

# Conduit and threaded fitting systems

## Product Overview





**WE PRODUCE AND  
DEVLIVER QUALITY**



## THE COMPANY

Pages 4/5

International expertise  
Quality, production and innovation

## OVERVIEW

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Conduits  
Threaded fittings  
Connection flange  
Distributor  
Holders  
Cable fittings  
Tools  
Accessories

## HOSES / CONDUITS

Pages 8/9

Corrugated tubes / Conduits: closed  
Corrugated tubes / Conduits: slotted  
Corrugated tubes / Conduits: divisible  
Corrugated tubes / Conduits: high corrugation  
Special protection conduit

## THREADED FITTINGS

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Threaded fittings: m-top  
Threaded fittings: m-tec  
Threaded fittings: m-fix  
Threaded fittings: divisible

## SPECIAL ITEMS

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Protectors / connectors / distributors  
Conduit connection bulkhead fitting  
Special fittings  
Threaded fitting: m-jumbo

## ACCESSORIES

Pages 14–16

Retaining bracket systems  
Screwed cable fittings in numerous variants  
Punching tools  
Tools  
Various accessories

## ROBOTIC

Pages 17–19

Solutions for all robot applications  
Equipment systems



# INTERNATIONAL EXPERTISE – QUALITY, PRODUCTION AND INNOVATION



## MURRPLASTIK SYSTEMTECHNIK GMBH OPPENWEILER

Since its foundation in 1976, Murrplastik Systemtechnik GmbH has been one of the pioneers for high-tech plastic products.

Our design engineers develop innovative universal solutions and customer specific adaptations for the automotive and railway industry, as well as for the tool and mechanical engineering sectors, or for building services.

## Innovation creates competitive advantage

- Cable drag chains
- Cable entry plates and cable retaining systems
- Labelling systems
- Conduit and threaded fitting systems

## CONDUIT AND THREADED FITTING SYSTEMS

The name Murrplastik is synonymous with cable protection conduits "Made in Germany". We guarantee the highest of quality, manufactured in-house.

Optimum benefits for the user and the system design are always priority for Murrplastik. Our product line offers a very compatible selection of various threaded fittings, distributors and retaining brackets for every conduit size.

### The system approach to diversity:

#### Cable protection conduit

- Standard- and special protection conduit

#### Threaded fittings and connections

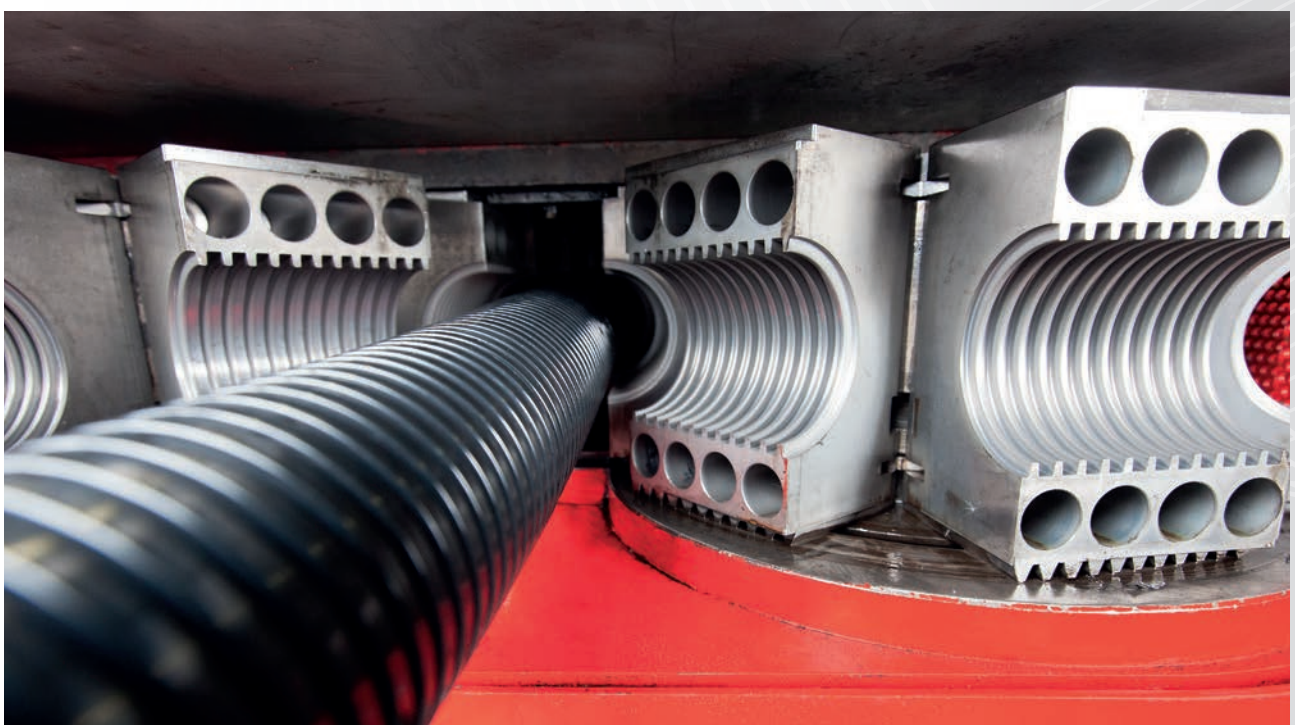
- Threaded conduit fittings /-connections
- Distributors / connectors / protectors
- Threaded cable fittings

#### Retaining bracket systems

- Standard and heavy-duty versions

#### Robotic and handling systems

- Special equipment systems
- Conduit harnesses and accessories





# OVERVIEW OF HOSE AND THREADED FITTING SYSTEMS



## CABLE PROTECTION CONDUITS

- closed
- slotted
- divisible
- high corrugation



## SPECIAL PROTECTION CONDUIT

- Rectangular conduit "Energoflex"
- Braided conduit and binding spirals
- Corrugated tubes with steel netting
- Spiral hoses made of PVC



## THREADED HOSE FITTING

- m-top
- m-tec
- m-fix
- divisible threaded fittings
- threaded EMC fittings



## CONDUIT CONNECTIONS

- divisible connection
- divisible flange angle
- Jumbo fittings



## DISTRIBUTORS / CONNECTORS / PROTECTORS

- T- and Y distributor
- Connector sets for extensions and repairs
- Protection against impact and abrasion



## RETAINING BRACKET SYSTEMS

- Standard retaining bracket with/without cover
- Retaining bracket system that can be stapled or strung together
- Block bracket



## THREADED CABLE FITTINGS

- Plastic
- Metal
- EMC
- EX



## TOOLS

- Punching tools
- Crimp and insulating tools
- Wire insertion tool
- Wire knives and shears



## INSTALLATION ACCESSORIES

- Cable ties
- Lock nuts
- Terminal sleeve
- ...



## ROBOTIC (AUR)

- Energy packages
- Equipment for conduit harnesses
- Recycling systems
- Ball joints
- Accessories

# PROTECTIVE CONDUITS



## CLOSED

Parallel shaft cable protection conduits made of plastic for all applications in machine and plant engineering, as well as automotive and railway vehicle engineering. A variety of materials are available. For nominal widths from 6 to 95.

*Materials: Polyamide PA 6, polyamide PA 12, polyethylene, polypropylene, fluorine resin, thermoplastic elastomer*



## SLOTTED

Slotted cable protection conduit for subsequent installation and cable assembly. Quick insertion of cables or lines.

*Materials: Polyamide PA 6, polyamide PA 12, polyethylene, polypropylene, thermoplastic elastomer*



## DIVISIBLE

Divisible cable protection conduits are also used for retrofitting cable installations and in prefab cable assembly. But they can also be used for repair work and with existing equipment.

*Materials: Polyamide PA 6, Polypropylene*

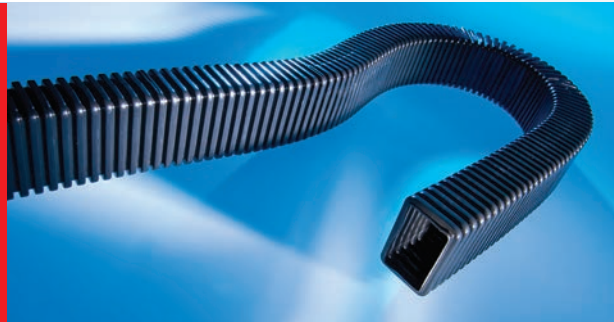


## HIGH CORRUGATION

Parallel shaft cable protection conduits with high corrugation for applications demanding high flexibility or crush resistance. They are very form stable in the slotted version and can also be used in areas of robotics.

*Materials: Polyamide PA 6, polyamide PA 12, polyethylene, polypropylene, thermoplastic elastomer*





## RECTANGULAR CONDUIT "ENERGOFLEX"

Rectangular, parallel shaft cable protection conduit made of plastic. Highly flexible and flexural fatigue strength. Energoflex can also be used as an alternative to a cable drag chain, because of the higher stability compared with a normal corrugated tube.

*Materials: Thermoplastic elastomer*



## SPIRAL HOSES

Helically corrugated, flexible to very flexible cable protection conduits for use in sectors as medical technology or food processing, where standard corrugated tube is only of limited use.

*Materials: PVC, PU*



## CORRUGATED TUBES WITH STEEL NETTING

Very crush resistant plastic hose with metal netting. Suggested use is for EMC applications and for contact with hot chips or welding spatters.

*Materials: Polyamide PA 6, zinc-plated steel wire*



## BRAIDED SLEEVE / SPIRAL TAPE

Braided sleeves are used to bundle single conductors or cables and lines. The binding spiral is perfectly suitable for fixing cables and lines easily and quickly. Branches can easily be created at any location without problem.

*Materials: GF (braided conduit) Polyamide PA 6, Polyester, spiral tape: Polyethylene*

# THREADED FITTINGS



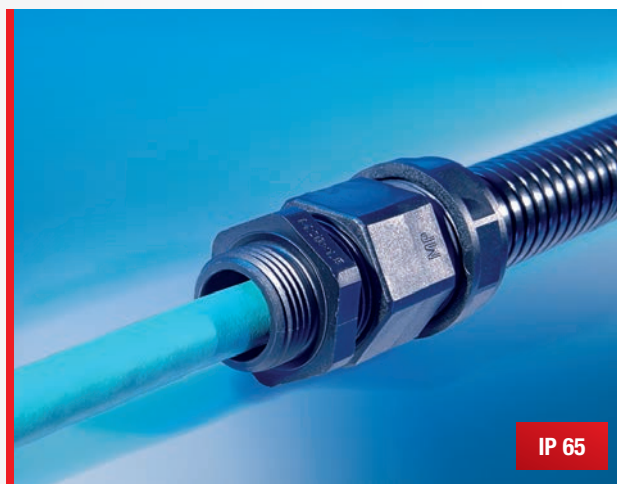
## M-TOP

The m-top threaded fitting series offers a fitting solution to suit nearly any requirement, because of its wide program range.

Our portfolio reaches from straight threaded fittings on to 45° and 90° threaded elbow fittings and fittings with threading on the inside.

They are available in various thread shapes - in plastic, as well as in metal versions.

- High protection category IP 68/69 K
- One-part fitting
- Quick assembly
- Very high pull-out resistance
- Listed according to UL/CSA
- Railway industry applications



## M-TEC

The m-tec threaded fittings series consists of high-quality polyamide threaded hose fittings.

Quick and easy installation of the cable protection conduit with a high level of pull-out resistance. One-part, pre-assembled threaded fittings in straight, 90° angle and combination variants, with integral threaded cable fittings and iris-shaped fins for strain relief.

- High protection category IP 65
- One-part fitting
- Quick assembly
- High pull-out resistance





IP 54/65

## M-FIX

Simple and very slim threaded conduit fittings made of high-quality PA. Available in straight, 90° angle and combination variants with integral threaded cable fittings. Standard is IP 54; can be increased to IP 65.

- Easy plug-in fitting
- Very quick installation
- High packaging densities
- One-part fitting



IP 50

## DIVISIBLE THREADED FITTINGS

Other matching components for our divisible corrugated tubes are straight threaded fittings and jam nuts for retrospective installation.

- Subsequent installations or repairs
- Very good system pull-out resistance
- Compact design
- Simple assembly and dismantling



IP 54

## EH-EMC METAL THREADED FITTINGS

For the assembly of type EW-PAP steel-netting-covered cable protection conduit

- EMC applications
- Easy assembly
- One-part fitting

# CONDUIT CONNECTIONS



## DIVISIBLE CONDUIT CONNECTIONS AT

This connector will allow you to install closed, slotted or divisible corrugated tubes directly on the electronic enclosure.

- Divisible
- Direct connection
- Good pull-out resistance
- Quick and easy assembly



## CONDUIT CONNECTION BULKHEAD FITTING

Divisible flange for direct mounting of cable protection conduits or with inside threading. The large cut-out in the lower flange part makes the installation of preconfigured cable assemblies possible.

- Divisible system
- Enables an installation of preconfigured lines
- Easy assembly
- Conduit remains rotatable
- Suitable for EW and EWX cable protection conduits



## HOSE CONNECTION FOR JUMBO CORRUGATED TUBES

Heavy duty hose connection for jumbo corrugated tubes of the nominal diameters 56, 70 and 95 mm in straight and 90-degree elbow versions.

- Easy assembly
- High protection class
- Hose will be able to swivel in the connection
- Straight and 90° variant

IP 52/65



# DISTRIBUTORS, CONNECTORS, PROTECTORS



IP 40-67

## DISTRIBUTOR

Complete distributor program of T- and Y-distributors made of polyamide and TPE (thermoplastic elastomer) for the production of branches in cable harnesses.



IP 42/54

## CONNECTOR

Divisible connector set for the extension or repair of cable protection conduits. Easy assembly and additional mounting options.



IP 40

## PROTECTORS

Impact and abrasion protection for movable corrugated tube parts. The protectors also make a hose connection / extension possible.

COMPANY

OVERVIEW

HOSES AND CONDUITS

THREADED FITTINGS

SPECIAL

ACCESSORIES

ROBOTIC

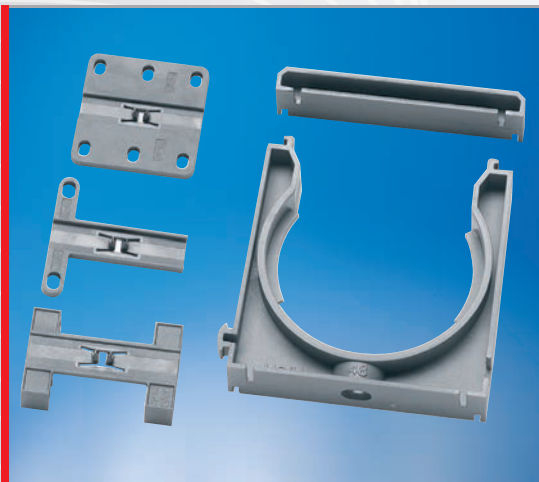
# HOLDING SYSTEMS



## STANDARD RETAINING BRACKET WITH/ WITHOUT BRIDGE

Simple retaining bracket for one-hole fixing of corrugated tubes in the sizes M10/PG7 to M50/PG48 on plant equipment and machines. An optional bridge bracket can be installed for higher load stresses. Universal solution with multi-hole fixing bracket for the connection between the electronic enclosure and the door.

- Easy assembly
- Large number of variants  
(single-hole, two-hole, multi-hole fixing brackets)



## HS RETAINING BRACKET SYSTEM

Flexible retaining bracket system with various accessories, can be lined up and stacked.

- Modular system
- Compatible with other system retaining brackets from the Murrplastik program range



## UH-S BLOCK BRACKET

Very compact and heavy-duty retaining bracket for the highest of demands. Can be lined up and stacked, with a number of fastening options.

- Outstanding system stability
- Quick and secure assembly
- Low component weight



# THREADED CABLE FITTINGS



## M-SEAL PLASTIC

Plastic threaded cable fittings made of high-quality PA 6 plastic in black and grey with metric and PG threading.

- IP 68 / 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262



## M-SEAL METAL

Nickel plated brass threaded cable fittings. The metric and PG thread variants are also available with long threading.

- IP 68 / 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262

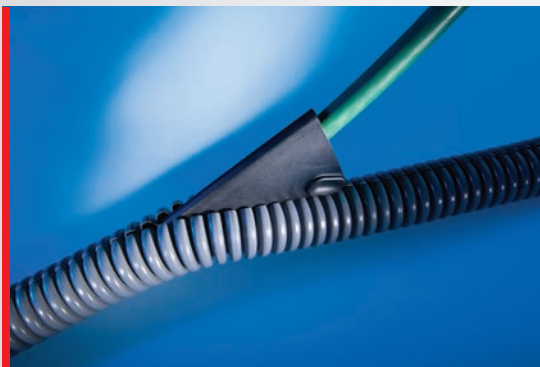


## M-SEAL EMC

Nickel plated brass threaded cable fittings with integral connector for shielded cables. A novel system of contacts provides excellent sinking values.

- IP 68 / 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262
- Simple assembly when contacting the shields

# TOOLS AND ACCESSORIES



## TOOLS

We offer an extensive range of installation aids to round off our product portfolio.

- Diverse assortment of dies for round and rectangular cut-outs
- Tools for mounting plastic cable ties.
- Crimp and insulating tools
- Cable stripper and wire insertion tools

## ACCESSORIES

We offer a wide range of accessories for our threaded conduit fitting system

- Terminal sleeve
- End caps
- Reducing and expansion bushes made of plastic and metal
- Lock nuts made of plastic or metal
- Blind plugs made of plastic or metal
- Conduit and cable retaining systems
- Cable ties and hose clamps



## SOLUTIONS ALL AROUND THE ROBOT

Well-thought-out support components provide robots with the necessary freedom for high-speed work and precise repetitive task completion with a long service life.

Universal mounting hardware for all of the most popular robots can be combined into custom configurations, providing the necessary hold and protection for hydraulic, pneumatic and electrical components of the conduit harnesses.

The cable protection conduits developed by Murrplastik for complex robot applications withstand the extreme loads and movements. Specifically modified materials and special hose geometries ensure a long service life.



### Our services

- The concept
- Development
- Prototyping
- Documentation
- Assembly / optimisation
- Repair / maintenance
- Spare parts
- Axis 1 – 7

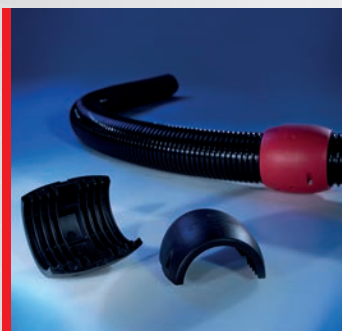
# AUTOMATION AND ROBOTIC EQUIPMENT AND SYSTEMS



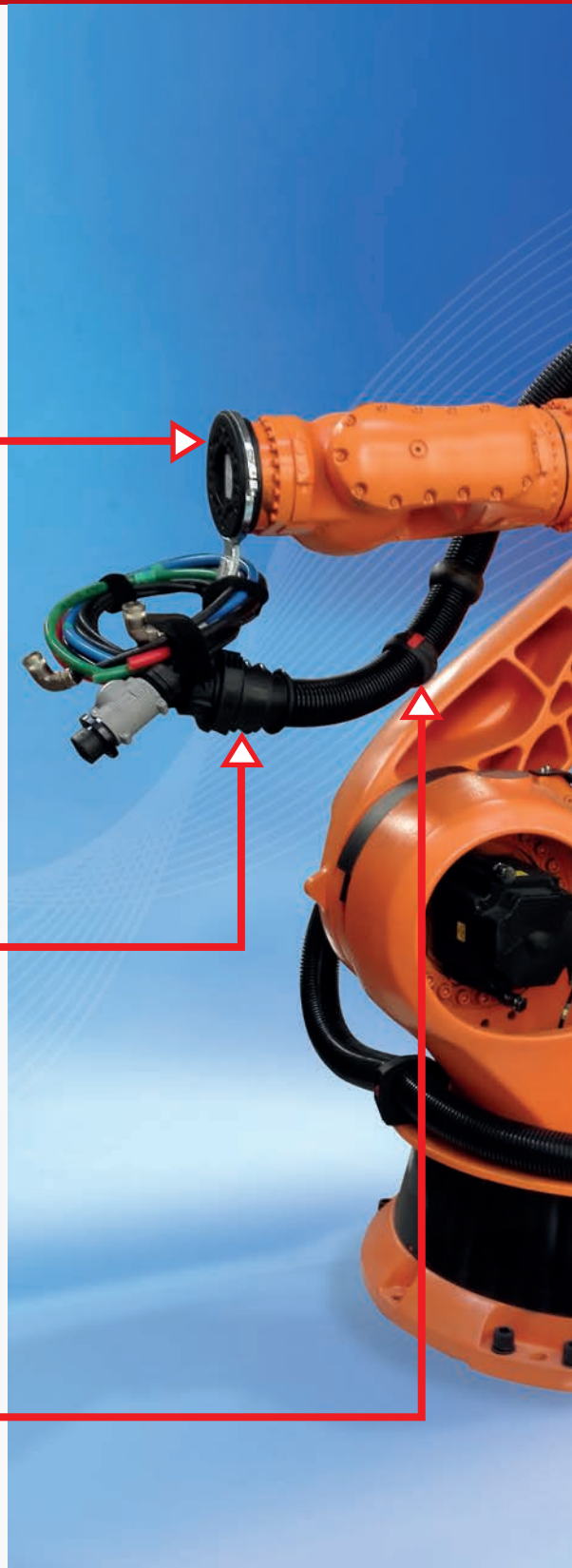
**TENSION CLAMPS,  
PIPE CLAMPS,  
PRECISION PIPE**



**VARIOUS RETAINING BRACKETS,  
BALL JOINTS AND  
STRAIN RELIEF SYSTEMS**



**SHOCK PROTECTION / PROTECTOR**





#### R-TEC BOX RECIRCULATION SYSTEM

- for conduit sizes NW 29 to NW 70
- quick and simple assembly
- low component weight
- suitable base plates for any robot type
- long service life and low wear

#### CIRCUITS FOR ROBOT APPLICATIONS

As a system supplier of conduit harnesses used in robots and handling equipment, Murrplastik Systemtechnik GmbH offers the complete service package:

From single components and spare parts to entire mounting modules for the various axes on robots, all the way to completely equipped conduit harnesses, including all cables and media hoses.

We configure and produce to your specifications, a custom conduit harness built to your dimensions, as a complete module, ready for installation or exchange on-site. Please contact our application engineers.





**www.mp.de**

#### **Germany (Head Office)**

Murrplastik Systemtechnik GmbH  
Postfach 1143  
71567 Oppenweiler  
☎ +49 7191 4820  
www.murrplastik.de  
info@murrplastik.de

#### **Americas (North/South)**

Murrplastik Systems, Inc.  
1175 US Highway 50  
Milford, OH 45150  
☎ +1 513 201 30 69  
www.murrplastik.com  
cablegmt@murrplastik.com

#### **Austria**

Murrplastik Systemtechnik GmbH  
☎ +43 732 660 870  
www.murrplastik.at  
info@murrplastik.at

#### **China**

Murrplastik Asia Co., Ltd.  
1802 Rm. No. 218  
Hengfeng Rd.  
200070 Shanghai  
☎ +86 21 512 869 25  
www.murrplastik.com.cn  
info@murrplastik.com.cn

#### **Denmark**

Filial af  
Murrplastik Systemtechnik GmbH  
Tyskland, Stenager 2  
6400 Sønderborg  
☎ +45 2347 00 24  
www.murrplastik.dk  
info@murrplastik.dk

#### **France**

Murrtechnic S.à.r.l  
Zone industrielle Sud,  
6 rue Manurhin  
B.P. 62, 68120 Richwiller  
☎ +33 389 570 010  
www.murrtechnic.fr  
info@murrtechnic.fr

#### **Italy**

Murrplastik Italia S.r.l.  
Via Circo, 18  
20123 Milano  
☎ +39 02 856 805 70  
www.mp.de  
info@it.mp.de

#### **Russia**

Офис компании  
Murrplastik в Москве  
Gilyarovskogo 57, building 1  
129110 Moscow  
☎ +7 495 684 17 37  
www.murrplastik.ru  
info@murrplastik.ru

#### **Spain**

Murrplastik S.L.  
Paseo Ubarburu, 76  
Pabellón 34, poligono 27  
20014 San Sebastián  
☎ +34 943 444 837  
www.murrplastik.es  
info@murrplastik.es

#### **Switzerland**

Murrplastik AG  
Ratihard 40  
8253 Willisdorf  
☎ +41 52 646 06 46  
www.murrplastik.ch  
info@murrplastik.ch

