

# MAGNOS E compact The economical introduction to magnetic clamping technology

Hand in hand for tomorrow

# MAGNOS E compact

# Everything you need, for a small budget, for medium & large workpieces



MAGNOS square pole technology is the ideal clamping solution for powerful cutting processes. It can be used with any system and offers energy-efficient, processcapable clamping for all common milling, grinding, and machining centers.



# Pole extension for any workpiece geometry

Fixed and movable pole extensions ensure that the magnetic chuck locating surface can be perfectly adjusted to the workpiece, thus ensuring deformation-free clamping. Using the pole extensions, the workpiece can be fully machined from 5 sides in just one operation.



#### MAGNOS control unit KSS-EC 01

The control unit KSS-EC 01 can be used to control a magnetic chuck. The magnetic chucks only require a short pulse for clamping and releasing. This is achieved via simple actuation via a hand-held remote control.



## The benefits at a glance

- The economical entry into magnetic clamping technology with MAGNOS E compact
- 5-sided workpiece machining in one set-up Higher accuracy by setting up once and optimal accessibility of the machine spindle

MAGNOS control unit KEH-EC 04

SCHUNK

The control unit KEH–EC 04 can be used to control up to four magnetic chucks. Using the connection box facilitates easy installation. The magnetic chucks only require a short pulse for clamping and releasing. This is achieved via actuation on the hand remote control. On the control unit, the individual magnetic chucks can be selected using the switches. In addition, the KEH–EC 04 offers the option of machine integration via the PLC connection.

- No deformation due to gentle workpiece clamping
- Shortest possible set-up times and a resulting increase in productivity
- Clamping within a few seconds
- Increase in tool life and process capability

## MAGNOS E compact in comparison

Characteristics	MAGNOS E compact	MAGNOS standard chucks
Patented status display for clamping status	no	yes
Holding force	max. 3,925 kN per pole	max. 3,925 kN per pole
Height of the magnetic chuck	52 mm	66 mm
Mechanical rigidity/stability	++	+++
Regrindability of the magnetic chuck	3 mm	5 mm
Accessory pole extensions	+	+++
VERO-S interface	no	yes
Modular control unit	no	yes
Easy replacement of spare parts	+	+++
Plastic coating on the cable	no	yes
Optional: fixed cable connection	no	yes
Optional: drill holes suitable for machine table	no	yes
Optional: connection block in a different position	no	yes
Expansion technology	no	yes
Visual display MAG-DEMAG status	no	yes
Li Laveellant Li vongend Ligend		

+++ excellent ++ very good + good

### **Equipped by SCHUNK**

#### CNC universal milling machine

Task:	Machining hardened rings made of X37 CrMoV5-1
Solution:	Magnetic chucks of type MFR-A1 1000 x 600 x 66 mm, pole size 50 x 50 mm
Advantage:	Reduction in production times by approx. 60%, vibration-free clamping



#### CNC universal milling machine

Task:	Face milling steel plates ST 52
Solution:	2 magnetic chucks of type MFR-A1 750 x 480 x 66 mm pole size 50 x 50 mm. Additional 60 pole extensions 50 x 50 mm, controlled in parallel
Advantage:	Plane parallelism < 0.02 mm along a length of 1.2 m due to vibration-free clam- ping. Optimum 5-side accessibility and savings on set-up time of 30%

#### Vertical machining center

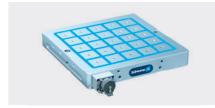
Task:	Machining large plates
Solution:	4 magnetic chucks of type MFR-A1 800 x 500 x 66 mm, pole size 50 x 50 mm
Advantage:	Grinding operations no longer necessary due to flatness of < 0.05 mm over the length of 1.4 m



#### Horizontal machining center

Task:	Machining a medium sized cast angle (GG25)
Solution:	Magnetic chucks of type MFR-A2 600 x 400 x 85 mm, pole size 50 x 50 mm
Advantage:	4-sided machining in one clamping, optimum access to the workpiece

#### **Magnetic chucks**



Designation	ID	L [mm]	<b>B</b> [mm]	H [mm]	Number of poles	Max. total holding force [kN]	<b>Price</b> \$ Each
MFR-EC-A1-050 370X370	46000431	370	370	52	25	98	\$3400.00
MFR-EC-A1-050 580X370	46000430	580	370	52	40	157	\$5054.00
MFR-EC-A1-050 800X370	46000432	800	370	52	50	196	\$6574.00
MFR-EC-A1-050 800X450	46000433	800	450	52	60	236	\$8113.00
MFR-EC-A1-050 980X580	1341759	980	580	52	84	330	\$12825.00

#### Control unit for a magnetic chuck



Designation	ID	L [mm]	<b>B</b> [mm]	H [mm]	Connection	<b>Price</b> \$ Each
KSS-EC-01 400V/50Hz	0422610	300	150	77	1x 4-PIN	\$1939.00
• No PLC connection						

#### Control unit for four magnetic chucks with connection box



Designation	ID	L [mm]	<b>B</b> [mm]	H [mm]	Connection	<b>Price</b> \$ Each
KEH-EC-04 400V/50Hz	1342947	400	300	120	4x 4-PIN	\$6005.00
• with connection box t	for installatio	n				

• PLC connection possible

• Selecting each magnetic clamping plate to control unit possible

#### **Pole extensions**



Designation ID		Description	<b>Price</b> \$ Each	
1x PVF-EC 50-32	0422391	Fixed pole extension, 50 x 50 x 32 mm with a through bore and screw M8	\$24.00	
1x PVB-EC 50-32	0422392	Flexible pole extension, 52 x 45 x 32 mm with a through bore and screw M8, stroke 5 mm to compensate for workpiece unevenness	\$75.00	



### Test the new MAGNOS App

Makes everyday work easier with MAGNOS magnetic chucks thanks to the simple calculation of holding forces - test 6 months for free now

#### It's that easy:

Send an email with the following information: Company name, first and last name, function, e-mail address, language (DE / EN / FR / ES / IT). To: magnetspanntechnik@de.schunk.com

You will then receive your free access for 6 months by email.

# SCHUNK

Toolholding | Workholding **Gripping Technology** Automation Technology

#### **Official Partner For Australia**



#### **Romheld Automation Pty Ltd** Unit 7, 62 Turner Road, Smeaton Grange NSW 2567

**D** +61 2 9721 1799 P +61 1800 465 348 romheld.com.au



SCHUNK Intec Pty Ltd: Unit 4, 62 Turner Rd, Smeaton Grange NSW 2567 Australia T.+61 2 4666 2418 E. info@au.schunk.com