

CINCINNATI MACHINES

Multi-Surface Grinding Center

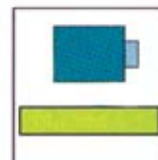


CINCINNATI MACHINES Multi-Surface Grinding Center combines heavy-duty meehanite castings, hydrostatic table ways, powerful 7.5 HP spindle motor drive, and swivelling workhead and table, with the Mitsubishi PLC menu driven touch-screen control system to bring you the ultimate in ID/OD grinding capabilities. Now, this one machine will do all of your ID, OD, face, traverse, plunge, shoulder, taper and straight job lot and/or batch production grinding.

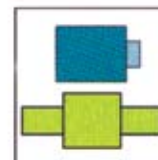
The wheelhead infeed unit features a hardened and ground leadscrew with an anti-backlash nut driven by a micro-stepping motor to insure precision and repeatability of $\pm 0.000040''$

GRIND CYCLES

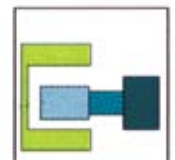
TRAVERSE



PLUNGE



ID GRINDING



FEED SELECTION

LEFT

RIGHT

PARK SELECTION

LEFT

RIGHT

HEAVY-DUTY MEEHANITE CASTINGS

The machine base is a heavily ribbed box-type meehanite casting, providing maximum rigidity and machine stability.

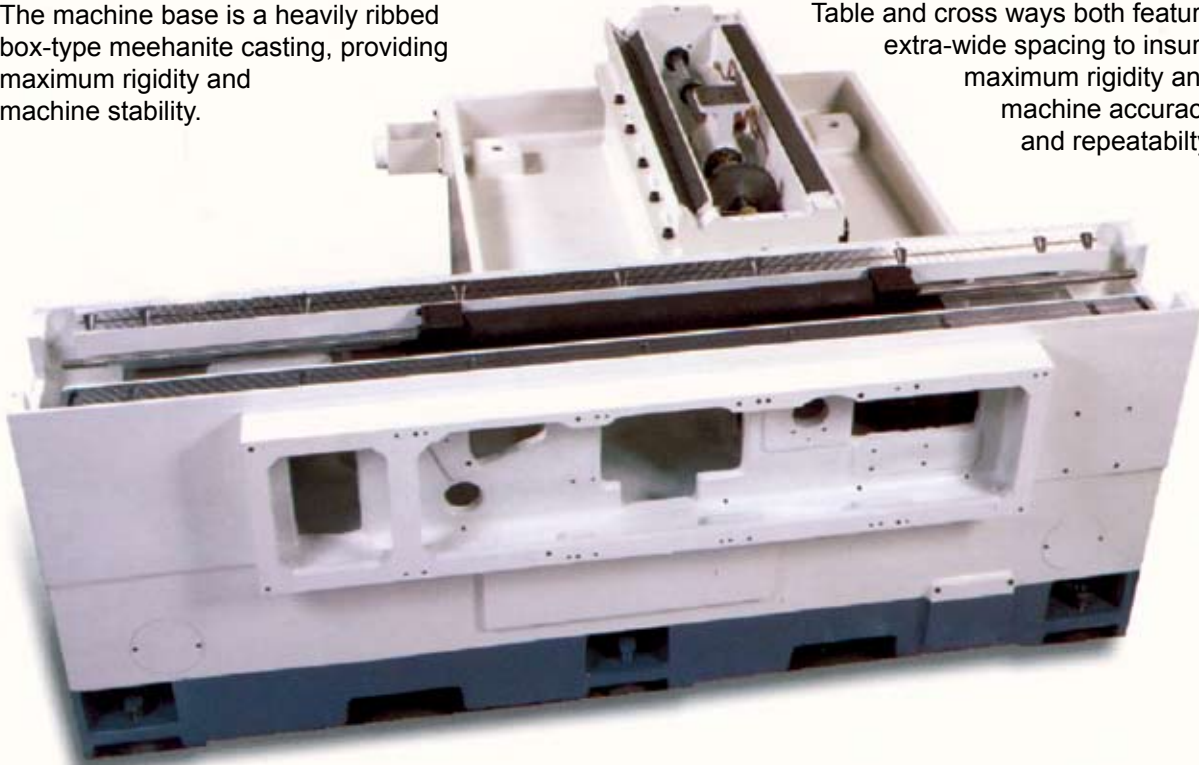
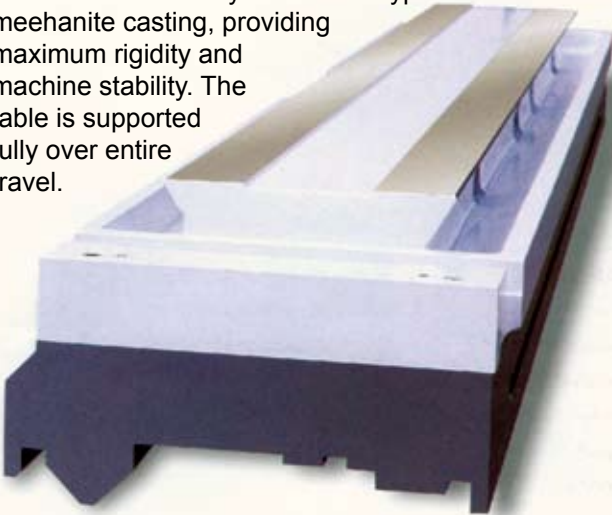


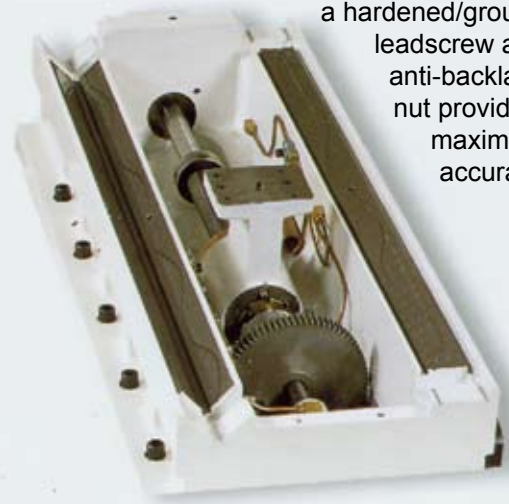
Table and cross ways both feature extra-wide spacing to insure maximum rigidity and machine accuracy and repeatability.

The table is a heavily ribbed box-type meehanite casting, providing maximum rigidity and machine stability. The table is supported fully over entire travel.



Hydro-static table ways lube insure longevity

The infeed slide features a hardened/ground leadscrew and anti-backlash nut providing maximum accuracy



Infeed slide design insures +/-0.00004" repeatability



The heavy cartridge type spindle with (4) super-precision angular contact class 7 bearings feature permanent lube for maximum dependability and accuracy



The heavy-duty cast tailstock features a hardened sleeve to carry the #4MT center



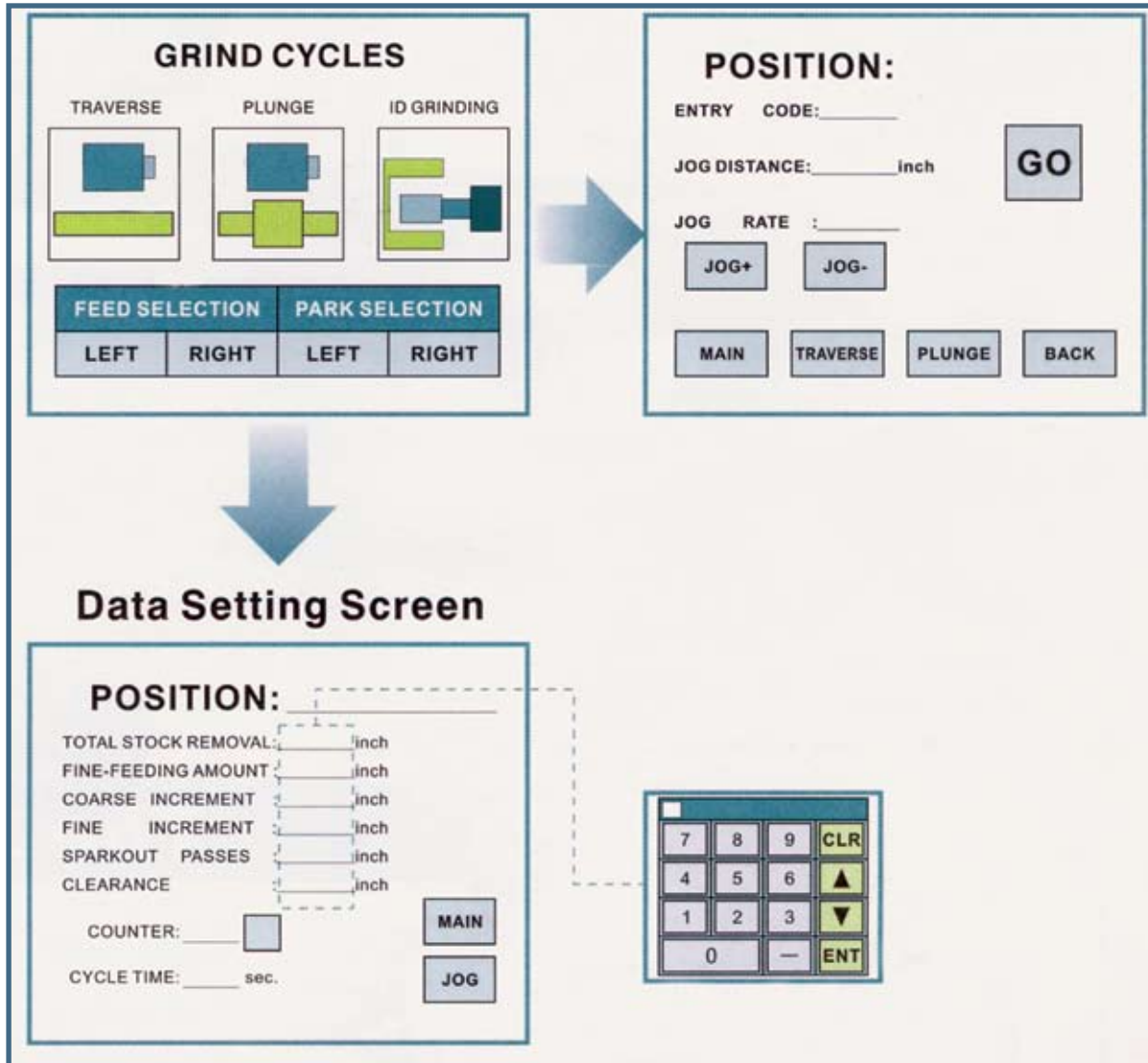
The Heavy-duty live and dead workhead has precision bearings and variable electronic drive

MENU-DRIVEN LCD TOUCH-SCREEN CONTROL TECHNOLOGY

STEP 1

Choose a function

- *Grinding Mode Selection
- *Infeed Selection
- *Table Parking Selection
- *Jog Setting or Next Screen

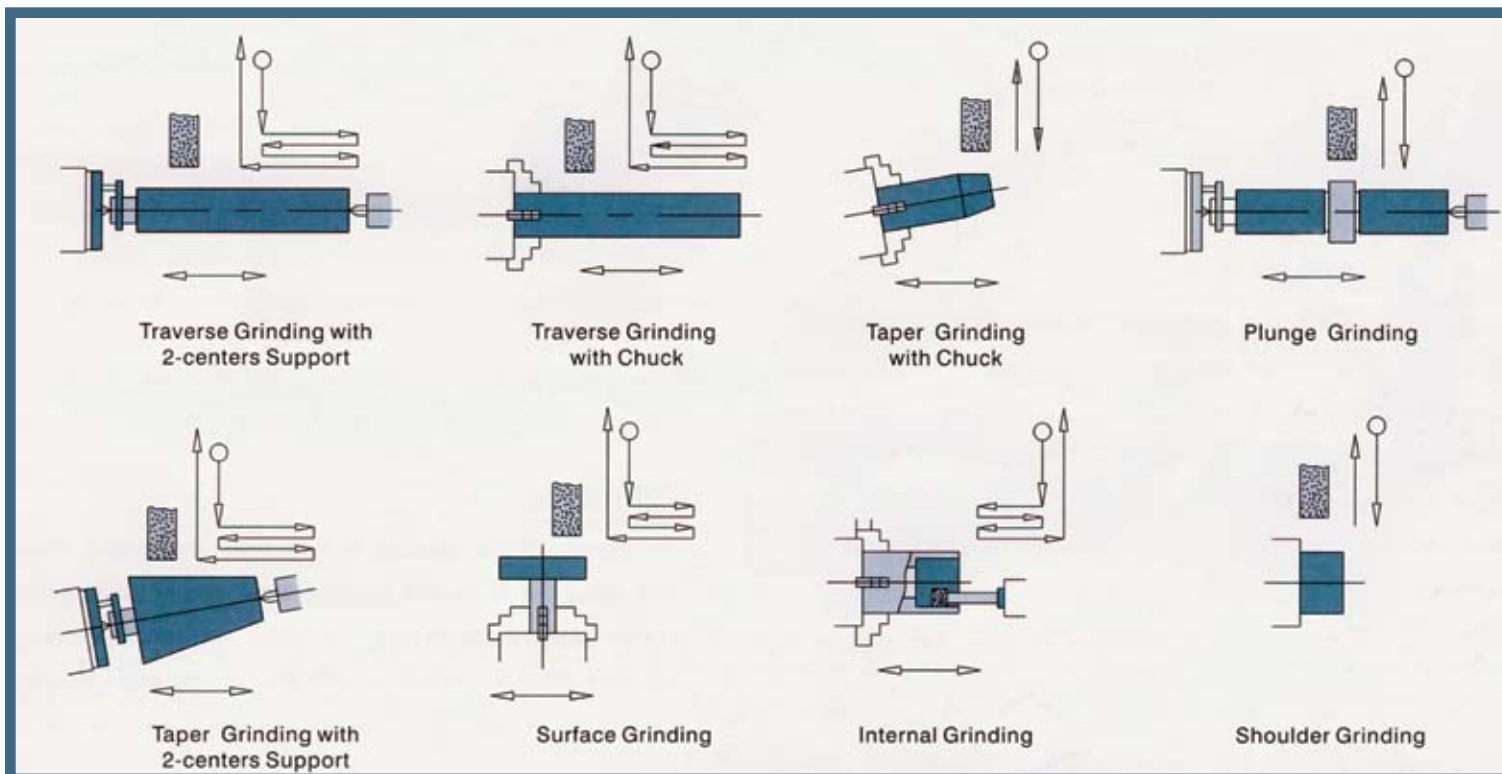


STEP 2

Fill in the blanks to set total

- *Total stock removal
- *Total fine feed amount
- *Rough increment
- *Fine increment
- *Spark-out passes
- **Reset height
- **Press "cycle start" to complete auto grind cycle

GRINDING APPLICATIONS

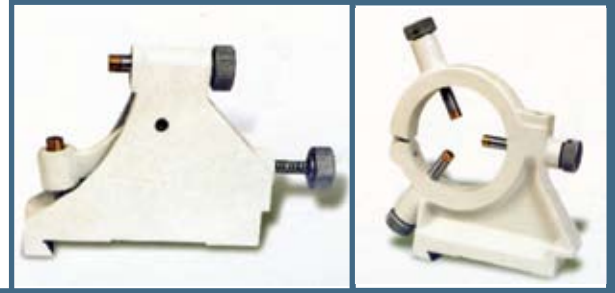


STANDARD EQUIPMENT

- *Grinding wheel mount
- *Balancing arbor
- *Coolant system
- *Carbide tip center
- *Table type wheel dresser
- *Wheel extractor
- *Auto lubrication system (except 6x18)
- *Tool box/tools
- *5C lever type collet attachment (6x18)

OPTIONAL ACCESSORIES

- *Variety of coolant filtration systems
- *Variety of chucks and collet attachments
- *Radius and angle dressing attachments
- *Internal grinding attachment
- *Variety of center rests & back rests
- *Digital readout systems
- *Extra wheel mounts
- *Complete line of CINMAX
 - *Conventional,
 - *CBN,
 - *Diamond and
 - *MAX grinding wheels
- *Dynamic wheel balancers
- *Hydraulic footstock



MACHINE SPECIFICATIONS (inches)

Model	6x18	8x20	12x24	12x40	12x60	12x80	15x24	15x40	15x60	15x80
Distance between centers	18"	20"	24"	40"	60"	80"	24"	40"	60"	80"
Swing over table	6"	8"			12.6"			15"		
Max grinding diameter	6"	8"		12" (with new wheel)				14" (with new wheel)		
Max load between centers	110lbs	176lbs		330lbs				330lbs		
Wheelhead swivel (R&L)				+/-30°				+/-30°		
Infeed travel		9.6"		9.6"				9.6"		
Hand feed travel		4.2"		6.3"				7.8"		
Top slide travel				7"				7"		
Auto infeed increment	0.0001" - 0.0004"			0.0001" - 0.0999"				0.0001" - 0.0999"		
Handwheel graduation	0.0002"			0.0002"				0.0002"		
Infeed travel - handwheel	0.05"/Rev			0.05"/Rev				0.05"/Rev		
Grinding wheel size (inch)	12x2x3	14"x2x5		16x2x5				16x2x5		
Grinding wheel speed	1960 rpm			1650 rpm				1650 rpm		
Table swivel (L-R)	+/-8°	+/-7°	+/-9°	+/-7°	+/-5°	+/-3°	+/-9°	+/-7°	+/-5°	+/3°
Table traverse speed	3 steps - 2.8/4.9/8.3ipm		1.2-275 ipm (infinitely variable)				1.2-275 ipm (infinitely variable)			
Table travel-handwheel		.375"		.375"				.375"		
Workhead swivel		90°		90°				90°		
Workhead center taper	#3MT		#4MT (MT5/5C option)				#4MT (MT5/5C option)			
Workhead speed	150/264/356/483 rpm		30-350 rpm (infinitely variable)				30-350 rpm (infinitely variable)			
Tailstock center taper	#2MT	#3MT	#4MT (MT5 option)				#4MT (5MT option)			
Tailstock quill travel		1"	1"				1"			
Internal grd. (opt) speed	14,000 or 25,000 rpm		12000, 18000, or 25000 rpm				12000, 18000, or 25000 rpm			
Internal grd. motor	2hp		2HP				2HP			
Grinding wheel motor	7.5HP		7.5HP				7.5HP			
Machine weight	3080lbs	4510lbs	9460lbs	11220lbs	12760lbs	14250lbs	9640lbs	1400lbs	12940lbs	14230lbs
Shipping dimensions	63x57x69	85x54x73	119x90x79	119x90x79	170x90x79	203x90x79	119x90x79	119x90x79	170x90x79	203x90x79

MACHINE DIMENSIONS

(All dimensions in inches)

A B C D E F G H I J K L M

	A	B	C	D	E	F	G	H	I	J	K	L	M
12x24	24	6.4	43	102	77	15	16	108	135	15	11	48	55
12x40	40	6.4	43	102	104	22	23	149	191	22	20	48	55
12x60	60	6.4	43	102	145	19	20	184	247	31	32	48	55
12x80	80	6.4	43	102	193	18	19	229	315	43	43	48	55
15x24	24	7.6	44	102	77	15	16	108	135	15	11	48	56
15x40	40	7.6	44	102	104	22	23	150	191	22	20	48	56
15x60	60	7.6	44	102	145	19	20	184	247	31	32	48	56
15x80	80	7.6	44	102	193	18	19	229	315	43	43	48	56

