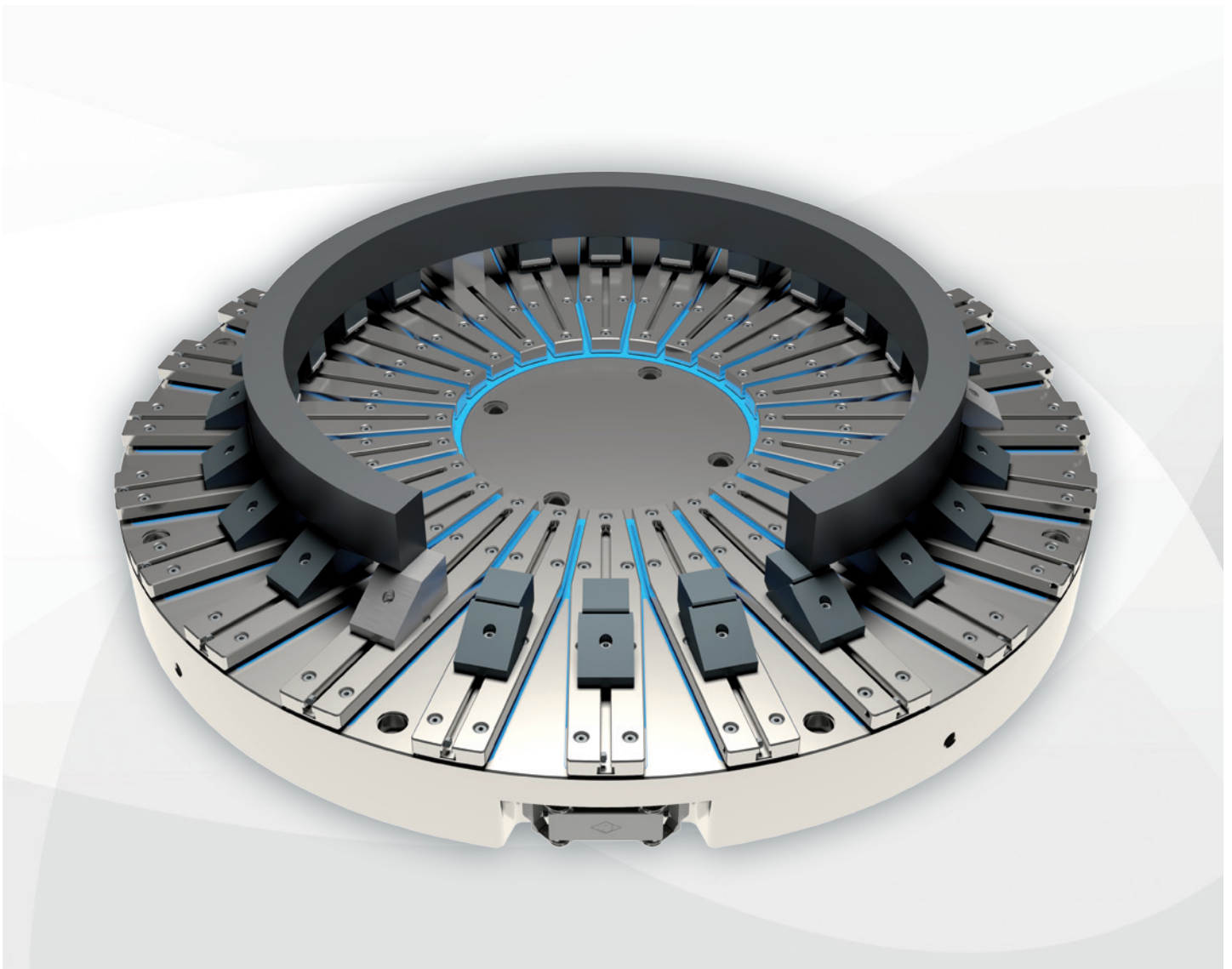


MTR – MGT

ELECTRO-PERMANENT TURNING SYSTEM



ELECTRO-PERMANENT MAGNETIC CHUCKS WITH RADIAL POLE

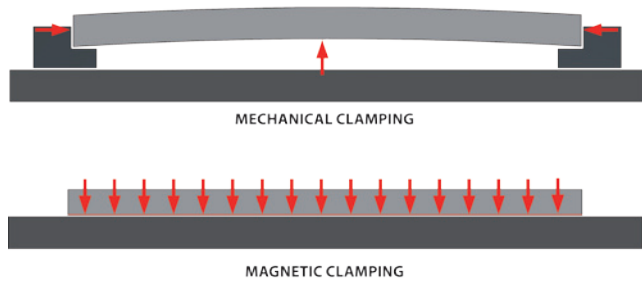


Mainly used in the production of medium and to large sized rings for roller bearings, cogwheels, thrust bearings turbine diffusers etc.

Our **electro-permanent solutions** allow the work-piece to be clamped quickly without deforming it, processing it in a single positioning with final accuracy (axiality and circularity) and with very short set up and clamping times.

ADVANTAGES

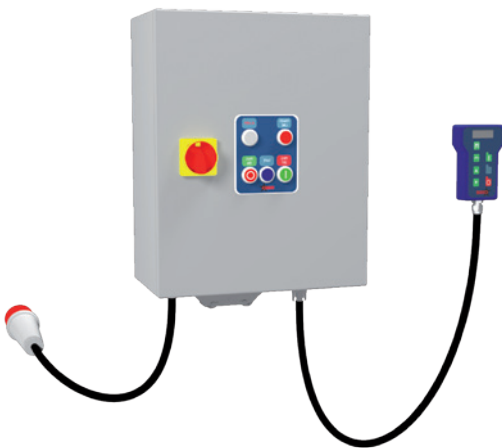
UNIFORM CLAMPING



Unlike brackets and vices, which only act on the work-piece with concentrated forces, the magnetic chuck clamps evenly its entire contact surface.

This type of clamping allows the complete elimination of vibrations during machining, improves the finishing quality, optimises speed and reduces the wear of tools.

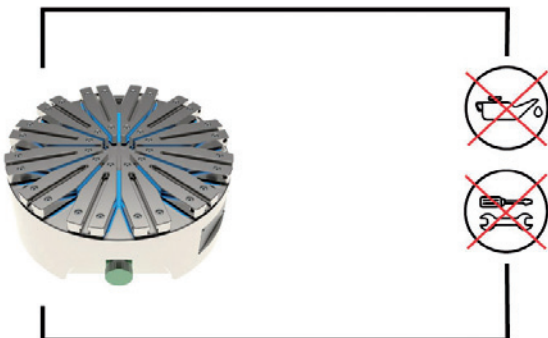
TOTAL SAFETY UNIFORM CLAMPING



The energy absorption is limited to the magnetisation and demagnetisation cycles only.

The control units are designed and manufactured to meet the most modern quality and safety criteria. They can be easily interfaced with external systems (PLC) to manage and receive feedback on the state of the magnetic chuck at all times.

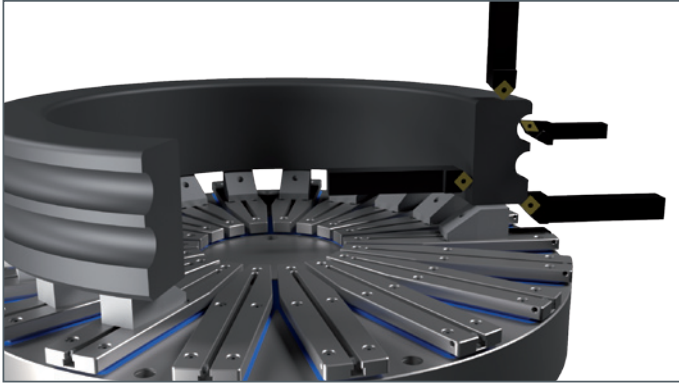
REDUCED MAINTENANCE COMPARED TO CONVENTIONAL SYSTEMS



The electro-permanent magnetic chuck does not require any ordinary maintenance and has no internal components subject to mechanical wear.

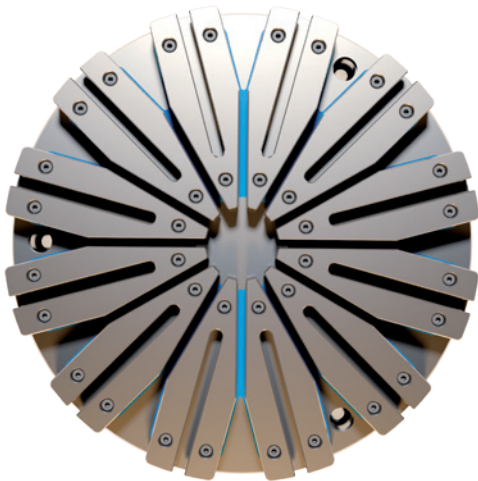
ADVANTAGES

MACHINING IN A SINGLE SETUP



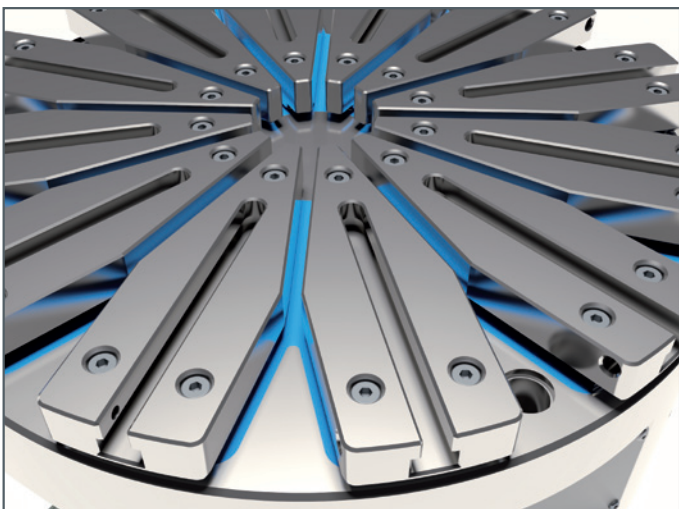
Thanks to the absence of bulky components conventional clamping systems are composed of, this magnetic system allows wide access to the machinable areas of the work-piece.

RADIAL POLARITY



Radial polarity guarantees the correct polar stability for when clamping work-pieces such as disc rings, even those of irregular geometry.

UPPER POLES SHOES WITH T-SLOT



Turning chucks with upper pole shoes are adaptable to various configurations thanks to the addition of accessories such as pole extensions.

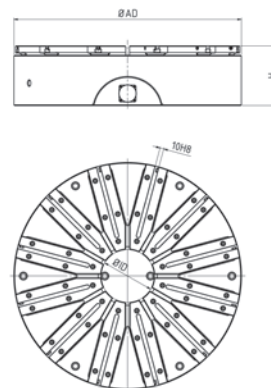
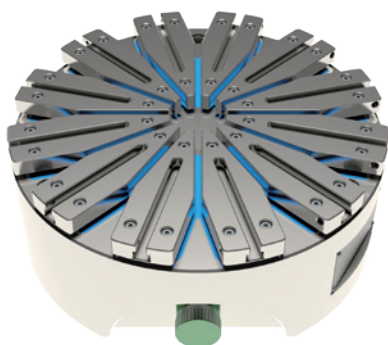
They also guarantee increased durability, as well as individual replacement of the upper pole shoe.

MTR

RADIAL CHUCK FOR HEAVY TURNING

Electropermanent chuck for high removal rates and/or high productivity in terms of work-pieces per hour, with ALNICO structure plus additional Neodymium

magnets, allowing a polarity reversal in a fraction of a second. Suitable for clamping forged work-pieces with rough or deformed clamping surfaces.



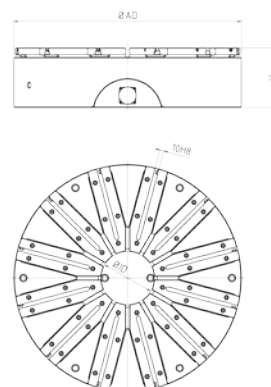
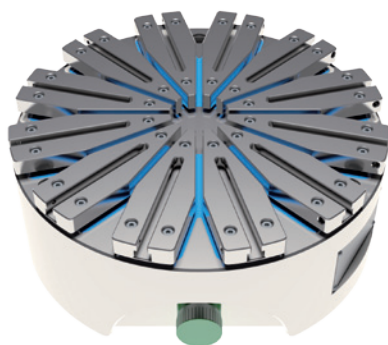
MODEL	CODE	ØAD (mm)	ØID (mm)	H (mm)	N. Of poles	Weight (kg)	Maximum clamping force (n/cm ²)	Connection	N. of channels	Max rpm (min-1)
MTR-IC Ø400	HP44.149	400	60	158	12	140	160	7-PIN	1	1000
MTR-IC Ø500	HP44.150	500	70	158	12	220	160	7-PIN	1	800
MTR-IC Ø600	HP44.151	600	140	158	12	300	160	7-PIN	1	650
MTR-IC Ø800	HP44.152	800	250	142	18	500	160	7-PIN	2	500
MTR-IC Ø1000	HP44.153	1000	250	142	18	700	160	7-PIN	2	400

MGT

RADIAL CHUCK FOR GENERAL TURNING OPERATIONS

Electro-permanent chuck for medium and fine finishing operations on all types of carbon or alloy steels, tempered and hardened, with direct clamping

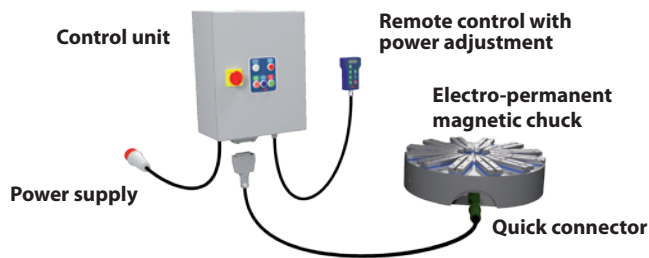
or with intermediate pole extensions. They have a double alnico structure with no remanence after the demagnetisation cycle.



MODEL	CODE	ØAD (mm)	ØID (mm)	H (mm)	N. Of poles	Weight (kg)	Maximum clamping force (n/cm ²)	Connection	N. of channels	Max rpm (min-1)
MGT-IC Ø600	HP42.108	600	140	158	12	290	160	7-PIN	1	650
MGT-IC Ø800	HP42.109	800	250	142	18	460	160	7-PIN	3	500
MGT-IC Ø1000	HP42.110	1000	250	142	18	720	160	7-PIN	3	400
MGT-IC Ø1250	HP42.111	1250	400	142	24	1120	160	ILME	6	300
MGT-IC Ø1600	HP42.112	1600	600	142	32	1900	160	ILME	8	250

FLEXIBLE SYSTEM FOR VARIOUS REQUIREMENTS

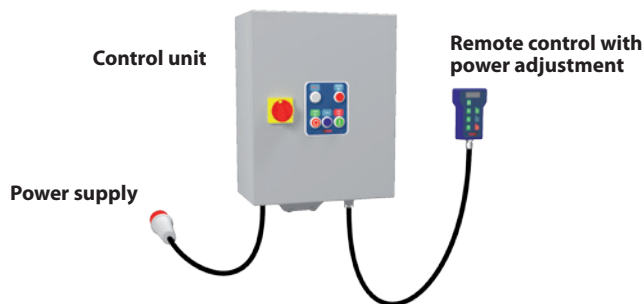
STANDARD SUPPLY



The electro-permanent chucks for turning operations are supplied with an electronic control unit featuring a remote power control panel with power adjustment, and with sturdy quick connector and watertight closure for the work machining phases. The holes for fastening the chuck to the machine are included.

The slip ring solution for permanent installations is available on demand.

CONTROL UNIT KEH PLUS



These electronic control units are designed and manufactured to meet the most modern quality and safety criteria.

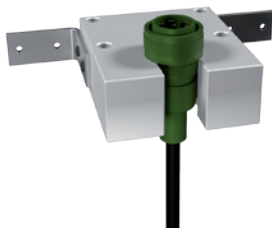
They are supplied in a metal box that can be easily installed for a better integration with the tool machine tool. They feature furthermore a remote control enabling the magnetisation, demagnetisation and the adjustment of the clamping force on 16 levels.

SIGNAL TOWER

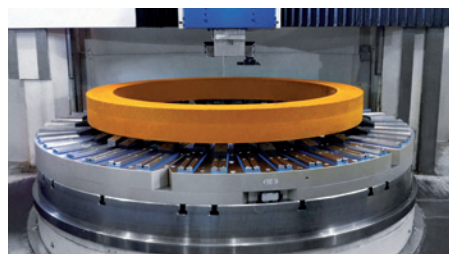
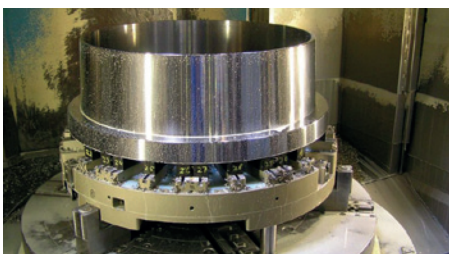


On demand, it is possible to install a signal tower with four lamps, to for the remote monitoring of the magnetic system status.

DOCKING STATION



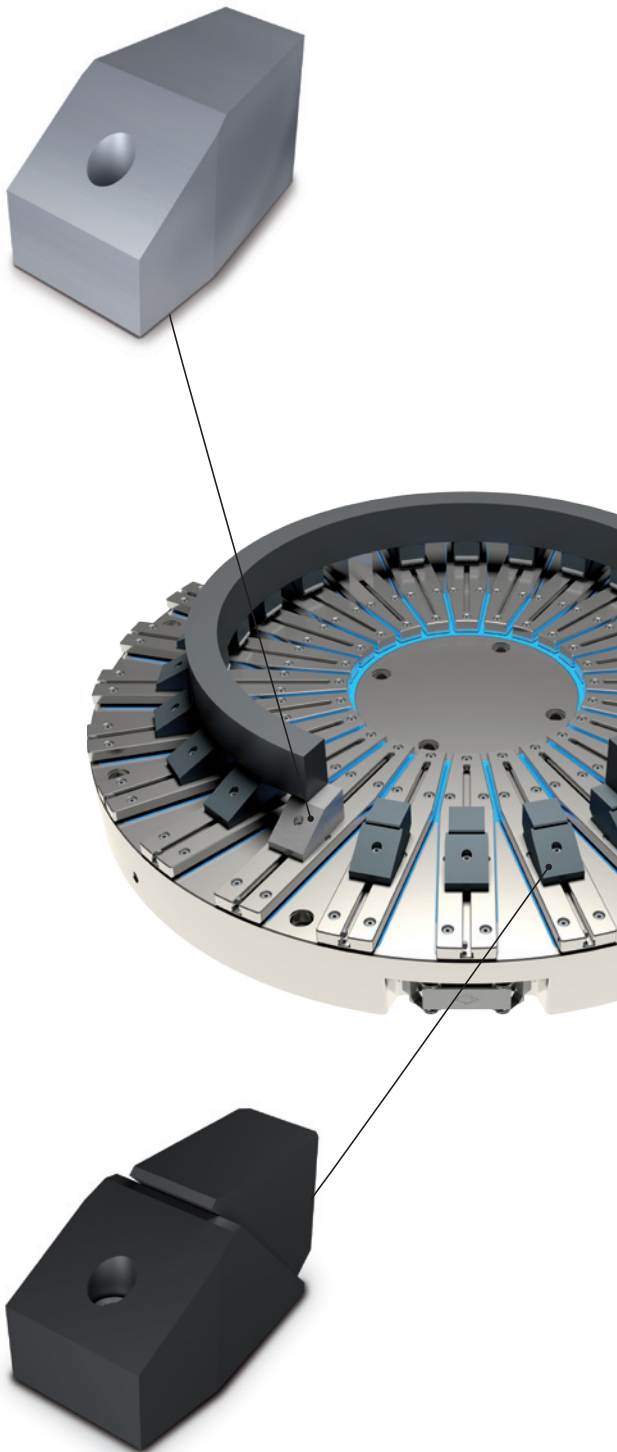
As an additional accessory for chucks with quick-connectors a connector support with anti-tear and anti-rotation function is also available on demand.



FLEXIBLE SYSTEM FOR VARIOUS REQUIREMENTS

POLE EXTENSIONS

FIXED



The use of pole extensions increases the distance between the chuck and the work-piece by maximising access to the free surfaces of the work-piece for through-hole drilling and complete longitudinal turning.

The extensions are designed and manufactured to ensure the most efficient magnetic flux transmission and optimal mechanical reliability. They can also be easily positioned radially on the upper poles and are available in three different sizes to guarantee maximum extent of the clamping surfaces.

MODEL	CODE	BASE	H
RVF-30-54	0422620	30x90	54
RVF-50-54	0422621	50x110	54
RVF-70-54	0422622	70x150	54

FLEXIBLE

The flexible pole extensions, consisting of a lower part fixed to the poles and a sliding upper part, allow, in addition to the fixed ones, the height adjustment of the working surface of the chuck compensating for any deformation of the work-piece (automatic thickness adjustment).

The work-piece must rest on at least three suitably established fixed points which will act as a constant reference point for the work surface.

- **Simple automatic support for irregular work-pieces**
- **Compensating different workpiece heights**
- **Magnetic field evenly distributed throughout the work-piece**
- **Secure grip without deformations**

MODEL	CODE	BASE	NOMINAL HEIGHT	H MIN	H MAX
RVB-30-54	0422623	30x90	54	49	56
RVB-50-54	0422624	50x110	54	49	56
RVB-70-54	0422625	70x150	54	49	56



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