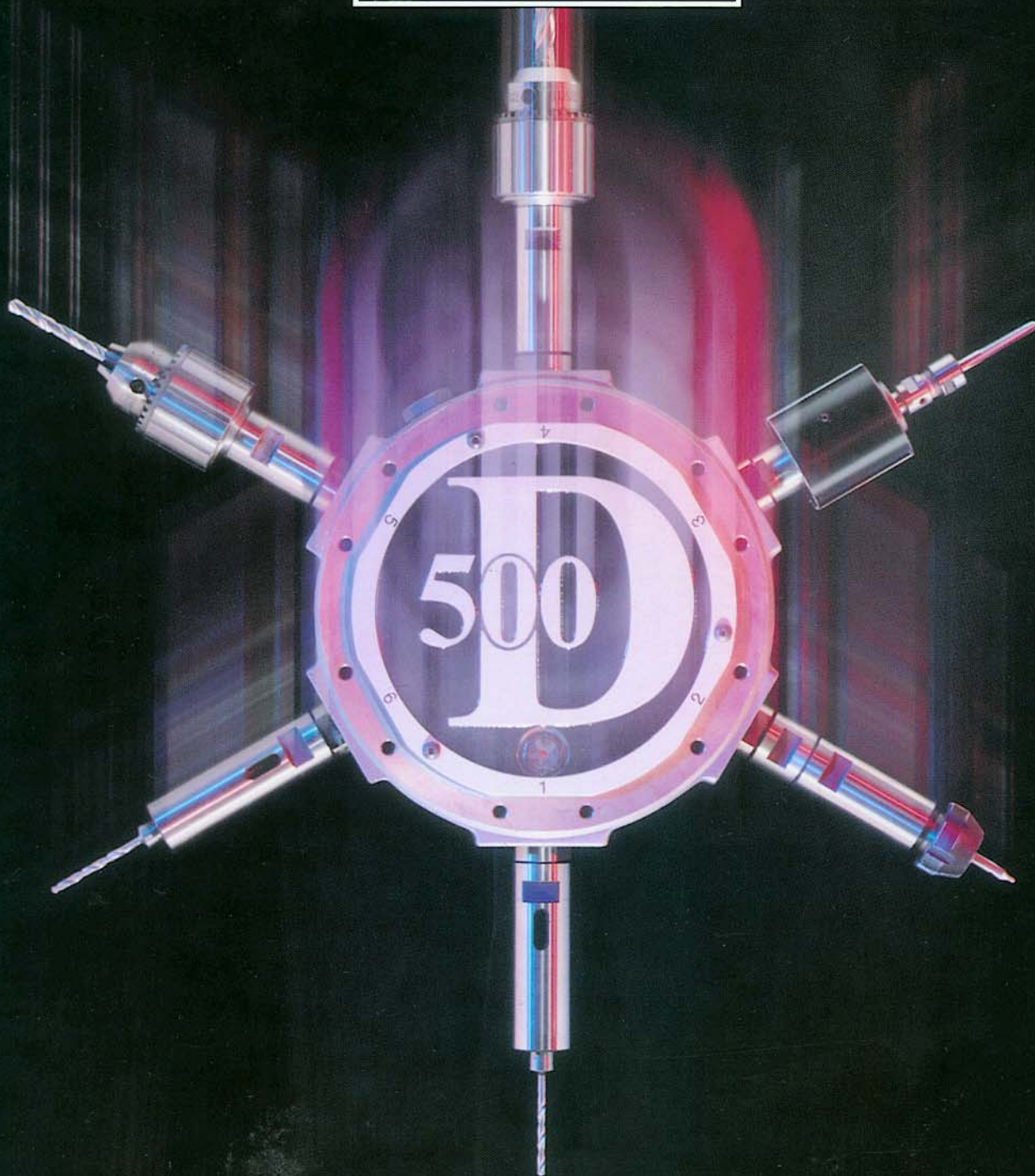


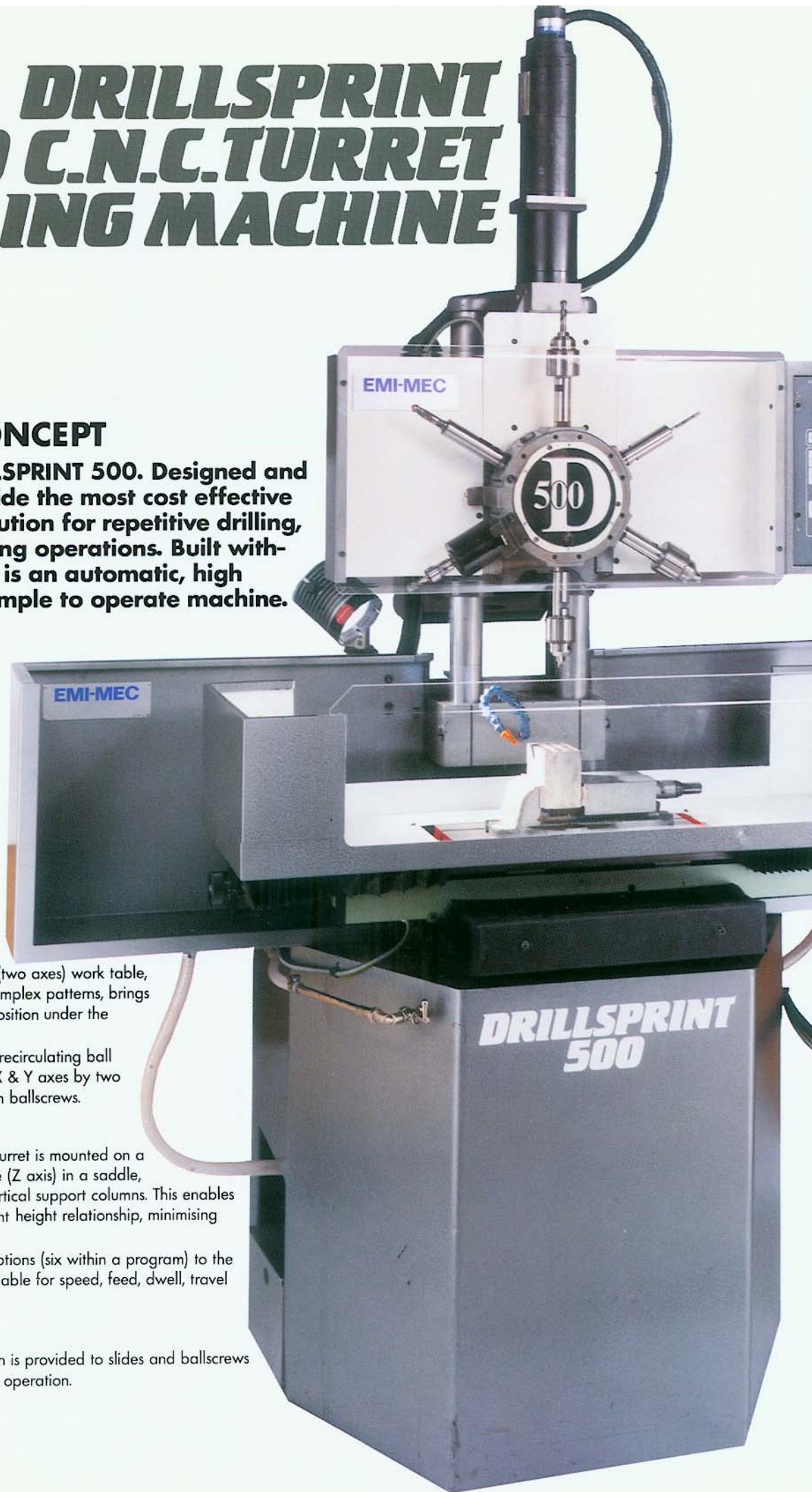
DRILL SPRINT
500
EMI-MEC



DRILLSPRINT 500 C.N.C. TURRET DRILLING MACHINE

MACHINE CONCEPT

The EMI-MEC DRILLSPRINT 500. Designed and developed to provide the most cost effective and productive solution for repetitive drilling, reaming and tapping operations. Built without compromise, it is an automatic, high specification but simple to operate machine. And inexpensive.



TABLE

A robust tee slotted traversing (two axes) work table, programmable for simple or complex patterns, brings component(s) to the required position under the rotating tool spindle.

The table is mounted on linear recirculating ball bushings and traversed in the X & Y axes by two DC servo motor driven precision ballscrews.

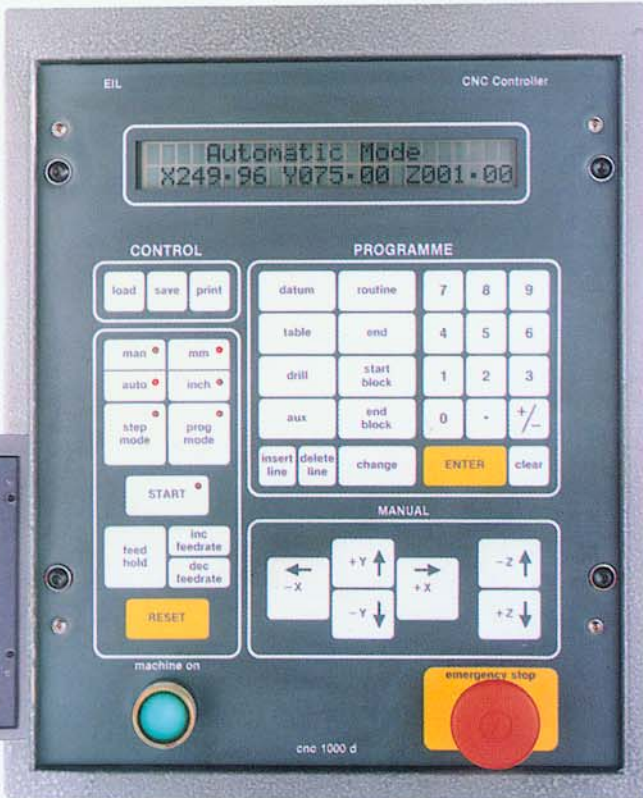
TURRET

The six spindle rapid indexing turret is mounted on a DC servo/ballscrew driven slide (Z axis) in a saddle, fixed adjustable, on the two vertical support columns. This enables correct turret slide to component height relationship, minimising tool travel and slide wear.

The turret provides 12 speed options (six within a program) to the tool spindles. And is programmable for speed, feed, dwell, travel and index.

LUBRICATION

Automatic centralised lubrication is provided to slides and ballscrews for extended maintenance free operation.



- ★ **VERSATILE**
- ★ **COMPACT**
- ★ **ACCURATE**
- ★ **SIMPLY PROGRAMMED**
- ★ **INEXPENSIVE**

CONTROL

The EIL model 1000 CNC control is programmed in plain language through the oil impervious, Mylar touch sensitive membrane key panel. The high clarity LCD display prompts answers in required sequence and format. There are no codes to learn; reducing training time and speeding machine into fully effective production.

An optional plug in 64K cartridge memory extension unit having the capability to store approximately 60 programmes is available. This is necessary if repeat reprogramming for each different application is to be avoided.



SPD5 TAPPING ATTACHMENT
13178

DRILL CHUCK 5/8"
13141

DRILL CHUCK 1/2"
13140

COLLET CHUCK
13138

COLLETS 1-13mm
13179

STANDARD DRILLSPRINT TOOLING



SPD3 TAPPING ATTACHMENT
13177

No. 2 MORSE TAPER SLEEVE
13137

No. 2 MORSE TAPER SLEEVE
13136

75mm SPINDLE EXTENSION
13135

50mm SPINDLE EXTENSION
13134

25mm SPINDLE EXTENSION
13133

BENEFITS

- ★ Especially suited to small and medium batches of components the DRILLSPRINT 500 is ideal for taking inappropriate work off expensive machining centres.
- ★ Accurate repeat positioning under the tool spindle renders expensive drill fixtures unnecessary.
- ★ The simplicity, flexibility and low cost of the DRILLSPRINT 500 makes it an ideal first introduction to the benefits of C.N.C.

APPLICATIONS

EMI-MEC has a wealth of experience in developing solutions for drilling and tapping applications. Our application engineering department will be pleased to advise about specific problems and applications on receipt of full information.



SPECIFICATION

MACHINE CAPACITY

Work envelope	Low profile parts 470mm wide (X); 225mm deep (Y); 70mm high (Z) High profile parts 470mm wide (X); 180mm deep (Y); 530mm high (Z)
Table T slotted area	203mm x 432mm
Table size	254mm x 508mm
Drilling	12.5mm dia. mild steel, 16mm dia. cast iron
Tapping	M10 mild steel, M12 cast iron

SPINDLE DRIVE

Type	2 speed motor via a 2 step pulley				
Motor	A.C. 1 H.P. two speed induction motor				
Turret	3 speed ratio turret. Spindles 1 & 4 high. 2 & 5 medium. 3 & 6 low				
Spindle speeds	12. Six available within a programme				
	High Ratio Pulley		Low ratio pulley		
low motor speed	2005	1275	815	675	430
high motor speed	4010	2550	1630	1355	860

TURRET

Number of stations	Six, sequential operation, clockwise
Index	Mechanical, programmable
Spindle nose	5/8" x 16 UNS male thread
Spindle runout	0.015mm T.I.R. max @ pilot dia.

TURRET SLIDE (Z axis)

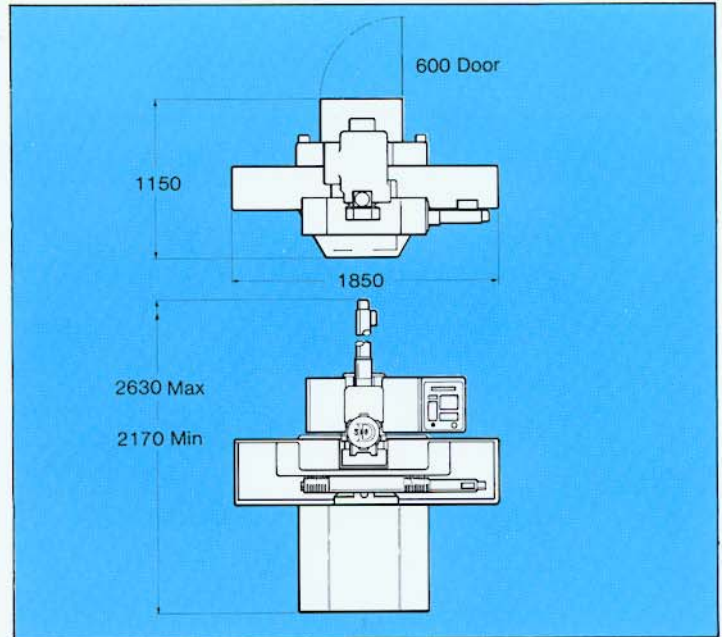
Working stroke	130mm
Feedrate range	0 - 2,500mm/min stepless, programmable
Rapid traverse rate	7500mm/min
Drive	D.C. servo motor driven ballscrew

TWO AXES TABLE

Type	Two axes on linear recirculating ball bearings, ballscrew driven.
Working stroke X axis	475mm
Working stroke Y axis	230mm
Rapid traverse rate	7500mm/min
Drive motor	D.C. servo
Positioning accuracy	0.025mm over 250mm

LUBRICATION

Turret head	Integral oil bath
Turret slide (Z axis)	Automatic lube system
Table ballscrew nuts	Automatic lube system



COOLANT SYSTEM (optional)

Type	Centrifugal pump 1/4 HP
Application	Overhead supply, programmable
Flow rate	2 litres/min
Reservoir capacity	20 litres working

POWER SUPPLY

Electrical rating	415/440 volts, 3 phase, 50/60 Hz
Power requirement	2 kW continuous

CONTROL

Type	E.I.L. Model 1000 CNC with durable oil impervious Mylar touch sensitive key panel for data entry.
Display	LCD in plain language. No codes
Manual controls	All slides, spindle, coolant & index.
Data entry	a) manual by function prompt and numeric keys. b) by "teach & learn" using Jog keys
Functions controlled	Turret slide; feedrate; rapid & stop position; datum position; table x & y rapid position; spindle speed; auxiliary functions; dwell times; & table & tool offsets.
Canned cycles	Drilling, tapping & P.C.D.
Axes control	Point to point, 3 axis servo positioning

MEMORY EXTENSION (optional)

Type	Cartridge interface unit with a plug in 64K RAM cartridge, battery backed. Cartridge storage capacity is 60 programmes, or 6,000 programme lines whichever is the greater. Additional cartridges available. Both interface & cartridge units are transportable and compatible for use on any DRILLSPRINT 500 machine control having necessary internal interface.
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SAFETY

Safety guard	Partially enclosed table guard with vertical sliding clear acrylic panel for access, electrically interlocked.
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Machines incorporate safety & design features, safety devices, guarding arrangements and are supplied with such information as to their safe operation and use, that we believe, so far as is reasonably practical, they are safe and are in compliance with the legal requirements of the Health and Safety at Work etc Act 1974.

EMI-MEC

EMI-MEC Ltd is constantly incorporating detailed improvements for end users benefit. This specification may therefore be amended without notice.

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