

## 零点-夹紧模块 VERO-S



### 技术说明:

- 释放应力 6 bar
- 重复夹紧精度 0,005 mm

### 供货:

- 型号 0090:** - 1 零点-夹紧模块-型号 NSE + 90  
 - 2x O-型环  $\varnothing 4 \times 1,5$
- 型号 0138:** - 1 零点-夹紧模块-型号 NSE + 138  
 - 包含: 6 紧固螺栓 DIN EN ISO 4762 - M8 x 45 - 10,9  
 - 3x O-型环  $\varnothing 9 \times 1,5$   
 - 6 防护帽
- 型号 0176:** - 1 零点-夹紧模块-型号 NSE + 176  
 - 包含: 6 紧固螺栓 ISO 4762 - M8 x 45-10,9  
 - 3x O-型环  $\varnothing 9 \times 1,5$   
 - 6 防护帽

\* 带紧固螺栓



### 283004 NSE plus

型号	283004 (RG 2830)	牵引力 kN	附着力* kN	重量 kg
0090	○	2,5   11 带涡轮	35 (M10)	2,4
0138	○	7,5   25 带涡轮	35 (M10)   50 (M12)   75 (M16)	4,4
0176	○	9   40 带涡轮	35 (M10)   50 (M12)   75 (M16)	7,9

## 塔架夹紧模块 VERO-S



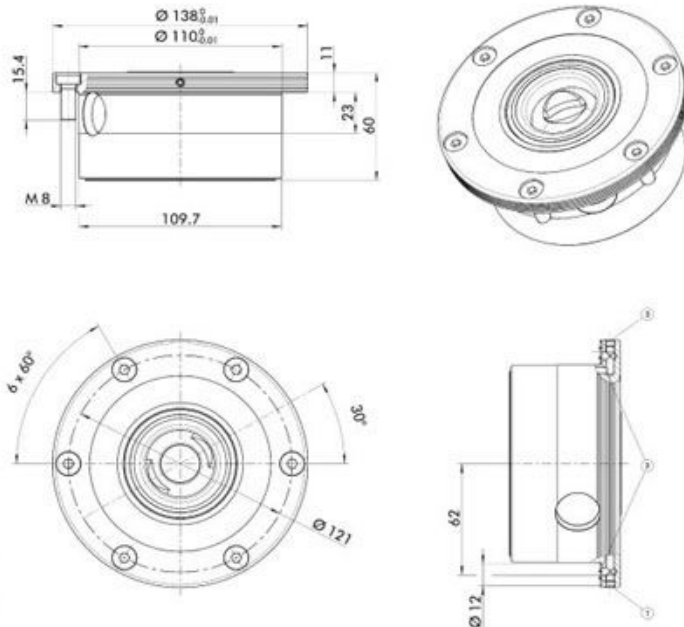
### 技术说明:

- 释放应力 6 bar
- 重复夹紧精度 0,005 mm

### 供货范围:

- 1x 塔架夹紧模块-型号 NSE-T + 138
- 包含: 6x 紧固螺栓 DIN 7984 - M8 x 20-10,9
- 2x O-型环, 直径  $\varnothing 9 \times 1,5$
- 6 防护帽

\* 带紧固螺栓



### 283005 NSE-T plus

型号	283005 (RG 2830)	牵引力 kN	附着力* kN	重量 kg
0138	●	7,5   25 带涡轮	35 (M10)   50 (M12)   75 (M16)	3,7

## 拉紧螺栓 VERO-S



### 技术说明:

- 材料: 不锈钢
- 重量 0,3 kg

\* 带圆柱型螺栓 DIN EN ISO 4762-12.9



### 283007 SPA/SPB/SPC

型号	283007 (RG 2830)	附着力* kN	规格
0005	●	35 (M10)	定心螺栓 SPA
0010	●	35 (M10)	定位螺栓 SPB
0015	●	35 (M10)	带中心主轴的支撑螺栓 0,1 mm SPC
0025	○	50 (M12)	定心螺栓 SPA
0030	○	50 (M12)	定位螺栓 SPB
0035	○	50 (M12)	带中心主轴的支撑螺栓 0,1 mm SPC

## MAGNOS 磁性夹紧技术

适用于粗/精切削加工

SCHUNK开发的MAGNOS磁性夹紧技术夹紧技术的新的应用领域。

MAGNOS是不依赖于系统的新技术，可提供节能、高效、安全的夹紧，适用于所有的普通铣床、磨床、车床和加工中心。

对于铁磁性零件，该磁性夹紧技术可在几秒内。实现完全安全、不变形及无振动的夹持。可节约安装时间，保护刀具，并为加工提供顶级的质量保障。

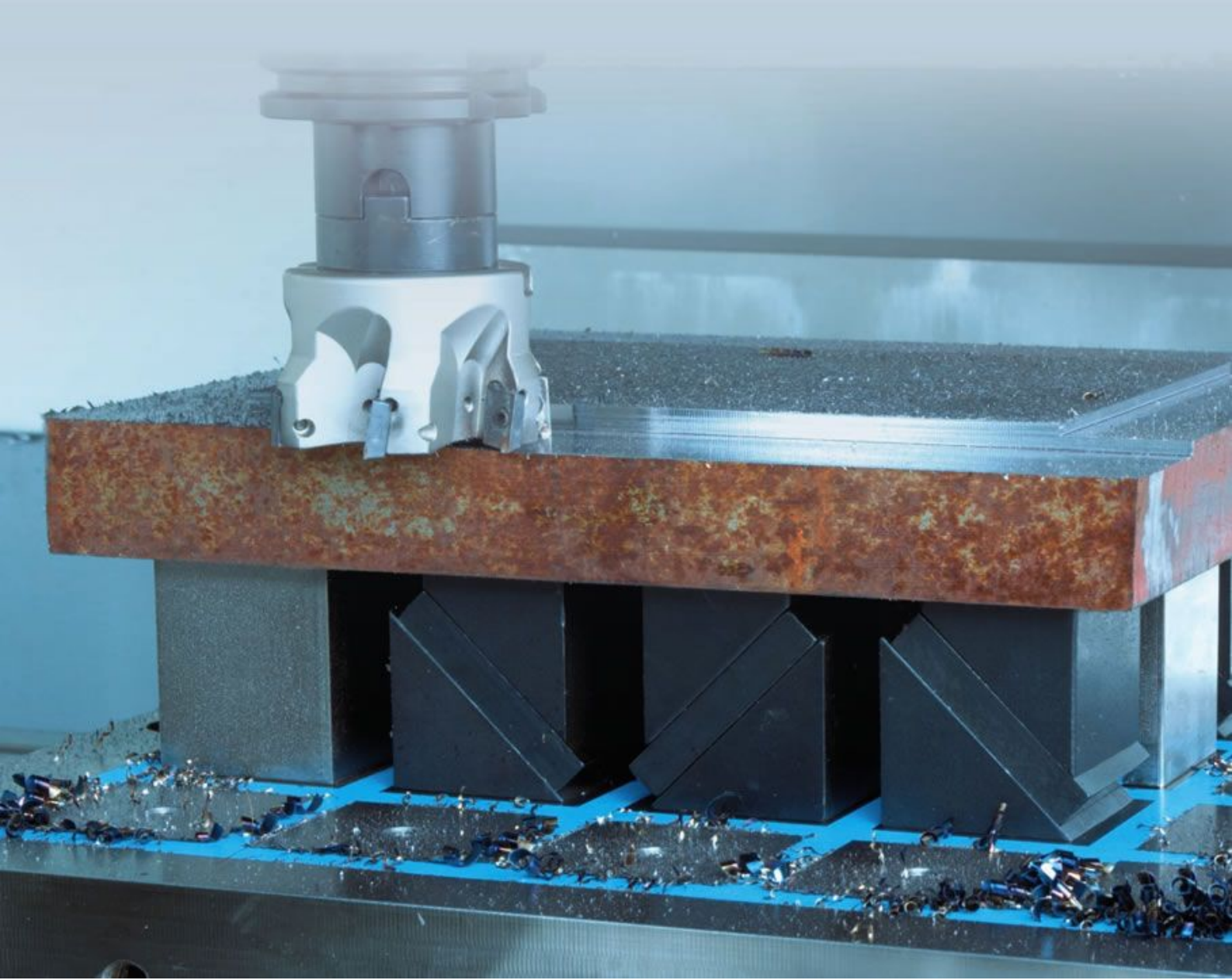
## MAGNOS Magnetic Clamping Technology

For rough and fine machining

MAGNOS magnetic clamping technology completes SCHUNK's range of stationary clamping technology and opens up new applications.

MAGNOS can be used easily on all common milling, grinding, turning and machining centers for energy efficient and process reliable clamping.

The Magnetic Clamping Technology enables a safe deformation and vibration free hold of ferromagnetic workpieces in seconds. This reduces set-up times, preserves tools and ensures highest quality.



## MAGNOS – 构造

细节整合使其具有独特性

MAGNOS 是一個功能強大的電永磁系統，由超高質量的方極組成，南北兩極方極格紋式排列。

方極的磁性是獨立的，由一個鋼芯組成，被可換極點的永久磁鐵(釹)四面環繞，下部還有可換極點的 AlNiCo 磁鐵。

高水平的制造過程，持續的質量控制以及符合CE標準及國際標準，這些保障了我們產品的質量完美，也保障了很長的使用壽命—無磨損，也不會產生維護費用。

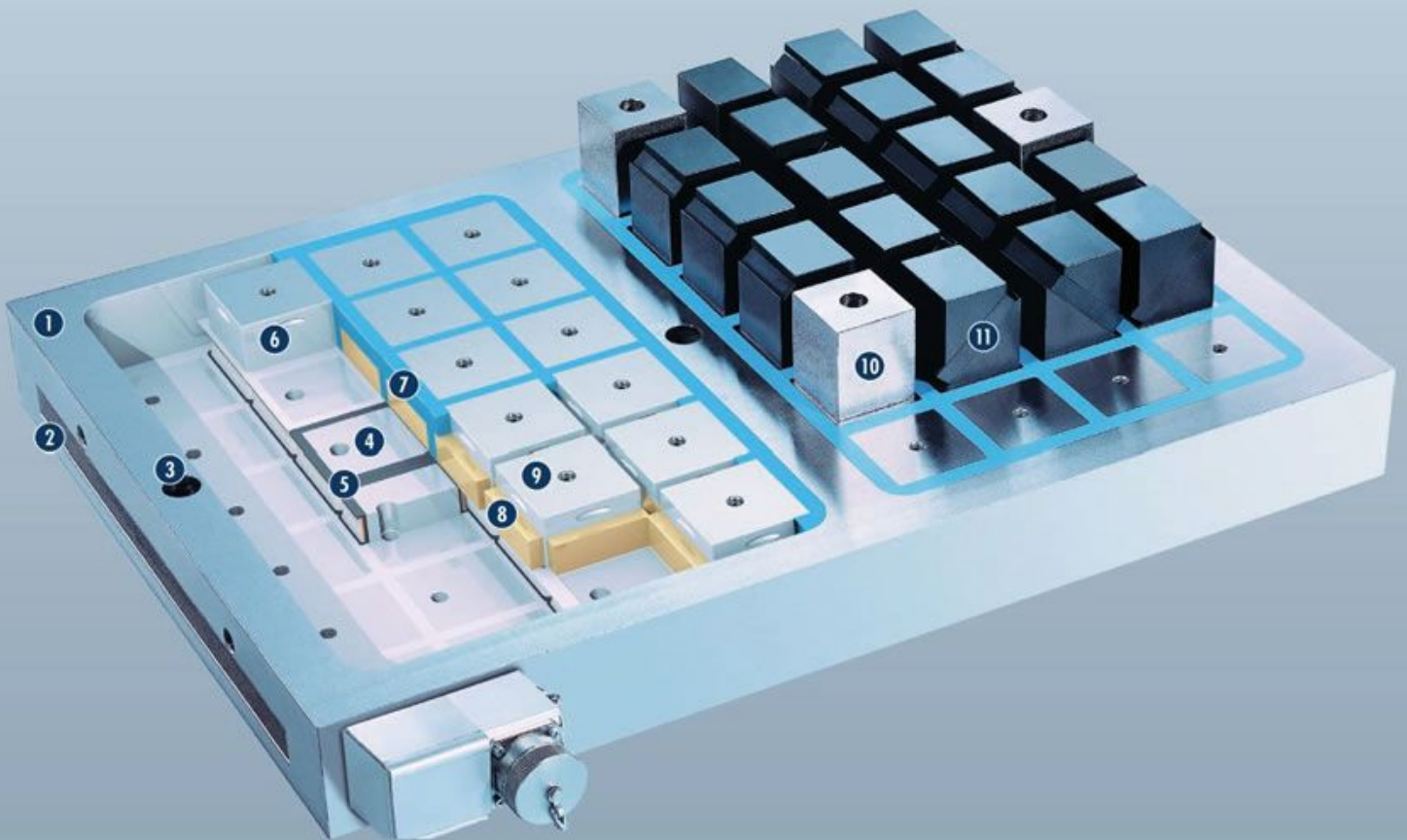
## The structure of MAGNOS

The sum of its details makes it unique

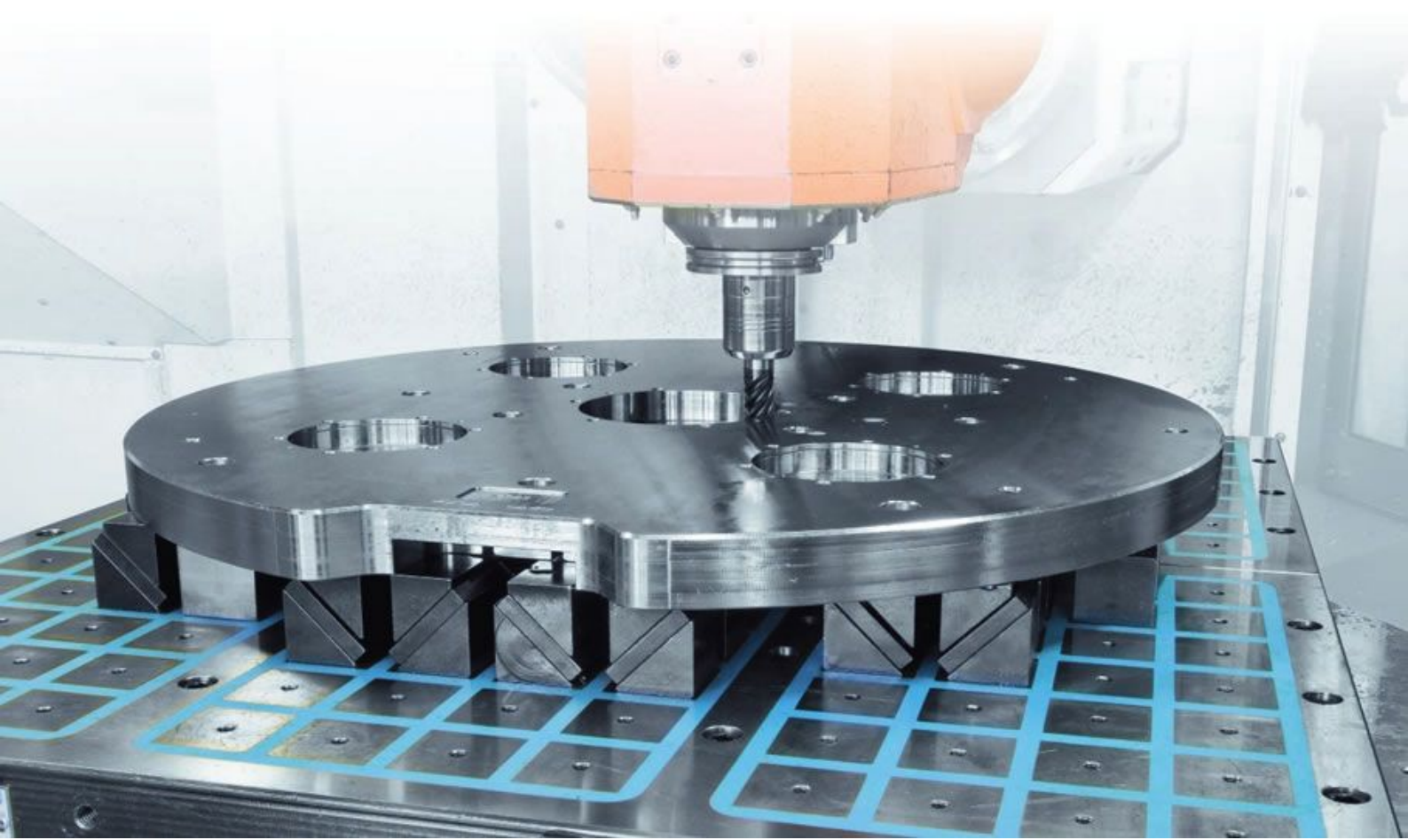
MAGNOS is a high-performance electropermanent magnetic system. It consists of the highest quality square poles, which are arranged as north and south poles in a chess-board formation.

The square poles are magnetically independent and consist of a steel core surrounded on four sides by non-invertible permanent magnets (neodymium). Located below is the reversible AlNiCo magnet.

Advanced production processes, permanent quality controls and the fulfillment of the CE standard as well as international standards guarantee a perfect product quality and a long lifetime – without wear and tear or maintenance expenditures.



- |  |  |
|--|--|
| <p>① 稳固的机体<br/>材料 C45 (镀锌)</p> <p>② 固定槽</p> <p>③ 固定孔</p> <p>④ 插入式薄膜<br/>作为线圈间的绝缘</p> <p>⑤ AlNiCo-磁铁 (磁极可转换)<br/>嵌入在线圈中</p> <p>⑥ 线圈<br/>绝缘设计</p> <p>⑦ 安全<br/>完美的合成树脂</p> <p>⑧ 合成树脂浇注<br/>用于密封板和空腔密封</p> <p>⑨ 钕-磁铁 (磁极不可换)<br/>永久磁铁</p> <p>⑩ 固定极扩展</p> <p>⑪ 移动极扩展 / EASYTURN</p> | <p>① Solid base plate<br/>made of C45 (galvanized)</p> <p>② Fastening groove</p> <p>③ Fastening bore</p> <p>④ Insertable foil<br/>for insulating the coil</p> <p>⑤ (Invertible) AlNiCo magnets<br/>embedded in the coil</p> <p>⑥ Insulated coil<br/>insulated version</p> <p>⑦ Safeguard<br/>to ensure the synthetic resin is perfectly fixed</p> <p>⑧ Synthetic resin grouting<br/>that insulates the plate and seals cavities</p> <p>⑨ Neodymium magnets (not invertible)<br/>permanent magnets</p> <p>⑩ Fixed pole extensions</p> <p>⑪ Movable pole extensions / EASYTURN</p> |
|--|--|



## MAGNOS 具有显著的优势

### 一次夹紧 可对工件进行5个面加工

通过工件的一个平面支座，把工件固定在 MAGNOS 磁性夹紧盘上，其他的五个面可以被圆周形式的运动进行加工。

### 最短的安装时间和 显著提高工作效率

通过MAGNOS，工件可在几秒内被夹紧，夹紧元件的微调或加工过程中工件的重新夹紧 都会消耗很多安装时间以及增加设备停机时间。

### 提高刀具寿命和 制造过程安全性

通过工件的一个平面支座，把工件固定在 MAGNOS 磁性夹紧盘上，其他的五个面可以被圆周形式的运动进行加工。

### 投资成本低， 灵活、独立

MAGNOS具有独立于设备的应用性，无需预先设置，不需要预先的系统设计和系统集成，也无需嵌接在设备程序内。

## MAGNOS offers key advantages

### Workpiece processing from 5 sides in just one setup

As the workpieces can be placed flat onto the MAGNOS magnetic chuck, all five sides of the workpiece can be easily accessed and worked on in a single setup.

### Shortest possible setup times and a resulting increase in productivity

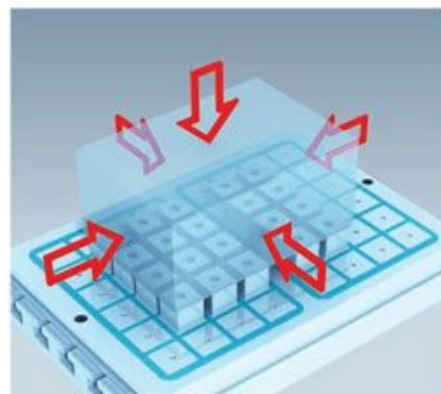
With MAGNOS, the workpiece can be clamped with-in seconds. It is no longer necessary to spend time on the fine adjustment of the clamping elements or on changing the setup of the workpiece while it is being processed – nor are time-intensive setup periods and machine downtimes required.

### Increased tool life and process safety

The permanent magnetic clamping force is applied uniformly across the entire workpiece, thereby effectively minimizing vibrations. This improves surface finishes and increases precision significantly.

### Low investment outlays, flexible and independent

MAGNOS can be used independently from the type of machine, does not require any previous planning and does not depend on a technology system or any specific system interfaces. Interventions in the machine programming are not necessary.



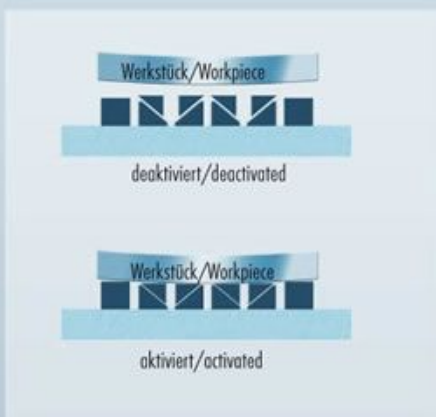


## 通过保护性夹紧 不会产生变形

薄壁工件或敏感工件将通过MAGNOS系统夹持力谨慎和安全夹紧。不会挤压工件，通过一点点的夹紧，不会损伤工件表面，可以作为传统夹紧装置。

## Gentle clamping means no deformations

Thin-walled or sensitive workpieces are clamped gently yet safely by the magnetic clamping force of MAGNOS. The workpiece neither warps nor twists, nor is it crushed because of force applied to a point. Surfaces are protected from the type of damage that may result when using traditional clamping technologies.



## 与工件轮廓 完美契合的加紧

任何形状的工件都可以通过MAGNOS极点扩展被完美夹紧。极点的扩展是为了更好地适应工件形状使得可稳固在夹紧面上，以便对其他5个面以圆周运动的方式进行加工。

## Adapts perfectly to the contours of the workpiece

Workpieces of any structure can be perfectly clamped using MAGNOS pole extensions. The pole extensions adapt perfectly to the contours of the workpiece – the workpiece is supported and rests solidly on the extensions, enabling it to be processed from all 5 sides.



## MAGNOS – 控制器 KEH

电子 MAGNOS 控制器可以激活或关闭夹紧装置。通过一个在控制器内适合特殊密封的快速接口，把控制器和夹紧盘连接在一起。

该控制器的特点在于，紧凑和坚固的结构设计，以及简便的操作性。控制器带有手动控制装置，或根据需求提供一个符合工业设计的遥控器。根据磁性夹紧盘的不同尺寸和结构，可提供 1, 2 和 4 线路设计的控制器。

## MAGNOS – KEH control unit

The electronic MAGNOS control units allow you to activate or deactivate the magnetic chucks. A specially sealed quick-release connector, which is integrated into the control units, connects the unit to the magnetic chuck.

The control unit is characterized by its compact and robust construction and ease of use. The control units are default-fitted with a manual control, but can be fitted with a robust, industrial-grade remote control upon request. Depending on the size or configurations of the magnetic chucks, they are available as 1, 2 or 4 channel versions.



## 283009 铝合金

型号	283009 (RG 2830)	重量 kg	适用于
0005	○	0,1	NSE plus 90 NSE plus 138 NSE plus 176
0010	●	0,5	NSE plus 138
0015	○	0,7	NSE plus 176

## 钢板弹簧夹毛坯 SDE

## 技术说明:

- 经客户精加工的固定孔

## 283009 钢质

型号	283009 (RG 2830)	重量 kg	适用于
0150	○	0,5	NSL plus 150   NSL plus 200   NSL plus 400   NSL plus 600   NSL plus 800 NSD plus 150   NSD plus 200

## 防护帽 SDE

## 应用:

- 6 块



## 283009 防护帽

型号	283009 (RG 2830)	适用于
0200	○	M8 高头
0210	○	M8 低头

## 中心球形帽 SDE



## 283009 中心球形帽

型号	283009 (RG 2830)	适用于
0300	○	NSD 150   NSD 200