

AHB

TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

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ISO Certified

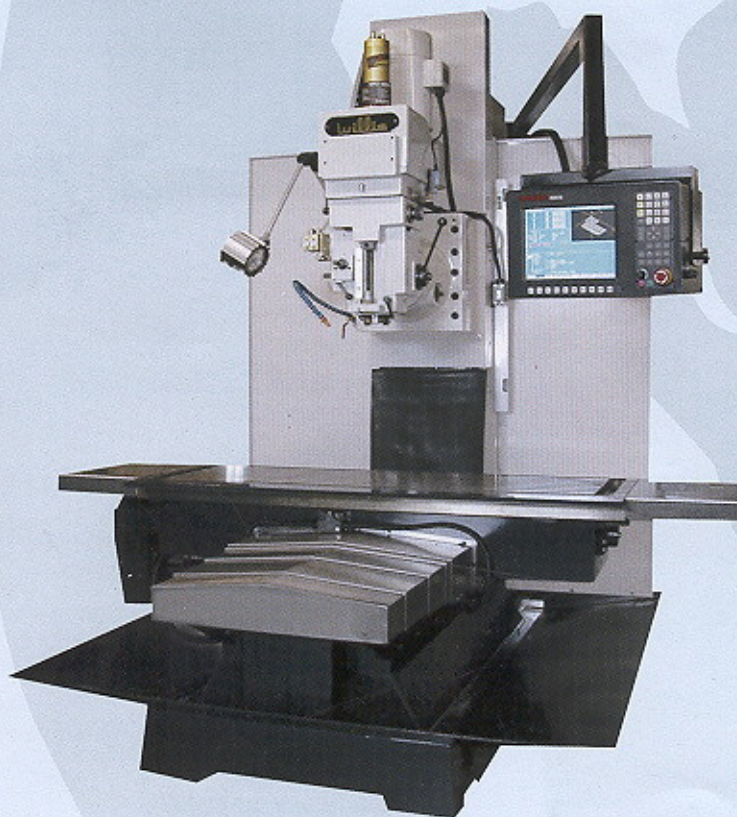
customerservice@ahbinc.com

Willis

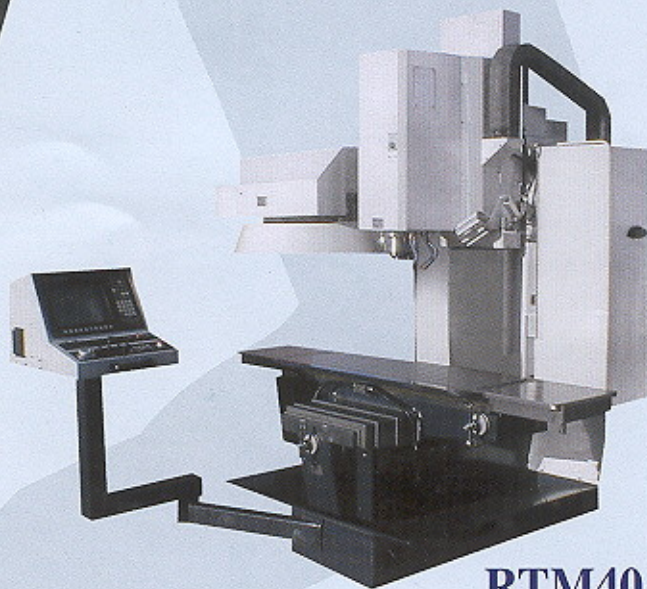
A NAME YOU CAN TRUST

Performance, Quality, and Service You Can Depend On

CNC BED TYPE MILLING MACHINES



BTM50



RTM40

WILLIS BTM40 and RTM40

Heavy duty 7.5 HP milling head with 60-4,000 RPM programmable spindle speed

2 gear ranges in mill head provide outstanding HP and torque over the entire speed range

Mill head is able to be tilted 90 degrees left and right

Mill head has 6" of manual quill travel



Precision angular contact bearings for spindle providing runout less than 0.0002"

Precision ballscrews supported on both ends provides maximum accuracy.

Automatic metered lubrication system with low level alarm
Meehanite castings.

2,200 lb table load capacity
20"x40"x27"Z travel.



Counter balance for milling head.
Flood coolant system

28" maximum distance between spindle and table

16"x54" hardened and ground table

46" wide heavy duty saddle

Rigid box ways, hardened and ground with Turcite on the opposing bearing surface

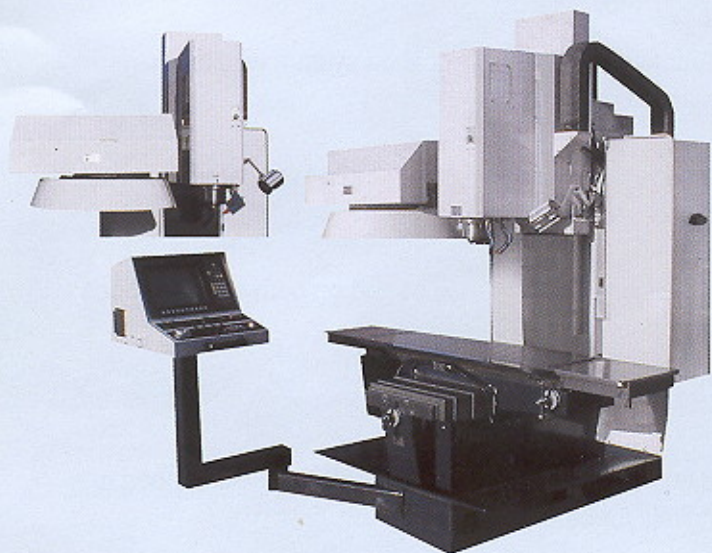
6,100 lbs machine weight provides excellent support and rigidity for heavy cutting

BTM40

pictured with options

RTM40

Rigid VMC type mill head, 6,000 RPM, 20 tools ATC, steel way covers, chip pan, and rear splashguards

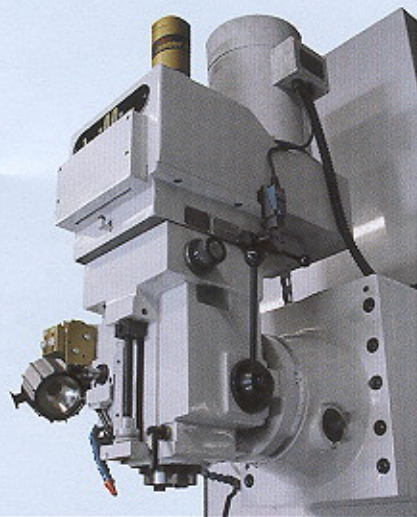


WILLIS BTM50 and RTM50

Heavy duty milling head with 60-4,000 RPM programmable spindle speed.

2 gear ranges in mill head provide outstanding HP and torque over the entire speed range.

Mill head is able to tilted 90 degrees left and right.



Precision angular contact bearings for spindle providing runout less than 0.0002"

Counter balance for milling head

Mill head has 6" of manual quill travel

BTM50 pictured with options



22" of vertical surface contact between Z axis bolster and column

32.5" maximum distance between spindle and table

20"x 63" hardened and ground table

58" wide heavy duty saddle

Rigid box ways, hardened and ground with Turcite on the opposing bearing surfaces.

Automatic metered lubrication system with low level alarm

Meehanite castings 2,600 lb table load capacity
Flood coolant system

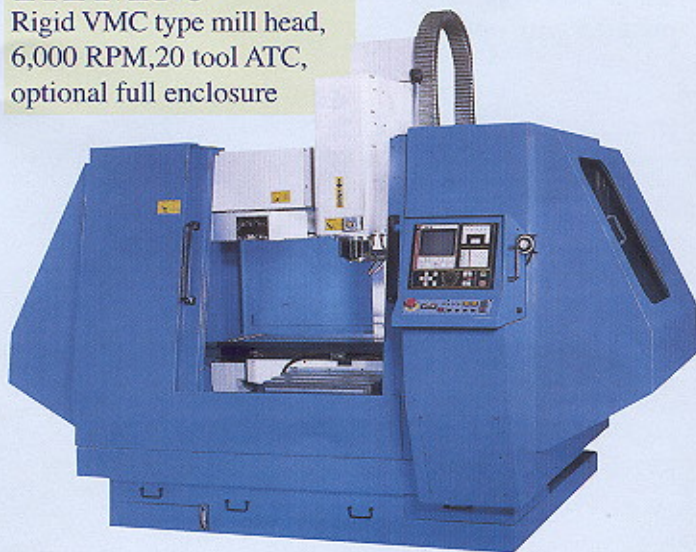
Precision ballscrews supported on both ends provides maximum accuracy

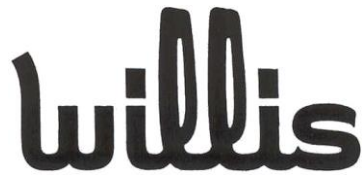
25"x 50" x27"Z travel

8,800 lb machine weight provides excellent support and rigidity for heavy cutting

RTM50

Rigid VMC type mill head,
6,000 RPM, 20 tool ATC,
optional full enclosure





Willis BTM60 CNC Milling Machine w/ Fagor 8055i control



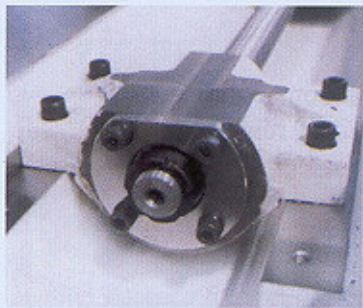
Machine pictured with alternative control

FEATURES

- 60" x 30" x 28" X, Y, and Z travels
- Up to 36" maximum distance from spindle nose to table
- 73" x 24" hardened and ground table surface
- Hardened and ground box ways for the bed and column with turcite on opposing bearing surfaces and gibs
- Programmable spindle speeds through Fagor Control
- 60 - 4000 infinitely variable spindle speed with 2 gear ranges for optimum power and torque
- Mill head is capable of being tilted up to 90 degrees to the right or left
- 40 taper spindle
- 6" manual quill travel
- 4 1/8" quill diameter
- Automatic lubrication system with metered valves
- 3 axes high precision ball screws supported at both ends for maximum accuracy
- Counter balance for milling head
- High quality Meehanite castings
- 2,600 lb table load capacity (centered)
- Telescoping cover for Z axis ball screw
- Flood coolant controlled by M functions through Fagor Control

Willis BTM60	3-axis Bed Type Mill with 10HP programmable spindle speed, 60 - 4,000 RPM with 2 gear ranges, 24" x 73" table, 2600 lb. table load capacity, 60" x 30" x 27" X-Y-Z travel
Standard accessory package includes; Chip/coolant pan, Column mounted rear splashguards, Steel telescoping front bed way cover, Steel telescoping rear bed way cover, Maxi torque rite power drawbar, Halogen work light	

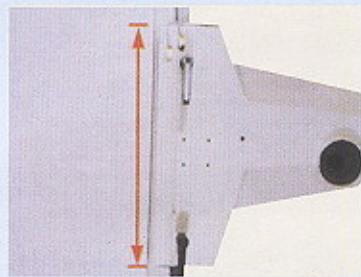
BEDMILL FEATURES



Precision ballscrews supported at both ends.



Heavy ribbed, thick walled column for maximum rigidity.



Extra long bolster for Z axis.



Hardend and ground ways with turcite on opposing surfaces and gibs.



Metered automatic lubrication system with low level alarm.

ADDITIONAL RTM FEATURES

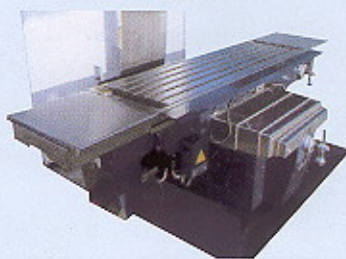


CAT40 spindle 6,000 RPM



20 Tool ATC

BEDMILL OPTIONS



Telescoping steel way covers, chip pan, rear splashguards (std. for RTM models)



Power drawbar



Table mounted splashguard



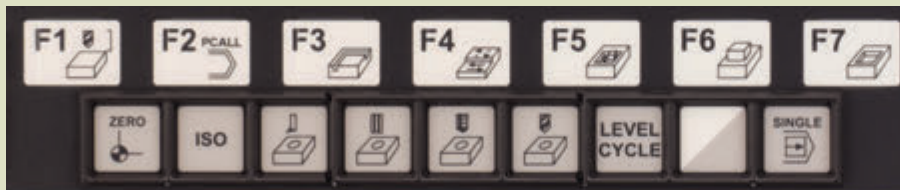
4th axis rotary table

Programming Made Easy...



Conversational ICON keys

Dedicated hot keys with the One Operation/One Cycle philosophy. Each operation page includes assist graphics and contain all operation variables on a single page for extreme simplicity. (Spindle Speed, Roughing & Finishing, Cycle Data, Coolant On/Off)



**No
Prior CNC
Programming
Knowledge
Required**

As Easy As...

1. Simply Press the ICON key of the operation you wish to perform

2. Fill in the blanks of the variables directly from the blueprint

3. Save your operation to a program or execute as a single cycle operation



Conversational Operations - Milling



Simple Cycles

- >> Slot Milling
- >> Ring Milling
- >> Rectangular Groove
- >> Engraving
- >> Part Skew



Boss Cycles

Rectangular and Circular Boss Cycle capability.



Surface Milling

Bi-Directional Surface Milling on X or Y axes.



Mirror Imaging

Mirror any part on X, Y, or XY plane.



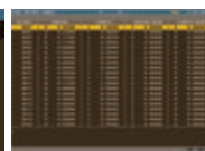
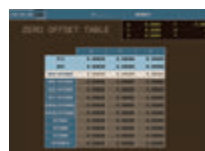
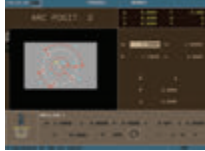
Hole Pattern Cycles *(Used for Drilling, Tapping, Reaming, Boring and Pocket Operations)*

- >> Random
- >> Bolt Hole
- >> Rectangular
- >> Linear
- >> Grid



Full Featured Manual/Jog Mode

Powerful Jog/Manual Mode for easy machine navigation including key jogging, handwheel jogging or MDI mode. Also, preset capabilities as well as machine home capability.



20 Work Zero Offsets & 255 Tool Offsets

Setup a desired tool change location for all of your tool changes. Set different part zero offsets & tool offsets with ease.



Scaling

Scale program from to 0.0001" to 9999.9999".



Tool Calibration

Quick and easy Tool Offset creation consisting of a 2 key operation. Touch Tool position, press Z-Enter.



Pocket Cycles

Complex and simple Rectangular and Circular Pocket Cycles including 3D Pocket Cycles.



Subroutine Capability

Ability to easily create and save and call Custom cycles and frequently used Subroutines

And Turning



Rounding Cycles

Quick and easy single page rounding cycle capability.



Grooving Cycles

Powerful Grooving Cycles allow Grooving on Face or Diameter.



Cut-Off Cycles

Easy part cut-off cycle.

Thread Repair Cycles

Allows for fast and easy thread repair.



Turning/Roughing Cycles

Versatile host of turning/roughing cycles for the diameter or face.



Threading Cycles

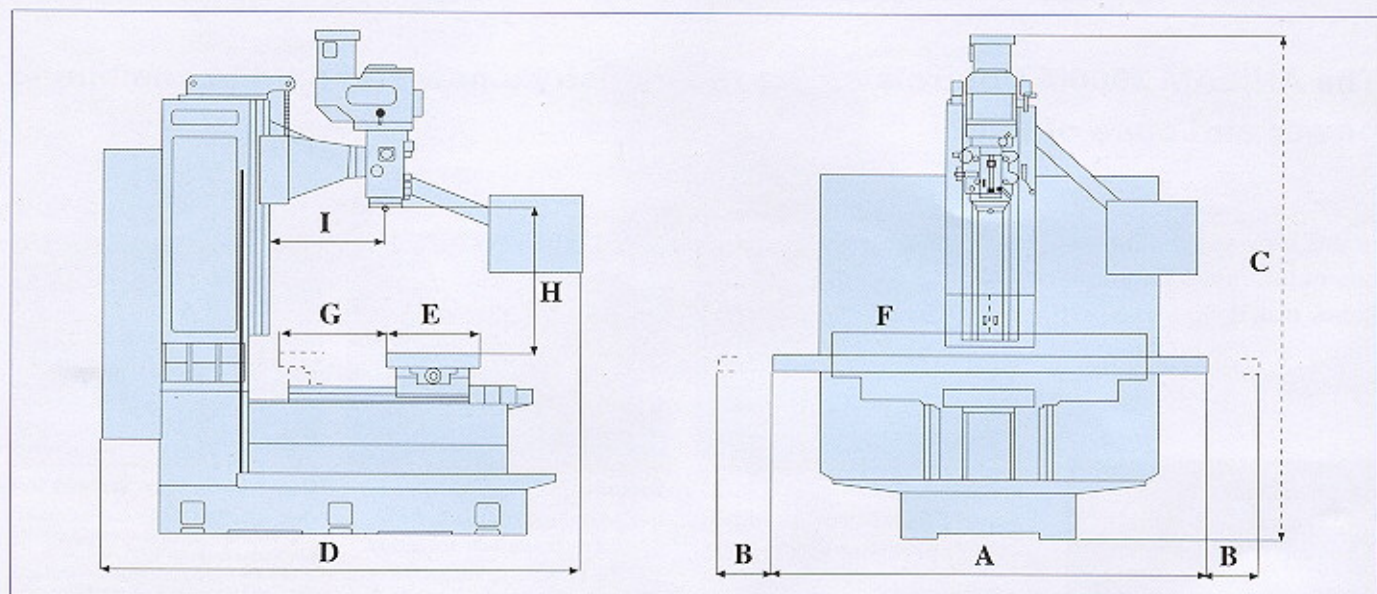
Standard threading, taper threading and face threading capabilities with a selection of conventional thread types.



Tool Calibration

Quick and easy tool offset creation consisting of a 2 key operation. touch tool position, press Z-Enter.

WILLIS BEDMILL SPECIFICATIONS



SPECIFICATIONS	BTM 30	BTM 40	RTM 40	BTM 50	RTM 50	RTM 60
Travels	30"x20"x23"Z	40"x20"x26"Z	40"x20"x26"Z	50"x25"x27"Z	50"x25"x27"Z	60"x30"x28"Z
Table size	11"X52"	16"X54"	16"X54"	20"X63"	20"X63"	24"X73"
Table load,max	2,200 lbs	2,200 lbs	2,200 lbs	2,600 lbs	2,600 lbs	3,300 lbs
Spindle - table,max	24"	28"	28"	32"	32"	32"
Spindle speed (programmable)	60-4,000 2 speed	60-4,000 2 speed	Up to 6,000	60-4,000 2 speed	Up to 6,000	Up to 6,000
Spindle HP	5	7.5	10	10	15	15
Ballscrew dia.	1.27"	1.57"	1.57"	1.57"	1.57"	1.57"
Manual quill travel	5"	6"	Fixed	6"	Fixed	Fixed
Spindle / quill diameter - 40 Taper	4 1/8"	4 1/8"	6"	4 1/8"	6"	6"
Machine weight	4,600	6,100	6,100	9,200	9,200	10,600
A	73"	82"	82"	89"	89"	113"
B	15"	20"	20"	25"	25"	30"
Cmax	101"	110"	110"	114"	114"	118"
Dmax	75"	77"	N/A	94"	N/A	N/A
E	11"	16"	16"	20"	20"	24"
F	52"	54"	54"	63"	63"	73"
G	20"	20"	20"	25"	25"	30"
Hmax	24"	28"	28"	32"	32"	32"
I	20"	21"	21"	26"	26"	30.5"

*Specifications subject to change without notice.

Willis

www.willismachinery.com

MACHINERY AND TOOLS CO.

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