A helper with a strong attraction

BT - Magnets & Formwork
What began in 1991 as a regional wholesaler has now developed into an internationally renowned company which is always close to the customer and one step ahead with innovations and ideas.
We supply the concrete processing industry/market with real solutions to problems, thus significantly simplifying your work processes, and create time savings.
The continuous further development and high quality of our products have afforded us with numerous certificates, patents, and successful building inspections. You can benefit from this too.
Alongside our extensive product range, we can provide you with consulting, planning, and implementation services for new or existing buildings in the field of precast plants.
The focus of our daily operations is always our customers, and we are only satisfied when you are.

We hope you enjoy finding out more about our products and look forward to the start of an inspiring partnership.

Felix von Limburg
-CEO-
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General information on magnets & formwork

Innovative formwork magnets

Our magnet range includes the solution for your company’s fixing problems in formwork construction. The MagFly® technology, unique in the world, represents the decisive advance in handling magnet technology.

On the basis of the MagFly® magnets we offer a powerful, versatile, internationally unique, and future-proof magnet system that is compatible with a large number of concrete formworks.

In addition we offer you a large number of specialized magnet solutions for fixing formworks, especially U-profiles, threaded sleeves, ball head anchors, electrical sockets and additional formwork accessories. Our formwork magnets keep our promises!

Overview of magnets:
MagFly® AP
MagFly® universal magnet
Magnet Typ GB
Magnet Typ KU
Magnet Typ FP
Magnet Typ PL/E
Magnet Typ E/ AR
Magnetic triangular/trapezoidal chamfer strips

Overview of formwork:
MultiForm
FlyFrame®
>> SECURE STABILITY
>> LARGE FORCE TRANSMISSION
What is MagFly® - technology?

MagFly® technology is robust and simultaneously compact technology puts your magnetic clamp on firm footing. Behind this technology is our patented foot/spring system, with which positioning magnets and/or formworks with millimeter accuracy is child’s play.

In the “inactive” state, an air gap arises between the steel table and the magnet. The air gap ensures that the magnet does not initially exert its entire holding force. It can now be adjusted to the desired position without any force and then activated with slight pressure. Not until this point is the full holding force exerted, which can be over 30,000 N depending on the magnet.

It started as an ingenious idea, then came a story of success, and in the meantime it has become our standard: many of our magnet and formwork solutions are now standardly equipped with MagFly® technology.

“Attractive force at the highest level”

- Holger Bach, B.T. Project Manager-

B.T. Tip:

MagFly® can be used with corresponding adapter plates for all Mutliform formworks.
Overview of advantages:

- Extremely lightweight and precise positioning, since the magnet “glides”, so to speak, on the tilting table or steel pallet
- Precise fixing of the magnet with slight manual pressure – the full holding force is not exerted until then
- Simple visual verification of whether the magnet is really “seated”
- Precise setup with a hammer, which is usual in the industry, is eliminated; that saves time, reduces wear, and reduces the costs
- Compact designs without steel boxes or housings
- Full utilization of the magnet holding force through direct friction-fit connection between the steel table, magnet, and formwork
Can a good, successful magnetic clamp be improved even further? Yes it can! The MagFly® AP is the further logical development of the proven MagFly® universal magnets.

With a housing made of aluminium, high performance magnetic materials, and an integrated adapter for MultiForm and FlyFrame® formwork systems, the new magnet system is a powerhouse, but also lightweight. With a holding force of 22,000 N and a mass of only 5.40 kg, it has the best ratio of holding force to mass in its class in the world.

And of course the latest generation of magnets also has the proven MagFly® technology for easy positioning and alignment of formworks and magnets.

**Overview of advantages:**

- Very ergonomic design; its low weight and innovative lever design make carrying and handling a breeze
- Extremely light, but amazingly strong nonetheless!
- The new MagFly® AP also has the integrated MagFly® technology for exact positioning, of course
- Precise fixing of the magnet with slight manual pressure
- The securely mounted cam lever means that additional loosening tools are not needed
- Compact design with integrated adapter for MultiForm and FlyFrame®

**B.T. Tip:**

The MagFly® AP and the MultiForm are an unbeatable combination for effortless formwork setting.

**B.T. Tipp:**

We recommend our splash guard to protect the magnet.
>> LIGHTWEIGHT
>> CONVENIENT SHAPE
The MagFly® universal magnet is a true classic. As the first magnetic clamp ever, it was equipped with the patented MagFly® functionality, to which it owes not only its name, but also its success. MagFly® universal magnets are versatile. Two M16x1.5 threaded boreholes are standardly available for attaching adapters and accessories. Alternative thread positions and sizes are available upon request. However, the various holding forces, sizes, and designs also ensure that the right magnet clamps are available for different applications. MagFly® universal magnets can be used at ambient temperatures up to 80 °C. Special heat-resistant designs are possible upon request, e.g. for temperatures up to 120 °C (type H) or 150 °C (type SH). High-quality materials and a torsion-resistant design ensure an extremely long service life.
Accessories

Folding adapter, clamping mechanism, with choice of either normal or coarse threads

Adapter plate with coarse thread nut for attachment of coarse threaded rods provided by the customer

Shelving for storage of MagFly® magnet clamps with MultiForm adapter

Adapter for holding down double wall initial

MultiForm system adapter

B.T. Tipp:
You also get two of our magnet stands on a panel cart for easier transport.
Type GB magnet
The system for fixing threaded sleeves

The type GB magnet serves to fix threaded sleeves, pigtail anchors, etc. on both horizontal and vertical surfaces. It is available in various diameters and with various holding forces. The associated threaded pins are available in thread sizes from M10 to M36 and can be combined with all versions of the type GB magnet. Other thread sizes are also available upon request.

Overview of advantages:
- Extremely high holding force
- Conic design for easy loosening from hardened concrete
- Highly flexible thanks to swappable threaded pins
- Environmentally friendly and cost effective thanks to reusability

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Type KU magnets
The magnetic recess element for ball head anchors

Overview of advantages:
- Combined recess element with magnet
- Inner thread for detaching the magnet
- Massive and stable design thanks to steel base body, which provides long service life
- Environmentally friendly and cost-effective thanks to reusability

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The type KU magnet serves to hold ball head anchors. We have the right magnets with the optimal holding force in our range for the particular size of ball head anchor. The appropriate rubber mount is also supplied to connect the ball head anchor to the magnet. The integrated inner thread allows the magnet to be detached from the formwork table without force.
The FP magnetic holding clamp was developed specially for the installation of fiberglass concrete upstands. Thanks to its compact design, it is equally appropriate for small recesses or wooden edge formworks. The FP magnet is supplied with a choice of a 240 mm, 300 mm or 400 mm long guide column. The special shape of the holding clamp guarantees an absolutely secure attachment of the upstand in connection with the standard tension springs.

Overview of advantages:
- Lightweight and convenient
- Quickly and easily ensures the high dimensional accuracy and perpendicularity of the upstand
- Easy detachment thanks to integrated cam

<table>
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<tr>
<th>Article no.</th>
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Type PL/E magnets
The magnetic recess element for ball head anchors

The PL/E magnetic clamp consists of a stable plastic housing with a magnetic disc with a high holding force. This magnet also has our MagFly® technology, which makes handling child’s play. The magnet can be shifted and positioned precisely on the formwork table with ease; only after slight pressure does it exert its full holding force. The PL/E is detached easily with hand or foot operation of the eccentric strap. This makes the type PL/E an all-around solution for a broad range of applications.

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Overview of advantages:

- Rapid and rational work with MagFly® technology
- Easy detachment by hand or foot with eccentric strap
- Low weight and thus easy handling
- Ideal as a support magnet for fixing formworks
Type FP magnets
For electrical outlets and recess pipes

B.T. Tip:
The adaptable rubber ring allows the type E magnet to be used for all sizes of electric socket.

Overview of advantages:
- High-quality steel base body with high-performance magnetic core
- Various swappable adapters for electric sockets from different manufacturers
- Custom fabrication possible upon request
Magnetic triangular / trapezoidal chamfer strips

Triangular chamfer strip:
- Steel or plastic design
- Various sizes, e.g. 10 x 10, 15 x 15, 20 x 20
- 3,000 mm standard length; different lengths upon request
- Optional plastic strip as flexible/bendable version

Trapezleiste:
- Steel or plastic trapezoidal chamfer strips for shadow gaps
- Various sizes (top/bottom width x height), e.g. 15/10 x 10, 20/10 x 10, 30/10 x 20, 40/20 x 20
- 3000 mm standard length; different lengths upon request
- Optional plastic strip as flexible/bendable version
MultiForm is an innovative and universal formwork girder system for producing solid walls, sandwich walls, landing slabs, and balcony slabs, but also columns, bars, and much more. MultiForm allows you to simplify your formwork construction. MagFly® universal magnets with corresponding adapters or MagFly® AP magnets are mounted easily in the formwork girder from behind. The formwork along with the magnets can now be positioned and aligned precisely before the are finally secured by pressing down the magnets. MultiForm type 1 is a formwork angle bracket for short formworks, e.g. in recesses. MultiForm type 2 is available as a rail in various heights.

### MultiForm type 1

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**Material/coating:**

- S235JR
- Electrogalvanized (blue)

### MultiForm type 2

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**Material/coating:**

- Electrogalvanized (yellow)
Overview of advantages:

- Reduction of work time and material during construction of new formwork
- The low weight ensures easy handling, without a crane in most cases
- Magnets and formwork girders are not firmly connected together; this simplifies handling and allows flexible use
- Using the appropriate accessories, MultiForm can be used on different base formworks, e.g. on formwork and tilting tables, circulating pallets, stair formworks, wooden surfaces, and much more.
- Quick, easy, and precise positioning by magnets with MagFly® technology
- Formwork heights from 10 to 80 cm possible

B.T. Tip:
The MultiForm formwork can also be used in the battery formwork and makes your work easier.
Overview of advantages:

- Can be used for producing exposed concrete
- Use of power trowel and roller trowel possible
- Shuttering boards allow height variation of the system
- Many separate magnet attachment points
- Simple intermediate positioning by screwing the corners
- Cost-effective solution

Application examples
Precast plant

>> PRECISE FORMING
>> EASY HANDLING
Table layout with MultiForm type 1+2, window and door framework system
U formwork, H formwork, PE formwork, lateral stops

**U formwork, with or without chamfer**

Height: 70 mm and above  
Width: 50 mm and above  
Length: 300-3500 mm  
Material: S235JR  
* other sizes upon request

**H formwork, with or without chamfer**

Height: 80 mm and above  
Width: 60 mm and above  
Length: 300-3500 mm  
Material: S235JR  
* other sizes upon request

**PE formwork, with or without chamfer**

Height: 40 mm and above  
Width: 50 mm and above  
Length: 300-3500 mm  
Material: PE HD black  
* other sizes upon request

**Lateral stop**

upon request  
Material: PE HD black

**B.T. Tip:**
The H formwork is the ideal addition in connection with our battery formwork.
FlyFrame® as an ultralight but still very stable formwork girder made of hardened and specially coated aluminum. The shuttering shell made of wood or particle board can be screwed on from behind, so the shell surface itself remains free of damage and screw heads. Large openings on the back of the FlyFrame® make it possible to anchor even heavy fixtures from behind. In order to meet the demand for low weight and the associated ease of handling, the magnetic clamps and formwork girders are not firmly connected to each other or even screwed together. The magnets are mounted easily in the formwork girder from behind according to the proven principle. The formwork along with the magnets can now be aligned precisely before they are finally secured by pressing down the MagFly® AP magnets. This keeps the system easy to handle, very flexible, and extremely economical.

Overview of advantages:
- Reasonably priced
- Extremely lightweight! Even long formworks can be moved without a crane
- Quick and precise work
- No screws between the magnet and formwork – magnets are mounted easily
- Rapid amortization

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<th>Height &quot;H&quot; [mm]</th>
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>> NO SCREWING NECESSARY
>> FOR RAPID WORK
Precast plant

Accessories

>> SPACE-SAVING
>> EASY TO TRANSPORT

MultiForm - platform handcart
Accessories

- Multiform - connecting element
- Multiform - clamp
- Multiform - corner
- Adapter for wooden tables
- UniForm formwork panel
- Lifter
- Multiform shelving system
- Lifter for PE
You can find an overview of our other catalogues here, request your no-obligation copy today:

- Complete catalogue
- Syflex® / formwork accessories
- BT-Spannschloss® (turnbuckle)
- Seals
- Consulting
- Tie anchor system / Thermo-Pin®

You can find even more information at:
www.bt-innovation.de

We will be happy to advise you at any time!

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