

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



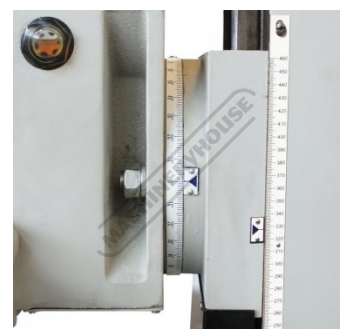
Large 730mm x 210mm ground work table with T Slots



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



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



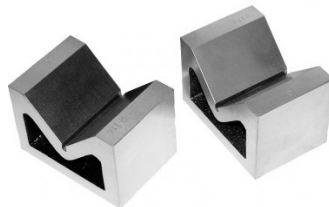
L066

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



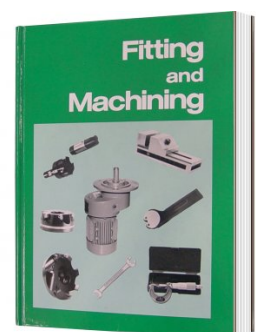
S090

Soluble Metal Cutting Fluid - 5 Litre



L341

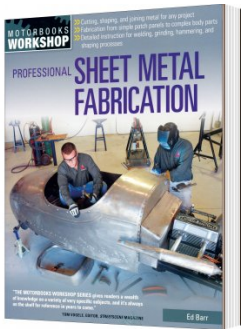
Fitting and Machining Technical Book



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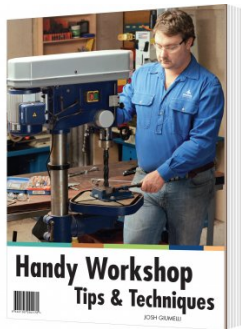
L3455

Professional Sheet Metal
Fabrication Book



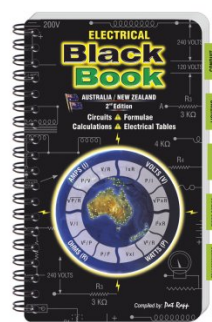
L345

Handy Workshop Tips &
Techniques - 1st Edition



L342

Electrical Black Book



L300

Magnetic Swarf Remover



M9991

Magnetic Floor Sweeper



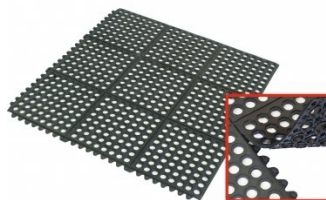
M800

Rubber Mat - Anti-Fatigue



M805

Rubber Mat - Anti-Fatigue



O043

Rust & Corrosion Preventive



O042

General Purpose Lubricant &
Corrosion Inhibitor



O044

Rust & Corrosion Preventive

