RIMBAUD

- OVER 40 STYLES OF MILLING MACHINES
- VERTICLES - HORIZONTALS - COMBINED VERTICLES \& HORIZONTALS


## -

- hydraulic tracing - tape controlled - van norman style
- direct factory service center - farmingdale, li.

Due to the large volume of machines sold, the Rambaudi Milling Machine Company, long known under the name of VRG-2, has established their own factory sales and service center here in Farmingdale, L.l. Due to the breadth of the line and the interchangeability of major components, Rambaudi is able to manufacture extremely high quality milling equipment at reasonable prices.

Some of the most outstanding characteristics built into the Rambaudi are:

- ALL LEAD SCREWS HARDENED AND GROUND
- $3^{\prime \prime}$ DIAMETER TABLE LEAD SCREW WITH BUILT IN ANTI-BACKLASH ADJUSTMENT ALLOWS CLIMB MILLING - RUNS IN OWN OIL BATH
- SPEED RANGE - UP TO 5750 RPM
- TRAVELS - 29-1/211 to 60י1
- WIDE RANGE VERTICAL SPINDLE "OVERARM POSITIONING" - $22^{\prime \prime}$ MAXIMUM
- ALL DRIVE SHAFTS HARDENED AND GROUND - FEED GEARS SYNCHROMESH GROUND
- HORSEPOWER - 3.6 to 20

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## PRINCIPAL FEATURES

- The base is divided into two parts the top of which is mobile; the movement is controlled by an electric motor mounted inside the column with automatic stops at stroke end in the two directions. - The mobile top part of the column slides on the tilted base so that the capacities of the machine remain unaltered, whether the head is in a vertical or horizontal position, or tilted.
- This machine, owing to its particular shape, can drill, bore, and cut on a $150^{\circ}$ arc for the length of $1200 \mathrm{~mm}\left(47^{\prime \prime}\right)$ which corresponds to the table travel.
- The spindle has 18 rotating speeds in geometrical progression and an automatic and hand controlled spindle travel of 150 mm ( $6^{\prime \prime}$ ) with 6 spindle feeds in geometrical progression. An automatic disengaging device adjusts the depth of the travel required to the precision of $0,02 \mathrm{~mm}$ (.001).
- The mesh gearbox and the motor, are mounted inside the mobile top part of the base and the speeds are selectioned by one sole lever with direct speed reading dial placed on the front of the top part of the base.
- The spindle is equipped with electromagnetic brake.
- All the controls are arranged on the front of the machine, including the handwheel for longitudinal traverse.
- Lead screws for the table, cross feed and knee are hardened and ground.
- The table lead-screw revolves in oil bath and is equipped with climb milling device. Backlash compensation for longitudinal and cross feeds.
- The spindle rotation, the electromagnetic brake, the operating feeds and the rapid feed, are centralized on one sole control lever. - All castings are of Mehanite. All shafts, spindles, sleeve and gears are made of chrome nickel steel, hardened and ground.



## STANDARD EQUIPMENT

Electric plant - Cooling system - Belts - 2 horizontal spindle supports - 1 horizontal spindle $\varnothing 1^{\prime \prime} 1 / 4$ — Braces - Tie in rod ASME $2^{\prime \prime} 3 / 4$ spindle end - Servicing spanners - Instruction and spare parts manual.

## SPECIAL EQUIPMENT

Universal dividing head centers height $6^{\prime \prime} 3 / 8$ complete with tailstock gearings - support - dividing plates - Circular table $\varnothing 15^{\prime \prime}$ complete with 3 dividing plates - Parallel vice jaw opening $6^{\prime \prime}$, width of jaws $6^{\prime \prime} 3 / 8$ - Horizontal spindle cutter arbor $1^{\prime \prime}$ complete with guide and spacing bushes - Collets arbor, coliets up to $3 / 4^{\prime \prime}$ in diam. and adaptor for Morse tapers 1, 2, 3, 4.

## GENERAL SPECIFICATIONS



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MILLING AND BORING MACHINE


Net weight Ibs. 5750



| SPECIFICATIONS |  | INCHES |  |
| :---: | :---: | :---: | :---: |
|  |  | V2 | V3 |
| SPINDLE |  |  |  |
| Spindle taper |  | R8 | N. 40 |
| Quill diameter . . . . . . . . . . . . . . . . . . . . . . | ins. | $3^{3} 3 / 8$ | $4^{3 / 8}$ |
| N. 16 spindle speeds range . . . . . . . . . . . . . . . . . . . . . . | R.P.M. | 75-5700 | 60-3000 |
| Spindle feeds . ${ }_{\text {Spindle }}$ feeds range . . . . . . . . . . . . . . . . . . . . . . . . . | $\xrightarrow[\text { in./rev. }]{\text { N. }}$ | -3 | 6 $.0015-.008$ |
| Quill vertical traverse : | ins. | . 5 | . 5 |
| Spindle motor (two speeds) | HP | 3-2.5 | 5-3.6 |
| Head swivel . . . . . . |  | $180^{\circ}$ | $180^{\circ}$ |
| Max. and min. distance spindle nose to table . . . . . . . | ${ }^{2}$ ins. | $2^{3} / 4-19$ | $1 / 4-17$ |
| Overarm hand-controlledzcross traverse . . . . . . . . . ${ }^{\text {a }}$, | ins. | 16 | 16 |
| Max. and min. distance spindle center to column. . . | ins. |  | 22 |
| TABLE |  |  |  |
| Working surface | ins. |  |  |
| N. 4 T slots, size . | ins. |  |  |
| Longitudinal traverse | ins. |  |  |
| Cross traverse . . | ins. |  |  |
| Vertical traverse <br> 12 feeds range | ins. p. m. |  |  |
| Rapid traverse . | ins. p. m. |  |  |
| Motor . . . . . | HP |  |  |
| WEIGHTS and DIMENSIONS |  |  |  |
| Net weight . . . | lbs. | 3000 | 3200 |
| Shipping weight . | lbs. | 3660 | 3860 |
| Width - length - height . . . . . . . . . . . . . . . . . . . . . . | ins. | $62 \times 59 \times 83$ | $62 \times 59 \times 87$ |



STANDARD EQUIPMENT
Electric motors - Electrical equipment - Belts - Spindle draw bar - Set of wrenches - Lubricating pump - Instruction book with spare parts list.

COPY MILLING
The V2 and V3 milling machines can be supplied with the hydraulic copying attachment. This feature must be built in at the factory.
The application of this attachment does not effect the operation of the machine as a conventional milling machine.
The machine can be operated either automatically or by hand. When the machine is set for the automatic operation, attention from the Operator is required only at the beginning of each new cut.
An electric wire, contouring the master form, controls the automatic reversal of the table which operates a solenoid operated hydraulic valve supplying fluid to a hydraulic picking device mounted on the front of the knee. A cross stepping increment is thereby applied at each table reversal and this can be adjusted from .002" to $.040^{\prime \prime}$.
After each complete scanning of the area the machine stops automatically.
Literature on copy milling machines is available on request.


## HEAD MODEL V 3

The vertical head V3 provides $\mathbf{1 6}$ spindle speeds from 60 to 3000 r.p.m.

| 60 | 75 | 100 | 120 | 150 | 180 | 220 | 360 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 500 | 600 | 850 | 1000 | 1200 | 1500 | 1800 | 3000 |

6 rates of power down feed are provided. An overload slipping clutch is incorporated providing protection in the feed drive.

| Inches <br> rev. | .0015 | .002 | .003 | .004 | .006 | .008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Vertical travel $5^{\prime \prime}$
Quill diameter $43 / s^{\prime \prime}$
Spindle nose N. 40 Taper
Power of two speeds motor HP 4.8-3.6

## Working capacity.

Face milling: max. dia. $4^{\prime \prime}$ with inserted tooth cutters.
Drilling: with the max. feed .008 inch/rev, the max. dia. in steel is $1^{3 / 16^{\prime \prime}}$ in cast iron $1^{9} / 1^{\prime \prime}$.
Boring: max. dia. $8^{\prime \prime}$ with boring heads.
Grinding: min. wheel dia. $3^{\prime \prime}$.

The vertical heads are of sturdy design and only highest quality material is used in their construction. All parts are manufactured and assembled to high precision standards, thereby ensuring maximum operating efficiency. The spindle is hardened and ground and mounted in high precision bearings. The quill is also hardened and ground and is one piece with the rack, the teeth are finish ground.

## HEAD MODEL VZ

The vertical head V2 provides $\mathbf{1 6}$ spindle speeds from 75 to 5700 RPM.

| 75 | 125 | 150 | 210 | 250 | 355 | 420 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 710 | 1000 | 1200 | 1680 | 2000 | 2850 | 3360 | 5700 |

3 rates of power down feed are provided. An overload slipping clutch is incorporated providing protection in the feed drive.

| Inches <br> rev. | .0015 | .003 | .006 |
| :---: | :---: | :---: | :---: |

Vertical travel $5^{\prime \prime}$
Quill diameter $3{ }^{3} / 8^{\prime \prime}$
Spindle nose R 8 Taper
Power of two speeds motor HP 3-2.5

## Working capacity.

Face milling: max. dia. $3^{\prime \prime}$ with inserted tooth cutters.
Drilling: with the max. feed .006 inch/rev, the max. dia. in steel is $13 / 16^{\prime \prime}$ in cast iron $1^{\prime \prime}$.
Boring: max. dia. $6^{\prime \prime}$ with boring heads.
Grinding: min. wheel dia. $1^{9 / 16^{\prime \prime}}$.



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Changeover for either vertical or horizontal operation is exceptionally quick and simple.
Correct location in either position is assured by means of a sturdy reference pin.
Plain carriage
MS3-4
Universal carriage



Table traverse handwheel.

Table clamping levers.
Vertical feed engaging lever.
Cross feed engaging lever.
Longitudinal feed engaging lever.

Feed directional push buttons.
Feed selector dial.
Rapid traverse control lever.


All controls - knee, saddle and table - are compactly situated on the front in easy-to-reach positions, thereby reducing effort and inducing automatic movements by the operator.
A safety device is also incorporated to prevent damage should the operator make a wrong control.

## UNIVERSAL TABLE

On request all the models can be supplied with a universal swivel type table, graduated in degrees, available rotation $\pm 45^{\circ}$. When so equipped $a$ « $U_{n}$ is added to the machine designation.

## LEADSCREWS

All leadscrews are made of finish ground special steel with excellent wearability and long operating life. Screw accuracy is .. $001^{\prime \prime} /$ foot ( $0,02 \mathrm{~mm}$. on 300 mm ).


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HEAD MOD. N. 2
The vertical head N. 2 provides 16 spindle speeds from 75 to 5700 R.P.M. at 60 cycles.

| 75 | 125 | 150 | 210 | 250 | 355 | 420 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 710 | 1000 | 1200 | 1680 | 2000 | 2850 | 3360 | 5700 |

and from 65 to 4750 R.P.M. at 50 cycles.

| 65 | 105 | 130 | 175 | 210 | 300 | 350 | 500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 600 | 825 | 1000 | 1400 | 1650 | 2375 | 2800 | 4750 |

3 rates of power down feed are provided. An overload slipping clutch is incorporated providing protection in the feed drive.

| Inches | .0015 | .003 | .006 |
| :--- | :--- | :--- | :--- |

Vertical travel $5^{\text {" }}$
Quill diameter $3^{3} / \mathrm{s}^{\prime \prime}$
Spindle nose R8 Taper (N.S. 30 on request)
Power of two speeds motor HP 3-2.5 (60 cycles) HP 2.5-2 (50 cycles)

## WORKING CAPACITY

Face milling: max. dia. $3^{\prime \prime}$ with inserted tooth cutters. Drilling: with the max. feed .006 inch/rev. the max. dia. in steel is ${ }^{13} / 76^{\prime \prime}$ in cast iron $1^{\prime \prime}$. Boring: max. dia. $6^{\prime \prime}$ with boring heads. Grinding: min. wheel dia. $1 \frac{16}{\prime \prime}$.

HEAD MOD. N. 3
The vertical head N. 3 provides 16 spindle speeds from 60 to 3000 R.P.M. at 60 cycles.

| 60 | 75 | 100 | 120 | 150 | 180 | 220 | 360 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 500 | 600 | 850 | 1000 | 1200 | 1500 | 1800 | 3000 |

and from 50 to 2500 R.P.M. at 50 cycles.

| 50 | 60 | 85 | 100 | 120 | 150 | 180 | 300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 400 | 500 | 700 | 800 | 1000 | 1200 | 1500 | 2500 |

3 rates of up and down power feed are provided. An overload slipping clutch is incorporated providing protection in the feed drive.

| Inches | .0015 | .003 | .006 |
| :--- | :--- | :--- | :--- |

Vertical travel 5"
Quill diameter $43 / \mathrm{s}^{\prime \prime}$
Spindle nose N. 40 Taper
Power of two speeds motor HP 3-3.6 ( 60 cycles) HP 4-3 (50 cycles)
WORKING CAPACITY
Face milling: max. dia. $4^{\prime \prime}$ with inserted tooth cutters. Drilling: with the max. feed .006 inch $/ \mathrm{rev}$. the max. dia, in steel is $1^{3} / \mathrm{s}^{\prime \prime}$, in cast iron $1^{\prime} / \mathrm{Is}$ ". Boring: max, dia. $8^{\prime \prime}$ with boring heads. Grinding: min. wheel dia. $3^{\prime \prime}$.


## MIMS Machinery Movers

## SWIVEL JOINT

With this attachment the spindle swings across table 30 degrees forward and backward and of course rotates in the direction of table 180 degrees. Both angular movements of the head are controlled by worm gears for ease of adjustment. Both swivels are engraved to assist in settings. Despite this universal


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| GENERAL SPECIFICATIONS |  | INCHES |  |  |  |  | METRIC |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M 2 | MG 2 | m 3 | HG 3 |  | H 2 | MG 2 | M 3 | MG 3 |
| VERTICAL HEADStock |  | R 8 (or N.S. 30) |  | N.S. 40 |  |  | R 8 (or N.S. 30) |  | N.S. 40 |  |
| Spindle taper . |  |  |  |  |  |  |  |  |
| Spindle stroke, power or hand operated. | in. | 5 |  |  |  | mm. | 125 |  |  |  |
| 3 Spindle power feeds range . . . . . | i.p.r. | $.0015 \div .006$ |  |  |  | $\mathrm{mm} / \mathrm{rev}$. | $0.035 \div 0.14$ |  |  |  |
| 16 Spindle speed range: 50 cycles . . . | R.P.M. | $65-4750$$75-5700$ |  |  |  | $\begin{aligned} & 50-2500 \\ & 60-3000 \end{aligned}$ |  | R.P.M. | $\begin{aligned} & 65-4750 \\ & 75-5700 \end{aligned}$ |  | $\begin{aligned} & 50-2500 \\ & 60-3000 \end{aligned}$ |  |
| 60 cycles . | R.P.M. |  |  | R.P.M. |  |  |  |  |  |  |  |  |
| Head swivel . . . . . . . . . |  | $180^{\circ}$ |  |  |  |  | $180^{\circ}$ |  |  |  |  |  |
| Max. distance spindle nose to table. | in. |  |  |  | 20 | mm. | 505 |  |  | 510 |  |  |
| Min. distance spindle nose to table . | in. | $2^{1 / 2}$ | 4 |  | $2{ }^{1 / 2}$ | mm . | 60 | 100 | 30 | 65 |  |  |
| Overarm travel . . . . . . . . | in. |  |  |  | 24 | mm . | 400 |  | 350 | 600 |  |  |
| Max. distance spindle center to column . | in. |  |  |  | 30 | mm . | 560 |  | 550 | 760 |  |  |
| Min. distance spindle center to column. . | in. | 6 | 4 |  | 6 | mm . | 160 |  | 200 | 160 |  |  |
| Overarm swivel . . . . . . . . |  |  |  |  |  |  | - |  |  | $180^{\circ}$ |  |  |
| TABLE |  |  |  |  |  |  | $1300 \times 300$ |  |  |  |  |  |
| Working surface . . | in. |  |  |  |  | mm. |  |  |  |  |  |  |  |  |
| T-slots number (width) . |  |  |  |  |  |  | 4 (18) |  |  |  |  |  |
| Table longitudinal traverse . | in. | 37 |  |  |  | mm. | 950 |  |  |  |  |  |
| Manual cross traverse . . . | In. | 12 |  |  |  | mm . | 300 |  |  |  |  |  |
| Power cross traverse. | in. | 11 |  |  |  | mm . | 280 |  |  |  |  |  |
| Manual vertical traverse . . . . . | in. | 171/2 |  |  |  | mm . | 445 |  |  |  |  |  |
| Power vertical traverse . . . . . |  | 161/2 |  |  |  | mm . | 415 |  |  |  |  |  |
| 12 longitudinal and cross power feeds range | i.p.m. | $9 / 16 \div 22$ |  |  |  | mm. $/ 1^{\text {, }}$ | $12 \div 550$ |  |  |  |  |  |
| 12 vertical power feeds range . . . . | l.p.m. | $4 / 16 \div 11$ |  |  |  | mm. $/ 1^{\prime}$ | $6 \div 275$ |  |  |  |  |  |
| Longitudinal and cross rapld traverse. | i.p.m. | 80 |  |  |  | $\mathrm{mm} . / 1^{*}$ | 2000 |  |  |  |  |  |
| Vertical rapid traverse . . . . | l.p.m. | 40 |  |  |  | $\mathrm{mm} . / 1{ }^{\prime}$ | 1000 |  |  |  |  |  |
| ELECTRICAL EQUIPMENT |  | $2.5 \div 3$ |  |  |  |  |  |  |  |  |  |  |
| Vertical spindle: 50 cycles . | HP |  |  |  |  | HP | $2.5 \div 3$ |  | $3 \div 3.5$ |  |  |  |
| 60 cycles | HP | $3 \div 3.6$ |  | $3.5 \div 4.2$ |  | HP | $3 \div 3.6$ |  | $3.5 \div 4.2$ |  |  |  |
| Power feed . . . . | HP | 1.25 |  |  |  | HP | 1.25 |  |  |  |  |  |
| Coolant pump . . . . . . | HP | 0.15 |  |  |  | HP | 0.15 |  |  |  |  |  |
| WEIGHTS AND DIMENSIONS <br> Net weight Shipping weight Overall dimensions (width-lenght-helght) Shipping crate dimensions (width-length-height) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ibs. | 4000 |  |  |  | Kg . | 1800 |  | 1900 |  |  |  |
|  | lbs. | 4900 | 5000 | 5100 | 5200 | Kg . | 2200 | 2250 | 2300 | 2350 |  |  |
|  | in. | $71 \times 55 \times 87$$69 \times 55 \times 83$ |  | $71 \times 59 \times 87$ |  | cm. | $180 \times 140 \times 220$$175 \times 140 \times 210$ |  | 180x150x220 |  |  |  |
|  | in. |  |  | $69 \times 55 \times 83$ |  | cm. |  |  | $175 \times 140 \times 210$ |  |  |  |

## EXTRA EQUIPMENT

The use of correct attachments can give the machine increased versatility and usefulness.
Ask for the leaflets covering the following equipment:
Dividing heads - Universal swivelling table - Rotary table - Swivel vice - Optical measuring equipment - Precision measuring equipment with dial indicators and trays for rods - Graduated scales Slotting attachment - Right angle attachment - Horizontal milling attachment - Boring head - Manual copying attachment - Raising block - Magnifying glass - Illuminating lamp - Drill chuck - M. Adaptors - Collets - Shell end mill arbors - Stub arbors - Cutters - Grinding attachment.

## HORIZONTAL MILLING ATTACHMENT

With the right angle attachment in conjunction with the arbor support the vertical machine can be converted from vertical to a horizontal machine capable of slotting, sawing, etc.
The attachment mounts on the spindle nose and the arbor support on the overarm thus providing rigid support for the milling cutter.


##  and Universal Models

| GENERAL SPECIFICATIONS |  | INGHES |  |  |  |  |  |  | METRIC |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MS2 | MS2／U | MS3 | MS3／U | M0 | MU |  | MS2 | MS2／U | MS3 | MS3／U | M0 | MU |
| VERTICAL HEADSTOCK <br> Spindle taper <br> Spindle stroke，power or hand operated <br> 3 Spindle power feeds range <br> 16 Spindle speed range： 50 cycles． <br> Head swivel 60 cycles． <br> Max．dlstance spindle nose to table Min．distance spindle nose to table Overarm travel <br> Max．distance spindle center to column <br> Min．distance spindile center to column． |  | R B cor NS 301 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | NS． 40 |  | － |  | $\mathrm{mm} / \mathrm{rev}$ ． <br> R．P．M． <br> R．P．M | R 8 （or NS 30） | NS．30） | NS． 40 |  | － |  |
|  | in． i．p．r． R．P．M．R．P．M． |  |  |  |  | － |  |  | $0.035 \stackrel{125}{\square}$ |  |  |  |  |  |
|  |  | $\begin{gathered} .0015 \\ 65-4750 \\ 75-5700 \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 二 |  |  | 65－4750－50－2500 |  |  |  | － |  |
|  |  | $211 / 2$ 18   <br> 4 $1 / 2$ 20 $21 / 2$ <br>  18   <br> $1 / 2$    |  |  |  |  |  | mm ． | $\begin{array}{l\|l\|l\|l} 545 & 485 \\ \hline 500 & 10 & 515 & 460 \\ 100 & 10 & 15 \end{array}$ |  |  |  |  |  |
|  | in． |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | in． |  |  |  |  | 二 |  | mm． |  |  |  |  |  |  |
|  | in． | $271 / 2{ }^{231 / 2}$ |  |  |  |  | － | mm ． | 700 750 <br> 100 150 |  |  |  |  |  |
|  | in． |  |  |  |  | 二 |  | mm ． |  |  |  |  |  |  |
| Overarm swivel ．．．．．．．．． |  |  |  |  |  |  |  |  |  | 360 |  |  |  |  |
| HORIZONTAL SPINDLE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spindle taper ．． |  | $\text { N.S. } 50$ |  |  |  |  |  | mm |  |  |  |  |  |  |
| 18 Sutter max dia．speeds range ．．．．．． | in．${ }_{\text {R．P．M }}$ | 25－1500 |  |  |  |  |  |  | －${ }_{25}{ }^{300}$ |  |  |  |  |  |
| Min．distance spindle center to table．． |  |  |  | 25 | 1500 | ｜ $171 / 2 \mid 15$ |  | R．P．M． |  |  |  | 1500 |  |  |
| Max．distance spindle center to table ． | in． | 171／2｜ 15 ｜ $171 / 2 \mid 15$ |  |  |  |  |  | mm． | $440\|385\| 440 \mid 385$ |  |  |  | 14401385 |  |
| TABLE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Working surface Table swivel | in． |  |  |  |  |  |  |  |  |  |  | mm． | －$\pm 45$ |  | $1300 \times 300$ |  |   <br>  $\pm 450$ <br> 9  <br> 950  |  |
|  |  | $\frac{\square}{4}$ | $\pm 45^{\circ}$ 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Longltudinal traverse Manual cross traverse | in． |  | 35 |  |  | 37 |  | mm ． |  | 950 900 | 950 900 |  |  |  |  |  |
| Power cross traverse．．．．．．． | in． |  |  |  |  |  |  | mm ． mm ． | 280 |  | 300 |  |  |  |  |  |
| Manual vertical traverse ．．．．． | in． |  |  |  |  |  |  | mm． |  |  |  |  |  |  |  |  |
| Power vertical traverse 12 longitudinal and cross power feeds range |  |  |  |  |  |  |  | mm． | 415 |  |  |  |  |  |  |  |
| 12 vertical power feeds range．．．．． | i．p．m． | $9 / 16-22$$4 / 6-11$ |  |  |  |  |  | mm．／ 1 ， | 12－275 |  |  |  |  |  |  |  |
| Longitudinal and cross rapid traverse ．． | i．p．m． | ${ }_{80} / 10^{-11}$ |  |  |  |  |  | $\frac{m \mathrm{~m} . / 1}{} \mathbf{1}^{\prime}$ |  |  |  | 0 |  |  |  |  |
| Vertical rapid traverse | I．p．m． | 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vertical spindle： 50 cycles | HP |  |  | 33.5$\div 3.5$4.2 |  | 二 |  | HP | $2.5 \div 3$ |  |  |  | － |  |  |  |
| Horlzontal spindle： 50 cycles | ${ }_{\text {HP }}$ | $3 \div 3.6$ |  |  |  | ${ }_{\text {HP }}^{\text {HP }}$ | $3 \div 3.6$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | HP | 7.2 |  |  |  |  |  | － |  |  | 7.2 |  |  |  |  |  |  |  |
| Power feed ．．．．． | HP | ${ }^{1.25}$ |  |  |  |  |  | $\begin{aligned} & \mathrm{HP} \\ & \mathrm{HP} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coolant pump ．．． | HP |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WEIGHTS AND DIMENSIONS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net weight ．． | lbs． | 5100 5200 5300 5400 <br> 6000 6100 6200 6300 <br> $71 \times 5 \times 83$ $71 \times 55883$   <br> $69 \times 55 \times 83$ $69 \times 5 \times 8 \times 83$   |  |  |  | $\begin{array}{\|l\|l} 4900 & 5000 \\ 5800 & 5900 \\ 7 \times 663 \times 50 \\ 69 \times 67 \times 71 \end{array}$ |  | Kg. Kg ． cm． cm． | 2300 2350 <br> 2700 2750 <br> $180 \times 140 \times 210$  <br> $175 \times 140 \times 210$  |  | $\begin{array}{\|l\|l\|l\|} 2400 & 2450 \\ 2850 & 2900 \\ 180 \times 140 \times 220 \\ 175 \times 140 \times 210 \end{array}$ |  | 2200 2250 <br> 2600 2650 <br> $180 \times 160 \times 165$  <br> $175 \times 170 \times 180$  |  |  |  |
|  | lbs． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Overall dimensions（width－lenght－height］ Shipping crate dimensions（width－length－height） | in． in． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shippling crate dimensions（width－length－height） |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Specifications and illustration must not be considered binding in detail as it is our constant aim to supply machines representing te latest developments in machine tool design．


## SHAPING ATTACHMENT

The shaping attachment can be easily mounted on the head．The ram stroke is adjustable from 0 to $3.3 / 16^{\prime \prime}$ （ 0 to 80 mm ．）．

## RAISING BLOCK

By the fitting of a raising block（on re－ quest）the spindle nose to table distance can be increased．
Two blocks are available： 4 ＂and $8^{\prime \prime}$（100 and 200 mm ．J thickness．


MIMS Machinery Movers mimsriggers.com Rambaudi range of milling machines<br>- V Series Turret type machines<br>- M Series Machines<br>- F Series Machines

- Die-sinking machines
- Ramcop $360^{\circ}-2 \mathrm{D}$ and $360^{\circ}$ - 3D hydraulic tracing machines
- N.C. milling machines


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Extra wide spindle working area with the $37^{\prime \prime}$ ( 950 mm .) longitudinal and 11" ( 280 mm .) cross traverse of the table a large working area is provided which is further increased by virtue of the ram travel of 24 " ( 600 mm .) and its arc of swing.
This therefore in effect provides 3 working areas as depicted in the sketch.

## Line

shows area covered by table movements.

## Line

shows area covered by ram movements.

## Line -.-....ー-

shows area covered by combined movements of both table and ram which represents the maximum working area.

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HP $3.6 \div 4.2$


Feed Drive
Inches

| $9 / 16$ | $7 / 8$ | $1^{3} / 16$ | $19 / 16$ |
| :---: | :---: | :---: | :---: |
| $2^{1 / 4}$ | $3^{3} / 16$ | $4^{3} / 4$ | $6^{3} / 4$ |
| $9^{3} / 8$ | 13 | 18 | 22 |


| 12 | 18 | 25 | 35 |
| :---: | :---: | :---: | :---: |
| 45 | 70 | 100 | 145 |
| 200 | 275 | 370 | 550 | precision standards, thereby ensuring maximum operating efficiency. The spindle is hardened and ground and mounted in high precision preloaded bearings.

The quill is also hardened and ground and is one piece with the rack, the teeth are finish ground.

Spindle brake and lock
Feed reversing knob

A safety device is incorporated in the spindle which prevents damage should it encounter any excessive torque during the cutting action.

Ibs. 4000

The precision of the spindle and quill assembly and the accuracy of the finish ground leadscrews allow to use the machines as jig-boring machines.

## milling

## M series

## 10 Standard Models

designed especially for toolrooms, maintenance, and small-lot production operations. Any potential user is enable to select a machine precisely fitted to his needs and budget.

## Versatile machines

easy to operate, quick to respond, the «M» machines will produce a wide variety of work with utmost efficiency.

## Rugged machines

with many features designed for fast, accurate and safe milling operations.

Built in the Rambaudi tradition
of sturdy, dependable construction, with casting made of selected grades of iron.

Accurate machines
with hand screaped ways and all leadscrews made of finish ground hardened special steel for long operating life.

## Power controlled machines.

The table, saddle and knee are power controlled. Three up and down power feeds available for the vertical quill.

New spindle assembly
with new extra precision bearings for longer life and full-powered cuts.


-"91/6 $\operatorname{\text {OZISSSIOIS-L}}$




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## Machinery Monovers mimimsigge


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