

SECTION 1 HE MACHINE SPECIFICATION

Refer to the machine outline drawing for specific dimensions and machine configuration.

Machine Type

HE4000S Horizontal Machining Centre

Spindle Head Type

Auto Indexing Head

Traverses

Travelling Column	X	Horizontal	8200 mm
Ram Carriage	Y	Vertical	1620 mm
Ram	Z	Horizontal	1250 mm
Auto Index Head	C	Rotary	4 x 90°
Auto Index Head	C	Rotary - semi auto	3°
Auto Index Head	A	Rotary	2 x 180°
Auto Index Head	A	Rotary - semi auto	3°

Spindle Speeds

10 225 1500 2250

Spindle Power

1.6 37 37 37

Duty Rating

VDE 0530 S1

Noise Level (before cutting)

83 dB(A)

Control System

Heidenhain TNC 426PA

Fixed Bed

Length of Bed

10000 mm

Width of Bed

1030 mm

Tee Slot Size

22 mm

Tee Slot Pitch

175 mm

Travelling Column On Fixed Bed

X Axis Traverse

Total 8200 mm

X Axis Traverse

Working 8200 mm

X Axis Feed Transmission System

Rack & Pinion

X Axis Feed Rate Range

1 - 5000 mm/min

X Axis Feed Rate Rapid

10000 mm/min

X Axis Feed Back Resolution

0.001 mm

X Axis Measuring System

Heidenhain

X Axis Thrust

22000 N

X Axis Slideway System

Vee Guide Turcite faced

X Axis Slideway Covers

Steel Telescopic

Ram Carriage On Travelling Column

Y Axis Traverse	Total	1620 mm
Y Axis Traverse	Working	1620 mm
Y Axis Traverse	For A.T.C.	0 mm
Y Axis Feed Transmission System		Ballscrew and Double Nuts
Y Axis Feed Rate Range		1 - 5000 mm/min
Y Axis Feed Rate Rapid		10000 mm/min
Y Axis Feed Back Resolution		0.001 mm
Y Axis Measuring System		Heidenhain
Y Axis Thrust		22000 N
Y Axis Slideway System		Ground slideways and Turcite facing to Ram Carriage plus hardened and ground inserts to Column narrow guide in combination with INA RUS bearings.
Y Axis Slideway Covers		Steel Telescopic
Distance over Y Axis Slideways	(Z Dim)	755 mm
Ram		
Ram Type		'Q' 5 Position
Ram Traverse		1250 mm
ZF Gearbox for Main Transmission		
Z Axis Feed Transmission		Ballscrew and Double Nuts
Z Axis Feed Rate Range		1 - 5000 mm/min
Z Axis Feed Rate Rapid		10000 mm/min
Z Axis Feed Back Resolution		0.001 mm
Z Axis Measuring System		Heidenhain
Z Axis Thrust		22000 N
Automatic Indexing Head		
Spindle Taper		MAS BT-50
Spindle Tool Retention Pullstuds		MAS P50T-2
High/Low Pressure Coolant		Through rose & stayput hose
3° Semi Auto Index		Rear joint 45° joint

Electrical Equipment

Customer Supply

Volts 400
Hz 50

Electrical - Standards
- Safety

UK
UK

Electrical Enclosure Site

Floor Mounted

Main Operator Console Site

Pendant Mounted

Auxiliary Operator Controls
Auxiliary Operator Controls Site

Heidenhain HR410
Operator Pendant - Special

Spindle Motor
Spindle Drive
Spindle Motor Speed (rpm)
Spindle Motor Power (kW) S1

Siemens 1PH6 167-4NF06-Z
Siemens 611D
4825 nominal max
37 kW

Servo Motors X
Y
Z
ATC

Siemens 1FT6 105-1AC71-1AG0
Siemens 1FT6 105-1AC71-1AG0
Siemens 1FT6 105-1AC71-1AG0
Siemens 1FT5 104-1AA71-1AA0

Axes of Control

Main. X, Y, Z
Auxiliary ATC

Measuring Systems

X, Y, Z Heidenhain
C Rotary Encoder
ATC Proximity Switch

Operator Platform

Standard manstand travelling with Column

Operator Console Position

Pendant Mounted

CNC System

Heidenhain TNC426PA
Spindle Orientation
Plane Rotation
Component Probing
Component Probing Software
Tool Sensing Probe
Component Probing Software
Zone Programming in X-Axis

Renishaw MP3

Heidenhain TT120

2 Zones + Full Travel

Automatic Tool Changer

ATC Store/No. of Pockets

Chain - 60 Tools

To serve horizontal spindle of Auto Index Head.

Mechanical Extras

Tool Arbor retention studs
Auxilliary Worktable - 1m long
Rear Perimeter Fence
Work Area Guarding With Divisions
Front Sliding Guard

P50T-2

2 off Fixed positions