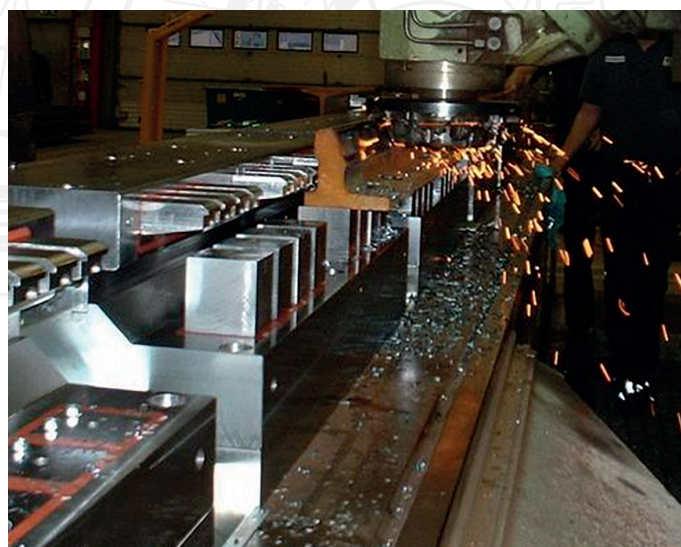
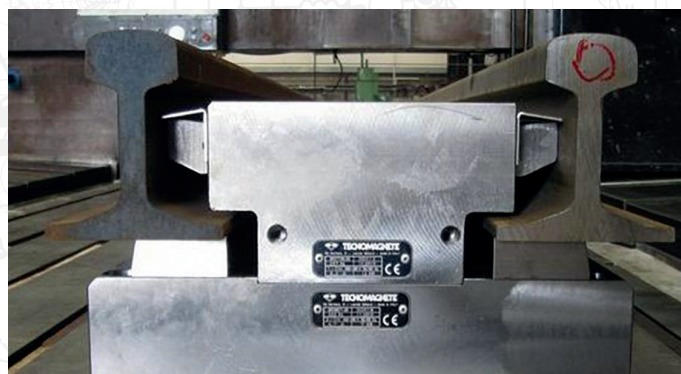
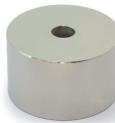
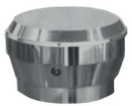
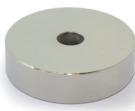
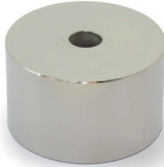


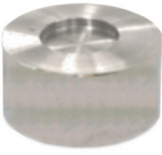
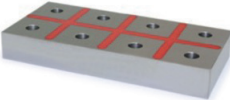
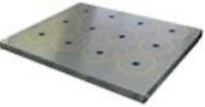
QUADRAIL

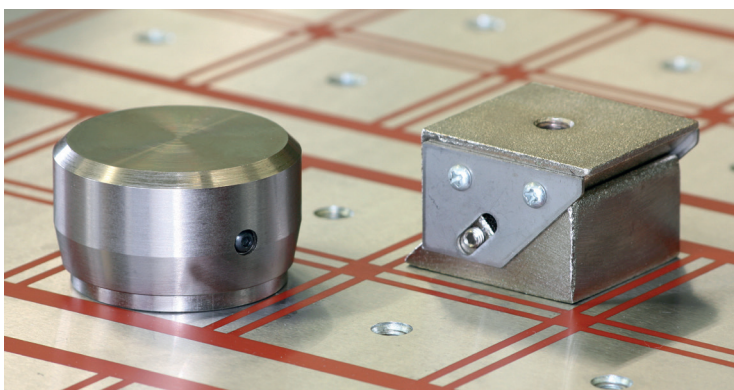
Permanent-electro magnetic work-holding system
for machining rail switches and crossing turnouts.

Application examples



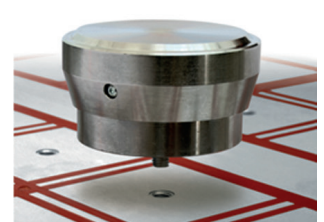
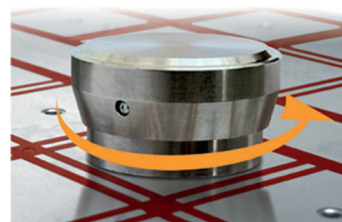
	Code	Description	Use	Magnetic chuck
	PFQ 50/32	Fix extension square 50 x 50 x 32 mm Weight 0,6 Counter bore for M8	To clamp work-pieces of different heights. To use with PMQ 50/32 or RMP 50/32	QXHE50 QXHD50 QXHP50
	PFR 50/32	Fix extension round Ø 50 x 32 mm Weight 0,5 Kg Counter bore for M8	To clamp work-pieces of different heights. To use with PMQ 50/32 or RMP 50/32	QXHE50 QXHD50 QXHP50
	PMQ 50/32	Mobile extension square 50 x 50 x 31,5 mm Weight 0,6 Counter bore for M8	For automatic shimming of uneven pieces. To use with PFR 50/32 or PFQ 50/32	QXHE50 QXHD50 QXHP50
	RMP 50/32	Mobile extension round Ø 50 x 31,5 mm Weight 0,6 Counter bore for M8	For automatic shimming of uneven pieces. To use with PFR 50/32 or PFQ 50/32	QXHE50 QXHD50 QXHP50
	PFR 70/20	Fix extension round Ø 70 x 20 mm Weight 0,5 Kg Counter bore for M8	To protect the magnetic surface, allow contouring, beveling and through drilling	MTB MTG QXHE70 QXHE70 QXHP70
	PFR SC 70/20	Fix extension round Ø 70 x 20 mm Weight 0,5 Kg Counter bore for M8	To reduce the magnetic depth into the work-piece	MTB MTG QXHE70 QXHE70 QXHP70
	PFR 70/45	Fix extension round Ø 70 x 45 mm Weight 1,3 Kg Counter bore for M8	To clamp the work-pieces on different heights. To use with PMP 70/45	MTB MTG QXHE70 QXHE70 QXHP70
	RMP 70/45	Mobile extension round Ø 76 x 45 mm Weight 1,2 Kg Counter bore for M8	For automatic shimming of uneven pieces. To use with PFR 70/45	MTB MTG QXHE70 QXHE70 QXHP70

	Code	Description	Use	Magnetic chuck
	PFR SC 70/45	Fix extension round with slot Ø 70 x 45 mm Weight 1,3 Kg Counter bore for M8	To reduce the magnetic depth into the work-piece . To use with RMP SC 70/45	MTB MTG QXHE70 QXHE70 QXHP70
	RMP SC 70/45	Mobile extension round with slot Ø 76 x 45,5 Weight 1,2 Kg Counter bore for M8	For automatic shimming of uneven pieces with reduced thickness. To use with PFR SC 70/45	MTB MTG QXHE70 QXHE70 QXHP70
	DPPQX50HE2/32 DPPQX50HE4/32 DPPQX50HE6/32 DPPQX50HE8/32 DPPQX50HD2/32 DPPQX50HD4/32 DPPQX50HD6/32 DPPQX50HD8/32 DPPQX70HD2/45 DPPQX70HD4/45 DPPQX70HD6/45 DPPQX70HD8/45	As per project	Dedicated Polar Plates to make top tooling and machinable jigs for QUAD-EXTRA milling series	QXHE50, QXHP50 QXHE50, QXHP50 QXHE50, QXHP50 QXHE50, QXHP50 QXHD50 QXHD50 QXHD50 QXHD50 QXHD70 QXHD70 QXHD70 QXHD70
	DPPMT70HD2/45 DPPMT70HD4/45 DPPMT70HD6/45 DPPMT70HD8/45 DPPMT70HD12/45	As per project	Dedicated Polar Plates to make top tooling and machinable jigs for MILLTEC milling series	MTB, MTG MTB, MTG MTB, MTG MTB, MTG MTB, MTG



MOBILE EXTENSION - RPM

MOBILE EXTENSION - PMQ





ELECTRONIC CONTROL UNIT ST200

for permanent-electro magnetic chucks TECNOCLAMP series
clamping of pieces on machine tool

The ST200 series electronic control unit

For all magnetic plates TECNOCLAMP work-holding on machine tools for milling, turning, grinding and spark-erosion.

ST200 in standard configuration

with 1, 2, 3 or 4 channels to be connected directly to small, medium or large magnetic chucks.

Modular design expandable without limits

Able to control large magnetic tables composed of dozens of permanent-electro magnetic plates by the first unit (Master) serialized with others (Slave) through DB9 connectors

Push-button TC**

To manually operate all the magnetization, demagnetization cycles, module selection and force control functions.

SAFE button

To avoid accidental magnetization or demagnetization cycles

Display MAG/DEMAG /SAFE

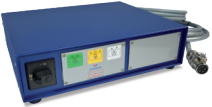
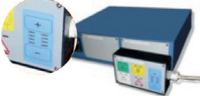
For a clear indication of the status of the controller

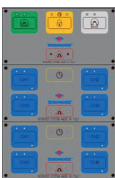
PCR Interface

To automatically manage all functions directly from the machine PLC

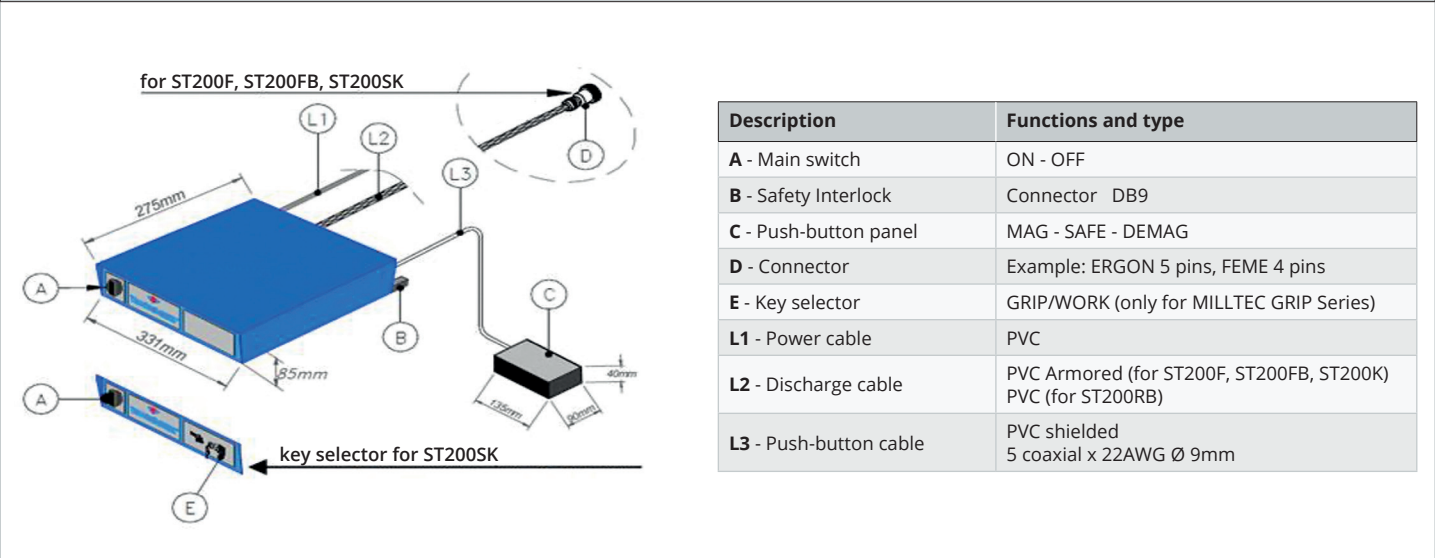
UCS Technology

Control of the electric current circulation inside the magnetic plate to ensure 100% magnetic force

Control Unit	Code	Description	Magnetic plates
	ST200FA1CH	1 channel control unit for permanent-electro magnetic plate milling series	MTB, QX
	ST200FA2CH	2 channels control unit for permanent-electro magnetic plate milling series and for multiple plates installations in configuration ECP (pag 48)	MTB, QX
	ST200FA4CH	4 channels control unit for permanent-electro magnetic plate milling series and for multiple plates installations in configuration ECP (pag 48)	MTB, QX
	ST200FB1CH	1 channel control unit with TCF1 push-button for permanent-electro magnetic plate milling series	MTB, QX
	ST200FB2CH	2 channels control unit with TCF1 push-button for permanent-electro magnetic plate milling series and for multiple plates installations in configuration ECP (pag 48)	MTB, QX
	ST200FB4CH	4 channels control unit with TCF1 push-button for permanent-electro magnetic plate milling series and for multiple plates installations in configuration ECP (pag 48)	MTB, QX
	ST200SK1CH	1 channel control unit with TCF1 push-button for permanent-electro magnetic plate MILLTEC GRIP – MTG milling series	MTG
	ST200SK2CH	2 channels control unit with TCF1 push-button for permanent-electro magnetic plate MILLTEC GRIP – MTG milling series and for multiple plates installations in configuration ECP (pag 48)	MTG
	ST200SK4CH	4 channels control unit with TCF1 push-button for permanent-electro magnetic plate MILLTEC GRIP – MTG milling series and for multiple plates installations in configuration ECP (pag 48)	MTG
	ST200RB1CH	1 channel control unit with TCR8 push-button and 8 power levels for permanent-electro magnetic plate grinding and turning series	PRF, GT, MDS
	ST200RB2CH	2 channel control unit with TCR8 push-button and 8 power levels for permanent-electro magnetic plate grinding and turning series and for multiple installations in configuration ECP (pag 48)	PRF, GT, MDS
	ST200RB4CH	4 channel control unit with TCR8 push-button and 8 power levels for permanent-electro magnetic plate grinding and turning series and for multiple plates installations in configuration ECP (pag 48)	PRF, GT, MDS
	ST200QE1CH	1 channel control unit for permanent-electro magnetic plate to be integrated inside the machine control cabinet. For machine tool manufacturers (OEM)	MTB, MTG, QX, GT
	ST200QE2CH	2 channels control unit for permanent-electro magnetic plate to be integrated inside the machine control cabinet. For machine tool manufacturers (OEM)	MTB, MTG, QX, GT
	ST200QE4CH	4 channels control unit for permanent-electro magnetic plate to be integrated inside the machine control cabinet. For machine tool manufacturers (OEM)	MTB, MTG, QX, GT
	ST500	Dedicated control unit for special and large magnetic systems. For RADIALTEC PRF outer $\varnothing \geq 1250$ mm or for big magnetic tables made by several magnetic plates milling or grinding series	MTB, MTG, QX, PRF, GT

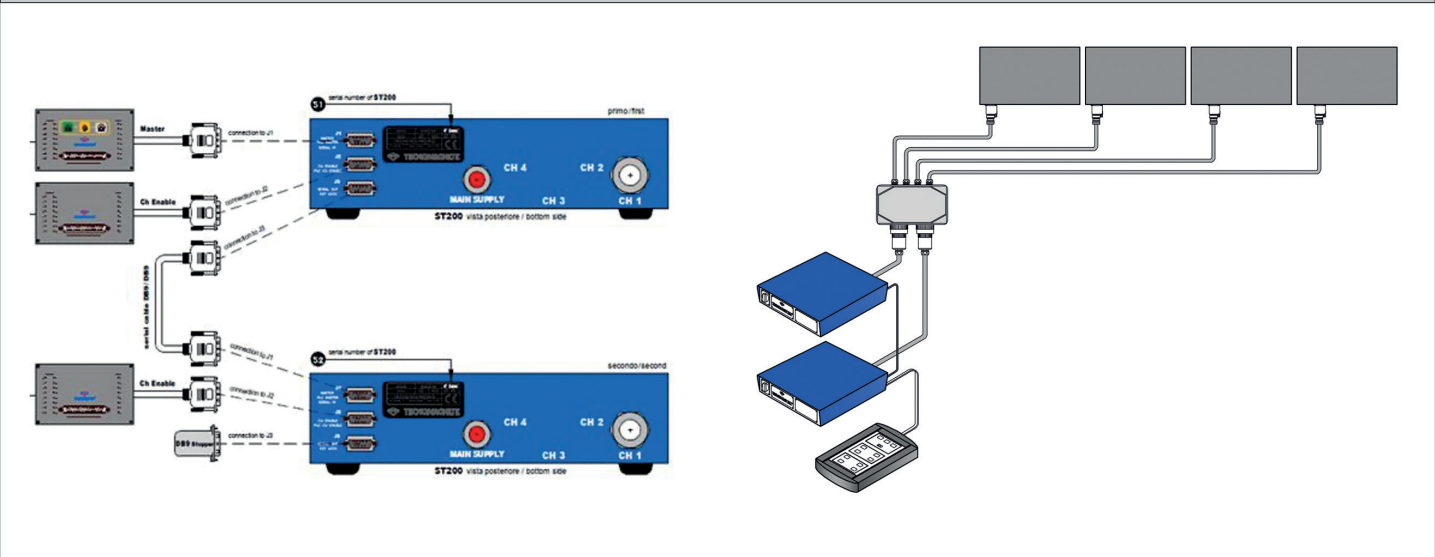
Push-button panel	Code	Size	Description
	TCF1	135 x 90 x 40 mm	Push-button panel with functions MAG/DEMAG/ SAFE milling series, 5 m cable. Mounted as standard on ST200FA controller face panel
	TCR3	135 x 90 x 40 mm	Push-button panel with functions MAG/DEMAG/ SAFE and 3 power levels milling series 5 m cable
	TCR8	135 x 90 x 40 mm	Push-button panel for controller ST200RB with functions MAG/DEMAG/ SAFE and 8 power levels grinding and turning series 5 m cable
	TCF4	210 x 200 x 50 mm	Push-button panel with functions MAG/DEMAG/ SAFE and selector up to 4 channels For ST200 4CH controller milling and grinding series 5 m cable
	TCF8	270 x 200 x 50 mm	Push-button panel with functions MAG/DEMAG/ SAFE and selector up to 8 channels For more ST200 4CH controller milling or grinding series serialized together 5 m cable
	PCR1	135 x 90 x 40 mm	Interface for machine PLC with connector DB37, led INPUT/OUTPUT and push-button panel MAG/DEMAG/SAFE, levels ± power selection (Master)
	PCR2	135 x 90 x 40 mm	Interface for machine PLC to be connected to PCR1 with connector DB37, led INPUT/OUTPUT. Function: add channel selections to PCR system (Slave)

Example A - Installation of n. 1 controller ST200 and n. 1 permanent-electro magnetic plate



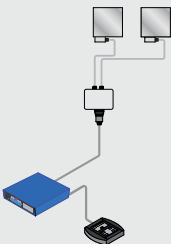
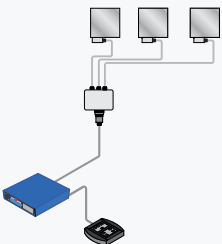
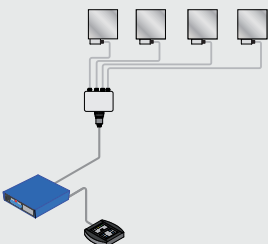
Description	Functions and type
A - Main switch	ON - OFF
B - Safety Interlock	Connector DB9
C - Push-button panel	MAG - SAFE - DEMAG
D - Connector	Example: ERGON 5 pins, FEME 4 pins
E - Key selector	GRIP/WORK (only for MILLTEC GRIP Series)
L1 - Power cable	PVC
L2 - Discharge cable	PVC Armored (for ST200F, ST200FB, ST200K) PVC (for ST200RB)
L3 - Push-button cable	PVC shielded 5 coaxial x 22AWG Ø 9mm

Example B - Multiple installation n. 2 controller ST200 and n. 4 permanent-electro magnetic plates



Multiple plates Installations

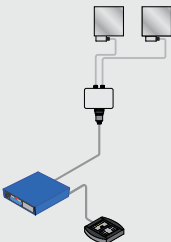
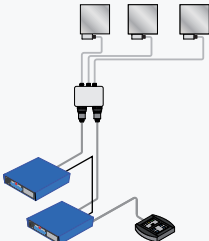
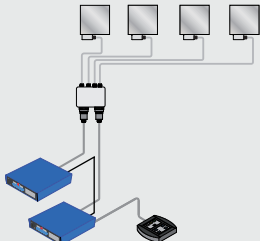
Example of configurations ECP

Indicative Layout	SUPPLY COMPOSITIONS	Milling series connector on magnetic plate	Milling series hard wired magnetic plate	Grinding series hard wired on magnetic plate
	n. 1 Control unit Series ST200 2CH, 2 discharges n. 1 Junction box with 2 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-2). Cable L. 3 m	ECPM2/V3 ECPM2/V4	ECPF2/V3 ECPF2/V4	ECPR2/V3 ECPR2/V4
	n. 1 Control unit Series ST200 2CH, 3 discharges n. 1 Junction box with 3 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-4). Cable L. 3 m	ECPM3/V3 ECPM3/V4	ECPF3/V3 ECPF3/V4	ECPR3/V3 ECPR3/V4
	n. 1 Control unit Series ST200 2CH, 4 discharges n. 1 Junction box with 4 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-4). Cable L. 3 m	ECPM4/V3 ECPM4/V4	ECPF4/V3 ECPF4/V4	ECPR4/V3 ECPR4/V4

V3 = 400/415 V
V4 = 440/460/480 V

ECP/SK
for GRIP Series



Indicative Layout	SUPPLY COMPOSITIONS	Milling series connector on magnetic plate	Milling series hard wired magnetic plate	Grinding series hard wired on magnetic plate
	n. 1 Control unit Series ST200 2CH, 2 discharges n. 1 Junction box with 2 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-2). Cable L. 3 m	ECPM2/V1 ECPM2/V2	ECPF2/V1 ECPF2/V2	ECPR2/V1 ECPR2/V2
	n. 2 Control unit Series ST200 2CH, 3 discharges n. 1 Junction box with 3 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-4). Cable L. 3 m	ECPM3/V1 ECPM3/V2	ECPF3/V1 ECPF3/V2	ECPR3/V1 ECPR3/V2
	n. 1 Control unit Series ST200 2CH, 4 discharges n. 1 Junction box with 4 cables L. 5m n. 1 Push-button panel TCF4 for MAG/DEMAG cycles and channels selection (1-4). Cable L. 3 m	ECPM4/V1 ECPM4/V2	ECPF4/V1 ECPF4/V2	ECPR4/V1 ECPR4/V2

V1 = 200 V
V2 = 230 V

ECP/SK
for GRIP Series



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



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