

A helper with a strong attraction

BT - Magnets & Formwork



Product information
Englisch



B.T. innovation GmbH

“The future of construction starts here.”

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-

General information

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Precast plant

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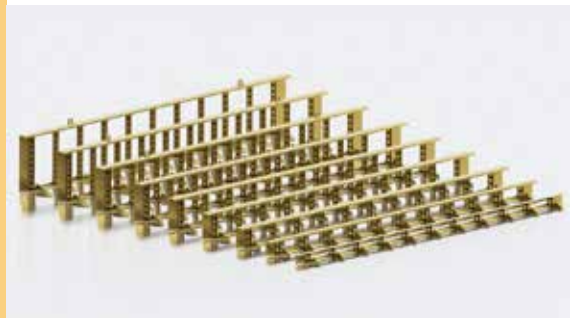
General information on magnets & formwork

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



Die MagFly® - technology



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

>> PRECISE POSITIONING
>> COMPACT DESIGN

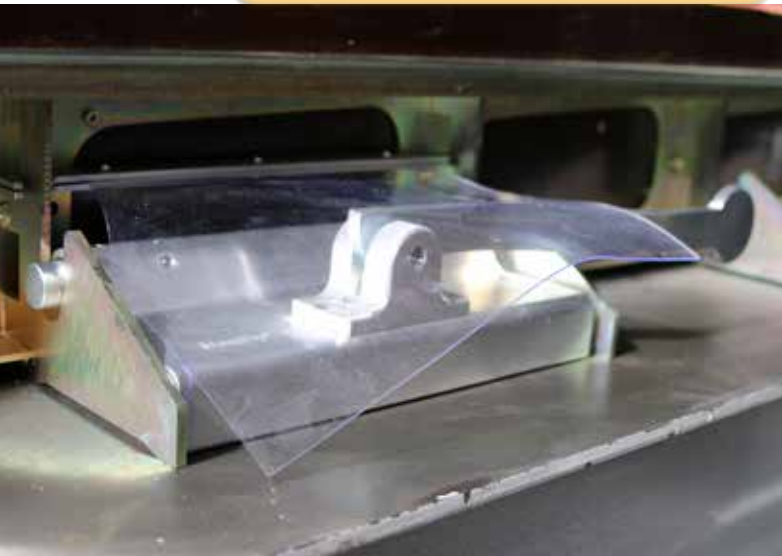
MagFly® AP

Lightweight magnet technology



B.T. Tipp:

We recommend our splash guard to protect the magnet.



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.



>> LIGHTWEIGHT
>> CONVENIENT SHAPE

MagFly® - universal magnet



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



Shelving for storage of MagFly® magnet clamps with MultiForm® adapter



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



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.

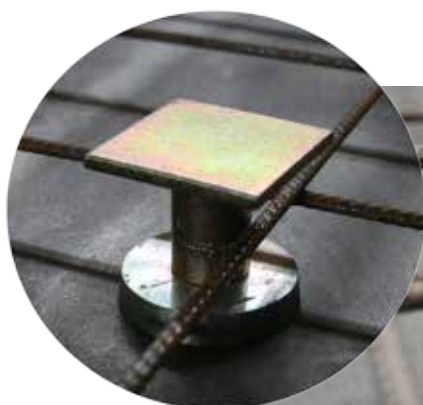
The associated threaded pins are available in thread sizes from M10 to M36 and can be combined with all versions of the type GB magnet.

Other thread sizes are also available upon request.

Overview of advantages:

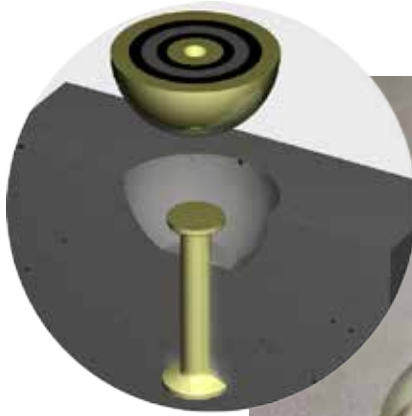
- Extremely high holding force
- Conic design for easy loosening from hardened concrete
- Highly flexible thanks to swappable threaded pins
- Environmentally friendly and cost-effective thanks to reusability

Article no.	Designation	Holding force [N]	Mass [kg]	Recommended	d [mm]	h [mm]
8005058	GB 50	650	0,13	M10-M16	50	12
8005062	GB 64	1000	0,23	M12-M24	64	12
8005066	GB 80	1500	0,40	M16-M30	80	12
8005056	GB 106	1900	0,75	M20-M42	106	12



Type KU magnets

The magnetic recess element for ball head anchors



Article no.	Designation	Anchor size	Holding force [N]	Mass [kg]	d1 [mm]	d2 [mm]	h [mm]
8005072	KU 13	1,3 t	1000	0,49	68	20,5	30,8
8005074	KU 25	2,5 t	1000	0,65	74	27,5	33,0
8005075	KU 50	5,0 t	1500	2,50	93,5	38,5	50,58
8005076	KU 75	7,5 t	2000	3,30	118	48,5	53,0
8005098	KU 100	10,0 t	2200	3,30	118	48,5	53,0

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

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.

Type FP magnets

The magnets for your upstands



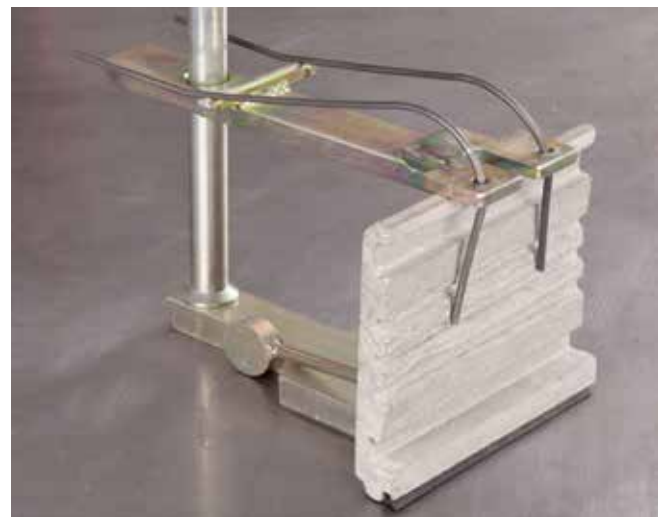
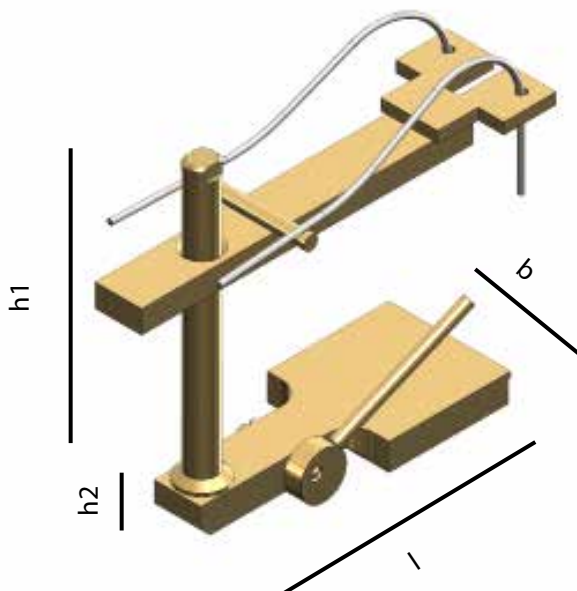
The FP magnetic holding clamp was developed specially for the installation of fiberglass concrete upstands. Thanks to its compact design, it is equally appropriate for small recesses or wooden edge formworks.

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:

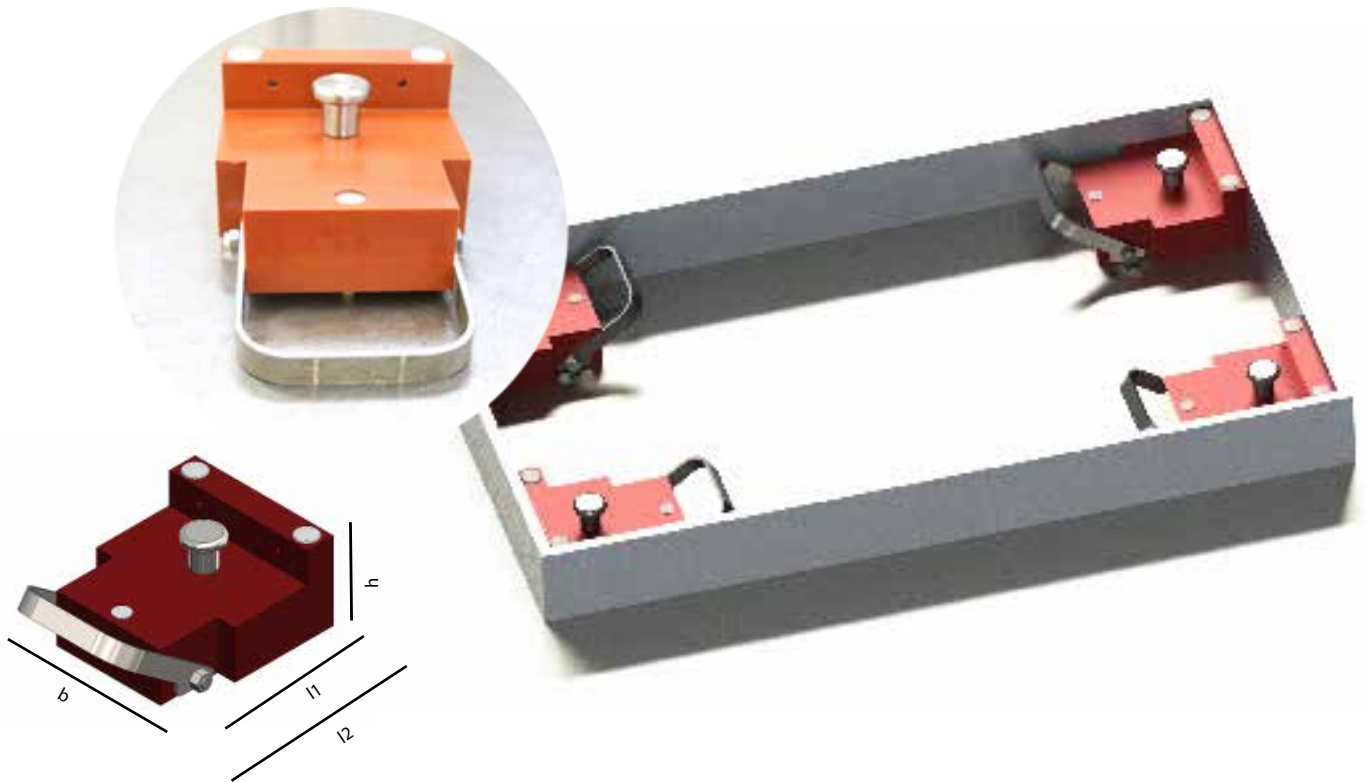
- Lightweight and convenient
- Quickly and easily ensures the high dimensional accuracy and perpendicularity of the upstand
- Easy detachment thanks to integrated cam

Article no.	Designation	Holding	l [mm]	b [mm]	h1 [mm]	h2 [mm]
8006051	FP 240	5000	250	100	240	20
8006050	FP 300	5000	250	100	300	20
8006053	FP 400	5000	250	110	400	20



Type PL/E magnets

The magnetic recess element for ball head anchors



Article no.	Designation	Holding	l1 [mm]	l2 [mm]	b [mm]	h [mm]
8004052	PL/E 400	4000	180	252	160	90
8005074	PL/E 650	6500	180	252	160	90
8004053	PL/E 850	8500	180	252	1460	90



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.

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

Für Elektrodosen und Aussparungsrohre



1.



2.



3.



4.



5.



6.



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:

- Trapezleisten für Schattenfugen aus Stahl oder Kunststoff
- Unterschiedliche Größen (Breite unten / oben x Höhe) z.B. 15/10 x 10, 20/10 x 10, 30/10 x 20, 40/20 x 20
- Standardlänge 3.000 mm, andere Längen auf Anfrage
- Kunststoff-Leiste optional als flexible / biegsame Ausführung



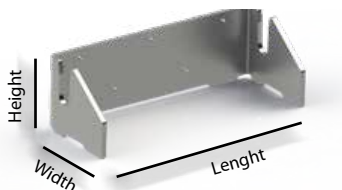
MultiForm

The innovative formwork girder



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 they 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.

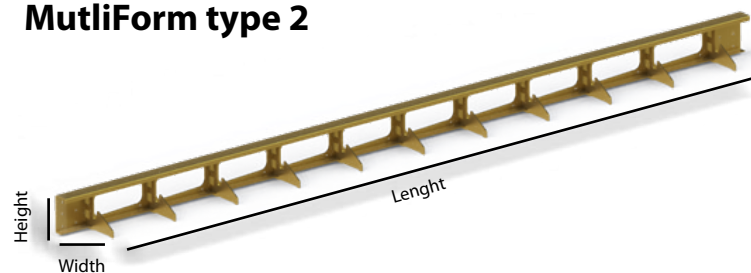
MultiForm type 1



Item no.	Height "H" [mm]	Length "L" [mm]	Width "W" [mm]	Material/coating
810 1139	90	284	110	S235JR Electrogalvanized (blue)
810 1155	148	284	116	
810 1144	190	284	116	
810 1165	248	284	116	
810 1207	290	284	206	
810 1208	390	284	256	



MultiForm type 2



Item no.	Height "H" [mm]	Length "L" [mm]	Width "W" [mm]	Material/coating	Weight [kg]
8101063	98	3025	150	S235JR Electrogalvanized (yellow)	12,2
8101085	148	3025	150		16,4
8101096	198	3025	150		19,4
8101107	248	3025	200		23,3
8101118	298	3025	200		25,0
8101122	348	3025	200		30,0
8101123	398	3025	250		34,1
8101125	448	3025	250		36,1
8101127	498	3025	250		38,0
8101379	548	3025	250		-
8101290	598	3025	250		44,5





>> ESPECIALLY SPACE-SAVING
>> VERSATILE

Overview of advantages:

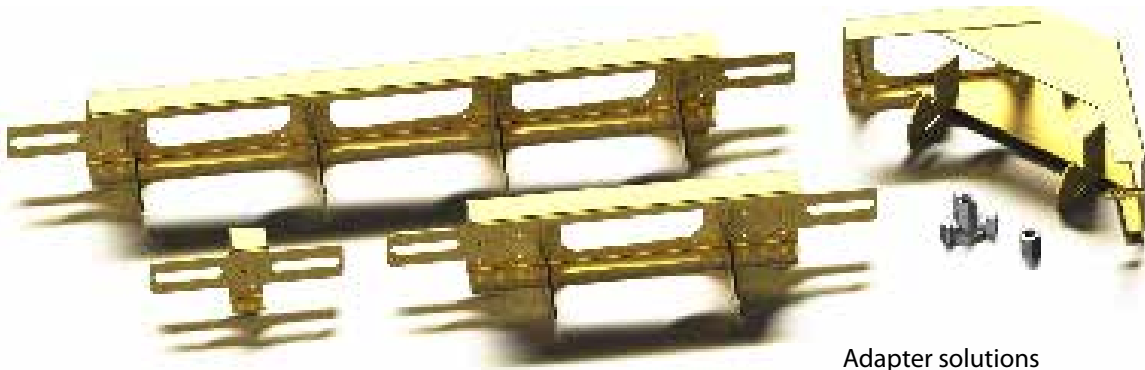
- Reduction of work time and material during construction of new formwork
- The low weight ensures easy handling, without a crane in most cases
- Magnets and formwork girders are not firmly connected together; this simplifies handling and allows flexible use
- Using the appropriate accessories, MultiForm 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.

Window and door recess



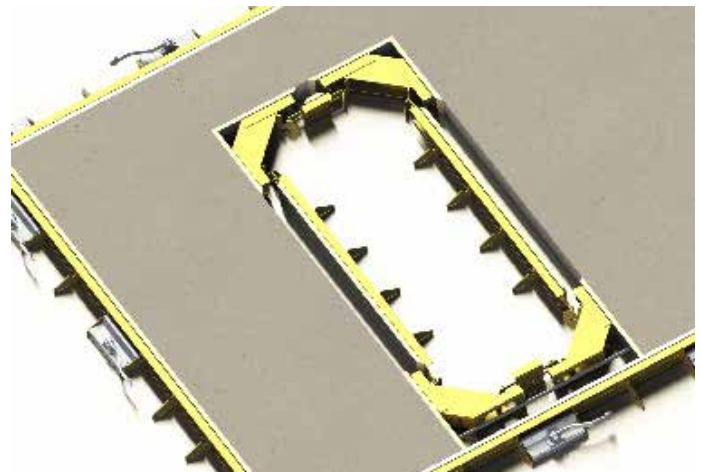
Adapter solutions



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

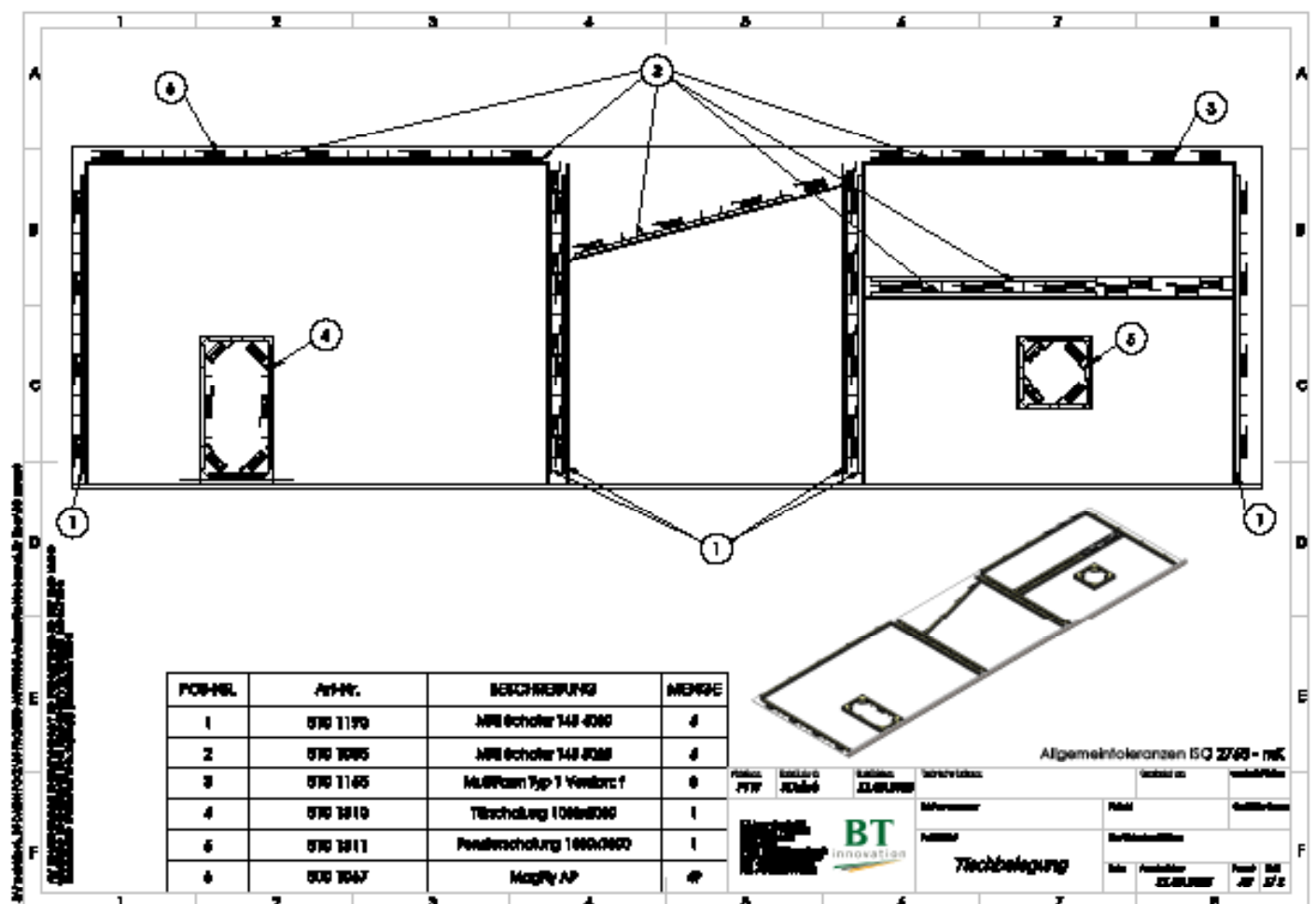
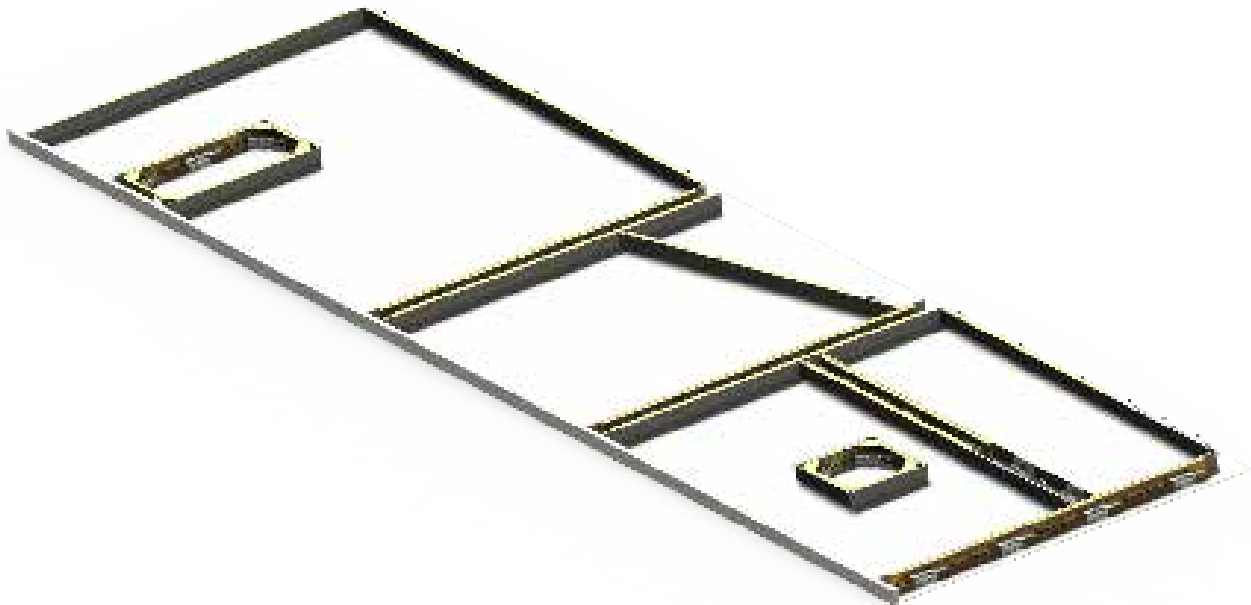
Application examples





>> 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



Height: 70 mm and above, Width: 50 mm and above, Length: 300-3500 Material: S235JR

* other sizes upon request

PE formwork, with or without



Height: 40 mm and above, Width: 50 mm and above, Length: 300-3500 Material: PE HD black

* andere Größen auf Anfrage

H formwork, with or without



Height: 80 mm and above, Width: 60 mm and above, Length: 300-3500 Material: S235JR

* andere Größen auf Anfrage

Lateral stop



Material: PE HD black

B.T. Tip:

The H formwork is the ideal addition in connection with our battery formwork.

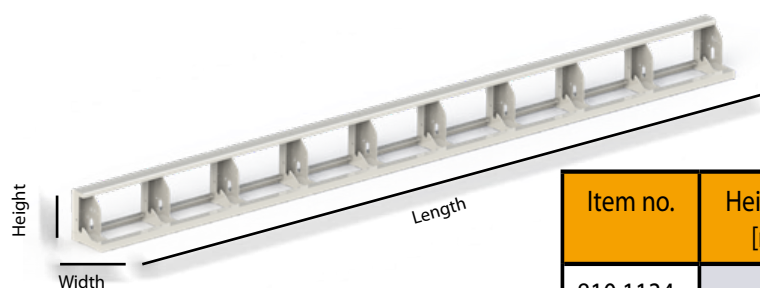


FlyFrame®

The especially lightweight 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.



Item no.	Height "H" [mm]	Length "L" [mm]	Width "W" [mm]	Material/coating
810 1134	98	3000	180	AlMg3 W19 Powder coated
810 1135	198	3000	180	
810 1136	298	3000	180	



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

**>> NO SCREWING NECESSARY
>> FOR RAPID WORK**



Accessories



>> SPACE-SAVING
>> EASY TO TRANSPORT



MultiForm - platform handcart

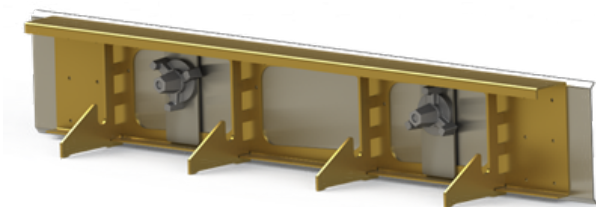
Accessories



Multiform - connecting element



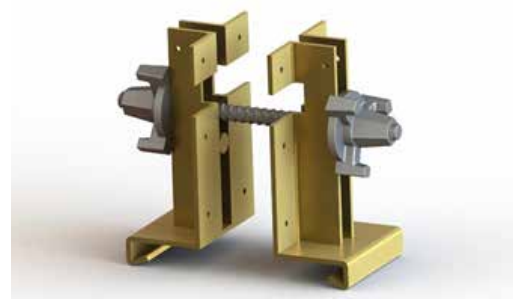
Multiform - corner



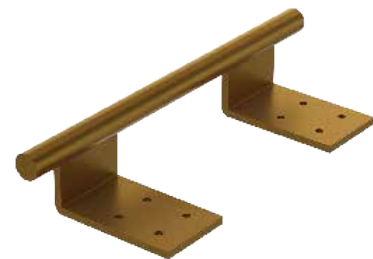
UniForm formwork panel



Multiform shelving system



Multiform - clamp



Adapter for wooden tables

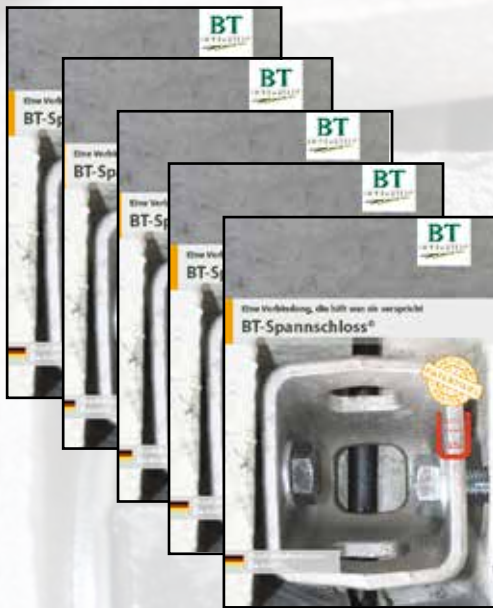


Lifter



Lifter

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- 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

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