SUPERTEC® Since 1954

STP-2040

The Finest Solution

· STP-2040 · STP-2060
COLUMN TYPE SURFACE GRINDER

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This series of column type surface grinders is the result of many years of continuous research and manufacturing experience. They are designed specifically to meet the rugged requirements of large work pieces in a production environment. Available in sizes 20" x 40" and 20"x 60", these surface grinders offer the long-lasting productivity your shop demands.

STP-2A2040	Hydraulic Table and Cross Feed Grinder
STP-2040CII	Hydraulic Table, Cross and Down Feed Grinder
STP-2040CXII	Hydraulic Table, Cross and Servo Down Feed Grinder, and Slicer
STP-2040CNC	Two or Three Axes CNC Grinder, Available with FANUC, Siemens, Mitsubishi, or PC-Based Control
STP-2A2060	Hydraulic Table and Cross Feed Grinder
STP-2060CII	Hydraulic Table, Cross and Down Feed Grinder
STP-2060CXII	Hydraulic Table, Cross and Servo Down Feed Grinder, and Slicer
STP-2060CNC	Two or Three Axes CNC Grinder, Available with FANUC, Siemens, Mitsubishi, or PC-Based Control

STP-2040CII

STP-2040CNC

Note: Machine shown with optional accessories.

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FEATURES

Precision Cartridge Spindle for High Accuracy

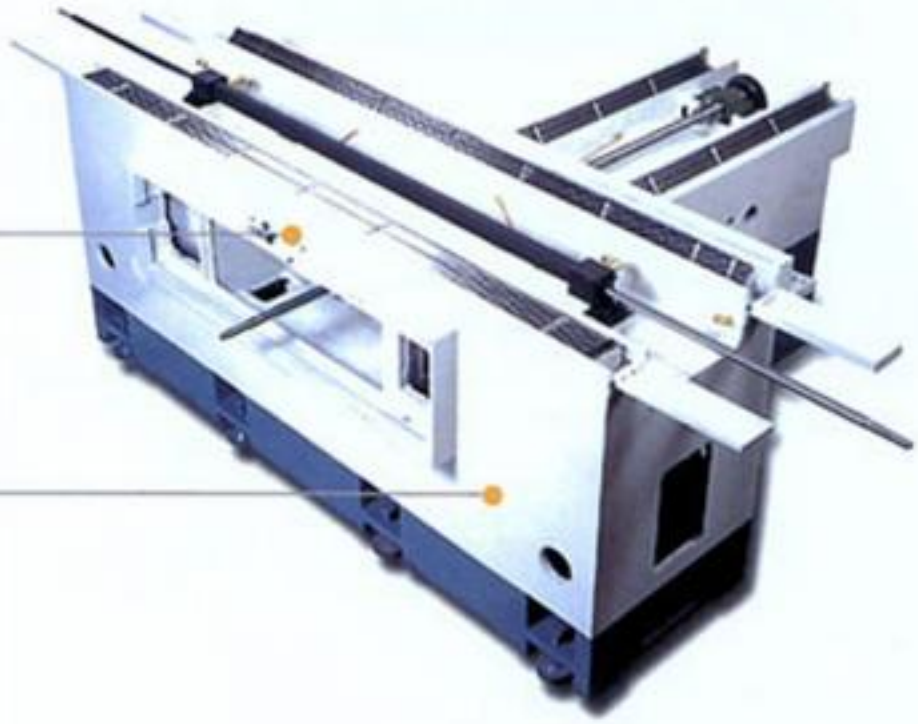
A highly rigid spindle with four preloaded class 7(P4) precision angular contact ball bearings and run-out of taper nose better than 0.0015mm (0.000060") T.I.R. provides quiet, vibration free operation for better workpiece accuracy and surface finish.
The cartridge spindle is interchangeable for easy maintenance and field replacement.
The spindle system is grease sealed for life.

Powerful Output, Low Vibration Spindle Motor

The 7.5HP/10HP spindle motor assembly is dynamically balanced for low vibration displacement and powerful output in order to achieve precision work standards and better grinding capability.

Hydrostatic Table Ways

The rigid table with box-type construction travels on a cushion of oil with no metal-to-metal contact, providing excellent way longevity.



Ballscrew W/ Servo Motor for CNC

Positioning accuracy and repeatability is assured with an AC servo motor and high precision pre-tensioned ballscrew.

Meehanite Casting Machine Base for Maximum Stability

The box-type, rib-reinforced base is made of Meehanite casting, that is heat tempered and stress relieved twice during the manufacturing process to assure stability of the machine structure and resist deflection under load.

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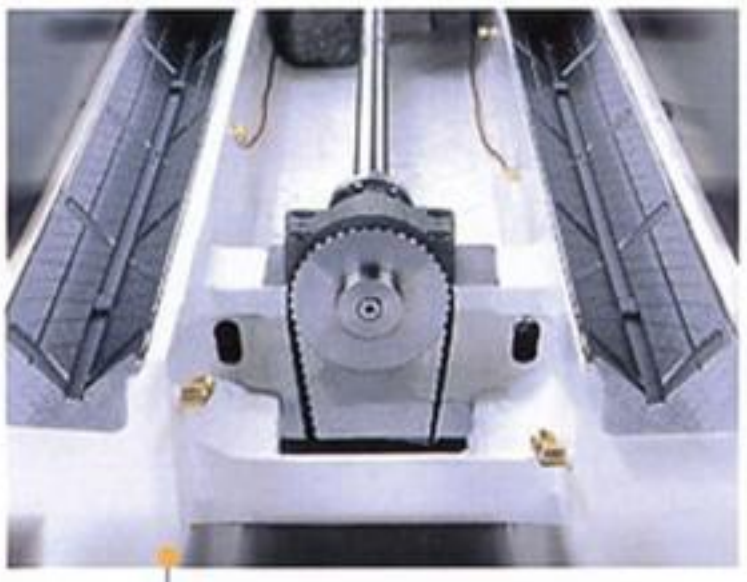
FEATURES

Column

The massive column is a one-piece cast that is heavily ribbed for increased grinding performance. The rigid wheelhead travels on THK preloaded linear needle roller bearings and hardened and ground slideways, and is precisely positioned with the use of a stepping motor on the CII, and a servo motor on the CXII and CNC models. This design ensures an accurate downfeed repeatability with least increment of 0.001mm(0.000050")(in manual mode).



Crossfeed Mechanism

The crossfeed mechanism incorporates a precision ballscrew and an AC inverter, providing a smooth accurate movement. This combination also allows for criss-cross grinding which provides a better work piece finish, less wheel wear and shorter cycle times.

Hydraulic System

The hydraulic and lubrication systems are separated from machine to eliminate vibration and dissipate heat.
A heat exchanger is used on the hydraulic system to maintain optimum temperature of the hydraulic oil.

Automatic Lubrication System

All moving surfaces and rotating parts are continuously lubricated by recirculated filtered lube oil.
This procedure ensures an extended service life and maintains maximum accuracy.
An alarm light will illuminate if oil pressure drops below the required pressure.

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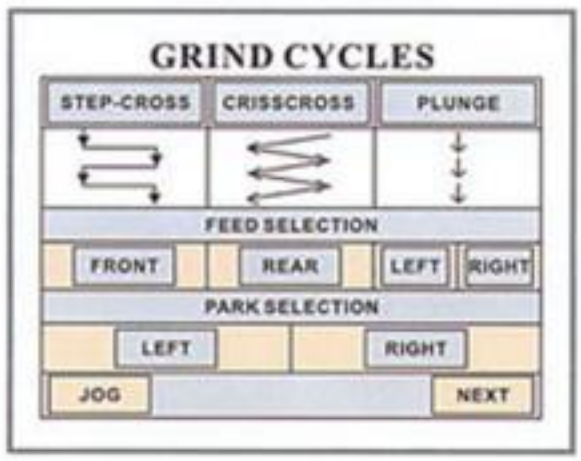
Mitsubishi PLC control uses a menu-driven LCD touch screen technology for simple operation. (CII and CXII Models only)

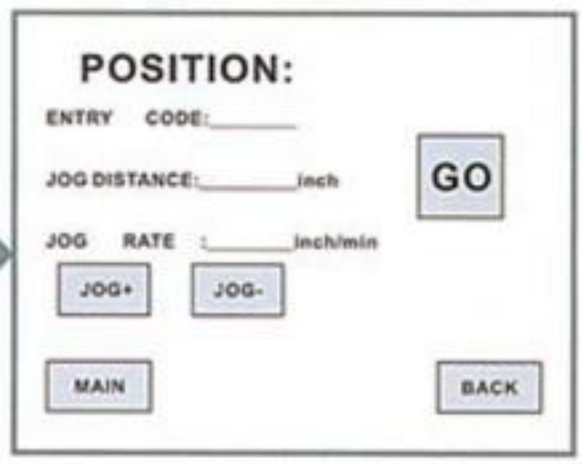
Step 1

Choose the following functions:
Grinding Mode Selection
Down Feed Selection
Table Parking Selection
Jog Setting or Next Screen

Main Screen



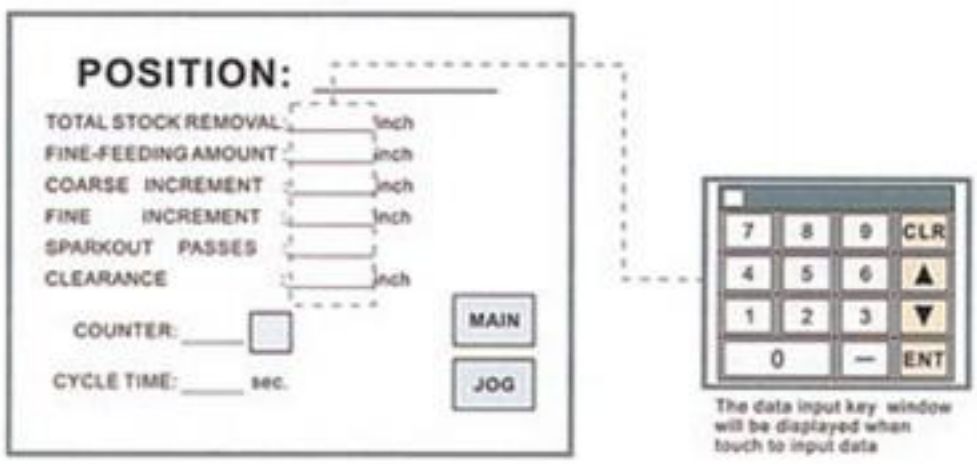
Jog Setting Screen



Data Setting Screen

Step 2

Fill in the blanks to set total stock removal, total fine grinding amount, rough increment, fine increment, spark-out passes, & reset height and press cycle start to complete automatic grinding cycle.



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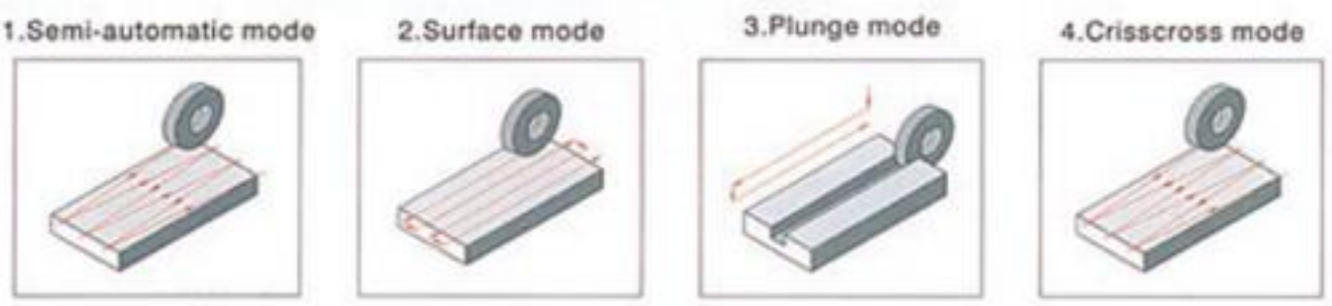
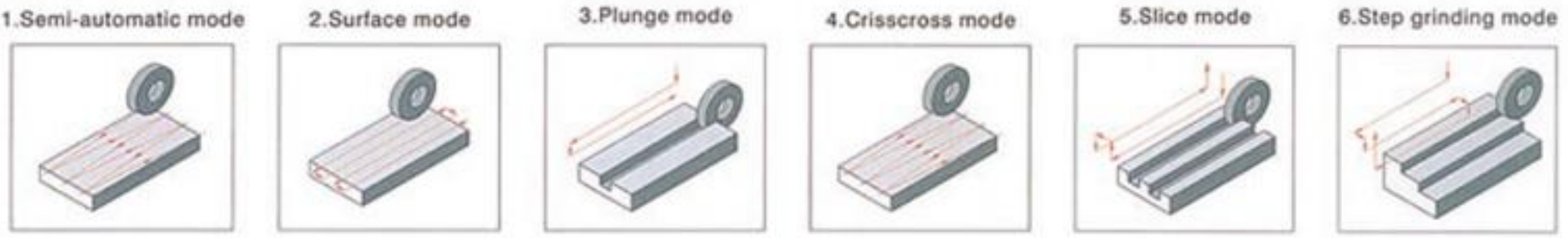
CII Grinding Mode



CXII Grinding Mode



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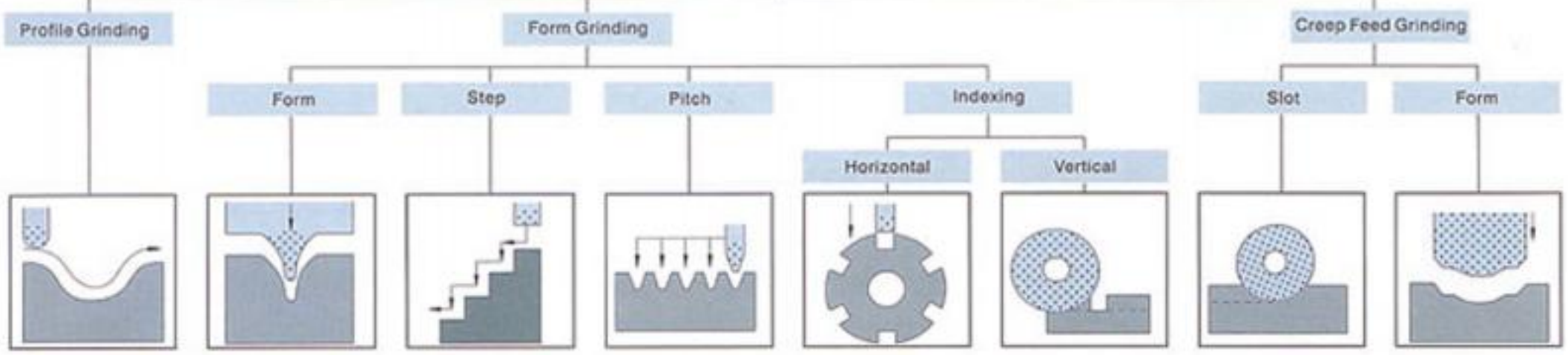
CNC Grinding Applications



FANUC 0 iMC Specifications

○ : Standard ☆ : Option

NO.	Item	Specification	
1	Least input increment	0.001mm (0.0001")	○
2	Least command increment	0.001mm (0.0001")	○
3	Rapid traverse override	F0,25,50,100%	○
4	Automatic acceleration /deceleration		○
5	Linear acceleration / deceleration after Cutting feed interpolation		○
6	Feedrate override0 to 150%		○
7	Positioning		○
8	Linear interpolation		○
9	Cicular interpolation		○
10	Reference position return		○
11	Reference position return check		○
12	8.4" color LCD/MDI	Horizontal type	○
13	9"CRT/MDI (full key) Color		☆
14	Manual handle feed	1 unit	○
15	Incrementl feed	x1,x10,x100	○
16	Dwell (per sec)		○
17	Interlock		○
18	Machine lock all axes		○
19	External deceleration		○
20	Position signal output		○
21	Battery alarm output		○
22	Backlash compensation		○
23	Stored pitch error compensation		○
24	MDI operation		○
25	Reset		○
26	Dry run		○
27	Single block		○
28	Program protect signal		○
29	Self-diagnosis function		○

NO.	Item	Specification	
30	Emergency stop		○
31	Status display		○
32	Incremental pulse coder interface		○
33	Coordinate system setting		○
34	Automatic coordinate system setting		○
35	Workpiece coordinate system	G52~G59	○
36	Special G code input		○
37	Programming input of offset data		○
38	Custom macro B		○
39	Inch/metric conversion		○
40	Canned cycles for grinding		○
41	EIA/ISO automatic recognition		○
42	Multi step skip		○
43	Miscellaneous function	M3-digit	○
44	Tool offset memory	16 pairs	○
45	Tool offfset		○
46	Partprogram storage length	320m	○
47	Registered programs	63 pieces	○
48	Sequence number search		○
49	Program number search		○
50	Program peotection		○
51	Background editing	English/Japanese/Chinese	☆
52	Multi-language display		○
53	Run hour and parts conut display		○
54	Display of spindle speed		○
55	Actual speed display		○
56	External message		○
57	External data input		○
58	External I/O device control		○
59			

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CNC OPTION

Diamond Form Dressing Roller

Full Enclosure Splash Guard

Special Fixture

Tilting Fixture

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STANDARD ACCESSORIES

Grinding wheel with flange	Wheel extractor
Balancing arbor	Diamond dresser
Hydraulic system w/cooling fan	Tool box with adjusting tools
Levelling bolts with blocks	Operation manual with parts list
Machine lamp	Splash guard

OPTIONAL ACCESSORIES

Electro magnetic chuck	Halogen lamp
Chuck control with auto demagnetizer	Balancing stand
Dust collector	Digital readout
Coolant system	Precision vise
Combination coolant & dust system	Radius forming attachment
Coolant system with magnetic separator and paper filter	Overhead parallel dressing attachment (Manual)
Splash guard for CE	Overhead parallel dressing attachment (Hydraulic)
Hydraulic parallel dressing attachment w/auto compensation	