With optimum starting conditions, you’ll make the race

Best time for die changing

What advanced clamping is about:

- Perfect technique
- Short downtimes
- Low set-up cost
- Increased productivity
- Low investment cost
- Rapid amortisation
- Enhanced production quality
- Fewer rejects
- Low mould wear
- Reduced maintenance cost

Be ahead through innovation.

Magnetic clamping technique made by

HILMA
System: RVI MAGNETICS

Test-run on exacting courses.

M-TECS clamping systems were first used in the ceramics industry. In this environment, where conditions are much rougher than in injection moulding, they have been widely applied and have handsomely stood the test. M-TECS 130 and M-TECS 210 have proved demonstrably convincing in terms of power, safety, and reliability. With their intriguing logic, both systems provide the most flexible and user-friendly handling.

Based on more than 30 years’ experience in the field of magnetic clamping systems, M-TECS products have achieved a technological lead in the market.

Quick change systems for any application

Hydraulic clamping elements
Couplings and multi-couplings
Die changing carts

Consoles, ball and roller wedges, accessories

M-TECS
Magnetic clamping technique

Plastics processing, thermoplastics
Rubber processing, thermosetting plastics + elastomers
Diecasting industry
Metal forming

Quick change systems for any application

Hydraulic clamping elements
Couplings and multi-couplings
Die changing carts

Consoles, ball and roller wedges, accessories

M-TECS magnetic plates ensure maximum power concentration. If a die does not perfectly fit the magnetic plate surface, forces are directed to the clamping area, precisely where they are needed. This gives you maximum safety - a clear benefit particularly for small or medium moulds.

Also, large moulds are safely kept in place with the highest clamping forces. However for all types of machines, relocating takes just a matter of minutes. The solid webs between the poles result in outstanding rigidity of the structure which has a positive effect on product quality, tool wear and, as a consequence, on tool maintenance cost.

Please contact us if you would like further information such as technical data sheets or spreadsheets for ROI calculations. Also, we will be pleased to provide sample calculations of investment cost and amortisation times, tailored to your application.

We are members of the Römheld Group, and we benefit from numerous synergies which result from co-operation between companies specialising in various branches of technology. In our relationships we are globally orientated and we act as partners with industrial customers in many countries worldwide.
The quick change system for thermoplastics. Temperature resistant up to 130°C

M-TECS 130

Technical data

<table>
<thead>
<tr>
<th>M-TECS 130</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. temperature</td>
</tr>
<tr>
<td>Basic magnetic force</td>
</tr>
<tr>
<td>Effect magnetic force (E)</td>
</tr>
<tr>
<td>Magnetic penetration depth</td>
</tr>
</tbody>
</table>

M-TECS 130

M-TECS 130 being stable up to 130°C largely covers the whole temperature range that may occur in the thermoplastics processing industry. The magnetic poles have been designed to build up an actual clamping force of 18 kg/cm².

High quality materials are used for the long pole design which is based on a double-magnet technique. Its outstanding power concentration makes the system much stronger than any comparable magnetic plates.

M-TECS 130 is a magnetic clamping technique that sets standards for the plastics processing industry. Even the smallest dies are securely held. Due to the long pole concentration effect maximum power, and perfect reliability.

M-TECS being able to withstand extreme clamping forces...
Good start. Swift change.

Small batches entail frequent die change. Whenever only few parts are required, M-TECS magnetic clamping technique provides a clear competitive advantage by reducing down times and set-up costs, and hence increase your productivity.

M-TECS is a magnetic clamping technique that sets standards for magnetic quick change systems for the plastics processing industry. M-TECS 130 and M-TECS 210 operate with an electric permanent magnet technique. Special long poles give maximum safety, maximum power, and perfect reliability.

M-TECS 130 being stable up to 130°C largely covers the whole temperature range that may occur in the thermoplastics processing industry. The magnetic poles have been designed to build up an actual clamping force of 15 kg/cm². Highest quality materials are used for the long pole design which is based on a doubled magnet technique. Its outstanding power concentration makes the system much stronger than any comparable magnetic plates.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with the mould at all. This is both convenient and safe.

M-TECS magnetic clamping systems provide evident benefits: Injection moulds, even if not standardised, can be easily and swiftly changed without need for retooling. As a result of a clamping force which is evenly distributed all over the clamping surface, tool wear is considerably reduced which means lower tool maintenance costs. With no moving parts, the system itself is basically maintenance-free. It is suitable for retrofitting on existing injection moulding machines or incorporating into new machines.

The quick change system for thermoplastics. Temperature resistant up to 130°C

The magnetic plates have a complete magnetic penetration depth of 15-20 mm, giving full surface contact and more homogeneous}

Guaranteed adaptability to any power level and any system design. Both M-TECS 130 and M-TECS 210 have been CE tested and comply with the provisions of the applicable machine guidelines. The magnetic plates can be designed to fit various tool systems. With their highly flexible layout, they may be adapted to suit a large range of sizes and shapes. Each pole can be considered as an independent power source. Only for release the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate. The integrated electronic control monitors the magnetic force and the tool centre and protects the system from overheating. This is our concept of advanced safety for man and machine.

From the weather side are ensuring safety. Since the long pole concentrates effect, maximum magnetic penetration depth is up to 15-20 mm.

M-TECS 130 – an exceptional concentration of force:

Highly qualified materials, magnets generate the required magnetic clamping force so that the system operates independently of any power source. Only for releasing the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.

M-TECS magnetic clamping systems provide evident benefits: Injection moulds, even if not standardised, can be easily and swiftly changed without need for retooling. As a result of a clamping force which is evenly distributed all over the clamping surface, tool wear is considerably reduced which means lower tool maintenance costs. With no moving parts, the system itself is basically maintenance-free. It is suitable for retrofitting on existing injection moulding machines or incorporating into new machines.

The quick change system for thermoplastics. Temperature resistant up to 130°C

The magnetic plates have a complete magnetic penetration depth of 15-20 mm, giving full surface contact and more homogeneous

Guaranteed adaptability to any power level and any system design. Both M-TECS 130 and M-TECS 210 have been CE tested and comply with the provisions of the applicable machine guidelines. The magnetic plates can be designed to fit various tool systems. With their highly flexible layout, they may be adapted to suit a large range of sizes and shapes. Each pole can be considered as an independent power source. Only for releasing the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate. The integrated electronic control monitors the magnetic force and the tool centre and protects the system from overheating. This is our concept of advanced safety for man and machine.

From the weather side are ensuring safety. Since the long pole concentrates effect, maximum magnetic penetration depth is up to 15-20 mm.

M-TECS 130 – an exceptional concentration of force:

Highly qualified materials, magnets generate the required magnetic clamping force so that the system operates independently of any power source. Only for releasing the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.

M-TECS magnetic clamping systems provide evident benefits: Injection moulds, even if not standardised, can be easily and swiftly changed without need for retooling. As a result of a clamping force which is evenly distributed all over the clamping surface, tool wear is considerably reduced which means lower tool maintenance costs. With no moving parts, the system itself is basically maintenance-free. It is suitable for retrofitting on existing injection moulding machines or incorporating into new machines.

The quick change system for thermoplastics. Temperature resistant up to 130°C

The magnetic plates have a complete magnetic penetration depth of 15-20 mm, giving full surface contact and more homogeneous

Guaranteed adaptability to any power level and any system design. Both M-TECS 130 and M-TECS 210 have been CE tested and comply with the provisions of the applicable machine guidelines. The magnetic plates can be designed to fit various tool systems. With their highly flexible layout, they may be adapted to suit a large range of sizes and shapes. Each pole can be considered as an independent power source. Only for releasing the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate. The integrated electronic control monitors the magnetic force and the tool centre and protects the system from overheating. This is our concept of advanced safety for man and machine.

From the weather side are ensuring safety. Since the long pole concentrates effect, maximum magnetic penetration depth is up to 15-20 mm.

M-TECS 130 – an exceptional concentration of force:

Highly qualified materials, magnets generate the required magnetic clamping force so that the system operates independently of any power source. Only for releasing the mould is electric power required again (for 1-2 seconds) in order to demagnetize the clamping plate.

M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.
Good start. Swift change.

M-TECS 130

The quick change system for thermoplastics. Temperature resistant up to 130°C

- Powerful, rapid tool-free.
- Ideal for processing thermoplastics, duroplastics or rubbers.
- The systems are designed to suit all types of machines (both horizontal and vertical) and can be easily retrofitting. Relatively low investment cost and short amortisation times will convince all those who depend on flexibility and speed in the plastics processing industry.

- M-TECS magnetic clamping technique provides evident benefits: injection moulds, even if not standardised, can be easily and swiftly changed without need for retooling. As a result of a clamping force which is widely distributed all over the clamping surface, tool wear is considerably reduced which means lower tool maintenance costs. With moving parts, the system itself is basically maintenance-free. It is suitable for retrofitting on existing injection moulding machines or incorporating into new machines.

- M-TECS 130 being stable up to 130°C largely covers the whole temperature range that may occur in the thermoplastics processing industry. The magnetic poles have been designed to build up an actual clamping force of 18 kg/cm². Highest quality materials are used for the long pole design which is based on a double-magnet technique. Its outstanding power concentration makes the system much stronger than any comparable magnetic plates.

- The quick change system for thermoplastics. Temperature resistant up to 130°C

Technical data

- M-TECS 130
  - Max. temperature: 130°C
  - Spec. magnetic force 18 kg/cm²
  - Magnetic penetration depth 15-20 mm
  - Plate thickness 55 mm

M-TECS 210

The quick change system for elastomer and duroplastics. Temperature resistant up to 210°C (240°C on request)

- Powerful, rapid tool-free.
- Ideal for processing thermoplastics, duroplastics or rubbers.
- The systems are designed to suit all types of machines (both horizontal and vertical) and can be easily retrofitting. Relatively low investment cost and short amortisation times will convince all those who depend on flexibility and speed in the plastics processing industry.

- M-TECS magnetic clamping technique provides evident benefits: injection moulds, even if not standardised, can be easily and swiftly changed without need for retooling. As a result of a clamping force which is widely distributed all over the clamping surface, tool wear is considerably reduced which means lower tool maintenance costs. With moving parts, the system itself is basically maintenance-free. It is suitable for retrofitting on existing injection moulding machines or incorporating into new machines.

- M-TECS 210 opens up brand new paths for the rubber and the duroplastics processing industries. With no downtime or waiting time to cool down or heat up tools, retooling times can sometimes be cut by hours. Using the advanced magnetic clamping technique, moulds can be changed even when they are hot as the operator will not make contact with them at all. This is both convenient and safe.

- The magnetic plates have a complete metal surface. With no T-slot between the heating and the tool, temperatures inside the tool are quite homogeneous, which gives an in-housed production quality.

- A real highlight is the magnetic clamping plate M-TECS 210 with an integral heating plate. Basically, M-TECS 210 is available in various designs, with or without heating, for presses, injection moulding machines or for vacuum techniques.

Technical data

- M-TECS 210
  - Max. temperature: 210°C
  - Spec. magnetic force 18 kg/cm²
  - Magnetic penetration depth 15-20 mm
  - Plate thickness 49 mm

Play for time with M-TECS. Low downtimes. High productivity. Low set-up cost.
Test-run on exacting courses.

M-TECS clamping systems were first used in the ceramics industry. In this environment, where conditions are much rougher than in injection moulding, they have been widely applied and have handsomely stood the test. M-TECS 130 and M-TECS 210 have proved demonstrably convincing in terms of power, safety, and reliability. With their intriguing logic, both systems provide the most flexible and user-friendly handling.

Please contact us if you would like further information such as technical data sheets or spreadsheets for ROI calculation. Also, we will be pleased to provide sample calculations of investment cost and amortisation times, tailored to your application.

We are members of the Römheld Group, and we benefit from numerous synergies which result from co-operation between companies specialising in various branches of technology. In our relationships we are globally orientated and we act as partners with industrial customers in many countries worldwide.
With optimum starting conditions, you’ll make the race.

M-TECS magnetic plates ensure maximum power concentration. If a die does not perfectly fit the magnetic plate surface, forces are directed to the clamping area, precisely where they are needed. This gives you maximum safety – a clear benefit particularly for small or medium moulds. Also, large moulds are safely kept in place with the highest clamping forces. However, for all types of machines, retooling takes just a matter of minutes. The solid webs between the poles result in outstanding rigidity of the structure which has a positive effect on product quality, tool wear and, as a consequence, on tool maintenance cost.

Test-run on exacting courses.

M-TECS clamping systems were first used in the ceramics industry. In this environment, where conditions are much rougher than in injection moulding, they have been widely applied and have handsomely stood the test. M-TECS 130 and M-TECS 210 have proved demonstrably convincing in terms of power, safety, and reliability. With their intriguing logic, both systems provide the most flexible and user-friendly handling.

Based on more than 30 years’ experience in the field of magnetic clamping systems, M-TECS products have achieved a technological lead in the market.

Quick change systems for any application.

What advanced clamping is about:
- Perfect technique
- Short downtimes
- Low set-up cost
- Increased productivity
- Low investment cost
- Rapid amortisation
- Enhanced production quality
- Faster injection
- Less mould wear
- Hence reduced maintenance cost

Be ahead through innovation. Magnetic clamping technique made by Hilma-Römheld GmbH.

Best time for die changing.

Magnetic clamping system on a vertical press for temperatures up to 260 °C.

Please contact us if you would like further information such as technical data sheets or spreadsheets for ROI calculation. Also, we will be pleased to provide sample calculations of investment cost and amortisation times, tailored to your application.

Partners with expertise.

We are members of the Römheld Group, and we benefit from numerous synergies which result from co-operation between companies specialising in various branches of technology. In our relationships we are globally oriented and we act as partners with industrial customers in many countries worldwide.

Hilma-Römheld GmbH
Schloßparkstr. 74
D-57271 Hilchenbach
Fax +49-2733/281-113
www.hilma.de