

HAFCO-METALMASTER HM-46



Mill Drill - Geared & Tilting Head

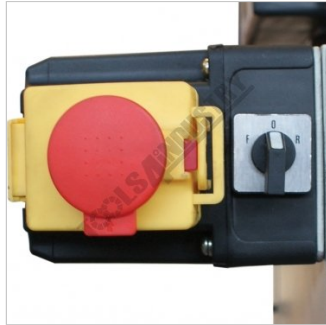
Table Travel: (X) - 475mm (Y) - 195mm (Z) - 450mm



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Fine Feed Handwheel
Operating Quill Feed



Forward and Reverse On Off
Switch



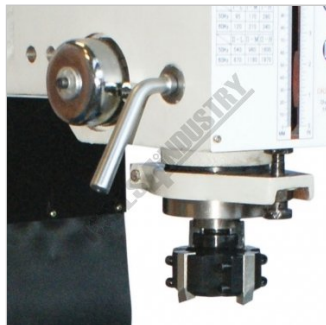
Quill Depth Scale



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



Digital Tilting Head Gauge



Drawbar



Table Cross Feed Handle



Table Longitudinal Handle

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Includes These Accessories



Tilt Head Front View



Head Shown in Vertical Position



Left View



Shown mounted to Optional Stand

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.

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Features

- Gear driven head 6 speeds
- Dovetail vertical Z-axis
- Mill head tilts to $\pm 90^\circ$ from vertical with digital display
- 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

Specifications

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)	$\pm 90^\circ$
Tilting Head (Forward ~ Back)	Fixed
Drilling Capacity (mm)	31.5
End Milling Capacity (mm)	28

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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