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

CE

ITA_EN

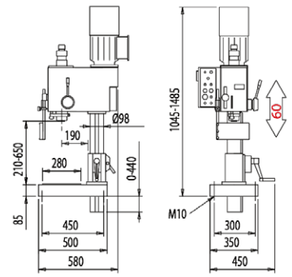
MDR 12

MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

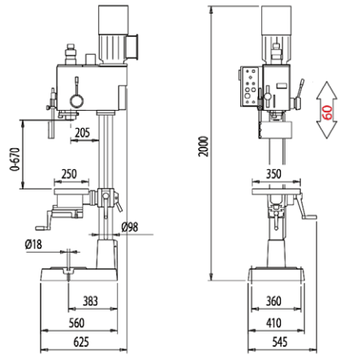
AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS



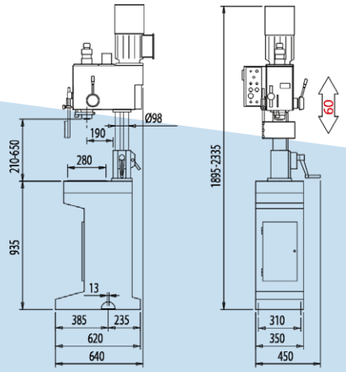
BANCO / *BANCH*



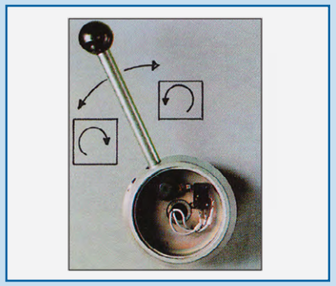
COLONNA / *COLUMN*



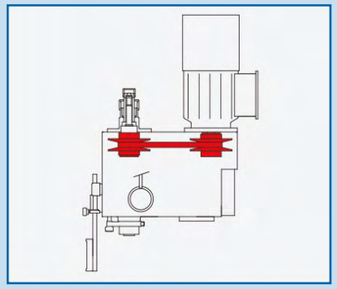
PIEDISTALLO / *PEDESTRAL*



MDR 12
Leva sensitiva ad inversione
Reversing sesitiv lever



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



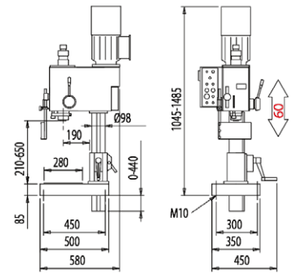
MDR 16

MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

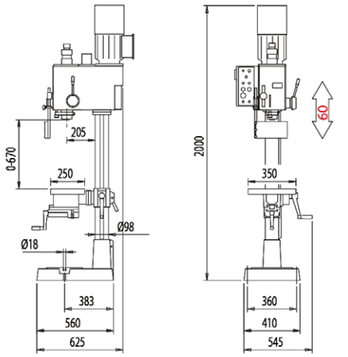
AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS



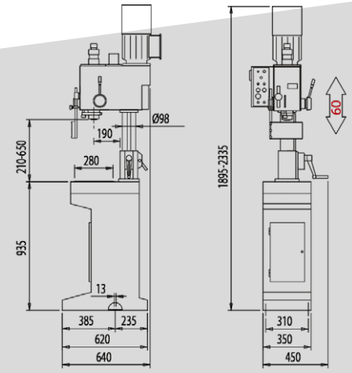
BANCO / *BANCH*



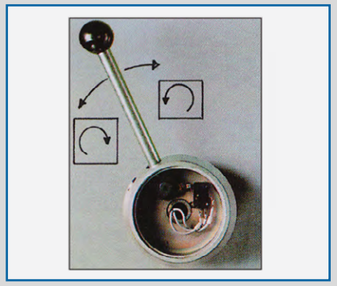
COLONNA / *COLUMN*



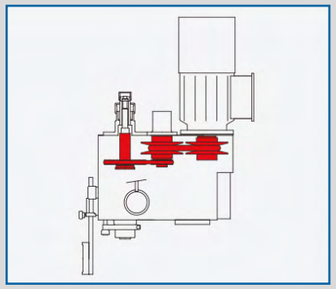
PIEDISTALLO / *PEDESTRAL*



MDR 16
Leva sensitiva ad inversione
Reversing sesitiv lever



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



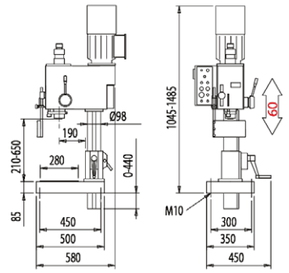
MDR 22

MASCHIATRICI AUTOMATICHE A VELOCITÀ VARIABILE

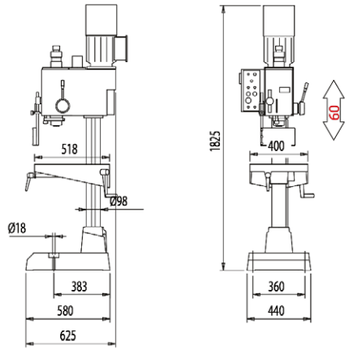
AUTOMATIC TAPPING MACHINES WITH VARIABLES SPEEDS



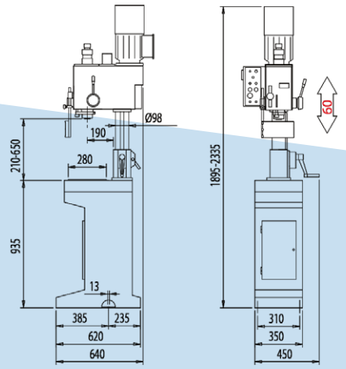
BANCO / *BANCH*



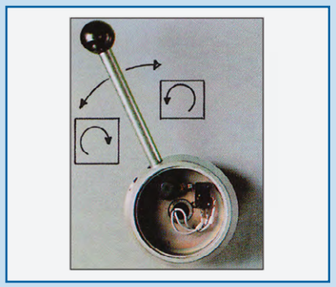
COLONNA / *COLUMN*



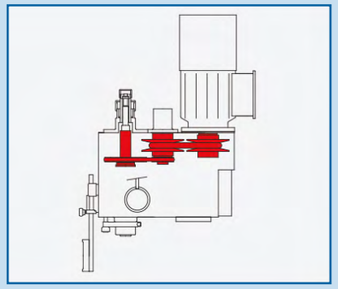
PIEDISTALLO / *PEDESTRAL*



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

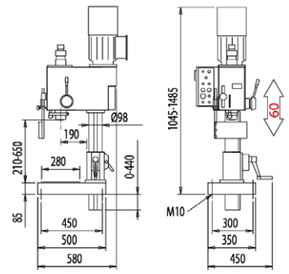
AUTOMATIC TAPPING MACHINES WITH GESR-BOX DRIVE

Protezione antinfortunistica
Spindele safety guard

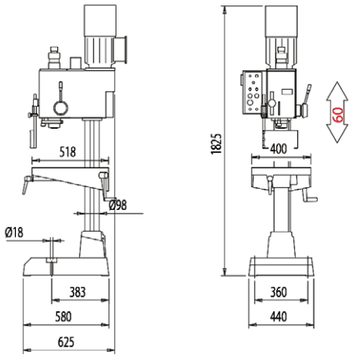




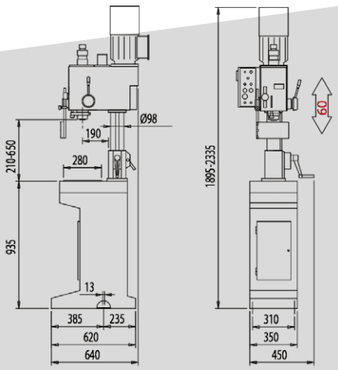
BANCO / *BANCH*



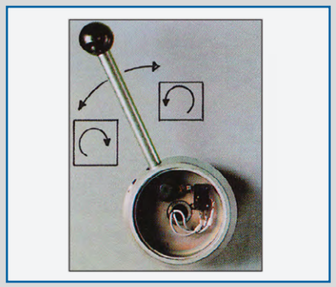
COLONNA / *COLUMN*



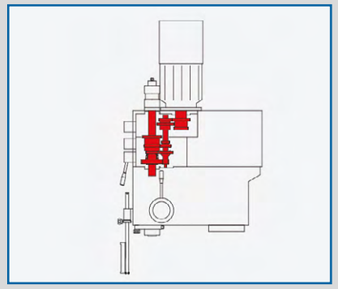
PIEDISTALLO / *PEDESTRAL*



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



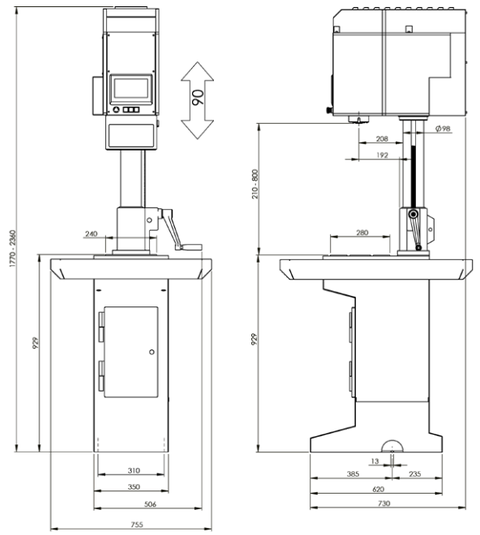
MDE
20

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

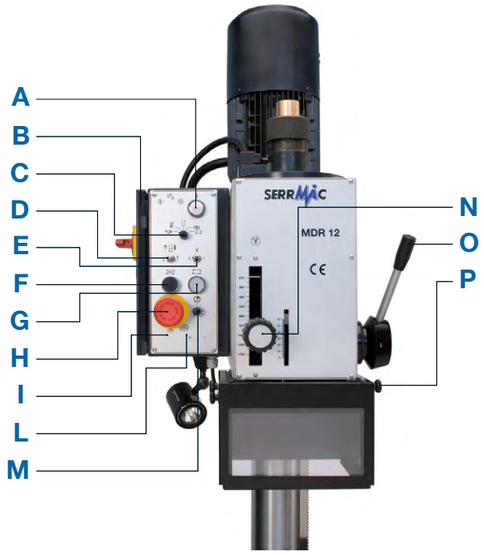
• La Foratrice e Maschiatrice MDE 20 è gestita da un **Controllo Numerico** e da **due motori brushless**, uno per la rotazione ed uno per la discesa mandrino.
• I due assi sono interpolati in continuo e il movimento avviene tramite una vite a ricircolo di sfere.
• **Encoder sui motori** controllano 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**.*

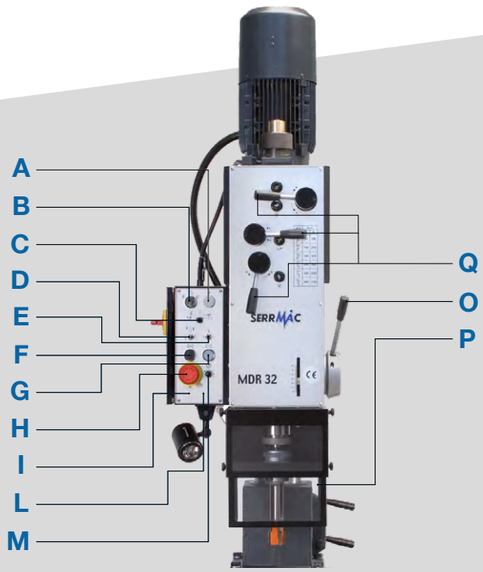
DATI TECNICI
TECHNICAL DATA
MDR

	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



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

MDR 32 · MDR 22 · MDR 16 · MDR 12

Giri al primo per filettature metriche ISO *Turns per minute for ISO metric threading*	M35	M33	M30	M27	M24	M22	M20	M18	M16	M14	M12	M10	M8	M6	M5	M4,5	M4	M3,5	M3	M2,5	M2,2	M2	M1,8	M1,6	M1,4	M1,2	M1,1	M1
Velocità di taglio *Cut speed*																												
12	106	116	127	142	159	174	191	212	239	273	319	382	478	637	764	849	956	1092	1274	1529	1737	1911	2123	2389	2730	3185	3475	3822
8	71	77	85	94	106	116	127	142	159	182	212	255	319	425	510	566	637	728	849	1019	1158	1274	1416	1593	1820	2123	2316	2548
6	53	58	64	71	80	87	96	106	119	137	159	191	239	319	382	425	478	546	637	764	869	956	1062	1194	1365	1593	1737	1911
3	27	29	32	35	40	43	48	53	60	68	80	96	119	159	191	212	239	273	318	382	434	478	531	597	682	796	868	955
4	35	39	42	47	53	53	64	71	80	91	105	127	159	212	255	283	319	364	425	510	579	637	708	796	910	1062	1158	1274
6	53	53	64	71	80	87	96	106	119	137	159	191	239	319	382	425	478	546	637	764	869	956	1062	1194	1365	1593	1737	1911
8	71	77	85	94	106	116	127	142	159	182	212	255	319	425	510	566	637	728	849	1019	1158	1274	1416	1593	1820	2123	2316	2548
8	71	77	85	94	106	116	127	142	159	182	212	255	319	425	510	566	637	728	849	1019	1158	1274	1416	1593	1820	2123	2316	2548
10	88	97	106	118	133	145	159	177	199	228	265	319	398	531	637	708	796	910	1062	1274	1448	1593	1769	1991	2275	2654	2895	3185
6	53	58	64	71	80	87	96	106	119	137	159	191	239	319	382	425	478	546	637	764	869	956	1062	1194	1365	1593	1737	1911
20	265	290	318	354	398	434	478	531	597	682	796	955	1194	1592	1911	2123	2389	2730	3185	3822	4343	4777	5308	5971	6824	7962	8655	9554
15	177	193	212	236	265	290	318	354	398	455	531	637	796	1062	1274	1415	1592	1820	2123	2548	2895	3185	3538	3981	4549	5308	5790	6369
12	133	145	159	177	199	217	239	265	299	341	398	478	597	796	955	1062	1194	1365	1592	1911	2171	2369	2654	2986	3412	3981	4343	4777
12	106	116	127	142	159	174	191	212	239	273	319	382	478	637	764	849	956	1092	1274	1529	1737	1911	2123	2389	2730	3185	3475	3822
10	88	97	106	118	133	145	159	177	199	228	265	319	398	531	637	708	796	910	1062	1274	1448	1593	1769	1991	2275	2654	2895	3185
10	88	97	106	118	133	145	159	177	199	228	265	319	398	531	637	703	796	910	1062	1274	1448	1593	1769	1991	2275	2654	2895	3185
15	133	145	159	177	199	217	239	265	299	341	398	478	597	796	955	1062	1194	1365	1592	1911	2171	2386	2654	2986	3412	3981	4343	4777
15	133	145	159	177	199	217	239	265	299	341	398	478	597	796	955	1062	1194	1365	1592	1911	2171	2389	2654	2986	3412	3981	4343	4777
9	80	87	96	106	119	130	143	159	179	205	239	287	358	478	573	637	717	819	955	1146	1303	1433	1592	1791	2047	2388	2605	2866
12	106	116	127	142	159	174	191	212	239	273	319	332	398	531	764	849	956	1092	1274	1529	1737	1911	2123	2389	2730	3185	3475	3822
10	88	97	106	118	133	145	159	177	199	228	265	319	398	531	637	708	796	910	1082	1274	1448	1593	1769	1991	2275	2654	2895	3185

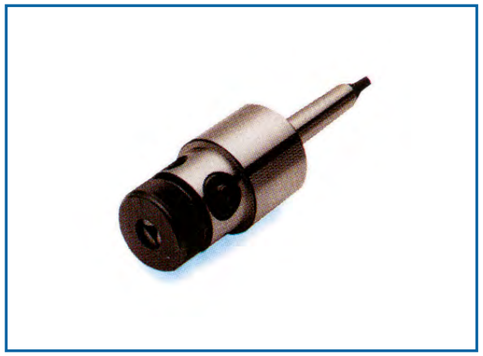
Metalli *Metals*	
Acciaio 50kg *Stell 50kg*	
Acciaio 70kg *Stell 70kg*	
Acciaio 90kg *Stell 90kg*	
Acciaio oltre 100kg *Stell over 100kg*	
Acciaio da utensili *Steel for tools*	
Acciaio inossidabile *Stainless steel*	
Acciaio forgiato 75kg *Forged steel about 75kg*	
Acciaio da tempera *Hardenered steel*	
Ghisa tenera *Soft cast iron*	
Ghisa dura *Hard cast iron*	
Alluminio *Aluminium*	
Duralluminio *Duralumin*	
Anticorodal *Anticorodal*	
Rame *Copper*	
Rame elettrolitico *Electrolytic copper*	
Bronzo *Bronze*	
Ottone dolce 63 *Soft Brass*	
Ottone fragile 53 *Brittle brass*	
Argentana *Nickel silver*	
Zinco leghe *Zinc alloys*	
Bachelite *Bakelite*	

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

OPZIONI
OPTIONS



Mandrino portamaschi
Screw-taps chuck



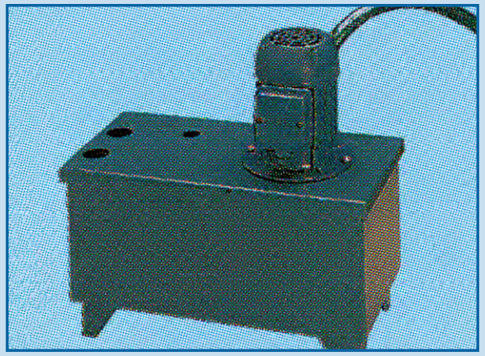
Patrona
Lead-screw



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



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

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

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