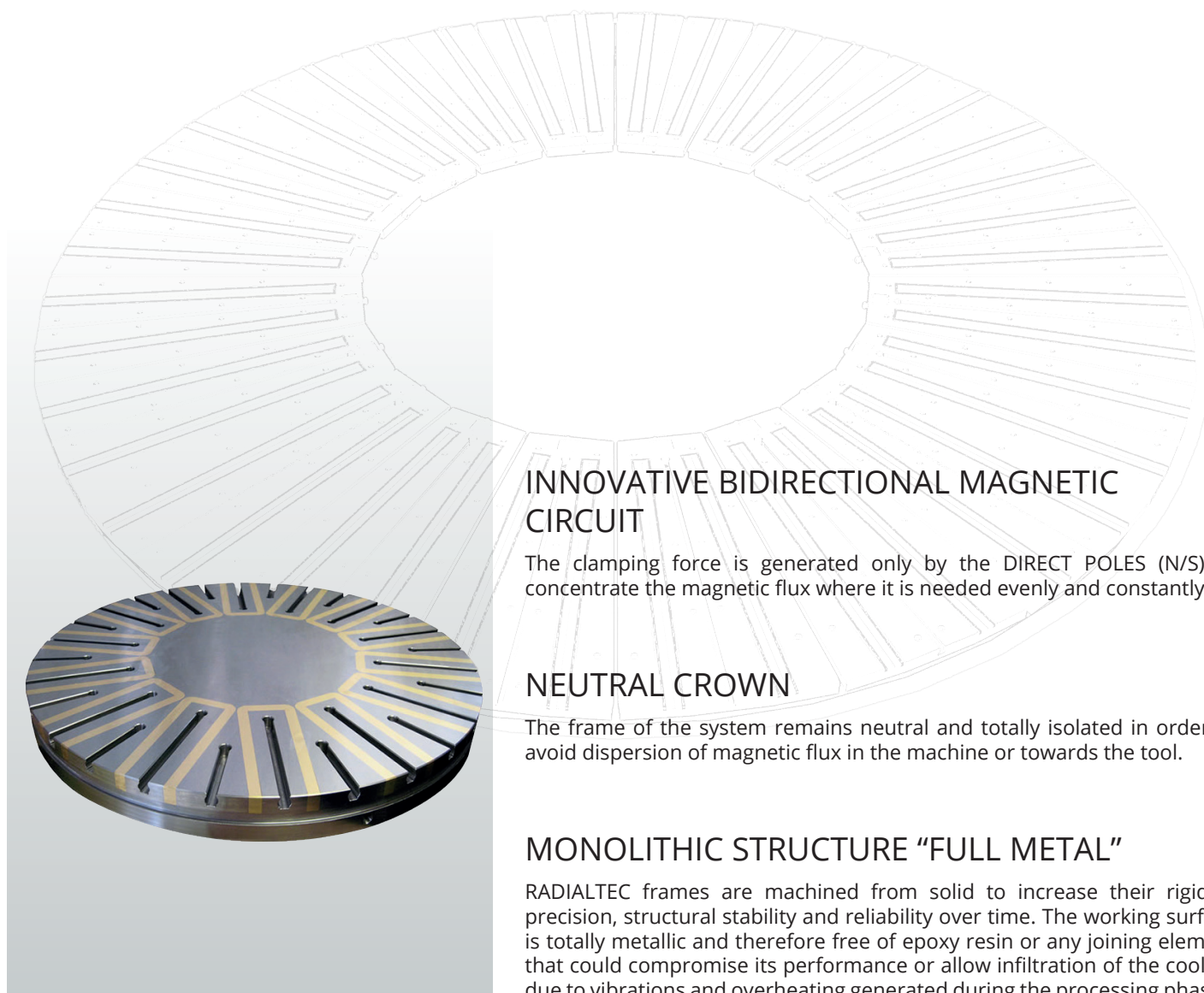


RADIALtec

Hard turning and Grinding Series



INNOVATIVE BIDIRECTIONAL MAGNETIC CIRCUIT

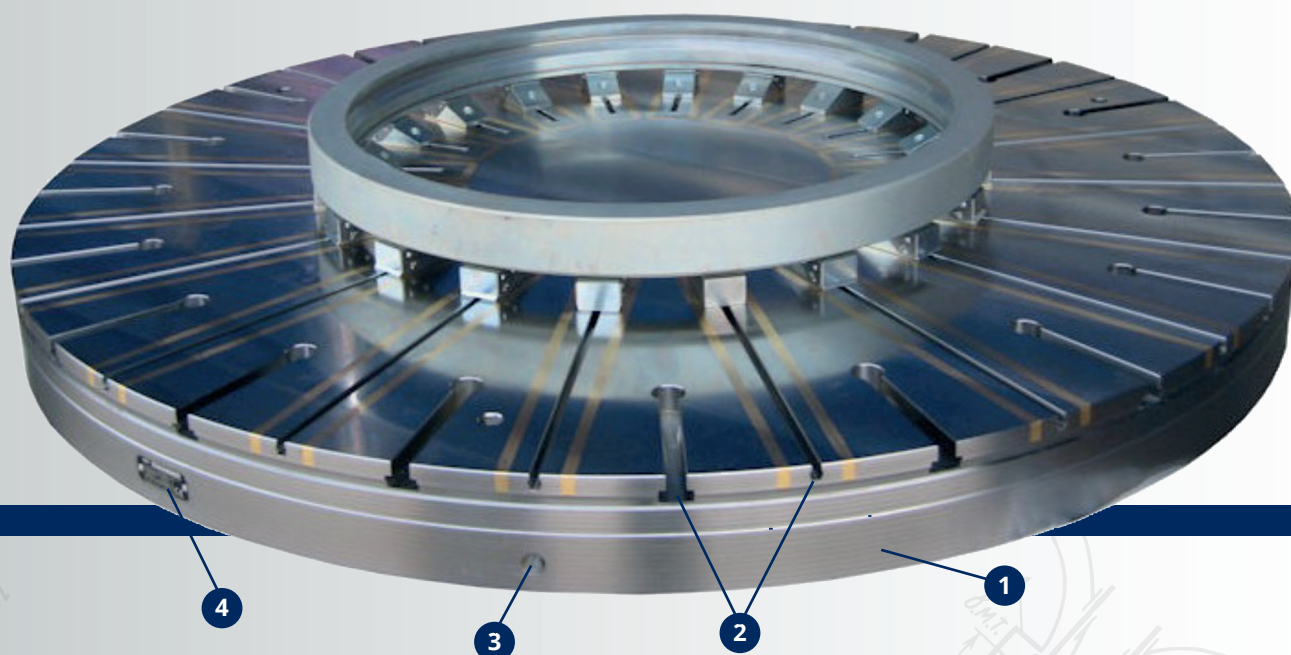
The clamping force is generated only by the DIRECT POLES (N/S) to concentrate the magnetic flux where it is needed evenly and constantly.

NEUTRAL CROWN

The frame of the system remains neutral and totally isolated in order to avoid dispersion of magnetic flux in the machine or towards the tool.

MONOLITHIC STRUCTURE "FULL METAL"

RADIALTEC frames are machined from solid to increase their rigidity, precision, structural stability and reliability over time. The working surface is totally metallic and therefore free of epoxy resin or any joining element that could compromise its performance or allow infiltration of the coolant due to vibrations and overheating generated during the processing phases.



- 1 Steel mono-block frame**
The machining and assembly of the magnetic and electrical circuit from the lower part provide an impenetrable shield from any external agent.
- 2 Slots**
Integrated in the magnetic poles for using polar extensions and additional T-slots for fixing mechanical clamping and / or reference elements.
- 3 Threaded holes**
For the handling of the product during installation.
- 4 Performance plate with technical data**
Data on voltage, electrical absorption, serial number.

Quick connector (CR version)

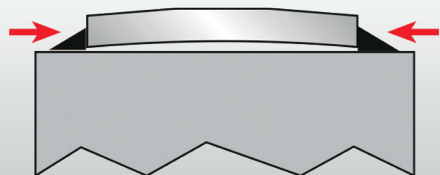
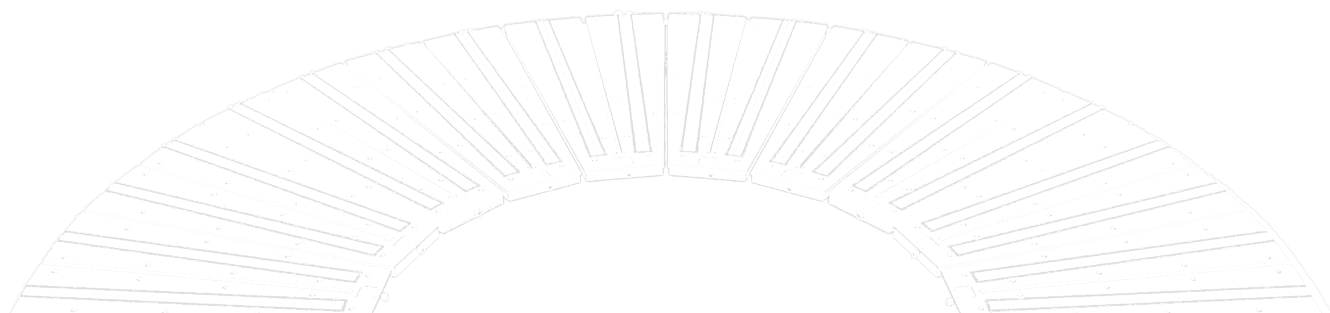
Precise watertight for connection with the control unit.

Central cable output (SC version)

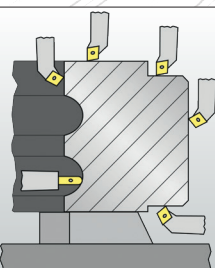
Cable output (L. 3 m) from the central lower part of the magnetic plate for stable connection with the control unit via rotating contacts (accessory).

RADIALTEC

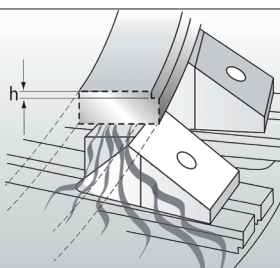
Advantages of magnetic work-holding



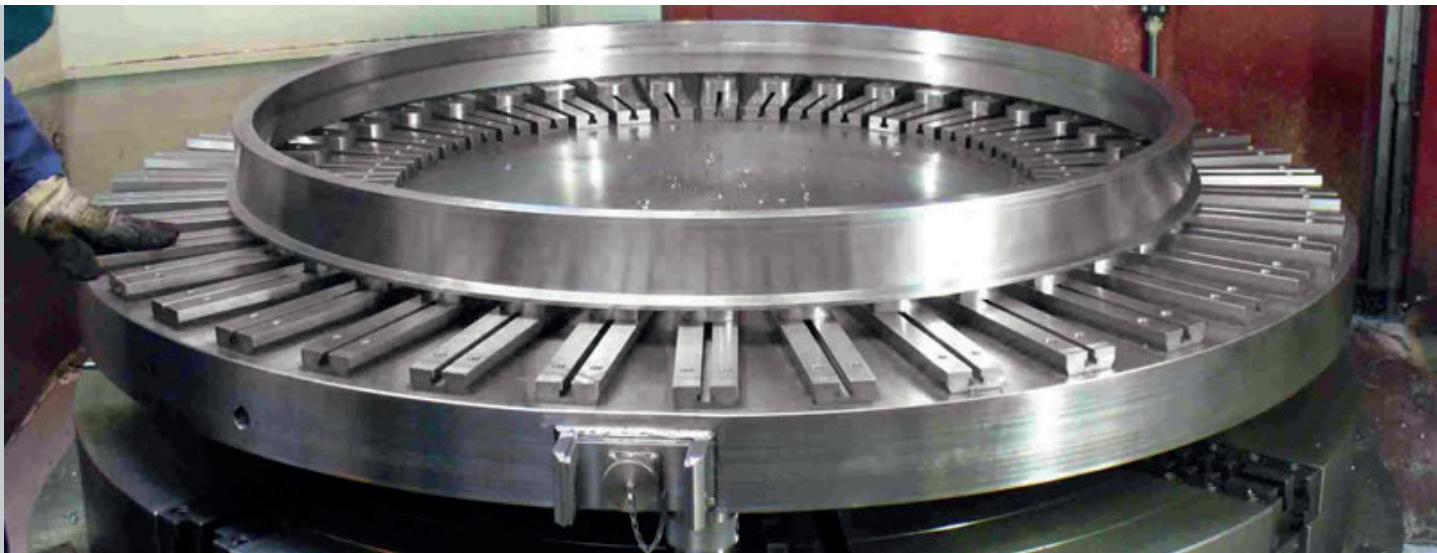
The RADIALTEC system allows for a safe clamping of the ring avoiding any radial deformation.



The use of polar extensions allows you to distance the piece from the surface of the plate freeing the 3 faces of the ring for processing.



The use of mobile extensions allows for a strong clamping of the piece without any axial deformation. Work-piece "stress-release" can be performed with cycles DEMAG/MAG/DEMAG even without touching it.



PERMANENT-ELECTRO

The permanent-electro magnetic circuit requires power supply only during the quick phases of activation and deactivation of the plate.

During the clamping phase, the force is generated only by the high-energy permanent magnets installed inside the plate.

EASY AND RELIABLE

A RADIAL TEC system has no moving internal parts that can wear out or become damaged with use. No power consumption, no heat generation, no maintenance needed.

Total mechanical separation and perfect insulation between the work-holding area and the internal area of the equipment where the electrical and magnetic circuit is placed.

The performance is always constant and guaranteed over the period time.

CONSTANT WIDTH OF POLES

Rectangular shape of magnetic poles provide constant performance throughout the working range contrary to traditional trapezoidal poles. In addition, a constant depth of the magnetic flux in the work-piece and the absence of magnetic residue is guaranteed.

COLD CONTACT SURFACE

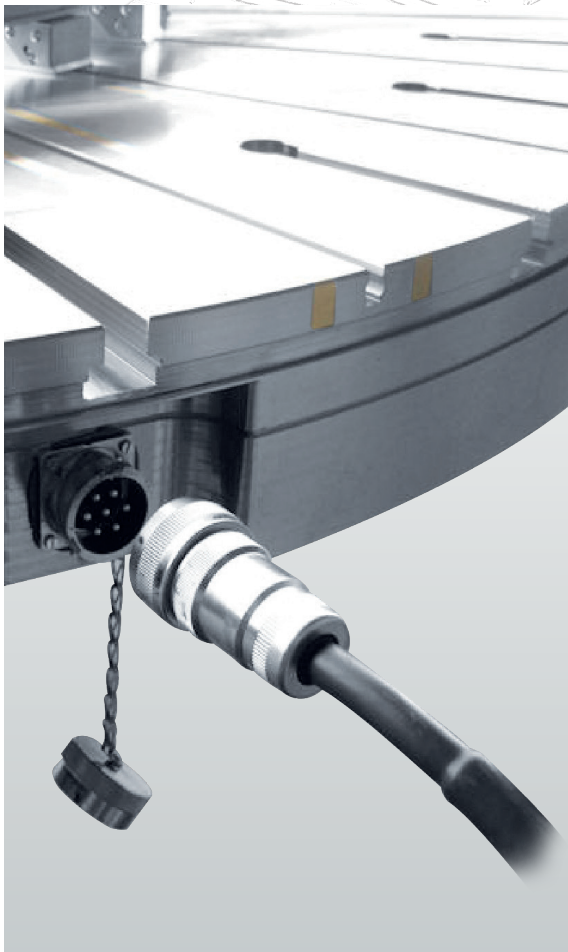
The magnetic plate does not generate heat due to the fact that the electric current circulates for an extremely limited time, only during the MAG/DEMAG cycles. The contact surface between the work-piece and the plate remains cold, ensuring high machining accuracy. So no deformation due to thermal oscillations.

NUFLUX CIRCUIT

To obtain a perfect demagnetization of alloy steel parts even after thermal treatment

RADIALtec

Electronic control unit



ELECTRONIC CONTROL UNITS

Radial TEC system are equipped with ST200 control unit with 8 levels of power regulation and digital push-button panel for small and medium-sized plates (up to 1250 mm external diameter).

The ST500 controller in IP54 cabinet with 8 levels of power regulation is supplied for large plates (external diameter > 1250mm). Both with UCS sensor to monitor the current circulation during MAG/DEMAG cycles in order to ensure the correct magnetic performance.

COMPLETE INTEGRATION WITH THE MACHINE

All radial TEC plate control units can be managed with push-button panel or through interface with the machine's PLC and related enabling and safe machine contacts.

WORK-HOLDING FORCE CONTROL

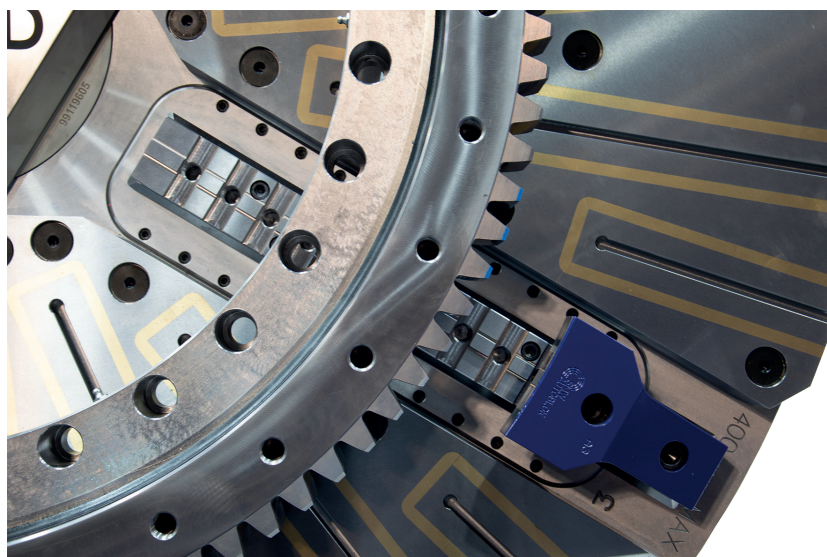
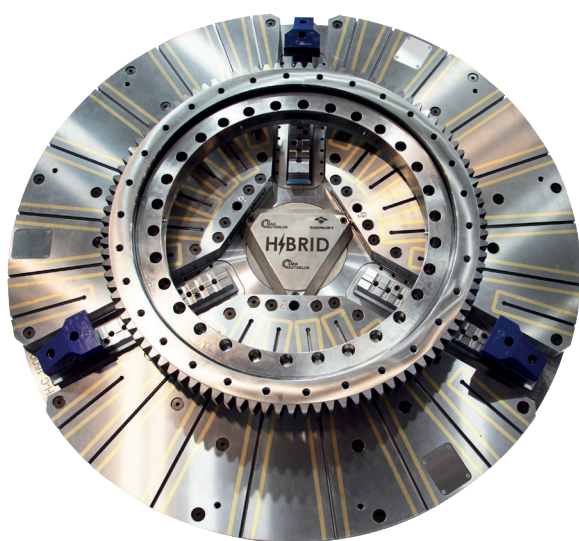
The clamping force can be calibrated on different levels to avoid deformation of the thin pieces or to facilitate their centering before the final magnetization with maximum power.

NUFLUX CYCLE

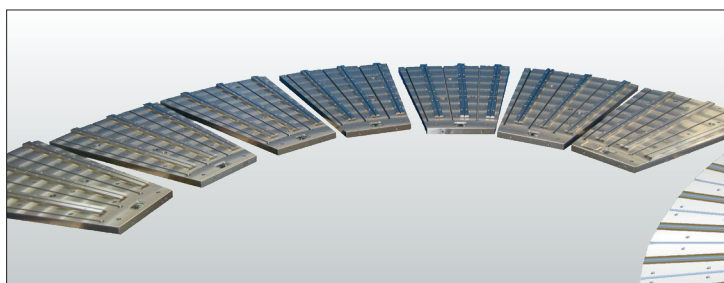
The NUFLUX demagnetization cycle acts through a rapid series of pulses of decreasing intensity in order to ensure optimal demagnetization even of alloy steel parts or after heat treatment.

ANTI-ROTATION CONNECTION

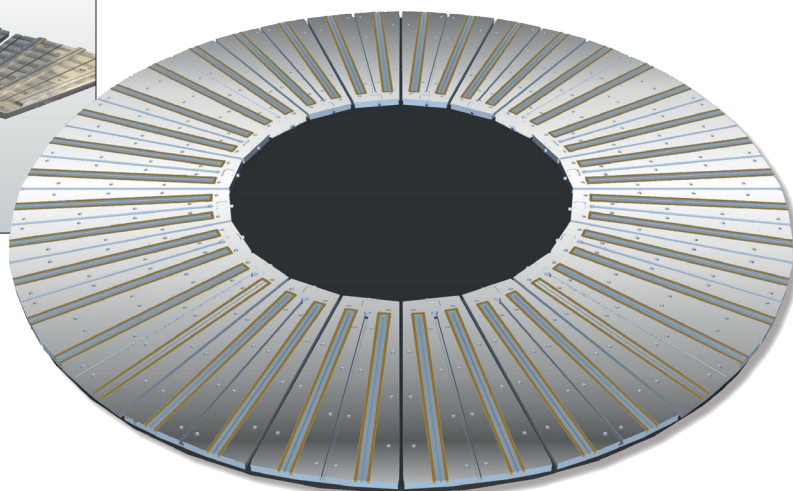
It is an off-machine contact where the connector (for the version RADIAL TEC CR) must be inserted to enable the rotation of the table.



Hybrid magnetic solutions with mechanical self-centering system SMW AUTOBLOK

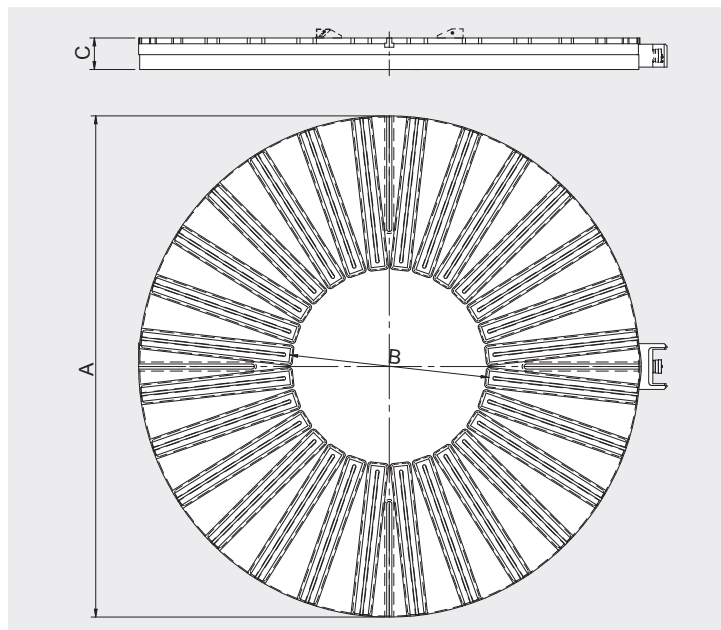


Modular version for large size turning tables



RADIAL TEC - PRF CR

Permanent-electro magnetic plates for vertical lathes and grinding machines with connector



Standard supply

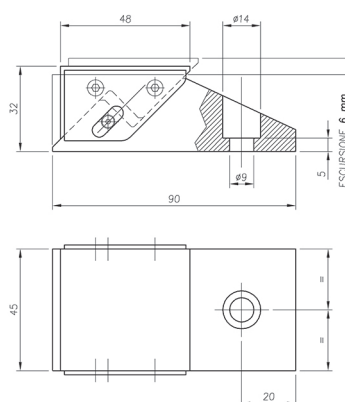
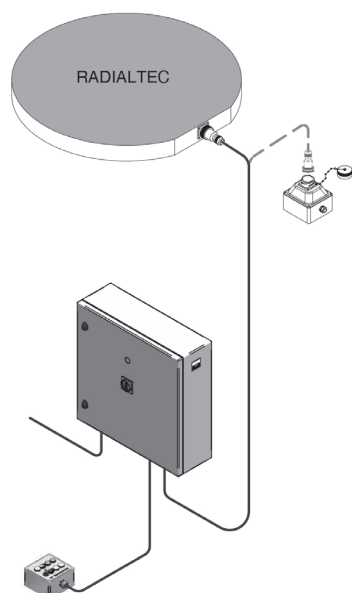
- Permanent-electro magnetic plate with integrated poles and central slot for using polar extensions. Max magnetic force up to 160 N/cm²
- Set of slots T-slots for fixing mechanical clamping and / or reference elements.
- Set of through holes for installation
- Quick connector (for CR version) precise watertight
- Electronic control unit ST200RB (ST500) with UCS current sensor
- Push-button panel TCR8 for MAG/DEMAG cycles with 8 levels power regulation and cable (6m PVC)
- Demagnetization system Nuflux for alloyed steel
- Machine-safety interlock contacts and anti-rotation contact (ARD for SC version)
- Discharge cable (5m PVC)
- CE declaration of conformity
- Instruction manual on digital support

Recommended accessories

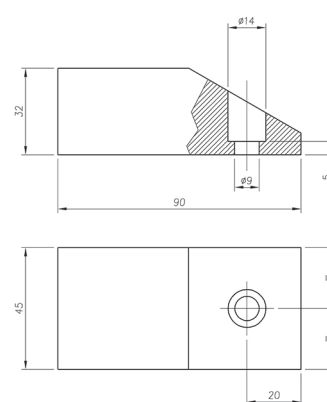
- Fix extension Cod. PFS110/55
- Mobile extension Cod. PFM110/55

Model	Size			Poles	Weight
	A	B	C *		
	Ø mm	Ø mm	mm	n.	Kg
PRF CR 060030	600	300	110	12	270
PRF CR 080030	800	300	110	12	430
PRF CR 100030	1000	300	110	20+10	670
PRF CR 100050	1000	500	110	20	720
PRF CR 125030	1250	300	110	20+10	1030
PRF CR 125050	1250	500	110	20	1030
PRF CR 150050	1500	500	110	20	1480
PRF CR 150100	1500	1000	110	32	1480
PRF CR 175050	1750	500	110	32+16	2010
PRF CR 175070	1750	700	110	28	2010
PRF CR 200100	2000	1000	110	32	2370
PRF CR 230050	2300	500	125	36+18	4030

* ± 0,5 mm



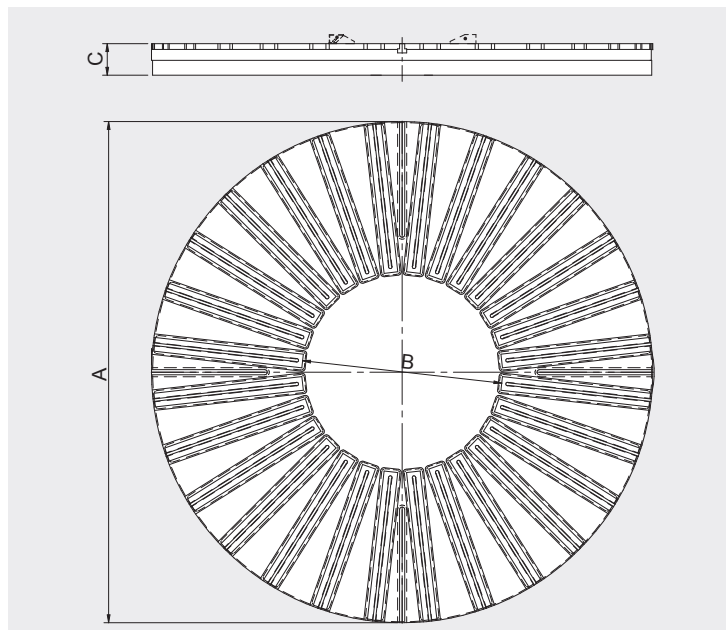
Mobile extension PFM 110/55



Fix extension PFS 110/55

RADIAL TEC - PRF SC

Permanent-electro magnetic plates for vertical lathes and grinding machines. Cable outlet in the center-bottom side



Standard supply

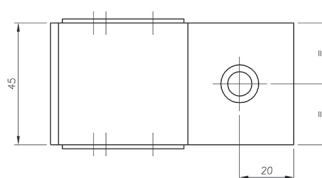
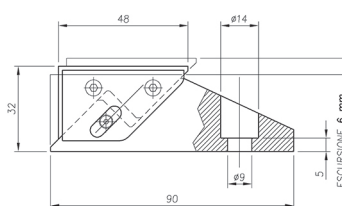
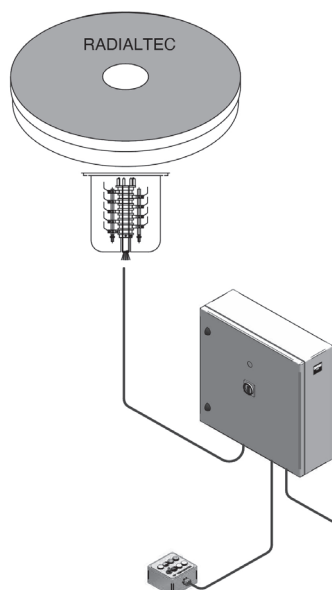
- Permanent-electro magnetic plate with integrated poles and central slot for using polar extensions. Max magnetic force up to 160 N/cm²
- Set of slots T-slots for fixing mechanical clamping and / or reference elements.
- Set of through holes for installation
- Cable outlet in the center-bottom side
- Electronic control unit ST200RB (ST500) with UCS current sensor
- Push-button panel TCR8 for MAG/DEMAG cycles with 8 levels power regulation and cable (6m PVC)
- Demagnetization system Nuflux for alloyed steel
- Machine-safety interlock contacts and anti-rotation contact (ARD for SC version)
- Discharge cable (5m PVC)
- CE declaration of conformity
- Instruction manual on digital support

Recommended accessories

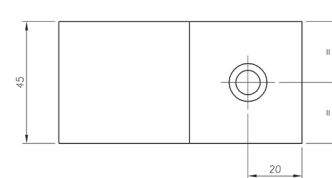
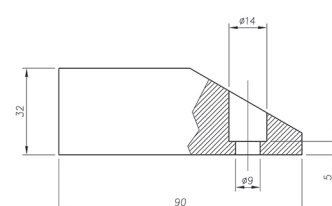
- Fix extension Cod. PFS110/55
- Mobile extension Cod. PFM110/55
- ARD Revolving contacts

Model	Size			Poles	Weight
	A	B	C *		
	Ø mm	Ø mm	mm	n.	Kg
PRF SC 060030	600	300	110	12	270
PRF SC 080030	800	300	110	12	430
PRF SC 100030	1000	300	110	20+10	670
PRF SC 100050	1000	500	110	20	720
PRF SC 125030	1250	300	110	20+10	1030
PRF SC 125050	1250	500	110	20	1030
PRF SC 150050	1500	500	110	20	1480
PRF SC 150100	1500	1000	110	32	1480
PRF SC 175050	1750	500	110	32+16	2010
PRF SC 175070	1750	700	110	28	2010
PRF SC 200100	2000	1000	110	32	2370
PRF SC 230050	2300	500	125	36+18	4030

* ± 0,5 mm



Mobile extension PFM 110/55



Fix extension PFS 110/55



Technical characteristics and dimensions are not obliged.
MAG AUTOBLOK TECNOMAGNETE Spa may give in every time some modifications



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