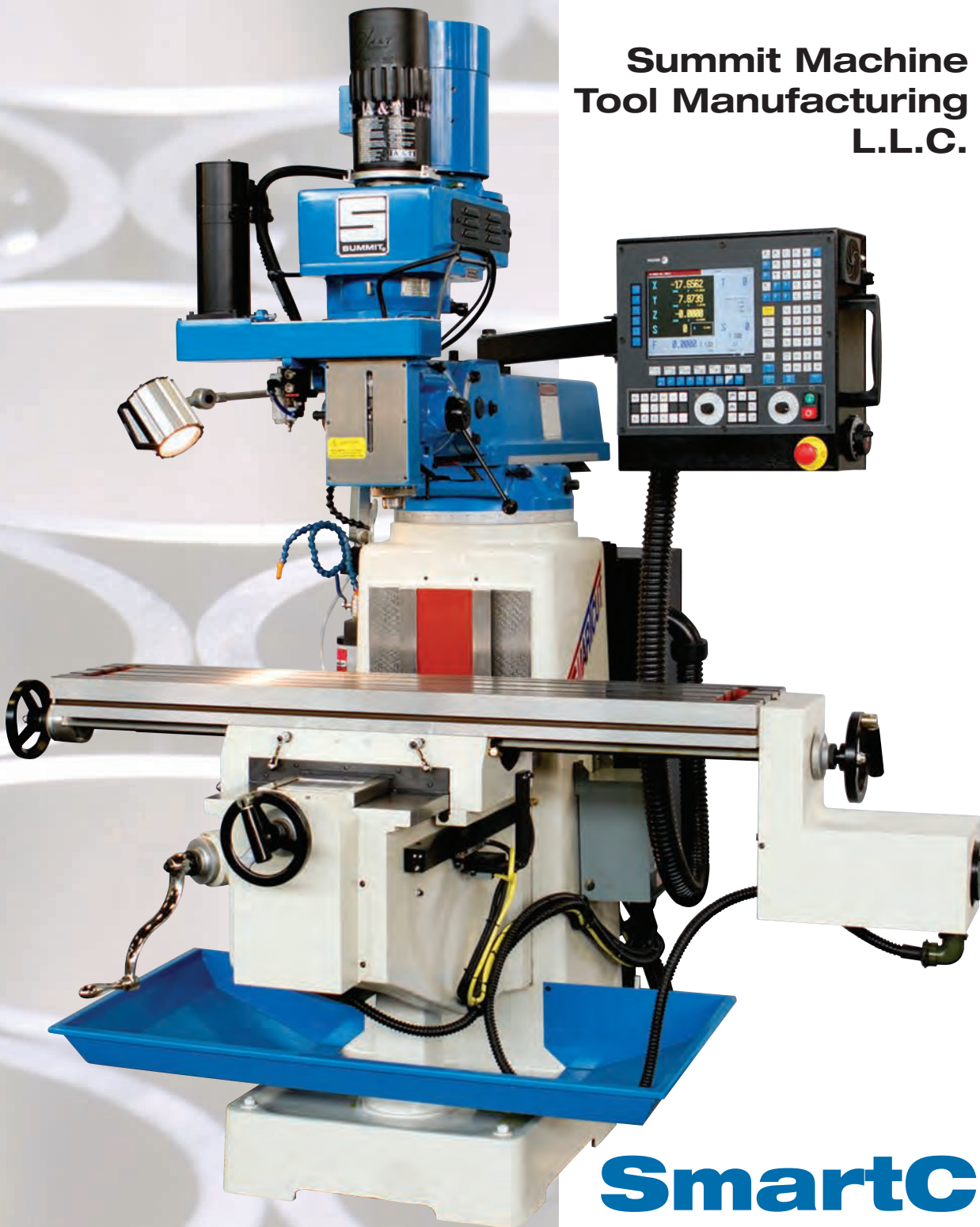


Summit Machine  
Tool Manufacturing  
L.L.C.



# SmartCut EVS Series CNC Mills

*"Combination of CNC technology  
and manual capability"*

**SC EVS-350B CNC**  
**SC EVS-550B CNC**

# Summit Machine Tool Manufacturing L.L.C.

**SmartCut** EVS is a new series of CNC Mills available from Summit Machine Tool Manufacturing L.L.C. The **SmartCut** EVS CNC is everything you expect, rugged and dependable with the precision needed for high tolerance applications. It combines Summit's 50+ year history of providing "the most machine for the money" and the Fagor 8055 MC CNC control to provide another winning solution for your manufacturing needs.

The **SmartCut** EVS CNC standard Fagor 8055 MC controller is a user friendly conversational CNC that offers powerful and versatile programming features. Because of its outstanding capabilities, set up time is minimized for both experienced and novice operators. The extensive use of graphics at the programming screens means that even complex machining tasks are easily dealt with, only the minimum of numerical data entry being required.

**SmartCut** was designed for growing companies evolving from manual mill operations to CNC and more sophisticated users who want a simple easy to use machine. The control language is conversational or G-code, with on-screen menus and prompts to make programming virtually foolproof. The Fagor 8055 MC control is equipped with multiple ports for connection to off-line programming systems for more advanced users.

The **SmartCut** EVS series is a perfect fit for every application from small one man operations to job shops, R&D departments, tool room and maintenance shops as well as large manufacturing operations.

## SmartCut EVS Series CNC Mills SC EVS-350B CNC and SC EVS-550B CNC

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### Key Features & Benefits

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- Inverter duty, high energy - high efficiency motors for lower utility costs, save up to 35%
- Fewer moving parts in the head for less maintenance and down time
- Continuous cooling to the spindle motor even at low rpms
- Centrally located controls for ease of operation
- Immediate response spindle speed control (0-full speed in 3 sec.)
- Full range RPM selection. Tweak up or down to prevent chatter and prolong tool life
- Electronic inverter controlled braking for reduced set-up time
- "Turcite-B" inserted guideways for extended machine life
- Complete electrics with low voltage controls for safer machine operation
- Compact AC frequency inverter spindle drive
- Fan cooled electrical enclosure
- Heavy "Meehanite®" cast iron construction for excellent damping
- Huge box ways on knee
- Built in coolant system
- Power knee (SC EVS-550B)
- Power drawbar (SC EVS-550B)
- Automatic lubrication
- Safety handles on table and saddle
- Fagor glass scale feed back
- Precision ground ball screws with double nut design
- Spindle speed controlled through the CNC

# Summit Machine Tool Manufacturing L.L.C.

## SmartCut EVS Series CNC Mills

### SC EVS-350B CNC and SC EVS-550B CNC

Halogen worklight

Inverter duty motor

Conveniently located Fagor 8055 MC CNC control

Built-in coolant

## Accessories

Double table locks

- Oil gun
- Screw drivers
- Anchor bolts
- Draw bar
- Power draw bar (SC EVS -550B)
- Open end wrench set
- Box end wrench set
- Hex key set
- Clamping kit
- R-8 collet set (SC EVS-350B)
- Way covers
- Halogen work light
- Conversational and ISO G-code programming

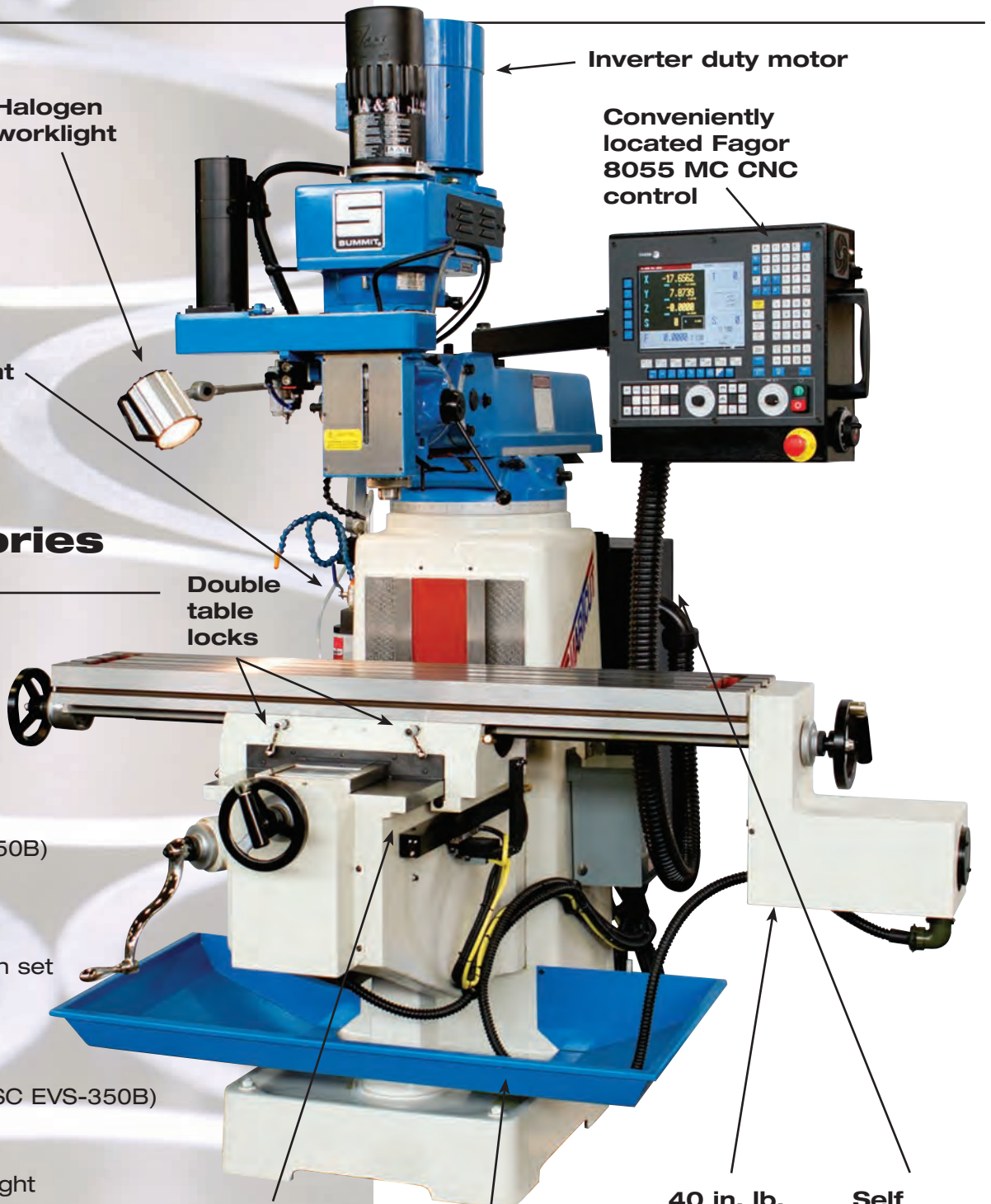
*Included at no additional charge when ordered with mill*

Heavy box ways

Optional chip and coolant pan

40 in. lb. DC axis motors

Self contained electrics with low voltage controls



# Fagor CNC 8055 MC Control Features:



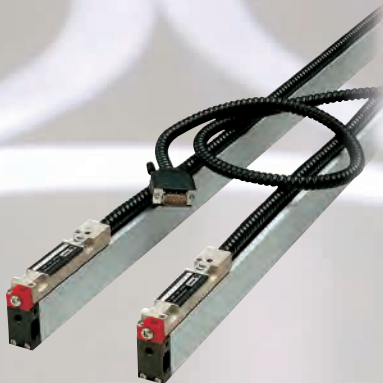
The Fagor 8055 MC Control System is perhaps the most versatile CNC in existence due to its Dual Operating System. In one mode, it is a very powerful ISO G-code control System and in the other mode Icon conversational programming with highly interactive graphics, which makes even complex tasks easy to program - regardless of the operators experience level.

- Icon Conversational Programming  
Rectangular Boss cycle, Round Boss cycle, Rectangular Pocket cycle, Circular Pocket cycles, Profile Pocket 2D & 3D cycles, Slot Milling, Profile Milling, Multiple Drilling cycles, Boring cycles, Reaming cycles, Arc bolt hole cycles, Random position cycles, Grid Pattern position cycles. **26 total cycles.**



## Axis Servo Drives

All SmartCut models are designed with ruggedness in mind. They are fitted with independent servos on each axis. These servos are sized to allow maximum material removal while providing the quick response necessary for smooth transition while doing simultaneous cuts. Distance coded linear scales provide positioning feedback information to the control.



- Up to 4 axis CNC + spindle control via CNC
- 4 axis simultaneous interpolation
- 10.4" High Resolution LCD color monitor
- Linear, Circular and Helical Interpolation
- Tool Radius & Length compensation, 255 offsets
- Simulation dry run mode & Solid Graphics 3D with zoom
- Jog Mode & MDI Mode
- Tool offset and Zero offset tables
- Win DNC offline software program
- Fagor Intelligent Profile Editor
- G codes & M- Functions online
- Tele-diagnosis: Remote Instant Service capability through modem (optional)
- Lead screw & backlash compensation
- Ethernet TCP/IP (optional)
- **Versatility:**  
It is a DRO when working manually  
It is a motion controller when performing semi-automatic operations  
It is a full powered CNC control for automatic operation
- **Ease of operation:**  
Operations defined by symbol keys  
Interactive graphic data entry  
Fully automatic operating modes
- **Profitability:**  
Minimum set-up time  
Tool data back-up while CNC off  
Part operation sequence storage  
Automatic part repetition for lot work

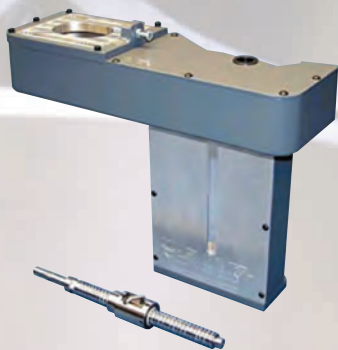
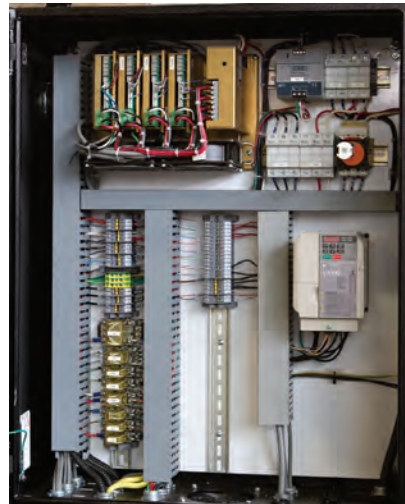


## Electronic Variable Speed Head

The SmartCut EVS Series CNC Mills feature an electronic variable speed head that is designed to be virtually trouble free. The use of a frequency inverter eliminates many of the normal wear parts found in mechanical variable speed designs. The spindle speed is programmable through the CNC control with over-ride capability.

## Electrical Equipment

The SmartCut EVS CNC Series machines incorporate state-of-the-art electrics and electronics in a Nema type enclosure. All components are U/L listed. DC servo axis drives and a frequency inverter spindle drive are used to compliment the Fagor control. The electrical cabinet features forced air cooling and is designed with a safety interlock to prevent machine operation when open.



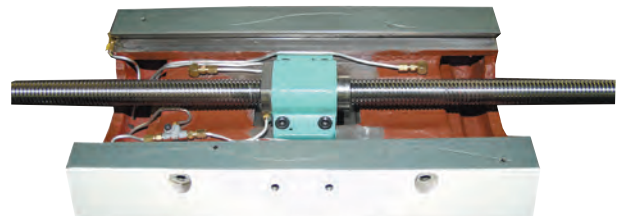
## Spindle Package

With the addition of the Spindle Ballscrew and Motor the Summit SmartCut EVS CNC Mills are transformed into a full 3 Axis CNC controlled Milling Machine. This provides the ability to perform all types of contour (3D) milling operations as well as drilling complex hole patterns automatically.

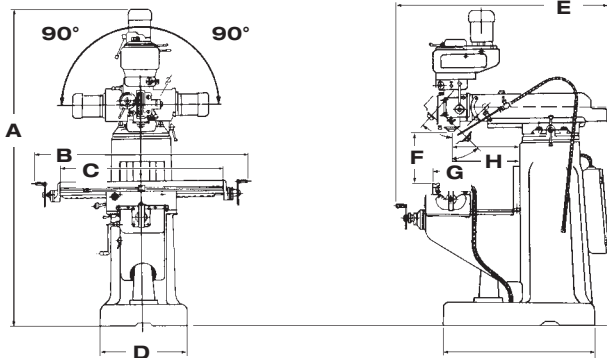
This feature can also be disabled and the quill can be hand operated should the operator prefer. (SC EVS-350B only)

## Construction

The SmartCut mills are constructed of high grade Meehenite™ alloyed cast iron, normalized and aged to achieve maximum stability. The design features heavy cross ribbing for rigidity and vibration dampening. Ways are hardened (HRC 48-56), precision ground and mated to Turcite-B coated guideways for accuracy and long life.



# Specifications SC EVS-350B and SC EVS-550B CNC Mills



## Vertical Mill Dimensions

### SC EVS-350B CNC SC EVS-550B CNC

<b>A</b>	82 3/16"	100"
<b>B</b>	75"	73"
<b>C</b>	54"	52"
<b>D</b>	23.79"	25"
<b>E</b>	68"	75"
<b>F</b>	18.5"	20"
<b>G</b>	10"	11"
<b>H</b>	4 1/4" - 26 1/4"	8" - 32"

SPECIFICATIONS	SC EVS-350B CNC		SC EVS-550B CNC	
	Inch	Metric	Inch	Metric
<b>HEADSTOCK</b>				
Motor size	3 H.P.	2 kw	5 H.P.	3.5 kw
Spindle speeds - number	Inf. variable		Inf. variable	
Spindle speeds - range (RPM)	0 - 4300		0-3650	
Spindle taper	R-8		#40	
Spindle travel	5"	125mm	5 1/2"	140mm
Head movement side to side	±90°		90°	
Head movement front to back	±45°		NA	
<b>TABLE</b>				
Table size (W x L x H)	10"x54"x3 1/8"	255x1370x80	11"x52"x3 1/8"	280x1370x80
Table feed (longitudinal)	34"	915mm	32"	825mm
Table feed (cross)	14"	405mm	14"	405mm
Maximum weight of workpiece	850 lbs.	386 kg	1,025 lbs.	466 kg
<b>OVERARM</b>				
Rotation of overarm	360°		360°	
Overarm adjustment	22"	560mm	24"	610mm
Spindle nose to table	2 1/2" - 18 1/2"	65 - 445mm	3" - 20"	50 - 560mm
<b>WEIGHT</b>				
	2900 lbs.	1320 kg	3740 lbs.	1700 kg

FOR MORE INFORMATION CALL  
**1-800-654-3262**



WARRANTY: A copy of Summit Machine Tool Manufacturing L.L.C.'s standard written warranty is attached to each Summit Machine. Call or write to Summit for a copy or for further information concerning Summit's standard warranty. All purchases are subject to Summit's standard written warranty. Specifications are subject to change without notice.

POINT OF OPERATION guarding is the responsibility of the end user. For information contact your local OSHA office.

**Summit Machine Tool Manufacturing L.L.C.**

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A Subsidiary of LSB Industries, Inc.

[www.summitmachinetool.com](http://www.summitmachinetool.com)