

Product Brochure For M123

Mill Drill - Geared & Tilting Head - HM-46

Table Travel: (X) - 475mm (Y) - 195mm (Z) - 450mm

Dovetail Vertical Column



ORDER CODE:	M123
MODEL:	HM-46
Digital Readout:	Optional
Type:	Vertical
Table Size (mm):	730 x 210
Column Type:	Dovetail
Spindle Taper - Vertical:	3MT
Spindle Taper - Horizontal:	~
Longitudinal Travel (X-Axis) (mm):	475
Cross Travel (Y-Axis) (mm):	195
Vertical Travel (Z-Axis) (mm):	450
Type of Slides:	Dovetail
Ram Travel (mm):	~
Spindle to Table (mm):	510
Spindle to Base:	~
Spindle Travel / Diameter (mm):	120 / 75
Throat Depth (max.) (mm):	265
Tilting Head (Left ~ Right):	±90°
Tilting Head (Forward ~ Back):	Fixed
Drilling Capacity (mm):	31.5
End Milling Capacity (mm):	28
Face Milling Capacity (mm):	80
Power Feed - Quill (mm/rev):	~
Power Feed - Longitudinal (X-Axis) (mm/min):	Optional
Power Feed - Cross (Y-Axis) (mm/min):	~
Power Feed - Vertical (Z-Axis) (mm/min):	~
Table T-Slot Size (inch / mm):	14
Work Table Load Capacity (kg):	55
Spindle Speeds Vertical (No./ rpm):	6 (95 - 1600)
Spindle Speeds Horizontal (No./ rpm):	~
Spindle Speeds - Universal Head:	~
Motor Power - Vertical Spindle (kW / hp):	1.1 / 1.5
Motor Power - Horizontal Spindle (kW / hp):	~
Motor Power - Universal Head:	~
Voltage / Amperage (V / amp):	240 / 10
Nett Weight (kg):	293

Description

The HM-46 milling machines is similar in overall size to the popular RF-31 or HM-32 but with the additional benefit of a 6-speed 95-1600rpm, gear driven head which can be tilted up to 90° either side of the vertical. This feature allows the head to be positioned in a variety of positions, allowing a whole range of milling, slotting, grooving, drilling and boring operations to be carried out.

The usual handle-driven down feed is available for precision drilling and there is a fine manual down-feed control for precise vertical milling.

The motor is controlled by a standard forward and reverse on/off switch.

There is a heavy duty steel stand available as an extra, strongly recommended bearing in mind the weight of the machine.

Also available is a optional power feed attachment which fits to the left hand end of the table and provides a smooth, variable speed longitudinal drive.

Features

- Gear driven head 6 speeds
- Dovetail vertical Z-axis
- Mill head tilts to ±90° from vertical with digital display

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- Large 730 x 210mm ground work table with T-slots
- Adjustable leadscrew nuts eliminating backlash on both axis
- Fine feed hand wheel operating quill feed
- Forward and reverse on/off switch
- Digital tilting head gauge
- 3MT spindle with 75mm diameter quill
- Adjustable table and drill length stops
- Rack and pinion wind-up head
- Rear slide-way cover and slide clamps on all axis
- Spindle lock for quill
- Table lock on both axis
- Metric dial graduations @ 0.05mm for X & Y axis

Includes

- Drill chuck
- 3MT arbor
- 3MT-2MT drill sleeve
- Face cutter & arbor
- Safety cutter guard
- Digital tilting head gauge

Specific Features



Fine Feed Handwheel Operating Quill Feed



Forward and Reverse On Off Switch



Quill Depth Scale



Spindle Speed Selectors

SPINDLE SPEEDS (r/min)			
	I-L	I-M	I-H
50Hz	95	170	280
60Hz	120	210	340
	II-L	II-M	II-H
50Hz	540	960	1600
60Hz	670	1180	1970

Speed Chart



Spindle lock for quill



Face Mill Cutter



Rack & Pinion Wind Up Head



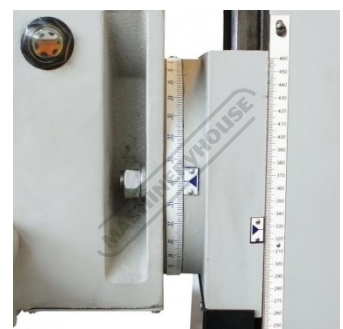
Large 730mm x 210mm ground work table with T Slots



Head Controls



Dovetailed Vertical Z Axis



Tilting head

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Digital Tilting Head Gauge



Drawbar



Table Cross Feed Handle



Table Longitudinal Handle



Includes These Accessories



Tilt Head Front View



Head Shown in Vertical Position



Left View



Shown mounted to Optional Stand

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Recommended Accessories

D695
3-Axis Optimum Digital Readout Counter - 1µm



D694
1500mm Optimum Magnetic Digital Readout Scale



D5210
220mm Sino Digital Readout Scale



D5240
Scale - Backing Plate & Cover Scale



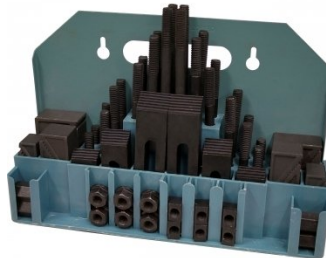
M230
Power Feed Unit



M240
Transformer



C0965
Clamp Kit 58 piece - Workshop Series



K150
Mill-Drill Accessory Package Deal - Imperial Cutters



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K151
Mill-Drill Accessory Package Deal - Metric Cutters



C922B
Collet & Chuck Set - 8 Piece



C926
Collet & Chuck Set - 20 Piece



M3301
Metric HSS Slot Drill & End Mill Set - 10 Piece



M3321
Imperial HSS Slot Drill & End Mill Set - 10 Piece



M3280
13mm HSS End Mill Long Series



M182
Precision Boring Head Kit



M192
Boring Head Shank



M180
Boring Bar Set - 9 piece



M250
Parallel Set - 8 Piece



M530
Universal Milling Kit - 4 Piece



M562
Face Mill Arbor



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M515
Face Mill 45° - Super High-Rake



L065
KYOCERA Carbide Inserts - Milling



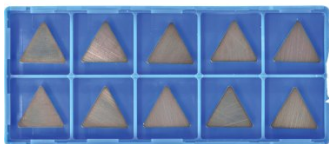
M528
Face Mill 90° - Positive Rake



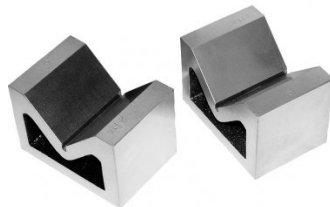
M529
Face Mill 90° - Positive Rake



L066
KYOCERA Carbide Inserts - Milling



V004
Cast Iron Vee Block



V105
Vertex K-Type Milling Vice



R006
Vertex Rotary Table



P235
Coolant Pump & Tank



S090A
Soluble Metal Cutting Fluid - 1 Litre



S090
Soluble Metal Cutting Fluid - 5 Litre

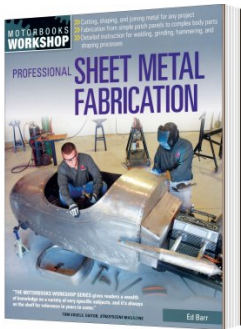


L341
Fitting and Machining Technical Book

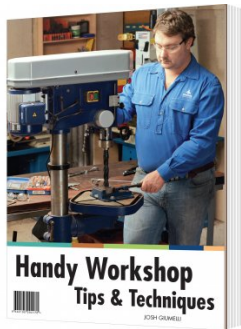


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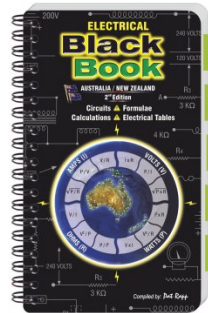
L3455
Professional Sheet Metal Fabrication Book



L345
Handy Workshop Tips & Techniques - 1st Edition



L342
Electrical Black Book



L300
Magnetic Swarf Remover



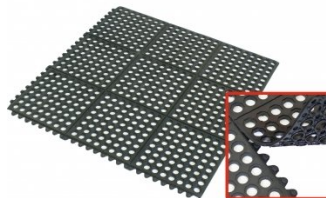
M9991
Magnetic Floor Sweeper



M800
Rubber Mat - Anti-Fatigue



M805
Rubber Mat - Anti-Fatigue



O043
Rust & Corrosion Preventive



O042
General Purpose Lubricant & Corrosion Inhibitor



O044
Rust & Corrosion Preventive

