

Summit Machine
Tool Manufacturing
L.L.C.



SmartCut Series II

*"Combination of CNC technology
and manual capability"*

CNC Combination Lathes

SC20

SC24-4

SC28-4

SC30-6

SC32-10

SC32-12

SC32-15

Summit Machine Tool Manufacturing

SmartCut is a new series of combination lathes available from Summit Machine Tool Manufacturing L.L.C. The **SmartCut** is everything you expect, rugged and dependable, with the precision needed for the finest finishes. It combines CNC controls with handwheels for manual turning providing maximum convenience and economy.

SmartCut's standard Fagor 8055TC controller is self-teaching. You can produce a part manually, and with a few simple key strokes the controller stores the machining sequences and creates a part program. At a later time, retrieve the program, enter the number of parts to be produced, and SmartCut does the rest.

SmartCut was designed for growing companies evolving from manual lathe operations to CNC and more sophisticated users who would like 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 8055TC control is equipped with multiple ports for connection to off-line programming systems for more advanced users. The combination of these control features and hand wheels enable you to use a single machine for one-off or prototype production; in a semi-automatic mode for small production lots; and in its fully automatic mode for medium length production runs.

The combination of CNC technology and manual capability, in a well made heavy weight design, make the Summit **SmartCut** the new value leader in turning.

Specifications

SmartCut Series II CNC Combination L

		SC20 Inch/mm	SC24-4 Inch/mm
Swing over bed		20" / 500mm	24" / 610mm
Swing over cross slide		11.5" / 292mm	16" / 405mm
Swing over gap		28" / 710mm	31" / 790mm
Length of gap		12" / 300mm	15.3" / 390mm
Hole thru spindle		3.312" / 85mm	4.125" / 105mm
Spindle nose		D1-8	D1-11
Cross slide travel		15" / 380mm	16" / 410mm
Longitudinal travel	33"	31.5" / 800mm	N/A
	52"	51.125" / 1300mm	N/A
	75"	72.75" / 1850mm	N/A
	60"	N/A	59" / 1500mm
	80"	N/A	78.875" / 2000mm
	120"	N/A	118" / 3000mm
160"	N/A	N/A	
Bed width		13" / 330mm	17.7" / 450mm
Spindle speeds no.		Inf. Var.	Inf. Var.
Spindle speeds (ranges)		30-2000RPM (3)	20-1500RPM (3)
Spindle speeds within the ranges		30-130/130-440-/440-2000	20-98/98-330/330-1500
Feed rate z-axis		0-400 IPM / 0-10000mm/min	0-400 IPM / 0-10000mm/min
Feed rate x-axis		0-250 IPM / 0-6350mm/min	0-250 IPM / 0-6350mm/min
Ballscrew diameter z-axis		1.5" / 38mm	2" / 50mm
Ballscrew diameter x-axis		1" / 25mm	1" / 25mm
Z axis servo		1.4 HP/1 KW	1.4 HP/1 KW
X axis servo		1.4 HP/1 KW	2.7 HP/2 KW
Tailstock quill dia.		3" / 76mm	3" / 76mm
Tailstock quill travel		6.25" / 160mm	8.8" / 225mm
Tailstock taper		MT #5	MT #5
Spindle motor		15 HP / 11KW	20 HP / 15 KW
Dimensions LxWxH/Weight			
inch/pounds	33"	107"x67"x78"/5940 lbs	N/A
	52"	126"x67"x78"/6600 lbs	N/A
	75"	149"x67"x78"/7260 lbs	N/A
	60"	N/A	140"x72"x86"/7920 lbs
	80"	N/A	160"x72"x86"/9020 lbs
	120"	N/A	200"x72"x86"/11000 lbs
	160"	N/A	N/A
Dimensions LxWxH/Weight			
mm/kg	33"	2720x1700x2000/2700	N/A
	52"	3200x1700x2000/3000	N/A
	75"	3780x1700x2000x/3300	N/A
	60"	N/A	3560"x1830"x2185"/3600 lbs
	80"	N/A	4060"x1830"x2185"/4100 lbs
	120"	N/A	5080"x1830"x2185"/5000 lbs
	160"	N/A	N/A

Lathes

	SC28-4 Inch/mm	SC30-6 Inch/mm	SC32-10 Inch/mm	SC32-12 Inch/mm	SC32-15 Inch/mm
	28" / 710mm	30" / 760mm	31.5" / 800mm	31.5" / 800mm	31.5" / 800mm
	20" / 500mm	22" / 550mm	20" / 500mm	20" / 500mm	20" / 500mm
	35" / 890mm	37" / 940mm	43.25" / 1100mm	43.25" / 1100mm	43.25" / 1100mm
	15.3" / 390mm	15.3" / 390mm	15.3" / 390mm	15.3" / 390mm	15.3" / 390mm
	4.125" / 105mm	6.125" / 155mm	10" / 250mm	12" / 305mm	14.9" / 380mm
	D1-11	A2-11	A2-15	A2-20	A2-20
	16" / 410mm	16" / 410mm	21.6" / 550mm	21.6" / 550mm	21.6" / 550mm
	N/A N/A N/A 59" / 1500mm 78.875" / 2000mm 118" / 3000mm N/A	N/A N/A N/A 59" / 1500mm 78.875" / 2000mm 118" / 3000mm N/A	N/A N/A N/A 52" / 1320mm 71.6" / 1820mm 111" / 2820mm 150.4" / 3820mm	N/A N/A N/A 52" / 1320mm 71.6" / 1820mm 111" / 2820mm 150.4" / 3820mm	N/A N/A N/A 52" / 1320mm 71.6" / 1820mm 111" / 2820mm 150.4" / 3820mm
	17.7" / 450mm	17.7" / 450mm	21.6" / 550mm	21.6" / 550mm	21.6" / 550mm
	Inf. Var. 20-1500RPM (3)	Inf. Var. 22-1000RPM (3)	Inf. Var. 4-600RPM (4)	Inf. Var. 4-600RPM (4)	Inf. Var. 2-400RPM (4)
	20-98/98-330/330-1500	20-75/75-232/232-1000	4-14/15-47/48-177/178-600	4-14/15-47/48-177/178-600	2-9/10-31/32-117/118-400
	0-400 IPM / 0-10000mm/min	0-400 IPM / 0-10000mm/min	0-400 IPM / 0-10000mm/min	0-400 IPM / 0-10000mm/min	0-400 IPM / 0-10000mm/min
	0-250 IPM / 0-6350mm/min	0-250 IPM / 0-6350mm/min	0-250 IPM / 0-6350mm/min	0-250 IPM / 0-6350mm/min	0-250 IPM / 0-6350mm/min
	2" / 50mm	2" / 50mm	2.5" / 65mm	2.5" / 65mm	2.5" / 65mm
	1" / 25mm	1" / 25mm	1.5" / 40mm	1.5" / 40mm	1.5" / 40mm
	1.4 HP/1 KW	1.4 HP/1 KW	4 HP/3 KW	4 HP/3 KW	4 HP/3 KW
	2.7 HP/2 KW	2.7 HP/2 KW	2.7 HP/2 KW	2.7 HP/2 KW	2.7 HP/2 KW
	3" / 76mm	3" / 76mm	4.1" / 105mm	4.1" / 105mm	4.1" / 105mm
	8.8" / 225mm	8.8" / 225mm	10.8" / 275mm	10.8" / 275mm	10.8" / 275mm
	MT #5	MT #5	MT #6	MT #6	MT #6
	20 HP / 15 KW	20 HP / 15 KW	30 HP / 23 KW	30 HP / 23 KW	30 HP / 23 KW
	N/A N/A N/A 140"x72"x88"/8320 lbs 160"x72"x88"/9420 lbs 200"x72"x88"/11400 lbs N/A	N/A N/A N/A 140"x72"x88"/8320 lbs 160"x72"x88"/9420 lbs 200"x72"x88"/11400 lbs N/A	N/A N/A N/A 140"x72"x88"/9900 lbs 160"x72"x88"/11000 lbs 200"x72"x88"/13200 lbs 240"x72"x88"/15400 lbs	N/A N/A N/A 140"x72"x88"/9900 lbs 160"x72"x88"/11000 lbs 200"x72"x88"/13200 lbs 240"x72"x88"/15400 lbs	N/A N/A N/A 140"x72"x88"/9900 lbs 160"x72"x88"/11000 lbs 200"x72"x88"/13200 lbs 240"x72"x88"/15400 lbs
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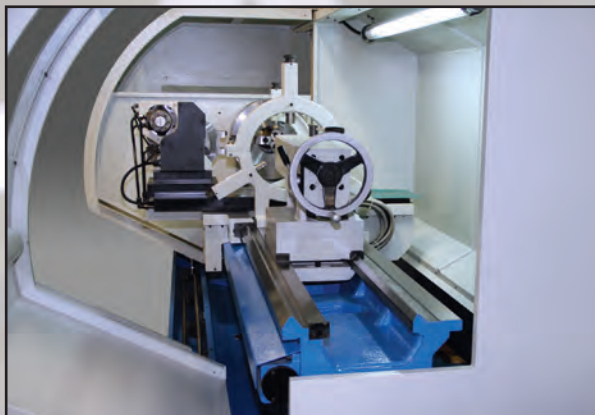
Ease of Operation

The Summit SmartCut Lathes incorporate the Fagor 8055 TC control into a sliding door for operator convenience and ease of operation. Electronic handwheels provide carriage and cross slide movement for touch-off during set up and programming. The cross slide can be fitted with the tool holding option of your choice from a quick change manual tool post to a 12 position automatic vertical turret.



Electrical Equipment

The SmartCut Series II machines incorporate state-of-the-art electrics and electronics in a ventilated enclosure. All components are U/L listed. AC servo axis drives and an inverter type 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.



Headstock

The headstock for the SmartCut series lathe is a thick walled casting that is designed to provide a quiet smooth running work environment through all of the gear ranges and at all spindle speeds. This is accomplished by utilizing precisely hardened and ground gears that are fitted to hardened and ground shafts that have been dynamically balanced. All gears are thoroughly tested for tooth configuration and engagement.



Standard Accessories

Included on all SC20, SC24 and SC28 SmartCut lathes is an appropriately sized 3 jaw chuck, steady rest with roller tips, follow rest, work light and complete chip and coolant enclosure with safety interlocked sliding doors. Front and rear 4 jaw chucks are standard on the SC32 hollow spindle lathes. A wide variety of optional workholding and toolholding products are available to compliment the standard accessory package.



Construction

The bed is 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. The bed ways are hardened (HRC 48-56), precision ground and mated to Turcite-B coated guideways for accuracy and long life.

Fagor 8055TC CNC Control Features:



- **Communications**
 - RS 232 C Serial Com Line
 - USB
- **Full range of canned cycles**
 - Turning (2 levels)
 - Facing (2 levels)
 - Taper Turning (2 levels)
 - Rounding (2 levels)
 - Threading (3 levels) with library
 - Grooving (5 levels)
 - Positioning (2 levels)
 - Drilling
 - Tapping
 - ISO Programs (G-Code)
- **Storage up to 5 MB**
(expandable up to 48 MB)
- **Inch/metric switchable**
- **11" Color LCD with full alphanumeric keypad**
- **Solid graphics with zoom**
- **Edit in ISO or teach mode with background editing**
- **Axis jog via pushbutton or handwheels**
- **Constant surface speed**
- **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
 - 256 tool magazine
 - Tool data back-up while CNC off
 - Part operation sequence storage
 - Automatic part repetition for lot work

“State-of-the-art technology for increased productivity”

Summit Machine Tool Manufacturing L.L.C. has been selling metalworking machine tools to industry for over 40 years. The Summit product line has grown to include not only general-purpose engine lathes; but to bigger and more sophisticated lathes. Lathes with features for the next generation job shop, like infinitely variable spindle speeds, precision ground ballscrews and CNC controls. The Summit lathe family now encompasses a wide range of turning options.

The latest addition, the SmartCut combination lathe, added to our line of manual and CNC vertical turret lathes, toolroom, engine and big swing lathes, adds up to one common denominator...Summit when turning must be done.

Summit has the largest selection of models in stock to choose from anywhere, both conventional and CNC. Custom tailored financing, rental and leasing programs, extensive parts and service programs, all backed by Summit's commitment to full customer service, is why industry around the world knows when turning must be done, turn to Summit.

These are just a few of the companies turning profits with Summit today...

Allison Gas Turbine	Mobil Oil
American Airlines	Philadelphia Electric Co.
Amoco Fabrics	Public Service of
Arizona Public Service	New Hampshire
Chrysler Corporation	Reynolds Aluminum
Cincinnati Gas & Electric	Rubbermaid
Cooper Tire & Rubber	Santa Fe Railroad
Florida Power & Light	Shell Oil
Ford Motor Co.	Texaco
General Motors	TRW
Georgia Pacific	Union Oil
Goodyear	United Airlines
Gulf Oil	US Air
Hyundai	U.S. Navy
Ingersol Rand	Westinghouse Electric
Kuwait Airlines	Wheeling Pittsburg Steel
Mississippi Power & Light	

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.

The largest inventory of lathes in stock anywhere, veteran installation crews combined with professional service and parts programs, make buying a Summit lathe your only choice.



Summit Machine Tool Manufacturing L.L.C.

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