

Product Brochure For M163S

## Workshop Turret Milling Machine Geared Head Horizontal - Vertical - HM-52G

Table Travel: (X) - 600mm (Y) - 200mm (Z) - 340mm



ORDER CODE:	M163S
MODEL:	HM-52G
Digital Readout:	Optional
Type:	Vertical & Horizontal
Table Size (mm):	1000 x 240
Column Type:	~
Spindle Taper - Vertical:	NT30
Spindle Taper - Horizontal:	NT30
Longitudinal Travel (X-Axis) (mm):	600*
Cross Travel (Y-Axis) (mm):	200*
Vertical Travel (Z-Axis) (mm):	340
Type of Slides:	Dovetail
Ram Travel (mm):	500
Spindle to Table (mm):	375
Spindle to Base:	~
Spindle Travel / Diameter (mm):	125 / 90
Throat Depth (max.) (mm):	640
Tilting Head (Left ~ Right):	±90°
Tilting Head (Forward ~ Back):	Fixed
Drilling Capacity (mm):	~
End Milling Capacity (mm):	~
Face Milling Capacity (mm):	~
Power Feed - Quill (mm/rev):	Manual
Power Feed - Longitudinal (X-Axis) (mm/min):	20 - 2000
Power Feed - Cross (Y-Axis) (mm/min):	Optional
Power Feed - Vertical (Z-Axis) (mm/min):	Optional
Table T-Slot Size (inch / mm):	14
Work Table Load Capacity (kg):	175
Spindle Speeds Vertical (No./ rpm):	8 (115 - 1750)
Spindle Speeds Horizontal (No./ rpm):	9 (60 - 1350)
Spindle Speeds - Universal Head:	~
Motor Power - Vertical Spindle (kW / hp):	1.5 / 2
Motor Power - Horizontal Spindle (kW / hp):	1.5 / 2
Motor Power - Universal Head:	~
Voltage / Amperage (V / amp):	415
Nett Weight (kg):	1050

### Description

A well-built entry level geared head, turret milling, vertical and horizontal, drilling machine with a powerful continuous-load 1.5kW / 2hp motor, intended for trade use. The work table is precision made with adjustable dovetail guides and is recognised for its 600mm X axis by 200mm Y axis travel. There is a three armed handle on the side for drilling also incorporating a fine feed control hand wheel on the front for milling. Two levers mounted on right side of milling head enables quick change off the geared spindle speeds.

Other features include taper roller bearing support for the spindle, easy-to-read drilling depth stop, low voltage work light, 8 piece metric collet chuck set, coolant system, X axis power feed unit, drill chuck, 2 & 3 morse taper adaptors. The combination of generous sized vertical support and rugged cast iron construction throughout reduces vibration and guarantees accurate and chatter-free operation.

Extra Features:  
 New design pendant control  
 Swivel table  
 2 Arbors for the horizontal spindle

### Features

- Pendant control on swivelling arm
- Swivel table & two arbors for the horizontal spindle
- Mill head tilts to ±90° left to right

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- 500mm horizontally sliding and rotating ram
- NT30 Horizontal and vertical spindles that are hardened and ground
- Precision-ground dovetail slide-ways and table
- Precision milling table incorporating machined T slots
- Rear concertina slide-way cover
- Forward and reverse on/off switch
- Fine hand wheel operated quill feed
- Swarf & splash tray
- Spindle lock for quill
- Metric dial graduations @ 0.02mm for X , Y & Z-Axis
- Vertical dial graduations on hand wheel @ 0.05mm
- All slides utilise dovetail construction for maximum rigidity

- \* Note: X & Y travels maybe reduced due to digital readout scales and safety stops
- \* Note: Optional Y & Z power feeds require additional parts & fitting (not included)

### Includes

- X-Axis power-feed
- Safety cutter guard
- Swarf tray
- Coolant system
- Halogen lamp
- Drill chuck & arbor
- 2 & 3MT adaptors
- 8-piece metric collet chuck set (4-16mm)
- 2 Arbors for the horizontal spindle

### Specific Features



Control Panel



Right View



Horizontal Setup

HORIZONTAL SPINDLE SPEED (R.P.M)		
1	AG	60
2	BG	140
3	CG	175
4	AF	200
5	AE	240
6	BF	460
7	CE	690
8	BD	1090
9	CD	1350

Horizontal Speed Spindle Chart



Horizontal Spindle



Horizontal Spindle Support



Horizontal Milling Setup

SPINDLE SPEED (R.P.M) 50HZ		
	LOW SPEED	HIGH SPEED
BC	115	230
AC	290	580
BD	360	720
AD	875	1750

Speed Chart

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Geared Head Spindle Speed Selectors



Quill Controls



Spindle Controls



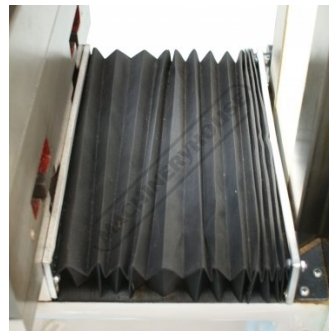
Swivel Table



Tilting Head Scale



Adjustable Swivel and Sliding Ram



Concertina Slide Way Cover



Knee Feed Handle



Halogen Light



Coolant Nozzel



Coolant Pump



Horizontal Milling Accessories

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**Recommended Accessories**

**M229**  
Power Feed Unit



**L300**  
Magnetic Swarf Remover



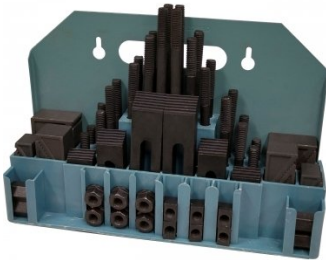
**M9991**  
Magnetic Floor Sweeper



**V106**  
Vertex K-Type Milling Vice



**C0965**  
Clamp Kit 58 piece - Workshop Series



**M540**  
Face Mill Arbor



**M530**  
Universal Milling Kit - 4 Piece



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

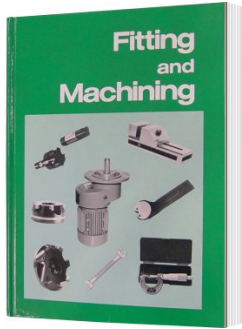


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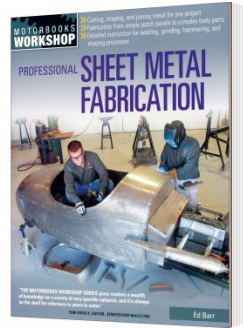
**M3321**  
 Imperial HSS Slot Drill & End Mill Set - 10 Piece



**L341**  
 Fitting and Machining Technical Book



**L3455**  
 Professional Sheet Metal Fabrication Book



**R004**  
 Vertex Super Indexing Head



**R006**  
 Vertex Rotary Table



**M242**  
 Angle Plate - Precision Ground



**M243**  
 Angle Plate - Precision Ground



**M182**  
 Precision Boring Head Kit



**M183**  
 Precision Boring Head Kit



**M184**  
 Precision Boring Head



**M193**  
 Boring Head Shank



**M197**  
 Boring Head Shank



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**M250**  
 Parallel Set - 8 Piece



**M252**  
 Parallel Set - 18 Piece



**M180**  
 Boring Bar Set - 9 piece



**M181**  
 Boring Bar Set - 12 piece



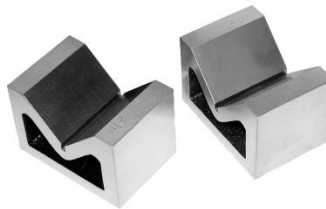
**V010**  
 Alloy Steel Vee Block



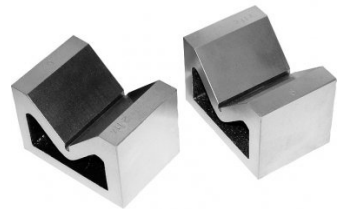
**V003**  
 Cast Iron Vee Block



**V004**  
 Cast Iron Vee Block



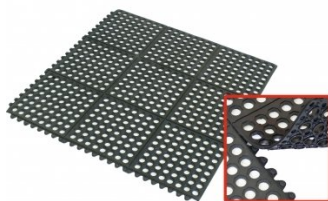
**V006**  
 Cast Iron Vee Block



**M800**  
 Rubber Mat - Anti-Fatigue



**M805**  
 Rubber Mat - Anti-Fatigue



**S090A**  
 Soluble Metal Cutting Fluid - 1  
 Litre



**S090**  
 Soluble Metal Cutting Fluid - 5  
 Litre



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S076

Cutting Tool Lubricant Fluid - 500ml



S077

Drilling, Tapping & Cutting Tool Lubricant Spray - 400g



S075

Cutting Tool Lubricant Paste - 200g



S074

Cutting Tool Lubricant Paste - 500g



O000

SpillFix Universal Organic Absorbent



O043

Rust & Corrosion Preventive



O042

General Purpose Lubricant & Corrosion Inhibitor



O040

Rust & Corrosion Preventive



O044

Rust & Corrosion Preventive

