uemme TOOLS and EQUIPMENT

MADE IN ITALY

SERRMAC®

TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

SERIE R

Trapani / *Drilling-Machines*

R32_R32E

R40_R40E

R45_R45E

CE

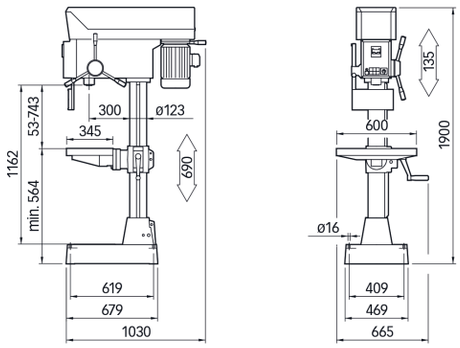
ITA_EN

R 32

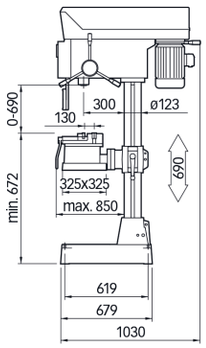
TRAPANO SERIE MEDIO-PESANTE CON TRASMISSIONE AD ALTO RENDIMENTO

MEDIUM-SIZE DRILLING MACHINE WITH HIGH PERFORMANCE TRANSMISSION

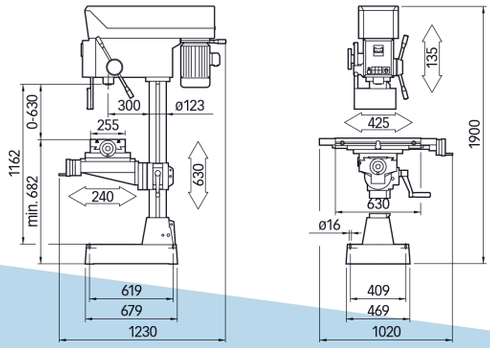
TR



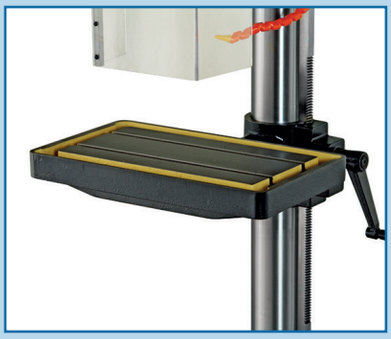
PGM



TC

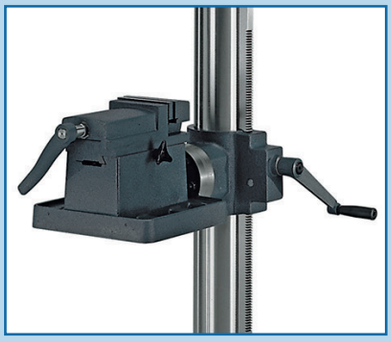


TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack

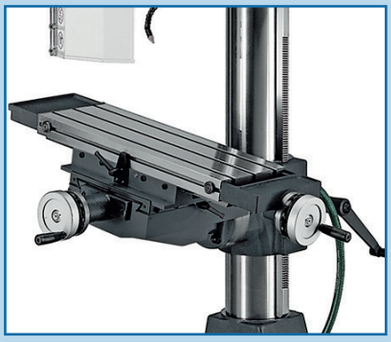


PGM: 325 x 325 mm
Piano girevole morsa
Tilting table with vice and rack

VARIABLE



TC: 630 x 255 mm
Tavola croce
Cross table



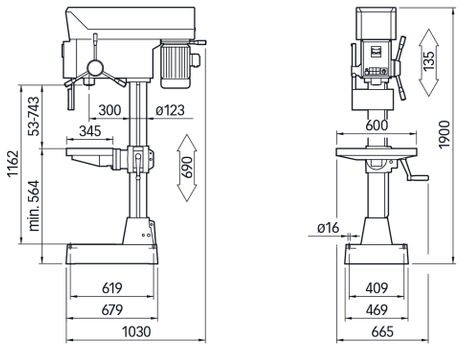
R 32E

TRAPANO SERIE MEDIO-PESANTE CON TRASMISSIONE AD ALTO RENDIMENTO E VARIATORE GIRI ELETTRONICO

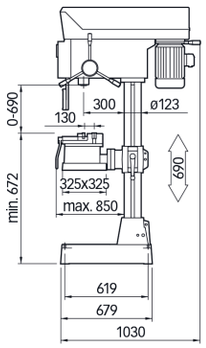
MEDIUM-SIZE DRILLING MACHINE WITH HIGH PERFORMANCE TRANSMISSION AND ELECTRONIC POTENTIOMETER

Inverter

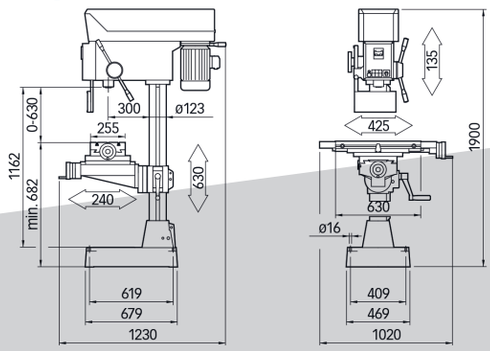
TR



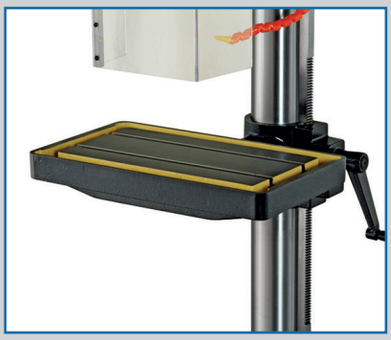
PGM



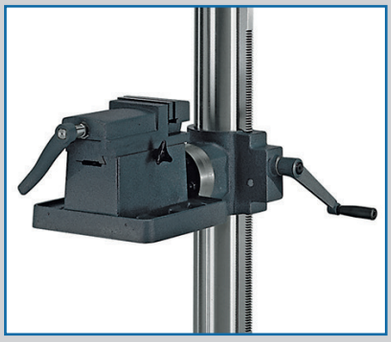
TC



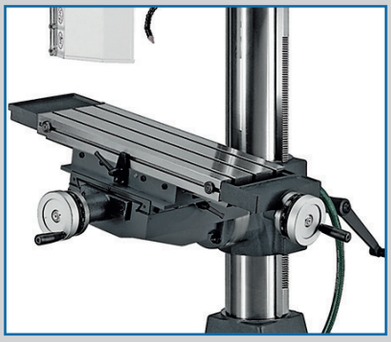
TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack



PGM: 325 x 325 mm
Piano girevole morsa
Tilting table with vice and rack



TC: 630 x 255 mm
Tavola croce
Cross table

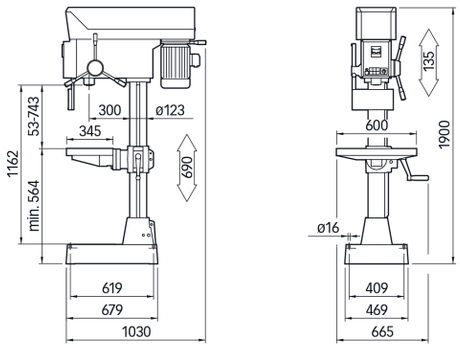


R 40

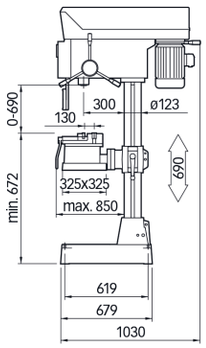
TRAPANO SERIE MEDIO-PESANTE CON TRASMISSIONE AD ALTO RENDIMENTO

MEDIUM-SIZE DRILLING MACHINE WITH HIGH PERFORMANCE TRANSMISSION

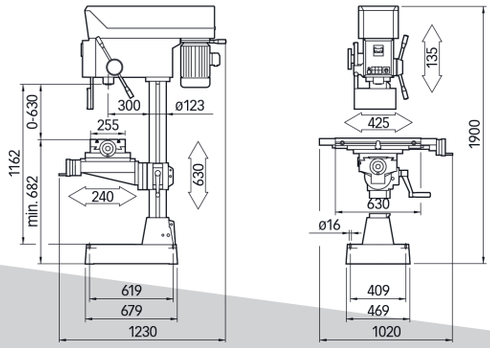
TR

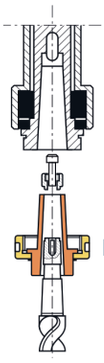


PGM



TC

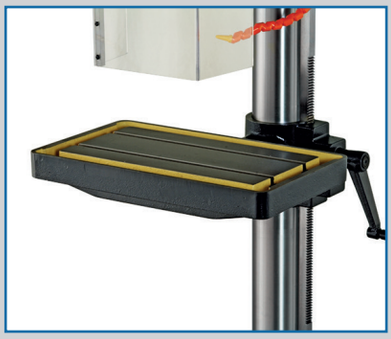




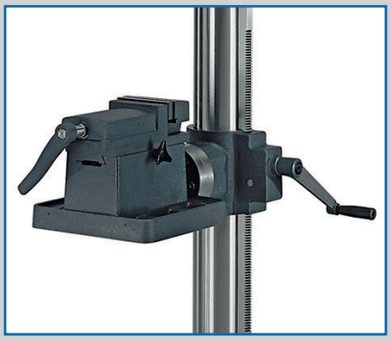
M60 X 2,5

Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4

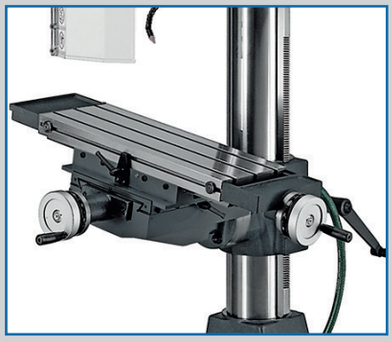
TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack



PGM: 325 x 325 mm
Piano girevole morsa
Tilting table with vice and rack



TC: 630 x 255 mm
Tavola croce
Cross table

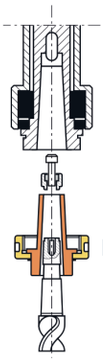


R 40E

TRAPANO SERIE MEDIO-PESANTE CON TRASMISSIONE AD ALTO RENDIMENTO E VARIATORE GIRI ELETTRONICO

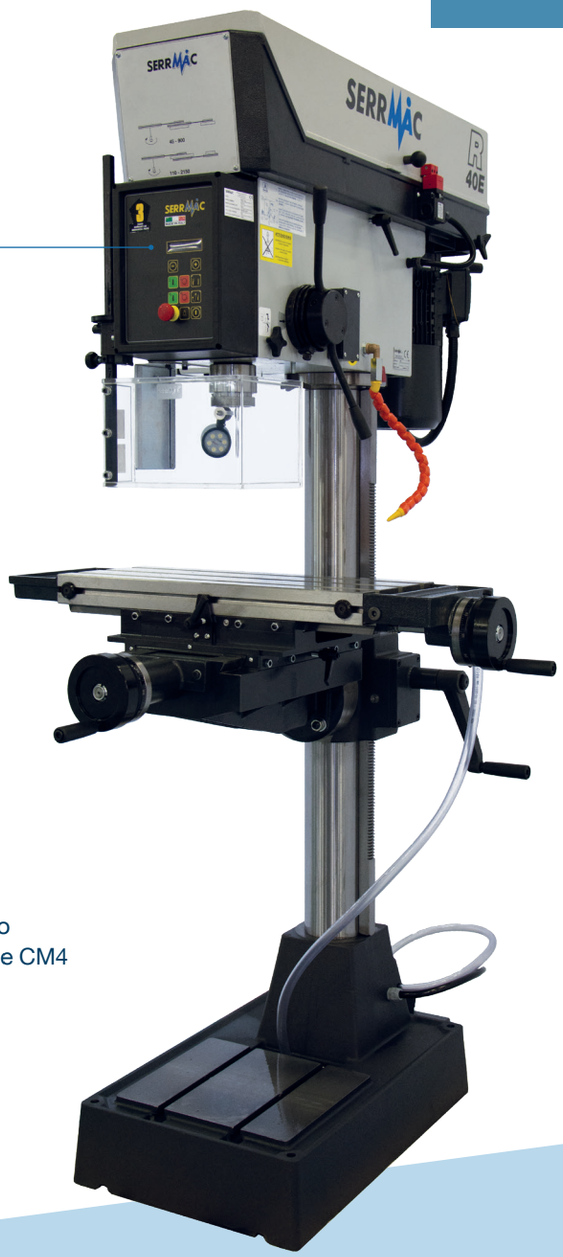
MEDIUM-SIZE DRILLING MACHINE WITH HIGH PERFORMANCE TRANSMISSION AND ELECTRONIC POTENTIOMETER

Inverter

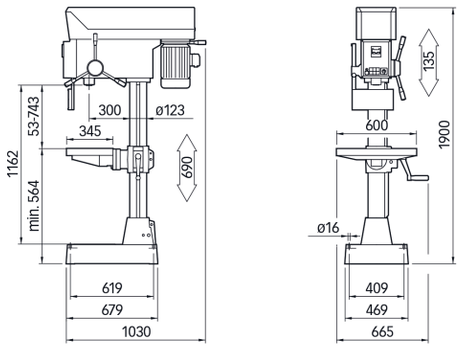


M60 X 2,5

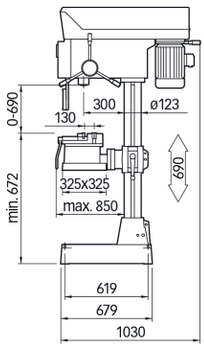
Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4



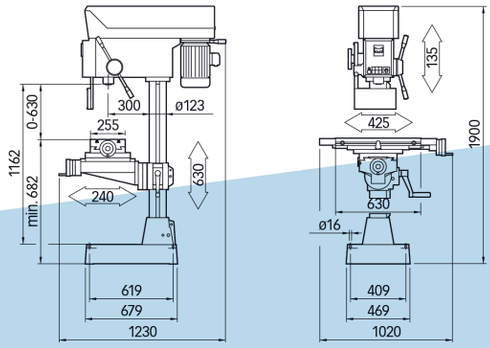
TR



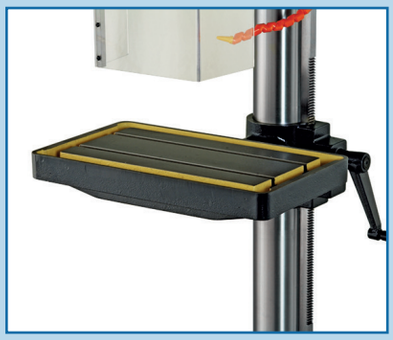
PGM



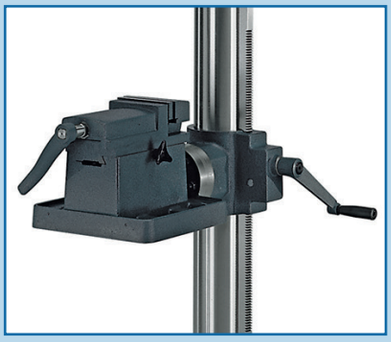
TC



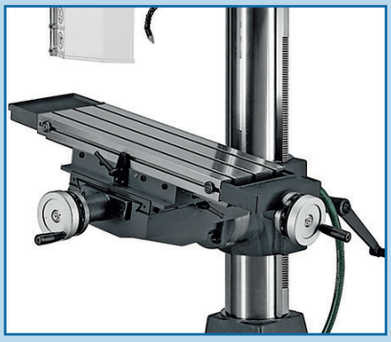
TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack



PGM: 325 x 325 mm
Piano girevole morsa
Tilting table with vice and rack



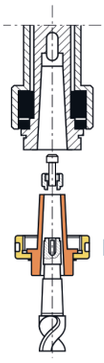
TC: 630 x 255 mm
Tavola croce
Cross table



R 45

TRAPANO A COLONNA
SERIE PESANTE

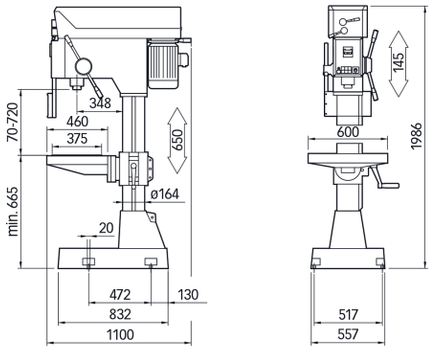
HEAVY-SIZE
DRILLING MACHINE



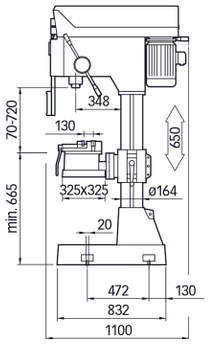
M60 X 2,5

Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4

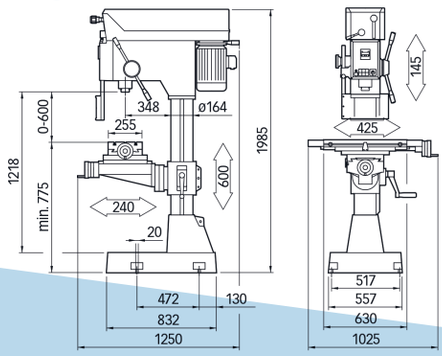
TR



PGM



TC

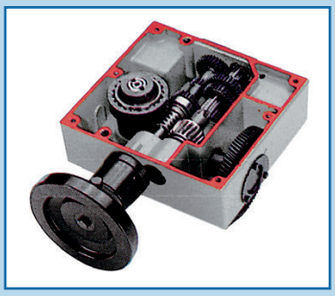


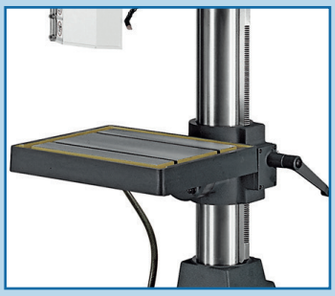
STANDARD:
Discesa automatica meccanica
Automatic mechanical quill-feed

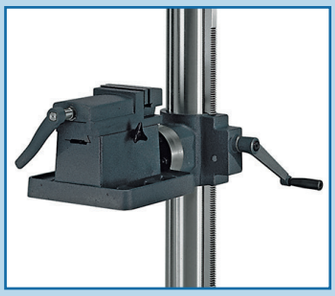
TR: 600 x 460 mm
Tavola rettangolare
Rectangular table with rack

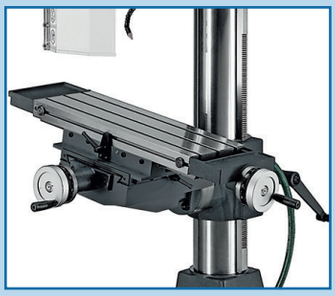
PGM: 375 x 375 mm
Piano girevole morsa
Tilting table with vice and rack

TC: 630 x 255 mm
Tavola croce
Cross table







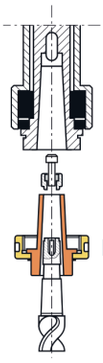


R 45E

TRAPANO A COLONNA SERIE PESANTE

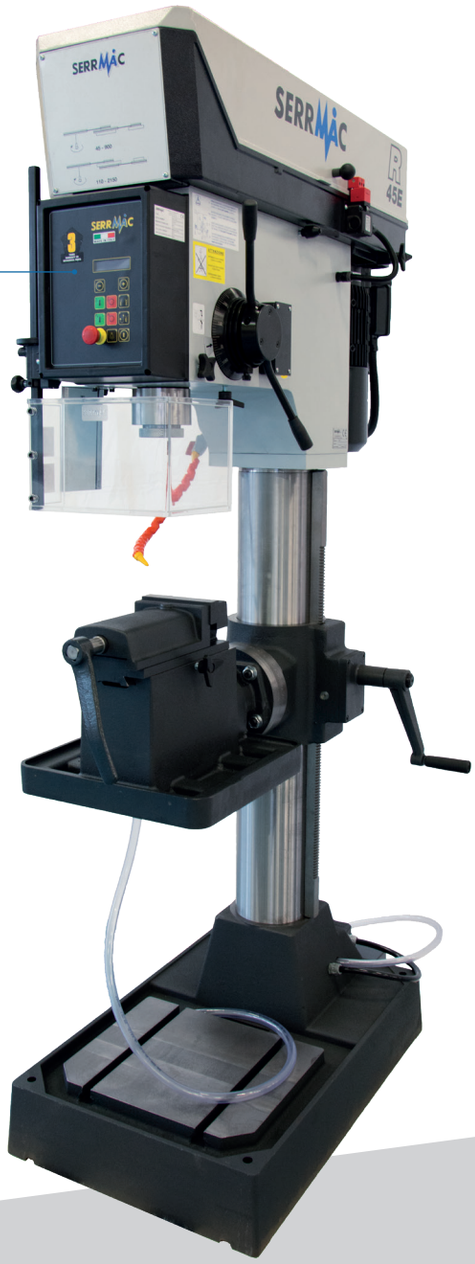
HEAVY-SIZE DRILLING MACHINE

Inverter

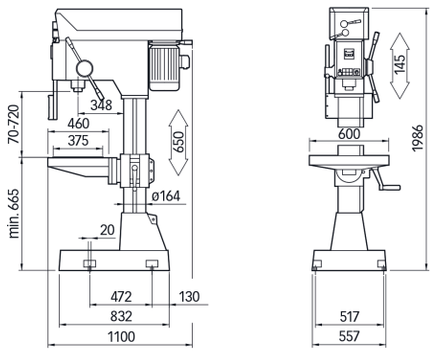


M60 X 2,5

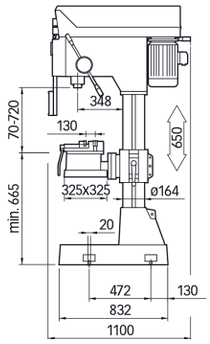
Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4



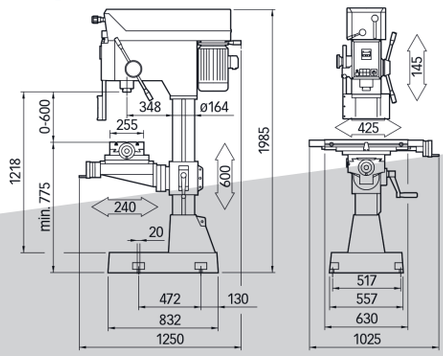
TR



PGM



TC

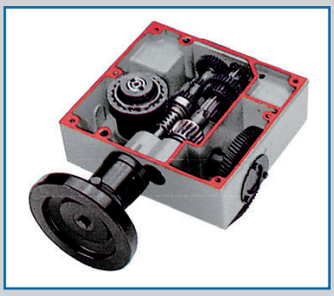


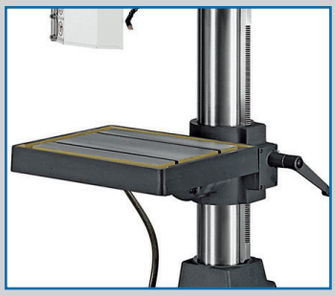
STANDARD:
Discesa automatica meccanica
Automatic mechanical quill-feed

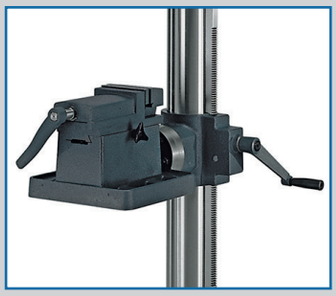
TR: 600 x 460 mm
Tavola rettangolare
Rectangular table with rack

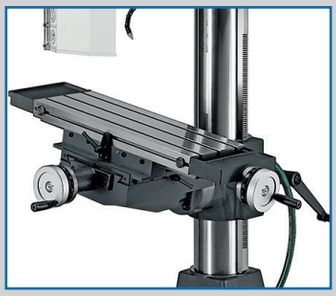
PGM: 375 x 375 mm
Piano girevole morsa
Tilting table with vice and rack

TC: 630 x 255 mm
Tavola croce
Cross table



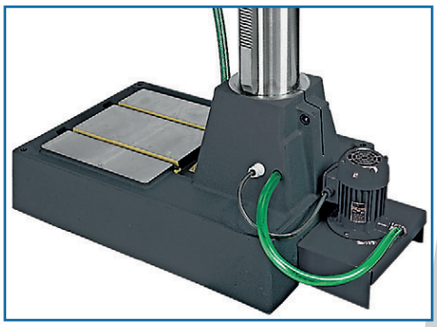




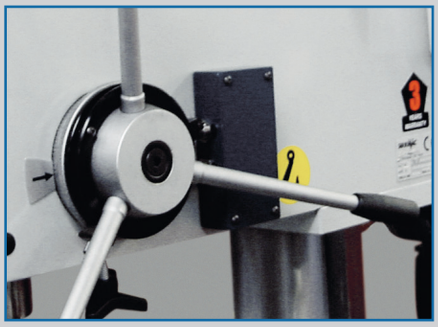


OPZIONI
OPTIONS

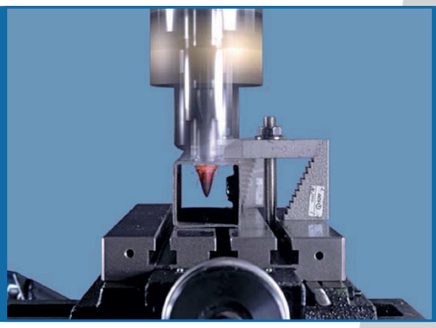
CODE 40024:
Impianto illuminazione a LED a 24 Volts
24 Volt LED light

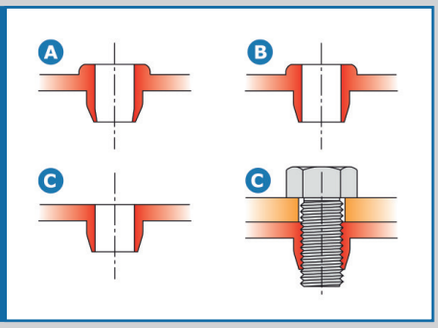


CODE 30001:
Impianto refrigerante
Cooling system

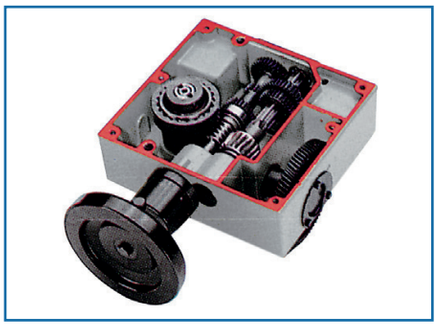


CODE 40002:
Filettatura con teleinvertitore
Thread-cutting unit with transformer

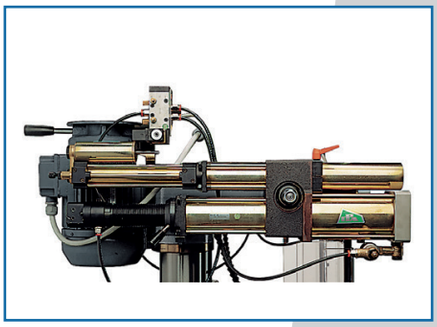




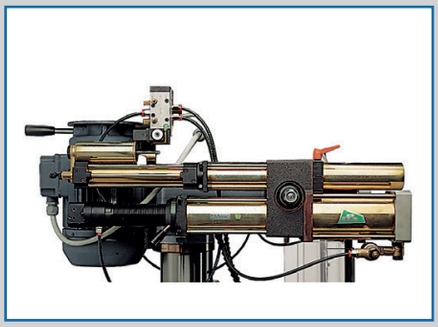
CODE 30018:
Flow drill



CODE 30003:
Discesa automatica meccanica del mandrino
3 velocità: 0,05 – 0,1 – 0,2 mm/giro
(R32 - R40 - R45)
Automatic mechanical quill-feed
3 speeds: 0,05 – 0,1 – 0,2 mm/rot.
(R32 - R40 - R45)



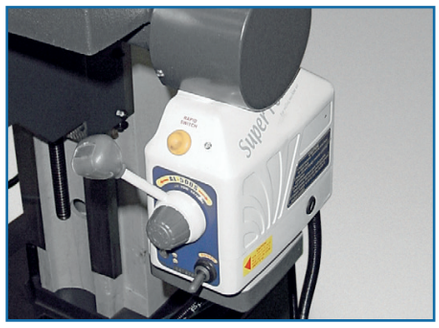
CODE 30019:
Discesa mandrino idropneumatica UR80
(R32 - R40)
UR80 Hydro-pneumatic quill-feed
(R32 - R 32 R40)



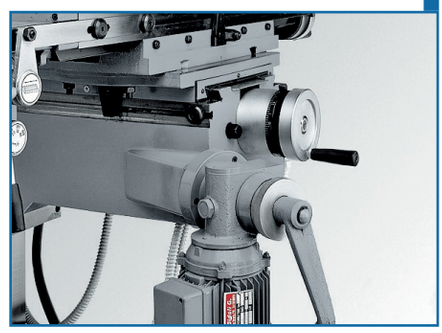
CODE 40010:
Discesa mandrino idropneumatica UR100 (R45).
Corsa mandrino automatica di 105 mm con ritorno rapido alla profondità impostata. Avanzamento 5÷2500 mm/min. Potenza spinta a 6 bar: 400 Kg.
UR100 Hydropneumatic quill-feed (R45).
105 mm automatic spindle quill-feed with adjustable rapid release feeds. 5÷2.500 mm/min automatic feed. 6 bar-400 Kg thrust power.

OPZIONI
OPTIONS

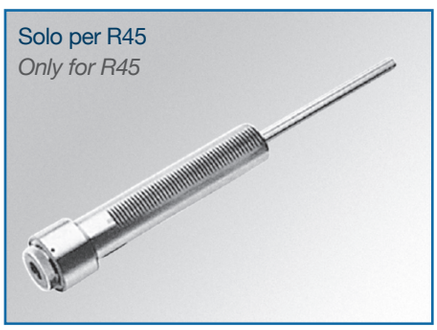
CODE 40083:
Discesa automatica tramite innesto elettromagnetico *a 24 V c.c.*
24 V Dc Electromagnetic automatic quill-feed



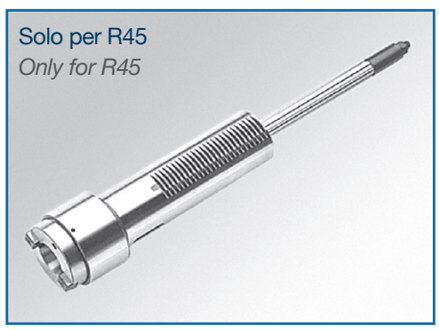
CODE 40026 POWER:
Avanzamento automatico longitudinale meccanico della tavola
Mechanical longitudinal cross-table feed



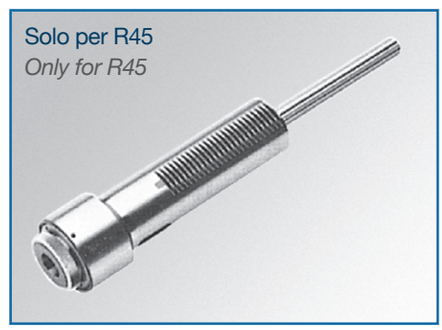
CODE 40006:
Avanzamento rapido verticale della tavola
Rapid vertical table feed



CODE 40001:
Corsa mandrino 230 mm (solo con VS)
230 mm long sleeve (only with VS)



CODE 40020:
Asse mandrino ISO 40 con tirante (DIN 2080)
ISO 40 spindle including tie-rod (DIN 2080)



CODE 40037:
Asse mandrino CM4 forato per passaggio tirante bloccaggio utensile.
MT4 Drilled spindle axis for tie rod

PANNELLO A MEMBRANA
su tutti i modelli elettronici
MEMBRANA PANEL
on all electronic models

TECHNOLOGY
& QUALITY
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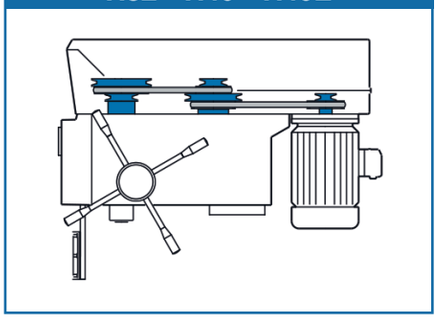
ITALY

DATI TECNICI
TECHNICAL DATA

		R32		R32E	R40				R40E	R45			R45E
Capacità di foratura su acciaio R50 *Drilling capacity on R50 steel*	mm	Ø 32		Ø 32	Ø 40				Ø 40	Ø 45			Ø 45
Capacità di maschiatura su acciaio R50 *Tapping capacity on R50 steel*	mm	M20		M20	M24				M24	M26			M26
Cono mandrino *Spindle - intake*		MT3		MT3	MT4				MT4	MT4			MT4
Corsa mandrino *Quil - stroke*	mm	135		135	135				135	145			145
Diametro canotto mandrino *Spindle - quill diameter*	mm	62		62	62				62	72			72
Discesa automatica (opzione) *Automatic mechanical quill - feed (option)*	mm / giro	3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm/giro											
Discesa automatica con frizione elettromagnetica *Electro - magnetic automatical quill - feed*	mm / giro	3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro		3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro	3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro				3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro	3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro			3 VELOCITÀ: 0.05 - 0.1 - 0,2 mm / giro
Diametro colonna *Column diameter*	mm	123		123	123				123	164			164
Tavola *Table*		TC - PGM - TR		TC - PGM - TR	TC - PGM - TR				TC - PGM - TR	TC - PGM - TR			TC - PGM - TR
Trasmissione *Transmission*		PU	VS	Inverter	PU	VS	VR	CI	Inverter	VS	VR	CI N° 12 Sp.	Inverter
Velocità mandrino *Spindle speed*	rpm	100 - 2.200	100 - 1.640	100 - 2.400	100 - 2.200	100 - 1.640	40 - 2.380	64 - 1.720	45-900 / 110-2.150	100 - 1.620	40 - 2.340	50 - 1.300	45 - 2.150
Potenza motore (380 V 50 Hz) *Motor Power (380 V 50 Hz)*	KW	1.1 - 1.84		2.2	1.1 - 1.84	1.1 - 1.84	1.1 - 1.84	1.1 - 1.84	2.2	2.2 - 3	2.2 - 3	2.2 - 3	3
Interasse tra 2 cave a "T" *T - slots interaxis (between 2 T - slots)*	mm	125		125	125				125	200 (TR) - 160 (TM)			200 (TR) - 160 (TM)
Larghezza delle cave a "T" *T - slots dimension width*	mm	14		14	14				14	14			14
Tavola croce: corsa long. manuale asse X *Cross table longitudinal stroke - X axis (manual feed)*	mm	425		425	425				425	425			425
Tavola croce: avanzamento automatico asse X *Cross table longitudinal stroke - X axis (automatic feed)*	mm	365		365	365				365	365			365
Tavola croce: corsa trasversale manuale asse Y *Cross table trasversal stroke - Y axis (manual feed)*	mm	240		240	240				240	240			240
Dimensioni (h x l x p) a colonna *Column model dimensions (h x w x d)*	mm	1.900 x 665 x 1.030		1.900 x 665 x 1.030	1.900 x 665 x 1.030				1.900 x 1.020 x 1.230 (TC)	1.986 x 675 x 1.100			1.986 x 675 x 1.100
Peso *Weight*	Kg	370		370	410				410	548 (TR) - 610 (TC)			548 (TR) - 610 (TC)

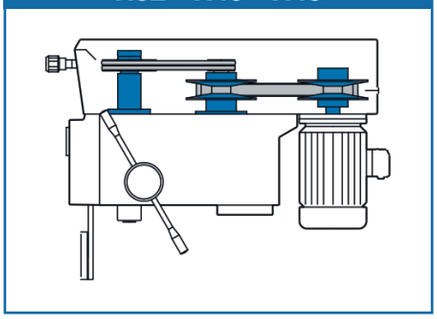
TRASMISSIONE
TRANSMISSION

R32 - R40 - R40E



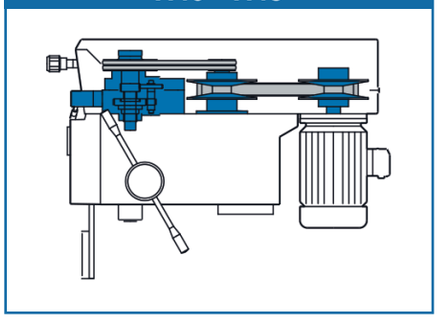
PU
Pulegge a gradini
Step pulleys

R32 - R40 - R45

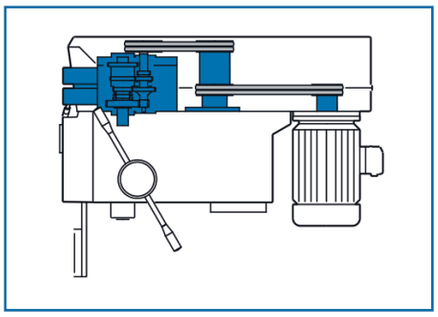


VS
Variatore semplice
Variable speed-drive unit

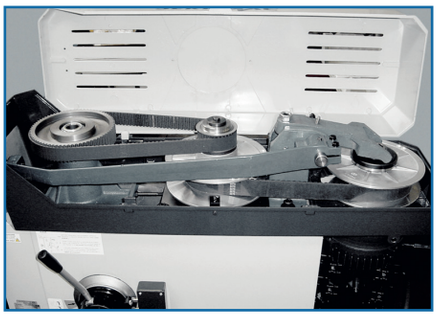
R40 - R45



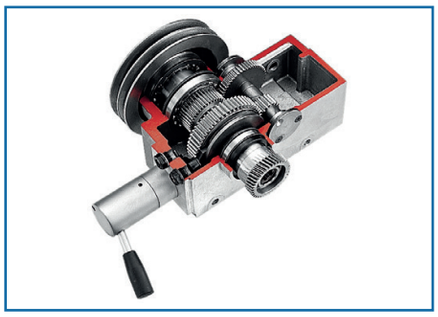
VR
Variatore ritardo
Variable speed-drive unit with gear box



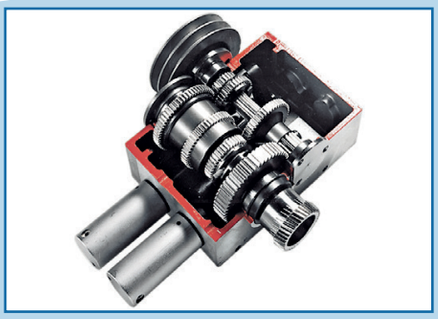
CI
Cambio ingranaggi
Gear box drive-unit



VS
Variatore semplice
Variable speed-drive unit



VR
Variatore ritardo
Variable speed-drive unit with gear box



CI
Cambio ingranaggi
Gear box drive-unit

STANDARD
Fronte digitale elettronico
Electronic digital front

uemme TOOLS and EQUIPMENT

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TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

AUTOMAX CNC
DIGIT CN
MDE 20

Trapani-Fresa / Foratrici-Maschiatrici CNC

Drilling-Milling Machines / CNC Drilling-Tapping Machines

READY FOR INDUSTRY 4.0

AUTOMAX CNC

AUTOMAX Z CN

DIGIT CN

DIGIT

MDE 20 CNC

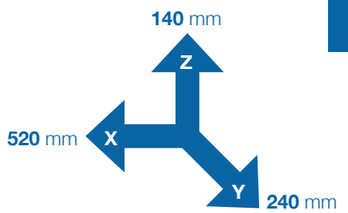
CE

ITA_EN

AUTOMAX CNC

TRAPANO-FRESA CONTROLLO NUMERICO CON ASSI X - Y - Z INTERPOLATI IN CONTINUO

DRILLING-MILLING MACHINE WITH X - Y - Z CONTINUOUS INTERPOLATION

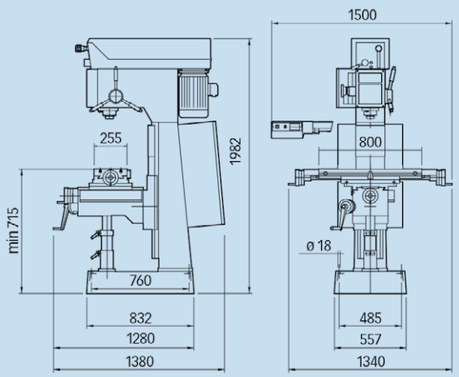


• Controllo Numerico che gestisce i 3 assi più la rotazione del mandrino con una interpolazione continua degli stessi, consentendo le operazioni di **Foratura**, **Maschiatura** e **Fresatura** con cicli di lavoro programmabili.
• Schermo **Touch Screen** da 7" per la programmazione a bordo macchina, con pulsanti per la gestione delle lavorazioni e indicatori digitali delle posizioni degli assi e della velocità mandrino;
• **Porta USB** per il caricamento programmi da bordo macchina e uscita dati supplementare per la connessione ad un sistema **CAD/CAM**;
• Il collegamento alla rete è possibile anche tramite **rete wireless**. L'AUTOMAC CNC è predisposto per **INDUSTRY 4.0**.

*• A CNC that manages the 3 axes as well as the spindle rotation, on a continuous interpolation basis, thus making it possible to perform **Drilling**, **Tapping** and **Milling** operations by means of programmable work cycles;*
*• A 7" **Touch Screen** for on board machine programming, with buttons for the management of the various processes and digital indicators of axis position and spindle speed;*
*• A **USB port** to load programmes at machine level and an additional data output for the connection to a **CAD/ CAM** system;*
*• The machine can be connected to the network also by means of a wireless network. AUTOMAX CNC is **INDUSTRY 4.0**-ready*

• La trasmissione è di tipo **elettronico** e la variazione della velocità è regolata tramite **inverter**, direttamente dallo schermo **touch screen**.
• I tre assi sono movimentati da motori **Brushless**.
• Sugli assi X e Y la trasmissione viene effettuata tramite viti a ricircolo di sfere che consentono **precisione** e **ripetibilità** delle quote.
• Velocità di spostamento rapido X e Y fino a 8 m/min con le opportune protezioni di sicurezza obbligatorie per spostamenti assi con velocità superiori a 2 m/min.

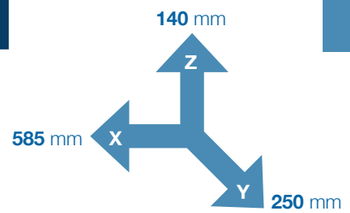
*• The device also has an **electronic** gearbox and speed changes are regulated by an **inverter**, directly from the **Touch Screen** display.*
*• The three axes are managed by **Brushless** motors.*
*• On the X and y axes, transmission is obtained by means of recirculating ball screws that ensure **precision** and **repeatability** of levels.*
• Quick shift speed of the X and Y axes up to 8 m/min with suitable mandatory guards for axis movements at speeds in excess of 2 m/min.



AUTOMAX Z CN

TRAPANO-FRESA CONTROLLO NUMERICO CON TRE ASSI VISUALIZZATI E ASSE Z CONTROLLATO

DRILLING-MILLING MACHINE WITH 3 DISPLAYED AXES AND CONTROLLED Z AXIS

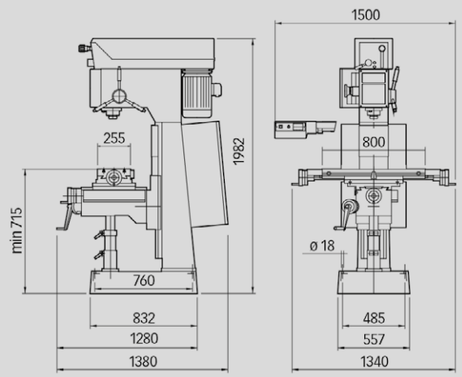


• **Asse Z controllato da CN** che consente di programmare cicli di **Foratura** e differenti tipologie di **Maschiatura**; Impostando il passo ed il numero di giri, il programma esegue la maschiatura interpolando in continuo i giri e la velocità di discesa Z;
• Schermo **Touch Screen** da 7" per la programmazione a bordo macchina, con pulsanti per la gestione delle lavorazioni e indicatori digitali delle posizioni degli assi e della velocità mandrino;
• **Porta USB** per il caricamento programmi da bordo macchina e uscita dati supplementare per la connessione ad un sistema CAD/CAM;
• Il collegamento alla rete è possibile anche tramite **rete wireless**. L'AUTOMAX CNC è predisposto per **INDUSTRY 4.0**.

*• **A NC-controlled Z axis**, that makes it possible to program **Drilling** cycles and different types of **Tapping**; by setting the pitch and number of revolutions, the programme performs the tapping, through an ongoing interpolation of revolutions and Z axis descent speed;*
*• A 7" **Touch Screen** for on board machine programming, with buttons for the management of the various processes and digital indicators of axis position and spindle speed;*
*• A **USB port** to load programmes at machine level and an additional data output for the connection to a **CAD/CAM** system;*
*• The machine can be connected to the network also by means of a wireless network. AUTOMAX CNC is **INDUSTRY 4.0**-ready.*

• La trasmissione è di tipo elettronico e la variazione della velocità è regolata tramite **inverter**, direttamente dallo schermo **touch screen**.
• L'asse Z è movimentato da un motore **Brushless**.
• Sugli assi X e Y la trasmissione viene effettuata manualmente tramite volantini.
• Le righe ottiche installate sugli assi X e Y garantiscono **precisione** e **ripetibilità** delle quote.

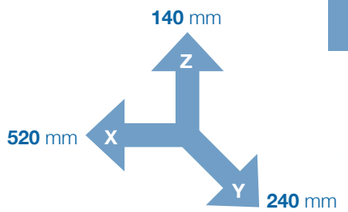
*• The device also has an **electronic** gearbox and speed changes are regulated by an **inverter**, directly from the **Touch Screen** display.*
*• The Z axis is shifted by a **Brushless** motor.*
• On the Z axis, transmission is obtained manually, by means of handwheels.
*• The optical scales installed on the X and Y axes ensure **precision** and level **repeatability**.*



DIGIT CN

TRAPANO-FRESA CON ASSI X-Y INTERPOLATI IN CONTINUO E CICLI PROGRAMMABILI DA CN

DRILLING-MILLING MACHINE WITH XY CONTINUOUS INTERPOLATION AND CN-PROGRAMMABLE CYCLES



- Tavola a **croce**;
- Controllo numerico che gestisce gli assi X e Y con **interpolazione continua** degli stessi, consentendo le operazioni di **Foratura** e **Fresatura** con cicli di lavoro facilmente programmabili e memorizzabili;
- Schermo **Touch Screen** da 7" per la programmazione a bordo macchina, con pulsanti per la gestione delle lavorazioni e indicatori digitali delle posizioni degli assi e del numero di giri del mandrino;
- **Porta USB** per il caricamento programmi da bordo macchina e uscita dati supplementare per la connessione ad un sistema **CAD/CAM**;
- Il collegamento alla rete è possibile anche tramite rete **wireless**. Il DIGIT CN è predisposto per **INDUSTRY 4.0**

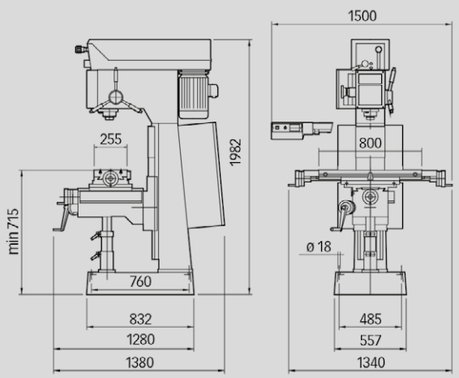
- ***Cross*** *working Table;*
- *A CNC that manages the X-Y axes as well as the spindle rotation, on a continuous interpolation basis, thus making it possible to perform* ***Drilling*** *and* ***Milling*** *operations by means of programmable work cycles;*
- *A 7"* ***Touch Screen*** *for on board machine programming, with buttons for the management of the various processes and digital indicators of axis position and spindle speed;*
- ***A USB port*** *to load programmes at machine level and an additional data output for the connection to a* ***CAD/CAM*** *system;*
- *The machine can be connected to the network also by means of a wireless network.*

DIGIT CN is ***INDUSTRY 4.0****-ready*

- La trasmissione può essere tramite **inverter** o con **variatore meccanico.** La variazione della velocità è regolata tramite **inverter**, direttamente dallo schermo **touch screen**.
- Gli assi X e Y sono movimentati da motori **Brushless**.
- Sugli assi X e Y la trasmissione viene effettuata tramite viti a ricircolo di sfere che consentono **precisione** e **ripetibilità** delle quote.
- Velocità di spostamento rapido X e Y fino a 6 m/min con le opportune protezioni di sicurezza obbligatorie per spostamenti assi con velocità superiori a 2 m/min.

- *Transmission may be electronic with* ***inverter*** *or by means of* ***mechanical variator****.*

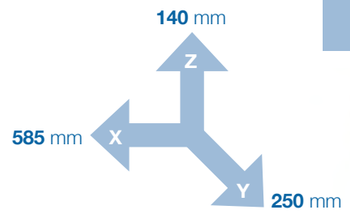
Speed changes are regulated by an ***inverter****, directly from the* ***Touch Screen*** *display.*
- *X and Y axes are managed by* ***Brushless*** *motors.*
- *On the X and y axes, transmission is obtained by means of recirculating ball screws that ensure* ***precision*** *and* ***repeatability*** *of levels.*
- *Quick shift speed of the X and Y axes up to 6 m/min with suitable mandatory guards for axis movements at speeds in excess of 2 m/min.*



DIGIT

TRAPANO-FRESA CON 3 ASSI VISUALIZZATI E CICLI PROGRAMMABILI

DRILLING-MILLING MACHINE WITH 3 DISPLAYED AXES AND PROGRAMMABLE CYCLES

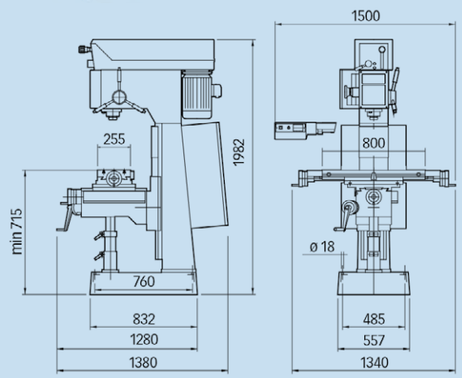


- Tavola a **croce** con movimentazione **manuale**;
- Controllo numerico con Schermo **Touch Screen** da 7" per la programmazione a bordo macchina, con pulsanti per la gestione delle lavorazioni e indicatori digitali delle posizioni degli assi e del numero di giri del mandrino;
- Righe ottiche sugli assi X-Y-Z per una elevata **precisione** di posizionamento e **ripetibilità**;
- **Porta USB** per il caricamento programmi da bordo macchina e uscita dati supplementare per la connessione ad un sistema **CAD/CAM**;
- Il collegamento alla rete è possibile anche tramite rete **wireless**. Il DIGIT è predisposto per **INDUSTRY 4.0**.

- ***Cross*** *working Table;*
- *A 7"* ***Touch Screen*** *for on board machine programming, with buttons for the management of the various processes and digital indicators of axis position and spindle speed;*
- *Optical scales installed on the X and Y axes ensure* ***precision*** *and level* ***repeatability****;*
- *A USB port to load programmes at machine level and an additional data output for the connection to a* ***CAD/CAM*** *system;*
- *The machine can be connected to the network also by means of a* ***wireless*** *network.*

DIGIT is ***INDUSTRY 4.0****-ready*

TECHNOLOGY & QUALITY MADE IN ITALY



AUTOMAX
TECHNICAL DATA

DATI TECNICI | *TECHNICAL DATA*		AUTOMAX CNC	AUTOMAX Z CN
CAPACITÀ DI FORATURA *DRILLING CAPACITY*	mm	Ø 50	Ø 50
CAPACITÀ DI MASCHIATURA *TAPPING CAPACITY*	mm	M27	M27
CONO MANDRINO *SPINDLE - INTAKE*		CM4	CM4
CORSA MANDRINO *QUILL - STROKE*	mm	140	140
DIAMETRO CANOTTO MANDRINO *SPINDLE - QUILL - STROKE*	mm	72	72
TRASMISSIONE *TRANSMISSION*		INVERTER	INVERTER
VELOCITÀ MANDRINO *SPINDLE SPEED*	rpm	100 - 2.100	100 - 2.100
CORSA ASSE X *CROSS TABLE LONGITUDINAL STROKE - X AXIS*	mm	520	585
CORSA ASSE Y *CROSS TABLE TRASVERSAL STROKE - Y AXIS*	mm	240	250
POTENZA MOTORE *MOTOR POWER*	Kw	2,2 - 3	2,2 - 3
PESO *WEIGHT*	Kg	810	810

AUTOMAX | CONFIGURAZIONE DI SERIE

- Trasmissione elettronica tramite inverter
- Viti a ricircolo di sfere su assi X e Y (AUTOMAX CNC)
- Righe ottiche / encoder su assi X-Y-Z
- Motori Brushless sui tre assi (AUTOMAX CNC)
- Cicli base e maschere per inserimento programmi di FORATURA, MASCHIATURA e FRESATURA
- Motore Brushless su asse Z (AUTOMAX Z CN)
- Impianto centralizzato di lubrificazione manuale per le guide e le viti
- Visualizzatore digitale posizione assi, profondità foratura e velocità di rotazione
- Impianto di refrigerazione dell'utensile
- Impianto di illuminazione a LED

AUTOMAX | STANDARD CONFIGURATION

- *Electronic gearbox with inverter*
- *Recirculating ball screws on the X and Y axes (AUTOMAX CNC)*
- *Optical scales / encoder on the X-Y-Z axes*
- *Brushless motors on three axes (AUTOMAX CNC)*
- *Basic cycles and templates for the input of DRILLING, TAPPING AND MILLING programmes*
- *Brushless motor on the Z axis (AUTOMAX Z CN)*
- *Central manual lubrication system for tracks and screws*
- *Axis position, drilling depth and rotation speed digital display*
- *Tool cooling system*
- *LED lighting system*

AUTOMAX | OPTIONAL

- Scheda Trasmissione dati per INDUSTRY 4.0
- Programma interfacciamento CAD/CAM Cliente
- Scheda Trasmissione dati Wireless
- Esecuzione di programmi ISO di lavorazione e caricamento da remoto
- Asse mandrino con cono ISO 40 con tirante DIN 2080
- Asse mandrino forato per tirante CM4
- Avanzamento rapido verticale tavola
- Colonna prolungata L= 200 mm
- Impianto elettrico per tensioni diverse da 220/380 V 50 Hz
- Motore autofrenante 2.2 – 3 kW
- Predisposizione per applicazione testa fusi multipli compreso pistone di bilanciamento
- Predisposizione per applicazione tavola rotante in ciclo automatico di foratura
- Sgancio utensile pneumatico ISO 40 – DIN 2080
- Tropicalizzazione con isolamento F140°
- Supporto telescopico della mensola
- Tavola rotante idropneumatica
- Testa fusi multipli registrabile
- Verniciatura diversa da RAL 7021 – 7038
- Vasca raccolta trucioli e gocce dell'impianto refrigerante

AUTOMAX | OPTIONAL

- *Data transmission card for INDUSTRY 4.0*
- *Customer CAD/CAM interface programme*
- *Wireless data transmission card*
- *Execution of ISO processing and remote controlled loading programmes*
- *Spindle axis with ISO 40 taper and DIN 2080 tie rod*
- *Perforated spindle axis for CM4 tie rod*
- *Rapid vertical table feed*
- *Extended column L=200 mm*
- *Electric system for voltages other than 220/380 V 50 Hz*
- *Self-braking motor 2.2 - 3 kW*
- *Pre-set for multiple spindles head, including balancing piston*
- *Pre-set for rotary table working on an automatic drilling cycle*
- *Pneumatic tool release ISO40 - DIN 2 80*
- *Tropicalisation with F140° insulation*
- *Telescopic shelf support*
- *Hydropneumatic rotary table*
- *Adjustable multiple spindles head*
- *Painting other than with RAL 7021 - 7038*
- *Chip and drip collecting tray of the refrigerating system*

DIGIT
TECHNICAL DATA

DATI TECNICI | *TECHNICAL DATA*		DIGIT CN		DIGIT	
CAPACITÀ DI FORATURA *DRILLING CAPACITY*	mm	Ø 50		Ø 50	
CAPACITÀ DI MASCHIATURA *TAPPING CAPACITY*	mm	M27		M27	
CONO MANDRINO *SPINDLE - INTAKE*		CM4		CM4	
CORSA MANDRINO *QUILL - STROKE*	mm	140		140	
DIAMETRO CANOTTO MANDRINO *SPINDLE - QUILL - STROKE*	mm	72		72	
TRASMISSIONE *TRANSMISSION*		INVERTER	VARIATORE RITARDO	INVERTER	VARIATORE RITARDO
VELOCITÀ MANDRINO *SPINDLE SPEED*	rpm	100 - 2.100	40 - 2.340	100 - 2.100	40 - 2.340
CORSA ASSE X *CROSS TABLE LONGITUDINAL STROKE - X AXIS*	mm	520		585	
CORSA ASSE Y *CROSS TABLE TRASVERSAL STROKE - Y AXIS*	mm	240		250	
POTENZA MOTORE *MOTOR POWER*	Kw	2,2 - 3		2,2 - 3	
PESO *WEIGHT*	Kg	810		810	

DIGIT | CONFIGURAZIONE DI SERIE

- Tavola a Croce
- Viti a ricircolo di sfere su assi X e Y (DIGIT CN)
- Righe ottiche / encoder su assi X-Y-Z
- Motori Brushless su assi X e Y (DIGIT CN)
- Movimentazione assi X e Y manuale (DIGIT)
- Cicli base e maschere per inserimento programmi di FORATURA, MASCHIATURA e FRESATURA
- Movimentazione asse Z con discesa automatica elettromeccanica
- Impianto centralizzato di lubrificazione manuale per le guide e le viti (DIGIT CN)
- Visualizzatore digitale posizione assi, profondità foratura e velocità di rotazione
- Impianto di refrigerazione dell'utensile
- Impianto di illuminazione a LED
- Filettatura mediante teleinvertitore 24V
- Schermo Touch Screen da 7"

DIGIT | STANDARD CONFIGURATION

- *Cross working Table*
- *Recirculating ball screws on the X and Y axes (DIGIT CN)*
- *Optical scales / encoder on the X-Y-Z axes*
- *Brushless motors on X - Y axes (DIGIT CN)*
- *Optical scales on the X and Y axes (DIGIT)*
- *Basic cycles and templates for the input of DRILLING, TAPPING AND MILLING programmes*
- Z axis movement with electromechanical automatic quill feed
- *Central manual lubrication system for tracks and screws*
- *Axis position, drilling depth and rotation speed digital display*
- *Tool cooling system*
- *LED lighting system*
- *24V Dc Electro-magnetic automatic quillfeed (0.05 - 0.1 - 0.2)*
- *7" TOUCH SCREEN*

DIGIT | OPTIONAL

- Scheda Trasmissione dati per INDUSTRY 4.0
- Programma interfacciamento CAD/CAM Cliente
- Scheda Trasmissione dati Wireless
- Esecuzione di programmi ISO di lavorazione e caricamento da remoto
- Asse mandrino con cono ISO 40 con tirante DIN 2080
- Asse mandrino forato per tirante CM4
- Avanzamento rapido verticale tavola
- Colonna prolungata L= 200 mm
- Impianto elettrico per tensioni diverse da 220/380 V 50 Hz
- Motore autofrenante 2.2 – 3 kW
- Predisposizione per applicazione testa fusi multipli compreso pistone di bilanciamento
- Predisposizione per applicazione tavola rotante in ciclo automatico di foratura
- Sgancio utensile pneumatico ISO 40 – DIN 2080
- Tropicalizzazione con isolamento F140°
- Supporto telescopico della mensola
- Tavola rotante idropneumatica
- Testa fusi multipli registrabile
- Verniciatura diversa da RAL 7021 – 7038
- Vasca raccolta trucioli e gocce dell'impianto refrigerante

DIGIT | OPTIONAL

- *Data transmission card for INDUSTRY 4.0*
- *Customer CAD/CAM interface programme*
- *Wireless data transmission card*
- *Execution of ISO processing and remote controlled loading programmes*
- *Spindle axis with ISO 40 taper and DIN 2080 tie rod*
- *Perforated spindle axis for CM4 tie rod*
- *Rapid vertical table feed*
- *Extended column L=200 mm*
- *Electric system for voltages other than 220/380 V 50 Hz*
- *Self-braking motor 2.2 - 3 kW*
- *Pre-set for multiple spindles head, including balancing piston*
- *Pre-set for rotary table working on an automatic drilling cycle*
- *Pneumatic tool release ISO40-DIN 2080*
- *Tropicalisation with F140° insulation*
- *Telescopic shelf support*
- *Hydropneumatic rotary table*
- *Adjustable multiple spindles head*
- *Painting other than with RAL 7021-7038*
- *Chip and drip collecting tray of the refrigerating system*

SOFTWARE

Serrmac mette a disposizione del Cliente una serie di servizi e Software che consentono di gestire la macchina CNC con semplicità, di essere connessi al service Serrmac per gli aggiornamenti software periodici, per l'installazione di nuovi cicli di lavoro, ed anche per teleassistenza e ricerca guasti.

I PRINCIPALI SERVIZI SOFTWARE DISPONIBILI AI CLIENTI SONO:

• SOFTWARE LETTURA PROGRAMMAZIONE ISO
Consente la lettura di programmi di lavorazione in Linguaggio ISO.
I programmi sono caricabili sul CN via cavo, wireless, o con chiavetta USB.
I programmi possono essere modificati direttamente sul touch screen.

• SCHEDA TRASMISSIONE DATI WIRELESS
Permette di connettere il CN alla rete Wi-Fi del Cliente,
in opzione al cavo;

• SFT CAD/CAM 2,5D
(2 assi continui e uno di posizionamento)
Installato su un PC del Cliente collegato con il CN, consente di importare Disegni 2D, di generare il relativo programma di lavorazione ISO e di caricarlo sul Controllo Numerico dell'Automax o del Digit.
Il programma ISO può essere modificato ed eventualmente completato sul PC o direttamente sul touch screen del controllo.

• SFT CAD/CAM 3D
Installato su un PC del Cliente collegato con il CN, consente di importare Disegni 3D, di generare il relativo programma di lavorazione ISO e di caricarlo sul Controllo Numerico dell'Automax o del Digit.
Il programma ISO può essere modificato ed eventualmente completato sul PC o direttamente sul touch screen del controllo.

• PROTOCOLLO MODBUS
Il protocollo di trasmissione MODBUS TCP, consente di comunicare dati riguardanti le lavorazioni e lo stato della macchina al Sistema gestionale del Cliente. Questo permette di rendere la macchina certificabile Industry 4.0.

• SFT SYNCMACHINES per MODBUS
Per facilitare lo scambio dati con il sistema gestionale, Serrmac ha sviluppato il software SynchMachines. Questo applicativo, una volta installato sul PC di un cliente e connesso alla rete aziendale, comunica con la macchina utilizzando il protocollo MODBUS TCP e rende disponibili i dati su file "CSV" o "JSON".

• SOFTWARE GESTIONALE MINIMES
Serrmac ha sviluppato un software Gestionale "MINIMES", da installare su un PC del cliente collegato alla sua rete aziendale, con i requisiti minimi per certificazione INDUSTRY 4.0 (per i clienti che non hanno altre macchine Industry 4.0 e che non hanno un sistema gestionale adeguato a Industry 4.0.)
Il SFT MiniMes può gestire, a richiesta e previa valutazione tecnica, anche altre macchine a Controllo Numerico del Cliente.

• TELEASSISTENZA
Il Cliente può avere accesso al Servizio di Teleassistenza Serrmac con il collegamento da remoto alla macchina del Cliente e la possibilità di scaricare aggiornamenti software, cicli di lavoro, analisi guasti.

Serrmac makes available a series of services and software programs which allow its customers the use of the CNC machines in a very easy and simple way as the periodic software updates by the connection to Serrmac services, the installation of new work cycles, as well as the remote assistance and troubleshooting.

THE MAIN SOFTWARE SERVICES PROVIDED TO OUR CUSTOMERS ARE AS FOLLOWS:

• SOFTWARE READING PROGRAMS ISO
This software allows the processing programs in the ISO language to be read.
The programs can be loaded on the NC by cable, wireless, or by a USB key.
Programs can be edited directly on the Touch Screen.

• WIRELESS DATA TRANSMISSION
It allows the NC to be connected to the customer's internet network as an option to the cable;

• 2.5D CAD / CAM SFT
(2 continuous axes and one positioning axis)
It is installed on the customer's PC which is connected to the CN. This allows to import 2D Drawings, to create the corresponding ISO processing program and then to upload it on the Automax or Digit Numerical Control.
The ISO program can be modified or completed on the PC or directly on the touch screen of the control.

• 3D CAD / CAM SFT
It is installed on the customer's PC which is connected to the NC. It allows to import 3D drawings, to create the corresponding ISO processing program and upload it on the Automax or Digit Numerical Control. The ISO program can be modified or completed on the PC or directly on the touch screen of the control.

• MODBUS PROTOCOL
The MODBUS transmission protocol TCP allows to communicate data which regard the machining and machine status, to the customer management system. This enable the machine to be certified for the Industry 4.0

• SFT SYNCMACHINES for MODBUS
Serrmac has developed the software SyncMachines in order to simplify the data exchange with the management system. This application once installed on the customer's PC and connected to the company network, is able to communicate with the machine by using the MODBUS TPC protocol. This application makes available the data on file "CSV" or "JSON".

• MINIMES MANAGEMENT SOFTWARE
Serrmac has developed a "MINIMES" management software to be installed on a PC on the customer network, with the minimum requirements for INDUSTRY 4.0 certification (for customers who do not have any other Industry 4.0 machines and who do not have a proper management system for Industry 4.0.) Upon request and after having being technically evaluated, the SFT MiniMes can manage also other Customer Numerical Control machines.

• REMOTE ASSISTANCE
The Customer can access to the Serrmac Teleassistance Service thanks to the remote connection to the Customer's machine. It is possible to download software updates, work cycles, fault analysis.

INTUITIVE PROGRAMMING

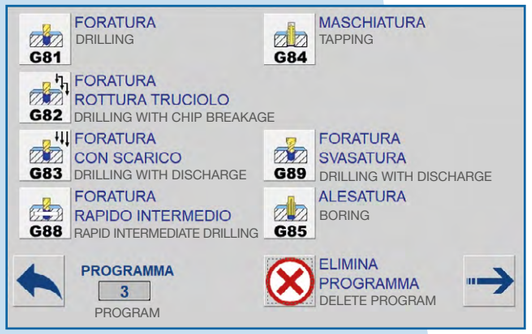
• Serrmac ha sviluppato un software di programmazione e controllo CNC che installato sull'Automax, sul Digit o sulle altre macchine automatiche a controllo numerico, ne consente una facile ed intuitiva programmazione direttamente dallo schermo Touch Screen.
• Non è necessario conoscere la programmazione ISO ma è sufficiente interagire con le maschere preimpostate per programmare cicli automatici di foratura, maschiatura e fresatura.
• È possibile inoltre sviluppare cicli di lavorazione specifici per ogni Cliente, in base alle sue necessità tecniche.

Di seguito un esempio di maschere che propongono i vari programmi di foratura, maschiatura o fresatura, ed un esempio di maschere per la programmazione di forature e di cicli di fresatura per ottenere tasche.

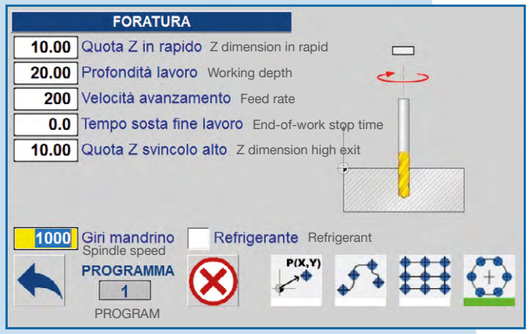
• Serrmac has developed a CNC programming and control software that, when installed on Automax, Digit or other automatic CNC machines, allows easy and intuitive programming directly from the Touch Screen.
• It's not necessary that you be familiar with ISO programming but you can simply interact with the pre-set templates to program automatic drilling, tapping and milling cycles.
• It is also possible to develop specific processing cycles for each Customer based on their technical requirements.

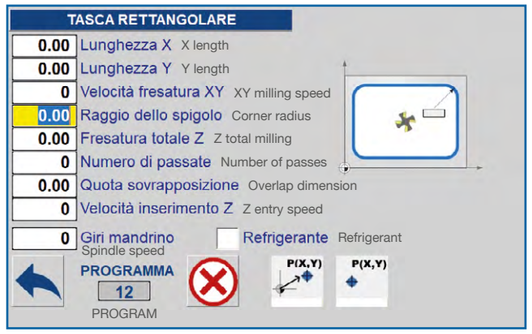
Below is an example of templates proposing the various drilling, tapping or milling programs and an example of templates for programming drilling and milling cycles to obtain pockets.

Cicli di foratura-maschiatura-svasatura-alesatura
Drilling-tapping-countersinking-boring cycles



Cicli di fresatura
Milling cycles





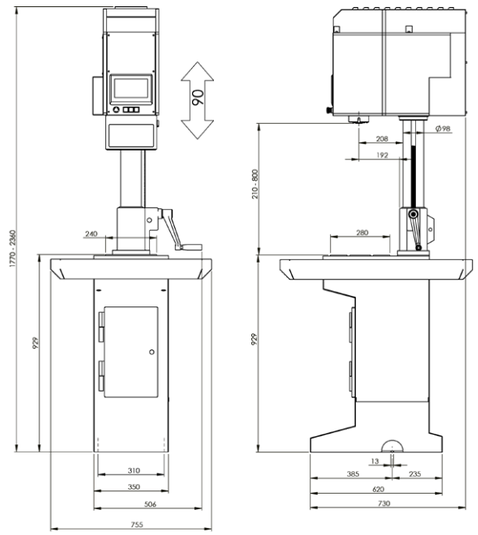
INTELLIGENT &CUSTOMIZABLE

MDE 20

Predisposta per industry 4.0
Ready for Industry 4.0

FORATRICE E MASCHIATRICE A CONTROLLO NUMERICO - MASCHIATURA RIGIDA

DRILLING-MILLING MACHINE WITH X - Y - Z CONTINUOUS INTERPOLATION



TECHNICAL DATA

Attacco cono / *Taper connection*	CM2
Foratura / *Drilling dia*	dia 25
Maschiatura / *Tapping*	M20
Trasmissione / *Transmission*	vite ricircolo di sfere / *ball screw*
RPM	0-2.000
Potenza motore / *Power*	5,5Kw
Corsa canotto / *Spindle stroke*	80mm

SPECIAL OPTIONS

Volantino per movimentazioni manuali
Versione RPM 0-3.000
Handwheel for manual handling
Version RPM 0-3.000

- La Foratrice e Maschiatrice MDE 20 è gestita da un **Controllo Numerico** e da **due motori brushless**, uno per la rotazione ed uno per la discesa mandrino.
- I due assi sono interpolati in continuo e il movimento avviene tramite una vite a ricircolo di sfere.
- **Encoder sui motori** controllano in continuo la posizione e la velocità assi.
- La mancanza di giochi meccanici e la precisione dell'interpolazione consentono di eseguire **"MASCHIATURA RIGIDA"**.
- La MDE 20 può essere abbinata ad una tavola rotante per **lavorazioni continue in ciclo**.

- *The MDE 20 Tapping Machine is managed by a **Numerical Control** and by **two brushless motors**, one for the spindle rotation and one for the spindle feeding.*
- *The two axes are continuously interpolated and the movement takes place via a ball screw.*
- ***Encoders on the motors** continuously control the position and speed of the axes.*
- *The lack of mechanical gaps and the precision of the interpolation allow you to perform **"RIGID TAPPING"**.*
- *The MDE 20 can be combined with a rotary table for **continuous processing**.*

MADE IN ITALY

1950 — Da oltre 70 anni nel mercato
On the market for over 70 years

> 2.000 — Capacità produttiva di oltre 2.000 unità l'anno
Production capacity over 2.000 units per year

> 30 — Più di 30 modelli diversi
More than 30 different models

Rivenditore autorizzato / Official dealer:

SERRMAC INTERNATIONAL S.R.L.
Via delle Industrie, 9
33070 POLCENIGO (PN) - Italy
Tel. +39 0434 671021
Fax +39 0434 671031
info@serrmac.it
www.serrmac.it

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MADE IN ITALY

SERRMAC®
TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

ETD **22** / ETD **30**

Trapani elettronici trasmissione diretta /
Drilling machines with direct transmission continuously

ETD 22

ETD 30

SERRMAC Interational si riserva il diritto di apportare senza alcun preavviso qualsiasi modifica che ritenga necessaria.

The Company SERRMAC International has the right to make the needeed modifications without any notice.

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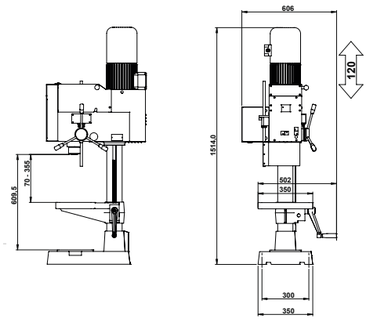
ETD 22

TRAPANO ELETTRONICO TRASMISSIONE DIRETTA VARIAZIONE CONTINUA

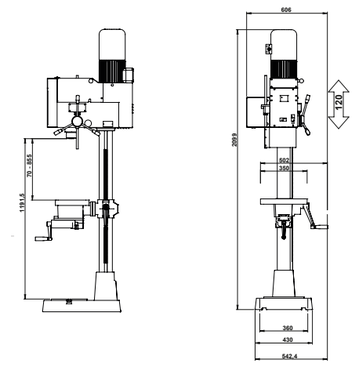
DRILLING MACHINES WITH DIRECT TRANSMISSION CONTINUOUSLY

La serie ETD identifica trapani elettronici con trasmissione diretta regolata in continuo tramite inverter.
Il pannello di comando è a membrana, di facile utilizzo, con display per la lettura del numero di giri e della profondità.
Il motore è a 2 velocità, l'inverter gestisce in automatico il cambio gamma.

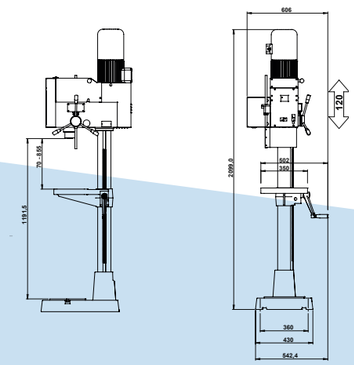
BANCO PN / *BENCH PN*



COLONNA PGM / *COLUMN PGM*



COLONNA PN / *COLUMN PN*



TECHNICAL DATA

Attacco cono / *Taper connection*	CM2
Foratura / *Drilling*	dia 22
Maschiatura / *Tapping*	M16
Trasmissione / *Transmission*	continua con inverter / *continuosly by inverter*
RPM	265 - 4.200
Potenza motore / *Power* (380V)	1,8 - 2,5 Kw
Corsa canotto / *Spindle stroke*	120 mm
Peso / *Weight*	240 kg (colonna / *column*) 180 kg (banco / *bench*)

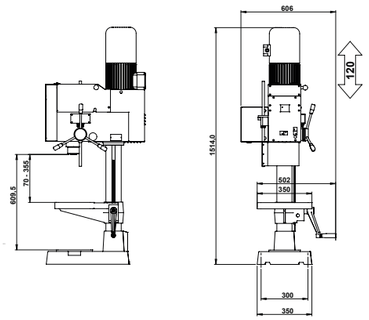
ETD 30

TRAPANO ELETTRONICO TRASMISSIONE DIRETTA VARIAZIONE CONTINUA

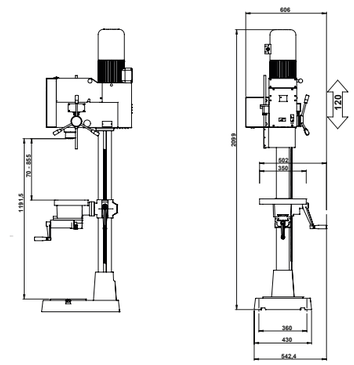
DRILLING MACHINES WITH DIRECT TRANSMISSION CONTINUOUSLY

The ETD series identifies electronic drilling machines with direct transmission continuously regulated through inverter.
The control panel is membrane-operated, easy to use, with display for reading the number of revolutions and depth.
The motor is 2-speed, the inverter automatically manages the range change.

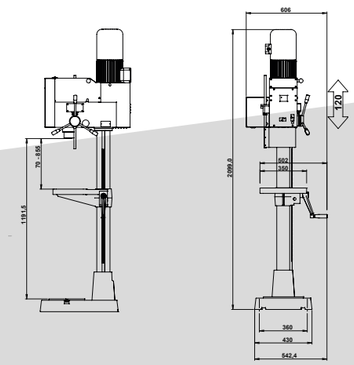
BANCO PN / *BENCH PN*



COLONNA PGM / *COLUMN PGM*



COLONNA PN / *COLUMN PN*



TECHNICAL DATA

Attacco cono / *Taper connection*	CM3
Foratura / *Drilling*	dia 30
Maschiatura / *Tapping*	M20
Trasmissione / *Transmission*	continua con inverter / *continuosly by inverter*
RPM	150 - 2.230
Potenza motore / *Power* (380V)	1,8 - 2,5 Kw
Corsa canotto / *Spindle stroke*	120 mm
Peso / *Weight*	240 kg (colonna / *column*)

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MADE IN ITALY

SERRMAC®

TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

SERIE
MDR MDE

Maschiatrici Automatiche e a Controllo Numerico

/ Automatic and Numerical Control Tapping machines

MDR 12

MDR 16

MDR 22

MDR 32

MDE 20 CNC

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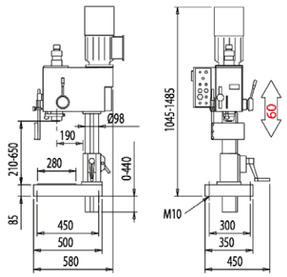
MDR 12

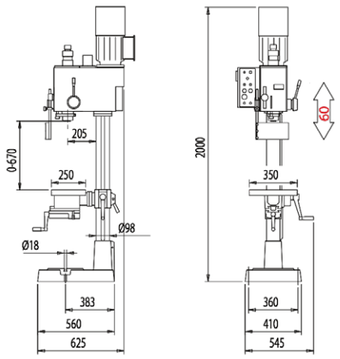
MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS

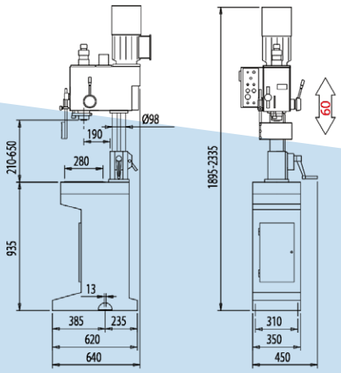
BANCO / *BANCH*



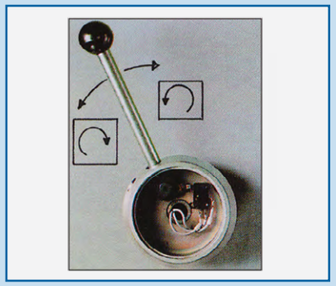
COLONNA / *COLUMN*



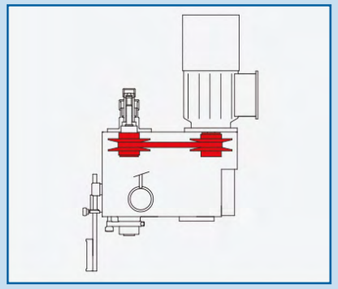
PIEDISTALLO / *PEDESTRAL*



MDR 12
Leva sensitiva ad inversione
Reversing sesitiv lever



MDR 12
Variatore di Velocità
Variable speeds drive
275 ÷ 1785 1/min kW1,1

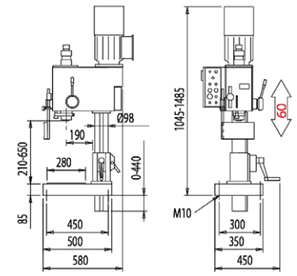


MDR 16

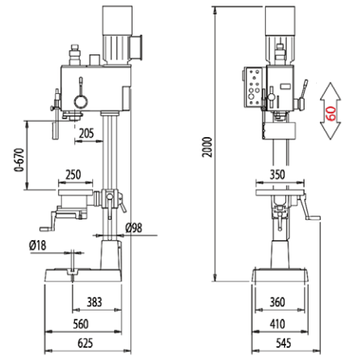
MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS

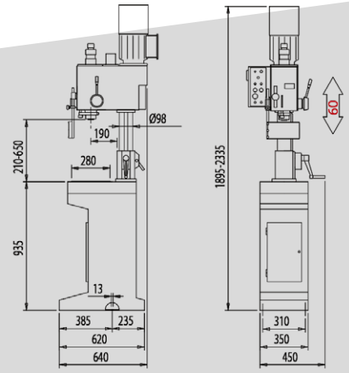
BANCO / *BANCH*



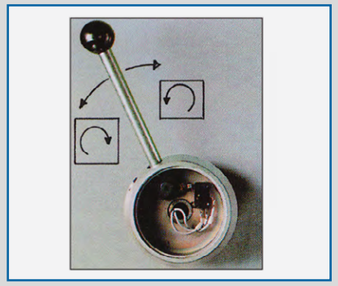
COLONNA / *COLUMN*



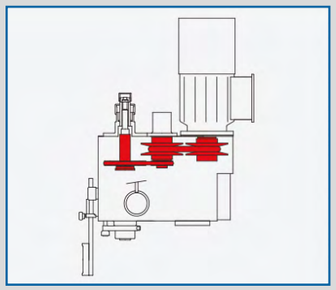
PIEDISTALLO / *PEDESTRAL*



MDR 16
Leva sensitiva ad inversione
Reversing sesitiv lever



MDR 16
Variatore di Velocità
Variable speeds drive
140 ÷ 900 1/min kW1,1

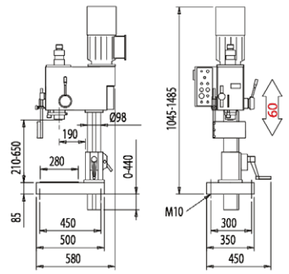


MDR 22

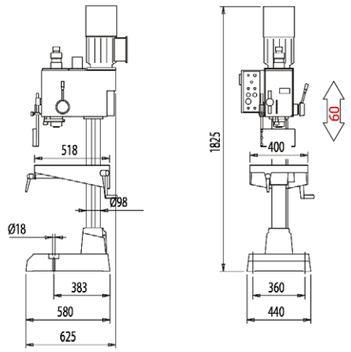
MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS

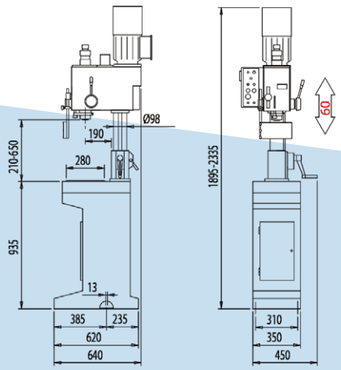
BANCO / *BANCH*



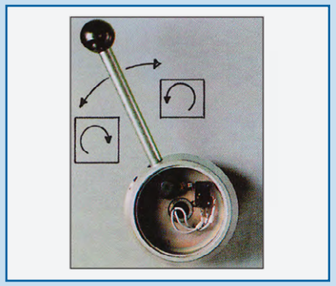
COLONNA / *COLUMN*



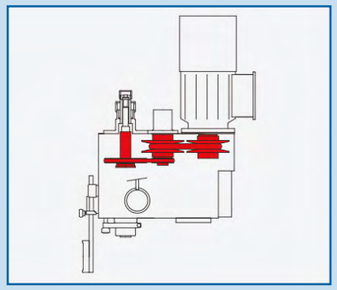
PIEDISTALLO / *PEDESTRAL*



MDR 22
Leva sensitiva ad inversione
Reversing sesitiv lever



MDR 22
Variatore di Velocità
Variable speeds drive
130 ÷ 675 1/min kW1,5



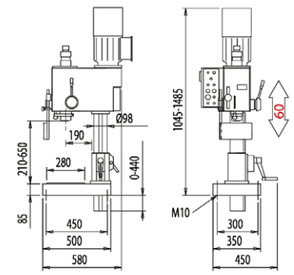
MDR 32

MASCHIATRICE AUTOMATICA A CAMBIO INGRANAGGI

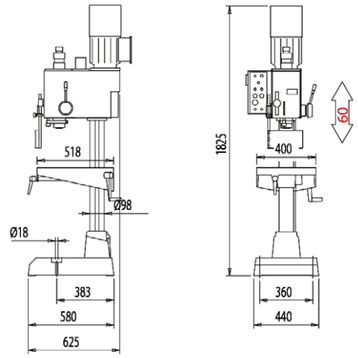
AUTOMATIC TAPPING MACHINES WITH GESR-BOX DRIVE

Protezione antinfortunistica
Spindele safety guard

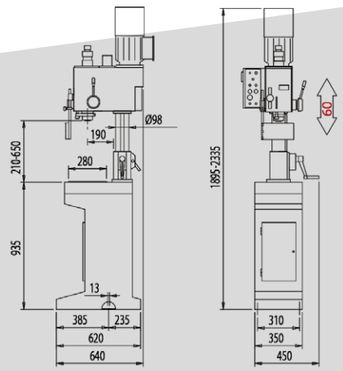
BANCO / *BANCH*



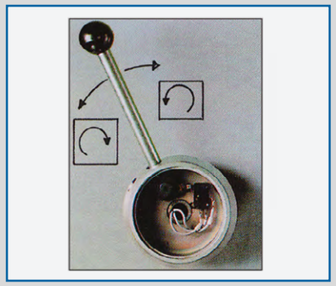
COLONNA / *COLUMN*



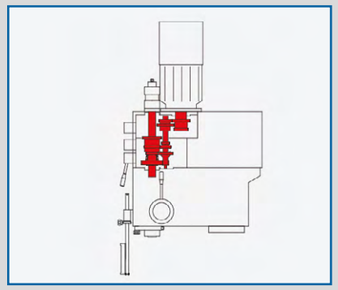
PIEDISTALLO / *PEDESTRAL*



MDR 32
Leva sensitiva di inversione a comando manuale per filettature con rompitruciolo nei materiali difficili per passi fini e molto precisi.
Manually-operated sensitive lever that enables the cip breakage and high-precision also on small threads.



MDR 32
Cambio ingranaggi
Gear-box drive
64-105-128-185-210-300
370-500-600-860-1000
1720 1/min kW2,2

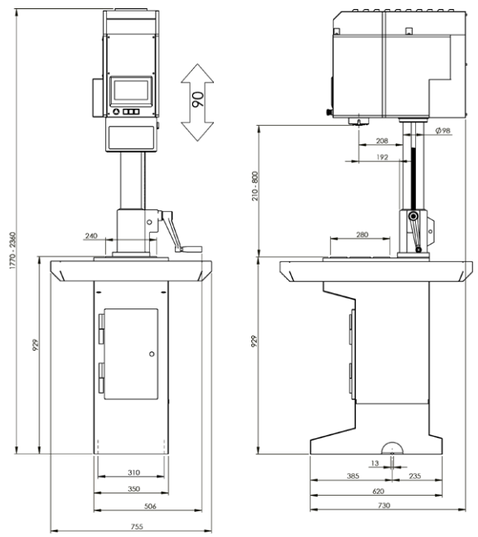


MDE 20

Predisposta per industry 4.0
Ready for Industry 4.0

FORATRICE E MASCHIATRICE A CONTROLLO NUMERICO - MASCHIATURA RIGIDA

DRILLING-MILLING MACHINE WITH X - Y - Z CONTINUOUS INTERPOLATION



TECHNICAL DATA

Attacco cono / *Taper connection*	CM2
Foratura / *Drilling dia*	dia 25
Maschiatura / *Tapping*	M20
Trasmissione / *Transmission*	vite ricircolo di sfere / *ball screw*
RPM	0-2.000
Potenza motore / *Power*	5,5Kw
Corsa canotto / *Spindle stroke*	80mm

SPECIAL OPTIONS

Volantino per movimentazioni manuali
Versione RPM 0-3.000
Handwheel for manual handling
Version RPM 0-3.000

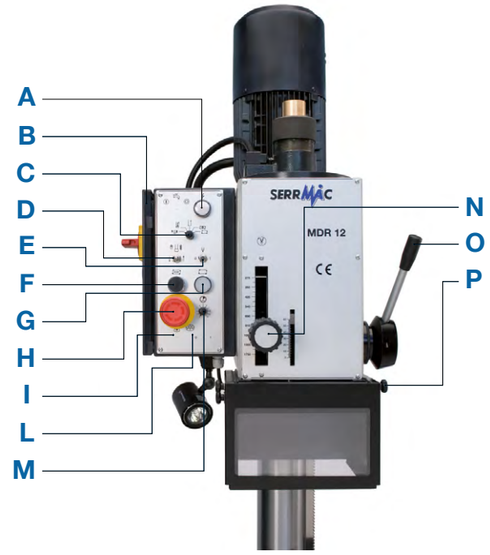
- La Foratrice e Maschiatrice MDE 20 è gestita da un **Controllo Numerico** e da **due motori brushless**, uno per la rotazione ed uno per la discesa mandrino.
- I due assi sono interpolati in continuo e il movimento avviene tramite una vite a ricircolo di sfere.
- **Encoder sui motori** controllano in continuo la posizione e la velocità assi.
- La mancanza di giochi meccanici e la precisione dell'interpolazione consentono di eseguire **"MASCHIATURA RIGIDA"**.
- La MDE 20 può essere abbinata ad una tavola rotante per **lavorazioni continue in ciclo**.

- *The MDE 20 Tapping Machine is managed by a **Numerical Control** and by **two brushless motors**, one for the spindle rotation and one for the spindle feeding.*
- *The two axes are continuously interpolated and the movement takes place via a ball screw.*
- ***Encoders on the motors** continuously control the position and speed of the axes.*
- *The lack of mechanical gaps and the precision of the interpolation allow you to perform **"RIGID TAPPING"**.*
- *The MDE 20 can be combined with a rotary table for **continuous processing**.*

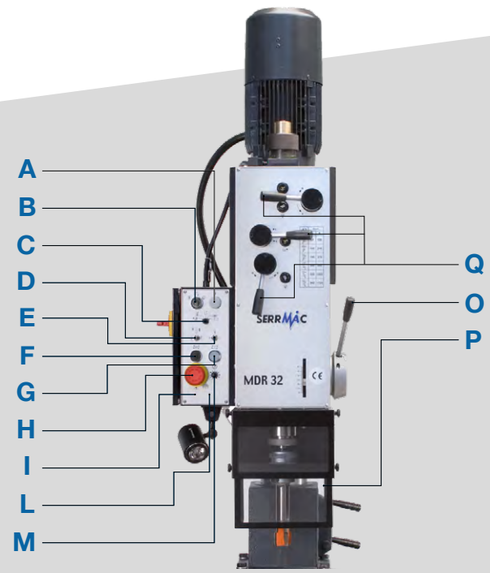
DATI TECNICI
TECHNICAL DATA
MDR

	ITA	ENG
A	**Macchina in tensione**	*Machine efectricaly coupled*
B	**Impianto refrigerante**	*Coolant system*
C	**Selettore a 5 posizioni:** **1 Ciclo prova ad impulsi** **2 Ciclo manuale con comando mediante leva sensitiva** **3 Ciclo di lavoro singolo** **4 Ciclo di lavoro temporizzato** **5 Ciclo di lavoro continuo**	*Positions selector switch:* *1 Testing cycle by electronic impulse* *2 Manual cycle by sensitive lever with reversing control* *3 Single work cycle* *4 Work cycle with programmed time dwell* *5 Continued work cycle*
D	**Avanzamento cannotto mandrino**	*Spindle up-down manipulator*
E	**Lubrorefrigerazione nebulizzata**	*Coolant unit by spraying nozzle*
F	**Fine ciclo**	*Cycle-end*
G	**Inizio ciclo**	*Cycle-start*
H	**Emergenza**	*Emergency push-button*
I	**Ciclo singolo o continuo tavola rotante**	*Single or continued work cycle for rotary table*
L	**Abilitazione tavola rotante**	*enable of the rotary table*
M	**Temporizzatore**	*Time dwells selector switch*
N	**Leva variazione giri mandrino**	*Spindle RPM changing levers*
O	**Leva sensitiva**	*Sensitive fever with movement inversion*
P	**Pomello regolazione corsa di lavoro**	*Work stroke control roundgrip*
Q	**Leva cambio velocità mandrino**	*Spindle RPM changing levers*

MDR 12/16/22



MDR 32



Valori indicativi per filettare con maschi HSS
Indicative data fot tapping with HSS screw-taps

Velocità di taglio in metri al minuto primo
Cutting-speed in meters/min

Giri al primo del mandrino per i metalli più correnti
Spindle RPM for the most employed materials

MDR 16 | MDR 22 | MDR 12 | MDR 32

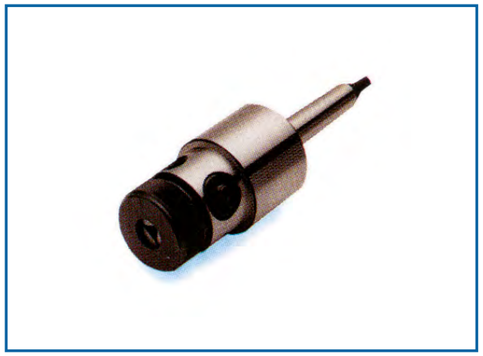
Metalli *Metals*	Velocità di taglio *Cut speed*	Giri al primo per filettature metriche ISO *Turns per minute for ISO metric threading* M1	M1,1	M1,2	M1,4	M1,6	M1,8	M2	M2,2	M2,5	M3	M3,5	M4	M4,5	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M35
Acciaio 50kg *Stell 50kg*	12	3822	3475	3185	2730	2389	2123	1911	1737	1529	1274	1092	956	849	764	637	478	382	319	273	239	212	191	174	159	142	127	116	106
Acciaio 70kg *Stell 70kg*	8	2548	2316	2123	1820	1593	1416	1274	1158	1019	849	728	637	566	510	425	319	255	212	182	159	142	127	116	106	94	85	77	71
Acciaio 90kg *Stell 90kg*	6	1911	1737	1593	1365	1194	1962	956	869	764	637	546	478	425	382	319	239	191	159	137	119	106	96	87	80	71	64	58	53
Acciaio oltre 100kg *Stell over 100kg*	3	955	868	796	682	597	531	478	434	382	318	273	239	212	191	159	119	96	80	68	60	53	48	43	40	35	32	29	27
Acciaio da utensili *Steel for tools*	4	1274	1158	1062	910	796	708	637	579	510	425	364	319	283	255	212	159	127	105	91	80	71	64	53	53	47	42	39	35
Acciaio inossidabile *Stainless steel*	6	1911	1737	1593	1365	1194	1062	956	869	764	637	546	478	425	382	319	239	191	159	137	119	106	96	87	80	71	64	53	53
Acciaio forgiato 75kg *Forged steel about 75kg*	8	2548	2316	2123	1820	1593	1416	1274	1158	1019	849	728	637	566	510	425	319	255	212	182	159	142	127	116	106	94	85	77	71
Acciaio da tempera *Hardenered steel*	8	2548	2316	2123	1820	1593	1416	1274	1158	1019	849	728	637	566	510	425	319	255	212	182	159	142	127	116	106	94	85	77	71
Ghisa tenera *Soft cast iron*	10	3185	2895	2654	2275	1991	1769	1593	1448	1274	1062	910	796	708	637	531	398	319	265	228	199	177	159	145	133	118	106	97	88
Ghisa dura *Hard cast iron*	6	1911	1737	1593	1365	1194	1962	956	869	764	637	546	478	425	382	319	239	191	159	137	119	106	96	87	80	71	64	58	53
Alluminio *Aluminium*	30	9554	8655	7962	6824	5971	5308	4777	4343	3822	3185	2730	2389	2123	1911	1592	1194	955	796	682	597	531	478	434	398	354	318	290	265
Duralluminio *Duralumin*	20	6369	5790	5308	4549	3981	3538	3185	2895	2548	2123	1820	1592	1415	1274	1062	796	637	531	455	398	354	318	290	265	236	212	193	177
Anticorodal *Anticorodal*	15	4777	4343	3981	3412	2986	2654	2369	2171	1911	1592	1365	1194	1062	955	796	597	478	398	341	299	265	239	217	199	177	159	145	133
Rame *Copper*	12	3822	3475	3185	2730	2389	2123	1911	1737	1529	1274	1092	956	849	764	637	478	382	319	273	239	212	191	174	159	142	127	116	106
Rame elettrolitico *Electrolytic copper*	10	3185	2895	2654	2275	1991	1769	1593	1448	1274	1062	910	796	708	637	531	398	319	265	228	199	177	159	145	133	118	106	97	88
Bronzo *Bronze*	10	3185	2895	2654	2275	1991	1769	1593	1448	1274	1062	910	796	708	637	531	398	319	265	228	199	177	159	145	133	118	106	97	88
Ottone dolce 63 *Soft Brass*	15	4777	4343	3981	3412	2986	2654	2386	2171	1911	1592	1365	1194	1062	955	796	597	478	398	341	299	265	239	217	199	177	159	145	133
Ottone fragile 53 *Brittle brass*	15	4777	4343	3981	3412	2986	2654	2389	2171	1911	1592	1365	1194	1062	955	796	597	478	398	341	299	265	239	217	199	177	159	145	133
Argentana *Nickel silver*	9	2866	2605	2388	2047	1791	1592	1433	1303	1146	955	819	717	637	573	478	358	287	239	205	179	159	143	130	119	106	96	87	80
Zinco leghe *Zinc alloys*	12	3822	3475	3185	2730	2389	2123	1911	1737	1529	1274	1092	956	849	764	637	478	382	319	273	239	212	191	174	159	142	127	116	106
Bachelite *Bakelite*	10	3185	2895	2654	2275	1991	1769	1593	1448	1274	1082	910	796	708	637	531	398	319	265	228	199	177	159	145	133	118	106	97	88

DATI TECNICI
TECHNICAL DATA
MDR

		MDR 12			MDR 16		
		Banco *Bench model*	**Piedistallo** *On Pedestal*	**Colonna** *On Column*	**Banco** *Bench model*	**Piedistallo** *On Pedestal*	**Colonna** *On Column*
Capacità di maschiatura su acciaio R50 *Tapping capacity on steel*		M 12			M 16		
Cono mandrino *Spindle taper*	mm	CM2			CM2		
Corsa mandrino *Quill stroke*	mm	60			60		
Velocità mandrino *Spindle speed*	rpm	275 ÷ 1785			140 ÷ 900		
Potenza motore (400 V 50 Hz) *Spindle motorpower*	kW	1.1			1.1		
Tavola *Table dimensions*	mm	315x350	250x350		315x350	250x350	
Diametro colonna *Column diameter*	mm	98			98		
Distanza colonna centro mandrino *Distance spindle axis-column*	mm	205			205		
Distanza tavola naso mandrino (min-max) *Distance spindle-end table*	mm	210 - 600		45 - 760	210 - 600		45 - 760
Distanza base naso mandrino *Distance spindle-end to basis*	mm	-	-	1120	-	-	1120
Dimensioni (l x p x h) a colonna *Overall dimensions (w x d x h)*	mm	450x580x1485	450x640x2335	545x625x2000	450x580x1485	450x640x2335	545x625x2000
Peso *Weight*	kg	140 - 150	250 - 260	200 - 210	140 - 150	250 - 260	200 - 210

		MDR 22			MDR 32		
		Banco *Bench model*	**Piedistallo** *On Pedestal*	**Colonna** *On Column*	**Banco** *Bench model*	**Piedistallo** *On Pedestal*	**Colonna** *On Column*
Capacità di maschiatura su acciaio R50 *Tapping capacity on steel*		M 22			M 32		
Cono mandrino *Spindle taper*	mm	CM3			CM4		
Corsa mandrino *Quill stroke*	mm	60			60		
Velocità mandrino *Spindle speed*	rpm	130 ÷ 675			64 ÷ 1720		
Potenza motore (400 V 50 Hz) *Spindle motorpower*	kW	1.47			2.2		
Tavola *Table dimensions*	mm	315x350	250x350		300x700	600x345	
Diametro colonna *Column diameter*	mm	98			98		
Distanza colonna centro mandrino *Distance spindle axis-column*	mm	205			300		
Distanza tavola naso mandrino (min-max) *Distance spindle-end table*	mm	210 - 600		45 - 760	250 - 600	50 - 750	
Distanza base naso mandrino *Distance spindle-end to basis*	mm	-	-	1120	-	1120	
Dimensioni (l x p x h) a colonna *Overall dimensions (w x d x h)*	mm	450x580x1485	450x640x2335	545x625x2000	450x640x2335	545x625x2000	
Peso *Weight*	kg	150	260	210	310	380	

OPZIONI
OPTIONS

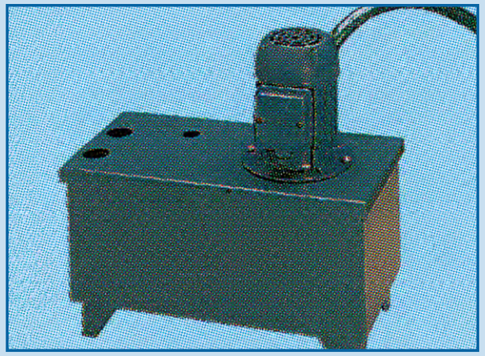


Mandrino portamaschi
Screw-taps chuck

Patrona
Lead-screw

Contagiri digitale mandrino per variatore
Spindle RPM digital read-out

Dispositivo di lubrorefrigerazione
Synchronized spraying nozzle

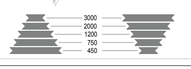


Impianto refrigerante
Coolant system

TECHNOLOGY
& QUALITY
MADE IN
ITALY

TECHNICAL DATA

NEXT 22



NEXT 22

NEXT 25

A5	B5	A4	C5	B4	A3
164	245	270	360	405	420

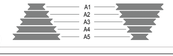
C4	B3	A2	B1	C2	C1
610	630	700	1525	1660	2460

NEXT 25

	A5	B5	A4	C5	B4	A3
I	125	190	210	280	315	330
II	250	380	420	560	630	660

	C4	B3	A2	B1	C2	C1
I	475	490	545	1185	1290	1915
II	950	980	1090	2370	2580	3830

NEXT 22E



Hz	A1	A2	A3	A4	A5
30	1800	1200	720	450	270
50	3000	2000	1200	750	450
70	4200	2800	1680	1050	630

NEXT 25E

Hz	A5	B5	A4	C5	B4	A3
30	88	160	175	240	260	270
50	150	240	270	370	405	420
70	228	360	420	570	630	660

Hz	C4	B3	A2	B1	C2	C1
30	395	405	450	985	1070	1600
50	610	630	700	1525	1660	2300
70	945	980	1050	2360	2570	3600

NEXT 30

	A5	B5	A4	C5	B4	A3
I	95	125	155	190	203	245
II	190	250	310	380	405	485

	C4	B3	A2	B1	C2	C1
I	305	320	345	755	780	1135
II	615	640	790	1510	1560	2270

VELOCITÀ
SPEED

MADE IN ITALY

1950 — Da oltre 70 anni nel mercato
On the market for over 70 years

> 2.000 — Capacità produttiva di oltre 2.000 unità l'anno
Production capacity over 2.000 units per year

> 30 — Più di 30 modelli diversi
More than 30 different models

Rivenditore autorizzato / Official dealer:

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33070 POLCENIGO (PN) - Italy
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info@serrmac.it
www.serrmac.it

SERRMAC International si riserva il diritto di apportare senza alcun preavviso qualsiasi modifica che ritenga necessaria.

The Company SERRMAC International has the right to make the needeed modifications without any notice.

uemme TOOLS and EQUIPMENT

MADE IN ITALY

SERRMAC®
TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

SERIE **NEXT**

Trapani / *Drilling-Machines*

NEXT 22_25 STANDARD

NEXT 22_25_30

NEXT 22E_25E

CE

ITA_EN

NEXT 22 25 30

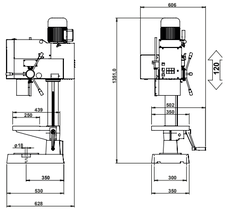
TRAPANO DA BANCO E A COLONNA CON TRASMISSIONE A PULEGGE

BENCH AND COLUMN DRILLING MACHINE EQUIPPED WITH STEP-PULLEY DRIVERS

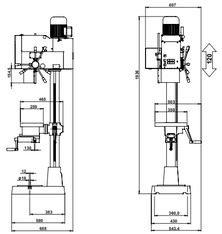
Trapani da banco e a colonna, precisi, silenziosi ed affidabili. Hanno trasmissione con pulegge a gradini, cambio velocità manuale, asse mandrino di precisione con cono morse temperato, piano base lavorato.

Precise, noiseless and reliable bench and column drilling machine. Featuring step-pulley drivers, manual speed-gears, precision spindle with hardened morse taper and ground base.

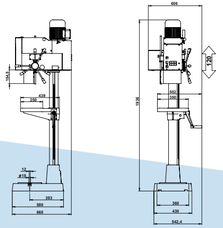
BANCO PN / *BENCH PN*



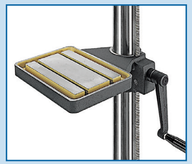
COLONNA PGM / *COLUMN PGM*



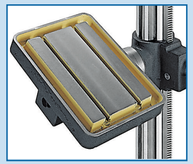
COLONNA PN / *COLUMN PN*



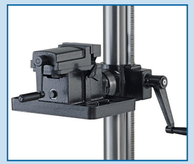
PN: 350 x 250 mm
Piano normale
Rectangular table with rack



PG: 350 x 250 mm
Piano girevole
Tilting table with rack



PGM: 350 x 250 mm
Piano girevole morsa
Tilting table with vice and rack



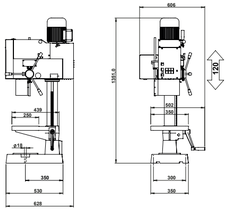
TC: 475 x 153 mm
Tavola croce
Cross table

NEXT 22E 25E

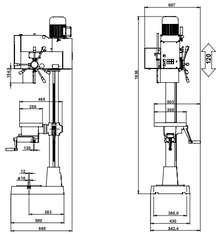
TRAPANO DA BANCO E A COLONNA CON TRASMISSIONE A PULEGGE E INVERTER

BENCH AND COLUMN DRILLING MACHINE EQUIPPED WITH STEP-PULLEY DRIVERS AND INVERTER

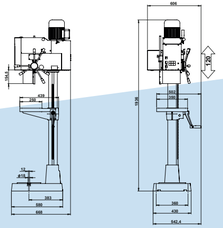
BANCO PN / *BENCH PN*



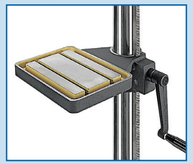
COLONNA PGM / *COLUMN PGM*



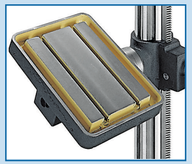
COLONNA PN / *COLUMN PN*



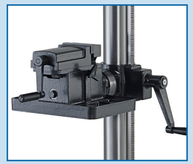
PN: 350 x 250 mm
Piano normale
Rectangular table with rack



PG: 350 x 250 mm
Piano girevole
Tilting table with rack



PGM: 350 x 250 mm
Piano girevole morsa
Tilting table with vice and rack



TC: 475 x 153 mm
Tavola croce
Cross table

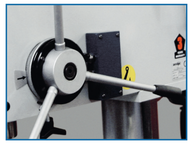
TECHNICAL DATA

		NEXT 22	NEXT 25	NEXT 30
Capacità di foratura su acciaio R50 *Drilling capacity on R50 steel*	mm	Ø22	Ø25	Ø30
Capacità di maschiatura su acciaio R50 *Tapping capacity on R50 steel*	mm	M14	M16	M18
Cono mandrino *Spindle-intak*		CM2	CM3	CM3
Corsa mandrino *Quill-stroke*	mm	120	120	120
Diametro canotto mandrino *Spindle-quill diameter*	mm	62	62	62
Diametro colonna *Column diameter*	mm	98	98	98
Distanza colonna centro del mandrino *Distance between spindle and middle column*	mm	207	207	207
Trasmissione *Transmission*		**Puleggia PU** *Pulley PU*	**Puleggia PU** *Pulley PU*	**Puleggia PU** *Pulley PU*
Velocità mandrino *Spindle speed*	rpm	**450 - 3.000 (1 Velocità)** *(1 speed)* **225 - 3.000 (2 Velocità)** *(2 speed)*	**164 - 2.460 (1 Velocità)** *(1 speed)* **125 - 3.830 (2 Velocità)** *(2 speed)*	**95 - 2.270 (2 Velocità)** *(2 speed)*
Potenza motore (400v) *Motor power (400v)*	kW	**0,75 Trifase (1 Velocità)** *0,75 Three phases (1 speed)*	**0,75 Trifase (1 Velocità)** *0,75 Three phases (1 speed)*	**0,6 / 0,9 Trifase (2 Velocità)** *0,6 / 0,9 Three phases (2 speed)*
Larghezza e interasse su cave a "T" *T-slots dimensions and interaxis*	mm	**N°2 / 12 / 100**	**N°2 / 12 / 100**	**N°2 / 12 / 100**
Tavola Croce - Corsa *Cross Tabel*	mm	**280 x 160**	**280 x 160**	**280 x 160**
Larghezza e interasse su cave a "T" su TC *T-slots dimensions and interaxis for TC*	mm	**N°2 / 16 / 60**	**N°2 / 16 / 60**	**N°2 / 16 / 60**
Dimensioni (h x l x p) a Colonna - da Banco *Column and Banch model dimensions (h x l x d)*	mm	**1350 x 600 x 630** **1950 x 600 x 680**	**1950 x 600 x 680**	**1950 x 600 x 680**
Peso *Weight*	kg	**220 (Colonna) - 160 (Banco)** *220 (Column) - 160 (Bench)*	**220**	**220**

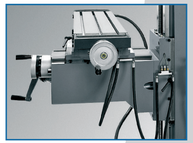
		NEXT 22 E	NEXT 25 E
Capacità di foratura su acciaio R50 *Drilling capacity on R50 steel*	mm	Ø 22	Ø 25
Capacità di maschiatura su acciaio R50 *Tapping capacity on R50 steel*	mm	M14	M16
Cono mandrino *Spindle-intak*		CM2	CM3
Corsa mandrino *Quill-stroke*	mm	120	120
Diametro canotto mandrino *Spindle-quill diameter*	mm	62	62
Diametro colonna *Column diameter*	mm	98	98
Distanza colonna centro del mandrino *Distance between spindle and middle column*	mm	207	207
Trasmissione *Transmission*		**Puleggia PU e Inverter** *PU - Electronic potentiometer (E) and Inverter*	**Puleggia PU e Inverter** *PU - Electronic potentiometer (E) and Inverter*
Velocità mandrino *Spindle speed*	rpm	**270 - 4.200**	**98 - 3.600**
Potenza motore *Motor power*	kW	**0,75 / 230 V Monofase (1 Velocità)** *0,75 / 220 V Mono-phase (1 speed)*	**0,75 / 230 V Monofase (1 Velocità)** *0,75 / 220 V Mono-phase (1 speed)*
Larghezza e interasse su cave a "T" *T-slots dimensions and interaxis*	mm	**N°2 / 12 / 100**	**N°2 / 12 / 100**
Tavola Croce - Corsa *Cross Tabel*	mm	**280 x 160**	**280 x 160**
Larghezza e interasse su cave a "T" su TC *T-slots dimensions and interaxis for TC*	mm	**N°2 / 16 / 60**	**N°2 / 16 / 60**
Dimensioni (h x l x p) a Colonna - da Banco *Column and Banch model dimensions (h x l x d)*	mm	**1350 x 600 x 630** **1950 x 600 x 680**	**1950 x 600 x 680**
Peso *Weight*	kg	**220 (Colonna) - 160 (Banco)** *220 (Column) - 160 (Bench)*	**220**

OPZIONI
OPTIONS

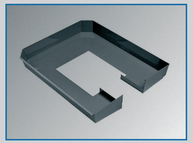
CODE 40024:
Impianto illuminazione a LED a 24 V
24 V LED light



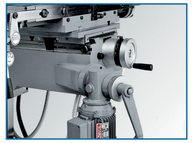
CODE 40002:
Filettatura con teleinvertitore
Thread-cutting unit with transformer



CODE 40007:
Lubrificazione centralizzata delle guide della tavola (manuale)
Centralized system for guide lubrication (manual)

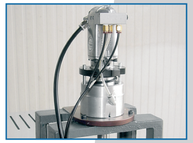


CODE 5355351:
Vaschetta raccogli trucioli per TCS
Chip and drip collecting tray for TCS



CODE 40006:
Avanzamento rapido verticale della tavola
Rapid vertical table feed

CODE 40026 POWER:
Avanzamento automatico longitudinale meccanico della tavola
Mechanical longitudinal cross-table feed



CODE 40097:
Sgancio utensile ISO 40 pneumatico
ISO 40 Spindle shaft with hydraulic lock and release system

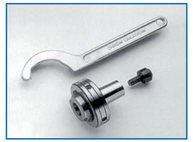
CODE 40008:
Supporto telescopico tavola
Table telescopic support

CODE 40083:
Discesa automatica tramite innesto elettromagnetico *a 24 V c.c.*
24 V Dc Electromagnetic automatic quill-feed

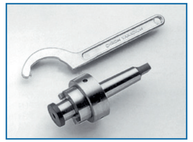
CODE 40001:
Corsa mandrino 230 mm (solo con VS)
230 mm long sleeve (only with VS)

CODE 40020:
Asse mandrino ISO 40 con tirante (DIN 2080)
ISO 40 spindle including tie-rod (DIN 2080)

CODE 40037:
Asse mandrino CM4 forato per passaggio tirante bloccaggio utensile
MT4 Drilled spindle axis for tie rod



CODE 39000050/60/70:
Cono con ghiera di bloccaggio per frese a candela, con morse interno a richiesta 1–2–3
Adaptor with locking ring nut for slot end-mills MT1 – MT2 – MT3 upon request



CODE 39000010/20/30/40:
Cono con ghiera di bloccaggio per frese a spianare, con attacco a richiesta ø 16–22–27–32.
Adaptor with locking ring nut for face-mills attachments on request dia. 16-22-27-32

CODE 9460009:
Cassetta con mandrino portapinze: ø 4–6–8–10–12–16–20.
Box with MT4 collet-chuck and dia. 4-6-8-10-12-16-20 collets

CODE 9459210 (CM4)
CODE 9459212 (ISO 40):
Cassetta completa di coni per frese a candela, per frese a spianare, mandrino portapinze ø 4–20, testa barenatrice ø 70 con attacco CM4 a richiesta attacco ISO 40.
Box containing taper shanks for end and face-mills, gripper-carrying spindle for 4-20 dia. mm drills, 70 dia. mm bo-ring head with MT4 taper, ISO 40 taper.

MADE IN ITALY

1950 — Da oltre 65 anni nel mercato
On the market for over 65 years

> 2.000 — Capacità produttiva di oltre 2.000 unità l'anno
Production capacity over 2.000 units per year

> 30 — Più di 30 modelli diversi
More than 30 different models

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uemme TOOLS and EQUIPMENT

MADE IN ITALY

SERRMAC
TECNOLOGIA E QUALITÀ MADE IN ITALY dal 1950

SERIE **TCS**

Trapani-Fresa / *Drilling-Milling Machines*

TCS

TCSE

CE

ITA_EN

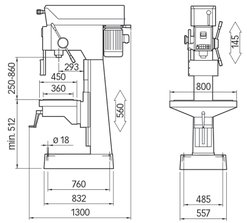
TCS

TRAPANO-FRESA
SERIE TCS

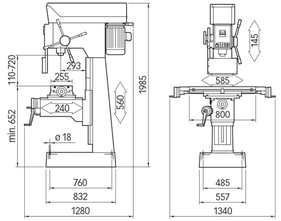
DRILLING-MILLING MACHINE
TCS SERIES

Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4

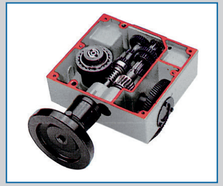
TR



TC



STANDARD:
Discesa automatica meccanica
Automatic mechanical quill-feed



TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack

TC: 800 x 255 mm
Tavola croce
Cross table

TCSE

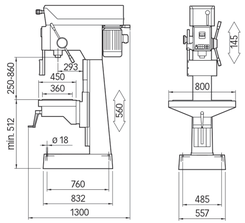
TRAPANO-FRESA SERIE TCS
CON TRASMISSIONE AD ALTO RENDIMENTO
E VARIATORE DI GIRI ELETTRONICO MEDIANTE
INVERTER VETTORIALE

TCS SERIES DRILLING-MILLING MACHINE
WITH HIGH PERFORMANCE TRANSMISSION
AND VARIABLE ELECTRONIC SPEED DRIVES
BY MEANS OF INVERTERS

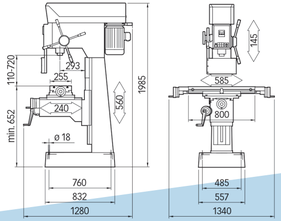
Inverter

Asse mandrino filettato
per bloccaggio utensile CM4
Threaded quill nose
for toll fitting MT4

TR



TC



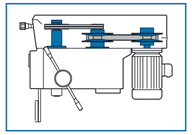
STANDARD:
Fronte digitale
Digital Front

TR: 600 x 345 mm
Tavola rettangolare
Rectangular table with rack

TC: 800 x 255 mm
Tavola croce
Cross table

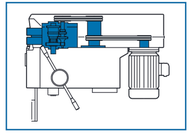
TECHNICAL DATA

		TCS			TCSE
Capacità di foratura su acciaio R50 *Drilling capacity on R50 steel*	mm	Ø 50			Ø 50
Capacità di maschiatura su acciaio R50 *Tapping capacity on R50 steel*	mm	M26			M26
Cono mandrino *Spindle - intake*		CM4			CM4
Corsa mandrino *Quil - stroke*	mm	145			145
Diametro canotto mandrino *Spindle - quill diameter*	mm	72			72
Discesa automatica *Automatic mechanical quill - feed*	mm / giro	**3 VELOCITÀ** / *3 SPEED*: **0.05 - 0.1 - 0,2 mm/giro** - *mm/round*			
Discesa automatica con frizione elettromagnetica *Electro - magnetic automatical quill - feed*	mm / giro	**3 VELOCITÀ** / *3 SPEED*: **0.05 – 0.1 – 0.2 mm/giro** - *mm/round*			
Colonna *Column*		Prismatica / Prismatic			
Tavola *Table*		TR – TC			TR – TC
Trasmissione *Transmission*		VS	VR	CI	Inverter
Velocità mandrino *Spindle speed*	rpm	100 - 1.620	40 - 2.340	50 - 1.300	45 - 2.150
Potenza motore (380 V 50 Hz) *Motor Power (380 V 50 Hz)*	KW	2.2 - 3	2.2	2.2 - 3	3
Interasse tra 2 cave a "T" (TR) *T - slots interaxis between 2 T - slots (TR)*	mm	180			180
Interasse tra 3 cave "T" (TC) *T - slots interaxis between 3 T - slots (TC)*	mm	80			80
Dimensione cave a "T" *T - slots dimensions*	mm	14			14
Tavola croce: corsa long. manuale asse X *Cross table longitudinal stroke - X axis (manual feed)*	mm	585			585
Tavola croce: corsa long. automatica asse X *Cross table longitudinal stroke - X axis (automatic feed)*	mm	520			520
Tavola croce: corsa trasversale manuale asse Y *Cross table trasversal stroke - Y axis (manual feed)*	mm	240			240
Dimensioni (h x l x p) a colonna *Column model dimensions (h x w x d)*	mm	1.986 x 1.340 x 1.280			1.986 x 1.340 x 1.280
Peso *Weight*	Kg	660 (TR) – 780 (TC)			660 (TR) – 780 (TC)

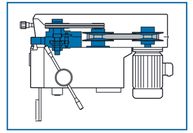


VS: Variatore semplice
Variable speed-drive unit

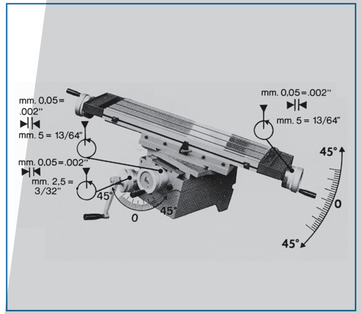
VS: Variatore semplice
Variable speed-drive unit



CI: Cambio ingranaggi
Gear box drive-unit



VR: Variatore ritardo
Variable speed-drive unit



TC: Tavola Croce
Cross table

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> 2.000

Capacità produttiva di oltre 2.000 unità l'anno
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> 30

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