



**TAKES MACHINING  
TO NEXT LEVEL**

** R.V. MACHINE TOOLS<sup>®</sup>**

[www.rvmachinetools.in](http://www.rvmachinetools.in)



## Profile

### ABOUT THE COMPANY

R.V.MACHINE TOOLS was established in 1992 as a precision machine tools manufacturer.

R.V.MACHINE TOOLS initially started to make customized metal cutting SPM like Turning, Milling, Drilling and Tapping.

Later on R.V.MACHINE TOOLS designs and started manufacturing of standard products of RV Capstan Turret Lathes, Multi Spindle Drilling / Tapping Heads, Hydraulic / Pneumatic Auto Drilling Machines with the continuous improvement in new versions.

R.V.MACHINE TOOLS started manufacturing Rapid CNC Lathe, NC Drilling and Tapping Machines and Heavy Duty Hydraulic Operated drilling SPM, CNC operated SPM's.

Our products are manufactured to the highest quality standards with the highest versatility, which guarantees the user outstanding precision performance. This commitment to quality and expert the workmanship enables the

R.V.MACHINE TOOLS to offer the machines that fully meet the customer's strict requirements of machine performance.

"R.V.MACHINE TOOLS is committed to achieve customer satisfaction through continually improving our Hi-Tech quality and cost effective products delivered and serviced in time".

R.V.MACHINE TOOLS will continue to expand its knowledge based programming capabilities by combining innovation with strategic partnerships to provide our customers with even more ways to optimize their productivity levels.

R.V.MACHINE TOOLS is the authorized distributors for M/s. Hurco Companies Inc. USA is manufacturing Vertical Machining Centers, Horizontal Machining Centers and Turning Centers.

R.V.MACHINE TOOLS is also taken distributionship of M/s. Hi-Life Machine Tools Pvt. Ltd., manufacturing Cylindrical & Centre less Grinding Machines and M/s. Mitoya Instruments, manufacturing Optical Profile Projectors.

# SMID - Capstan Turret / Second Operation Lathes

## Salient Features

- Compact in size with ergonomically designed rigid construction.
- Precisely grounded profile bed guide ways.
- Ball type quick acting collet locking system for greater rigidity, speed and easy locking.
- Graded & Precised Spindle to perform high accuracy cum high - speed applications.
- Lever operating slides gives quick travel with less input.



## Models

### SMID 22

Spindle bore 28.5 mm  
Draw Type Collet  
Bar capacity in Collet 22 mm  
No of Spindle speeds 16(110-3600)  
Center Height 125mm

### SMID 25

Spindle bore 38.5 mm  
Draw Type Collet  
Bar capacity in Collet 25 mm  
No of Spindle speeds 12(110-3100)  
Center Height 125mm

### SMID 30

Spindle bore 38.5 mm  
Dead Length Collet  
Bar capacity in Collet 30 mm  
No of Spindle speeds 12(110-3100)  
Center Height 125mm

## Accessories

- Lever Compound Slide
- Lever Turret Slide
- Lever Tail Stock
- Lever Parting Slide
- Bar Feeder
- Coolant

### ⚡ Lever Compound Slide



### ⚡ Lever Tail Stock



### ⚡ Lever Turret Slide



### ⚡ Lever Parting Slide



# RV - Single Spindle Automate

## Salient Features

- Compact in size with ergonomically designed rigid construction.
- Head stock & slides made by close grained graded cast iron & stress relieved.
- Guide bars are made up of graded steel hardened, ground & hot chrome plated.

## Models

### RV 25

- Spindle capacity (collet):**
  - For round bars 25mm
  - For hexagonal bars - A/F 22mm
  - For Square bars - A/F 18mm
- No Of Spindle Speed 12(550-4000rpm)
- Production Rate 1.71-128 sec/pc

### RV 32

- Spindle capacity (collet):**
  - For round bars 32mm
  - For hexagonal bars - A/F 27mm
  - For Square bars - A/F 22mm
- No Of Spindle Speed 12(360-3380rpm)
- Production Rate 1.71-128 sec/pc



## Accessories

- Long Turning Attachment
- Triple Tool Holder
- Stopping & Centering Attachment
- Morse Taper Quill Mt1, Mt2, Mt3, & Mt4
- Double Tool Holder
- Rocker Type Tool Holder
- Silent Bar Feed Attachment

# Rapid CNC Chuckers



## Salient Features

- Cartridge spindle
- Compact Inbuilt coolant tank
- Low power consumption.
- Bar feed & parts catcher for A-32 (Optional)
- Collet type spindle to replace with single spindle automates
- Precision LMguides & grounded ball screws
- Coolant leakage free guards design
- Threading cycle (Optional)
- Linear tooling for reduce indexing time for smaller components

## Technical Data

| Model                         | Rapid-0 LT                                     | Rapid-0 TT | Rapid-6 LT  | Rapid-6 TT   | Rapid-A32 LT                |
|-------------------------------|--|------------|---|--------------|-----------------------------|
| <b>Capacity:</b>              |  |            |   |              |                             |
| Max. Turning dia. (mm)        | 135  | 135        | 135   | 135          | 32                          |
| Max. Turning length (mm)      | 150  | 150        | 200   | 200          | 150                         |
| <b>Main Spindle:</b>          |  |            |   |              |                             |
| Spindle nose                  | A2-4   | A2-4       | A2-4  | A2-4         | A-32                        |
| Chuck size (mm)               | 135 mm   | 135 mm     | 135 / 165 mm  | 135 / 165 mm |                             |
| <b>Slides:</b>                |  |            |   |              |                             |
| X stroke (mm)                 | 200  | 100        | 250   | 150          | 200                         |
| Z stroke (mm)                 | 200  | 200        | 250   | 250          | 200                         |
| <b>Turret / Tools</b>         |  |            |   |              |                             |
| No. of tool holders           | 4*   | 8          | 4*  | 8            | 4*                          |
| Max. Boring bar capacity (mm) | 25   | 25         | 32  | 32           | 25                          |
| Tool shank (mm)               | 16   | 16         | 20  | 20           | 16                          |
| <b>Controller</b>             |  |            |   |              |                             |
| CNC system                    | Siemens 802C /<br>Fanuc Oi mate TC / NERI 98 T |            | Siemens 802C / Siemens 802D /<br>Fanuc Oi mate TC / NERI 98 T |              | Siemens 802C /<br>NERI 98 T |

\* No. of tool holders vary subject to component size

# RVD - Auto Drilling Machine

## Salient Features

- ▶ Inbuilt cylinder for quill movement provides direct force to the drill.
  - ▶ Precisely bored & honed cylinder with hot chrome plating.
  - ▶ Non - Contact type proximity sensors for limit settings
  - ▶ Safely stopper at end position.
  - ▶ Ideal for mass production with using its accessories
  - ▶ Self feeder units are ideally designed for low cost automation.
- It provides unmatched versatility as single /multi spindle units
- ▶ By using these units customer can fabricate low cost drilling/tapping SPM's



## Models

RVD 6 – 60 – P – S / T / M

RVD 12 – 80 – P – S / T / M

RVD 20 – 125 – P – S / T / M

RVD 20 – 125 – H – S / T / M

RVD 25 – 150 – H – S / T / M

- ▶ 6, 12, 20 & 25 – Max. Drilling Cap. in steel of 400N/mm<sup>2</sup>
- ▶ 60, 80, 125 & 150 – Total stroke of the quill
- ▶ P – Pneumatic operated
- ▶ H – Hydraulic operated
- ▶ S – Self feeder unit
- ▶ T – Table top model
- ▶ M – Machine

# MDH - Multi Drill Head

## Adjustable Pitch Drill Heads

### Adjustable Pitch Drill Heads

Models:

|        |         |
|--------|---------|
| VM 6-2 | VM 10-2 |
| VM 6-3 | VM 10-3 |
| VM 6-4 | VM 10-4 |

6,10 – Max. Drill diameter  
2,3,4 – No. of Spindles

### Fixed Pitch Drill Heads & Tap Heads

|                |   |               |
|----------------|---|---------------|
| Pitch Distance | - | 15 – 600 mm * |
| Drill dia.     | - | 2 – 32 mm *   |
| Tap size       | - | M3 – M16 *    |

### Spindle Types

|                |   |                        |
|----------------|---|------------------------|
| ER collet type | - | ER11, ER16, ER20       |
| Parallel Bore  | - | PB16, PB20, PB25, PB36 |
| C collet type  | - | C5, C6, C9, C11        |

### Positional Accuracy:

IN PITCH (BETWEEN 2 HOLES ONLY):  $\pm 0.1\text{mm}$   
IN PCD (FROM CENTER TO EACH HOLES):  $\pm 0.05\text{mm}$

### Drill Size Accuracy:

UPTO 6mm:  $\pm 0.1\text{mm}$   
UPTO 12mm:  $\pm 0.15\text{mm}$   
UPTO 20mm:  $\pm 0.2\text{mm}$   
UPTO 25mm:  $\pm 0.3\text{mm}$



## Fixed Pitch Drill Head



## Fixed Pitch Tap Head



## SPM Drilling Tapping (rotary)



### SPECIFICATIONS:

No. Of stations: 4

Station 1:  
Drilling: Drill dia.: 4.2mm x 3 Nos

Station 2:  
Tapping: Tap size: M5 x 3 Nos

Station 3:  
Drilling: Drill dia.: 3mm x 2 Nos

Station 4:  
Loading & Unloading

Drill Units: RVD 12-80-P-S

Tap Unit: RVT 8-60-S

ROTARY TABLE: ST-270 A-4 (FESTO)

### FEATURES:

- Component Auto clamping & declamping
- For Drilling mobile jig bush plate is provided to maintain the accuracy.
- Unskilled person can also operate the machine.
- Multi spindle drilling ensures positional accuracy within 25 microns.
- Drastic reduction in cycle time & power consumption

## SPM Drilling Tapping (Index)

### SPECIFICATION:

Drill unit (Vertical)

Drill unit : RVD 25-150 (pneumatic)

With 3 spindle fixed pitch drill head

Drill dia : 6mm x 3 nos on PCD 118mm

Drill units (Horizontal)

Drill unit : RVD 12-80 (pneumatic)

Drill dia. : 4.1mm x 2nos & 5mm x 1no

No. of units : 3

Tap unit (Horizontal)

Tap unit : RVT 16-60

Tap size : M5 x 2nos & M6 x 1no

No. Of units : 3

Rotary actuator : Pneumatic operated

Indexing angle : 25°

Component clamping : Pneumatic operated

### FEATURES:

- Component Auto clamping & declamping
- For Drilling mobile jig bush plate is provided to maintain the accuracy.
- Unskilled person can also operate the machine.



## Multi Drilling SPM

### SPECIFICATIONS

#### VERTICAL:

Dia. 10.25 mm thru & 22 x 3mm spot facing – 4 Nos

#### HORIZONTAL:

Drill Dia. 5 mm thru – 2 Nos (with adjustable multi drill head)

#### ANGULAR:

Drill dia. 5 mm – 1 No. at an angle 30 °

### FEATURES

- Component Auto clamping & declamping
- For Drilling mobile jig bush plate is provided to maintain the accuracy.
- Unskilled person can also operate the machine.
- Multi spindle drilling ensures positional accuracy within 25 microns.



## HeavyDuty Drilling SPM

### SPECIFICATIONS

|                   |   |            |
|-------------------|---|------------|
| No. of drills     | - | 8          |
| Drill dia.x depth | - | 32 x 65 mm |
| PCD               | - | 160.4 mm   |

### FEATURES:

- Component material – Forged steel
- Cycle time reduced in the ratio of 8 : 1
- Pilot holes drilling not required.
- Multi spindle drilling ensures positional accuracy within 25 microns.



# Drilling SPM with interchangeable Drill Heads



## SPECIFICATIONS:

### BASIC MACHINE:

|               |   |                       |
|---------------|---|-----------------------|
| Spindle bore  | - | ISO 40                |
| Spindle Motor | - | 7.5kW/440V            |
| Spindle Speed | - | 1000 rpm              |
| Total stroke  | - | 300 mm                |
| Slide         | - | Box column guide ways |
| Slide drive   | - | Hydraulic cylinde     |

10 SPINDLE DRILL HEAD: for drill dia.14mm – 10 Nos on PCD 264 mm

12 SPINDLE DRILL HEAD: for drill dia.13.1mm – 12 Nos on PCD 133.35 mm

14 SPINDLE DRILL HEAD: for drill dia.13.5mm – 14 Nos on PCD 360.17mm

## FEATURES:

- Multi spindle drilling ensures positional accuracy within 25 microns.
- Improves productivity & reduces production cost.
- Drastic reduction in cycle time & power consumption.

# Friction Stir Welding Machine

## SPECIFICATIONS:

|               |  |
|---------------|--|
| Spindle       | - ISO 40                                 |
| Spindle speed | - 1000 to 3000 Rpm (infinitely Variable) |
| Z axis thrust | - 3000 - 10000 kgf                       |
| X axis thrust | - 1000 - 5000 kgf                        |

CNC & hydraulic versions

## FEATURES:

- > No fume, porosity, spatter
- > Energy efficient
- > No filler material required
- > Slide – LM guide ways.



# Friction Welding Machine



## SPECIFICATIONS:

|                           |                                     |
|---------------------------|-------------------------------------|
| Spindle                   | - A 2-5                             |
| Spindle Motor             | - 11kW/440V, AC spindle servo motor |
| Spindle Speed             | - 300 – 3000 rpm                    |
| Welding material capacity | - Ø 25mm max. (Bar capacity)        |
| Max. thrust               | - 6000 kgf                          |

Authorised distributor for

**HURCO**  
IN CONTROL



**VM10**  
Travel 660 x 406 x 508 mm  
Spindle 10000 rpm  
Total Stations 20



**VM20**  
Travel 1016 x 508 x 508 mm  
Spindle 10000 rpm  
Total Stations 20



**VM30**  
Travel 1270 x 508 x 508 mm  
Spindle 10000 rpm  
Total Stations 20



**VM10U (5-Axis)**  
Travel 533 x 406 x 483 mm  
C=360°, A= -30/+110°  
Spindle 10000 rpm  
Total Stations 20



**VMX42SR (5-Axis)**  
Travel 1067 x 610 x 610 mm  
C=360°, B= -91/+91°  
Spindle 12000 rpm  
Total Stations 40



**BX30U (5-Axis)**  
Travel 762 x 559 x 559 mm  
C=360°, A= -30/+110°  
Spindle 18000 rpm  
Total Stations 40



**TM6 Lathe**  
Travel 178 x 356 mm  
Spindle 6000 rpm  
Total Stations 12



**TM8 Lathe**  
Travel 203 x 508 mm  
Spindle 4800 rpm  
Total Stations 10



**TMM10 (Live Tooling)**  
Travel 250 x 750 mm  
Spindle 3000 rpm  
Spindle 5000 rpm (Live Tooling)  
Total Stations 12/Radial



**VM10P**  
Travel 660 x 406 x 508 mm  
Spindle 12000 rpm  
Total Stations 20



**DCX22**  
Travel 2200x 1700 x 750 mm  
Spindle 10000 rpm  
Total Stations 40



**HTX500**  
Travel 710 x 610 x 610 mm  
Spindle 12000 rpm  
Total Stations 60

Authorised distributor for



## CYLINDRICAL GRINDING MACHINES



- Grinding Length: 300 - 1500mm
- Center Height : 150 - 200mm

## CENTERLESS GRINDING MACHINES



- Grinding range: 2 – 125mm

## CNC Cylindrical Grinding Machines



- Grinding length: 500 – 1250mm
- Cutting Speed : 45 m / Sec
- Grinding Wheel: Straight & Angular



## Mitoya Instruments



### Benchtop Profile Projectors

SPECIFICATIONS ( Model M300 B-222 / M400 B-222 )

|                          |                     |
|--------------------------|---------------------|
| Screen Diameter          | 300mm 400mm         |
| Magnification - Standard | 10x                 |
| - Optional               | 20x, 25x, 50x, 100x |



### Vertical Profile Projectors

SPECIFICATIONS( Model M400 /M500 / M600 V-111 )

|                          |                     |
|--------------------------|---------------------|
| Screen Diameter          | 400mm 500mm 600mm   |
| Magnification - Standard | 10x                 |
| - Optional               | 20x, 25x, 50x, 100x |



### Horizontal Profile Projectors

SPECIFICATIONS( Model 300H / 400H )

|                          |                     |
|--------------------------|---------------------|
| Screen Diameter          | 300mm 400mm         |
| Magnification - Standard | 10x                 |
| - Optional               | 20x, 25x, 50x, 100x |



## Our **INFRASTRUCTURE**

Built in *an area of 10,000 sqft*, **R.V. Machine** Tools is well equipped with sophisticated and modern machinery that helps in manufacturing customer friendly machinery. Our Research and Development strives hard to produce equipments that keep in pace with the modern techniques. We ensure the quality of the products with a stringent quality assurance team and thus, we have never failed to meet the expectations of the customers. With more than 75 Employees working in our whole industry, We have highly skilled design team who create new model of machinery. Perfection with preciseness in every stage, because, business for us, is more than just mere numbers.



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\* Due to continual improvement, Designs are Subject to change without prior notice