastik.es

Italy

# Murrplastik S.r.l. Rho (Mi)

+39 02 85680570 info@murrplastik.it India

#### Murrplastik India Pvt. Ltd.

Pune +91 9326924781

info@murrplastik.in

China

#### Murrplastik Asia Co. Ltd.

Shanghai +86 21 60318388

info@murrplastik.com.cn

Partner of murrplastik®



