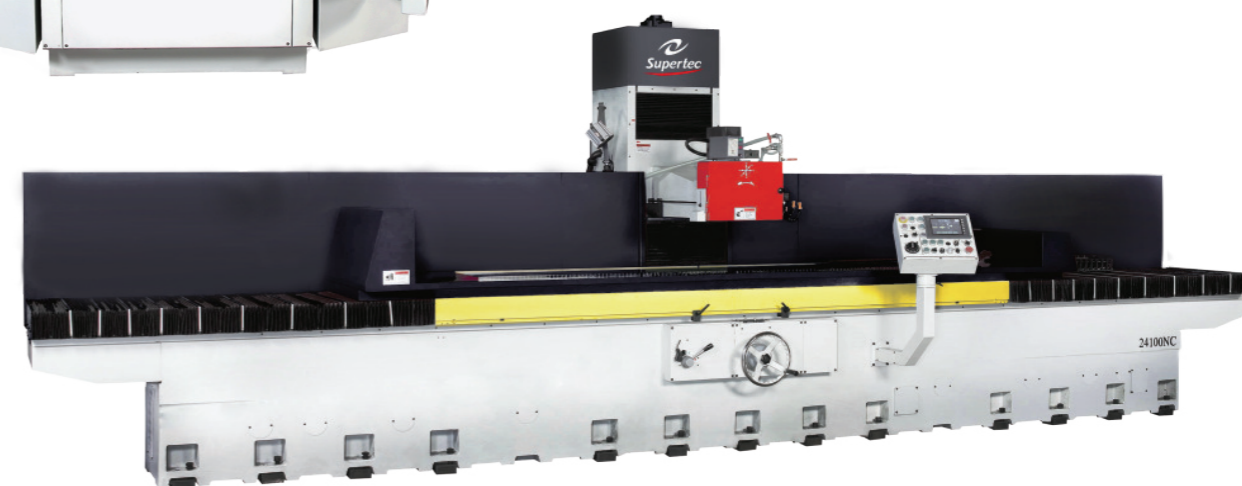


Your Source for Grinding Solutions

SURFACE GRINDER PLANOTEC NC Series



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SURFACE GRINDER

Planotec NC Series

Planotec Series includes saddle type and column type options to accommodate different machining needs. The design delivers high precision and rigidity, especially when grinding large workpieces - ensuring consistently accurate results. The Series feature a PLC control panel and a color touch screen with powerful functionality and user-friendly operation. Additionally, its automatic grinding function enhances efficiency and helps save machining time.

Saddle Type Structure

Planotec - 820NC / 820CXII / 1224NC / 1632NC / 1640NC



- The base utilizes a rigid box design that provides strong and steady support to ensure the machines long term precision
- The double V design of the base slideways provides greater rigidity and increases grinding accuracy
- CXII Models for multi slicing applications

*Downfeed increment input 0.0001mm / 0.00001"
0.0001" flatness accuracy & Ra 6um finish*

Column Type Structure

Planotec - 2040NC / 2060NC / 2448NC / 2460NC / 2480NC / 24100NC / 24120NC



- The column type design uses less floor space than a saddle type
- The column type is a boxway design for enhanced stability
- A precision ballscrew and A.C. servo motor on the downfeed insures maximum accuracy and repeatability

Controller

Planotec Series is equipped with a PLC control system combined with a color touch screen and a user-friendly interface. Operators can easily set the grinding amount and start a grinding cycle with minimal input. The control system automatically saves the last used grinding parameters, allowing the operator to simply press the "Cycle Start" button to repeat the previous setup and begin a new cycle.



Setting Display

Main Menu

Mode Selection

CrissCross Step-Cross Plunge

Feed Selection

FRONT REAR LEFT RIGHT

Park Selection

LEFT RIGHT NEXT

Setting Screen

location:

Total Stock Removal : _____ mm
 Fine-feed Amount : _____ mm
 Coarse Increment : _____ mm
 Fine Increment : _____ mm
 Sparkout Passes : _____
 Clearance : _____
 Time : _____ sec

Data input keyboard

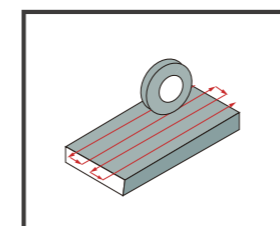
7 8 9 CLR
 4 . 6 ▲
 1 2 3 ▼
 0 - ENT

The crossfeed distance can be preset, and the operator may choose to feed from both sides or from either the front or rear side of the worktable.

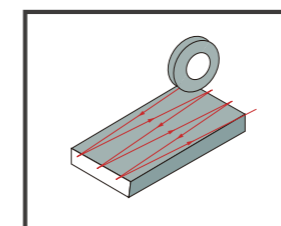
The grinding wheel infeed can also be configured to begin grinding from both sides or from one side of the worktable, depending on the application.

The longitudinal travel distance of the worktable can be precisely set and maintained at a steady rate. Operators can also define the start and stop positions at either the left or right end of the table. (An automatic dressing attachment is available as an optional accessory.)

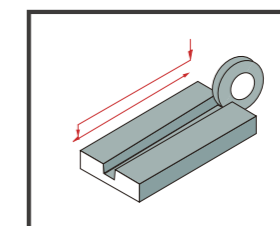
Grinding Cycle



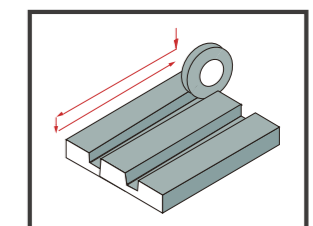
Step Grinding



Crisscross Grinding



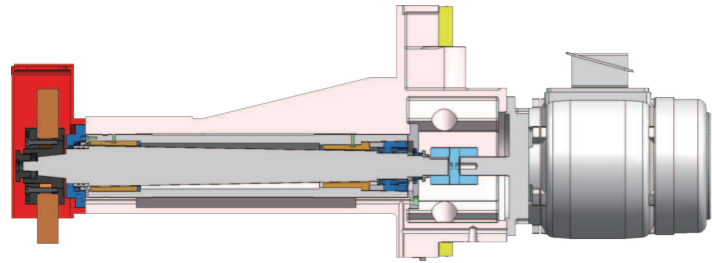
Plunge Grinding



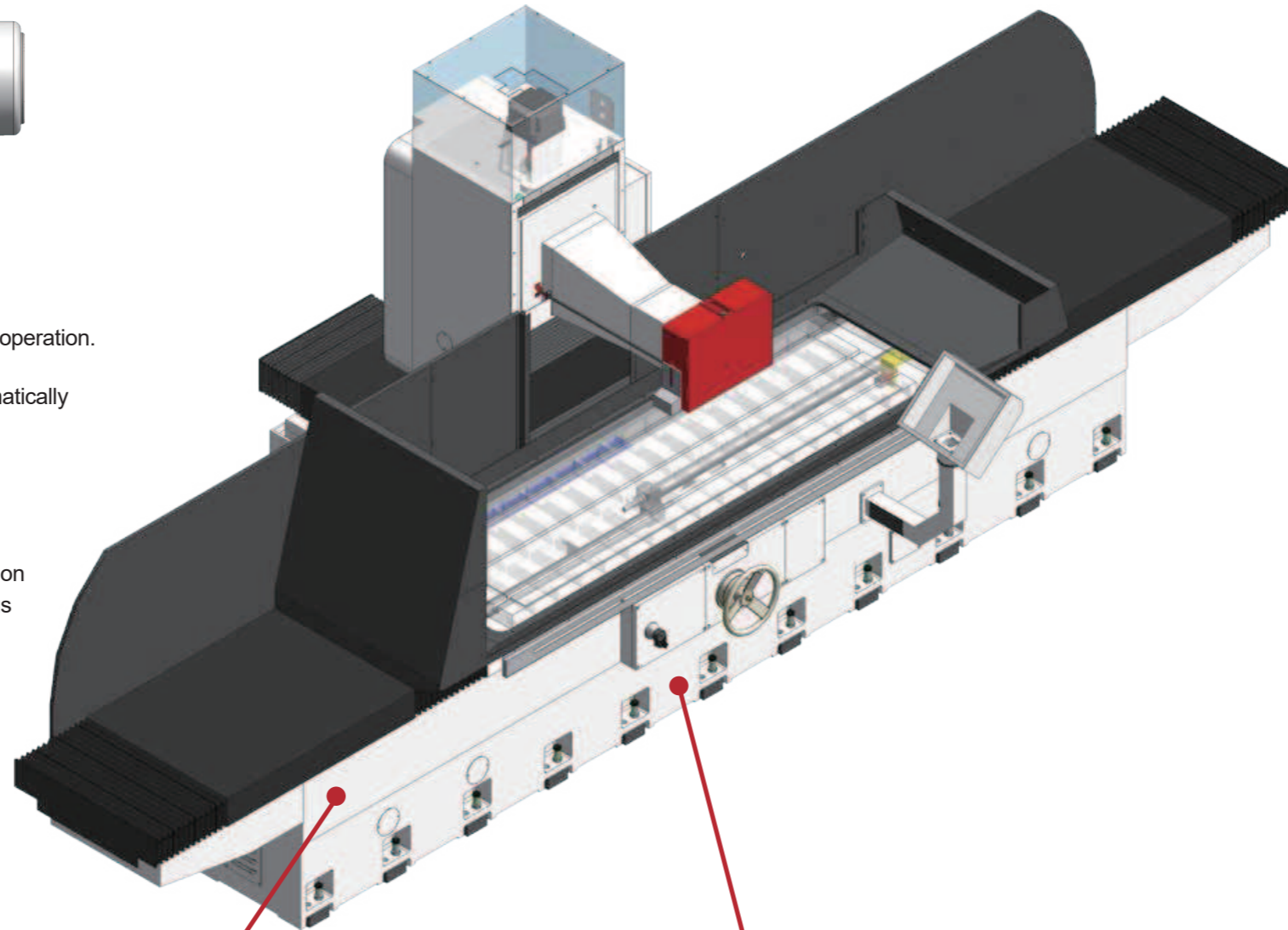
Multi-Slicing Grinding
(Opt.)

SURFACE GRINDER

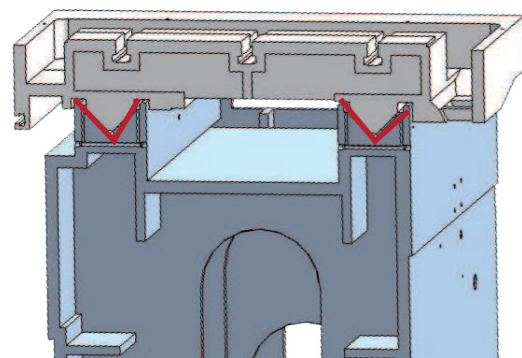
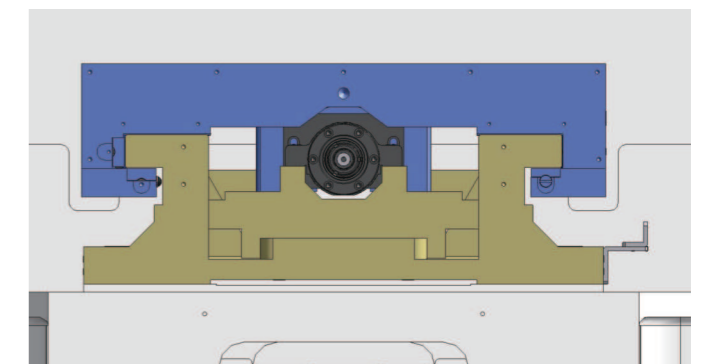
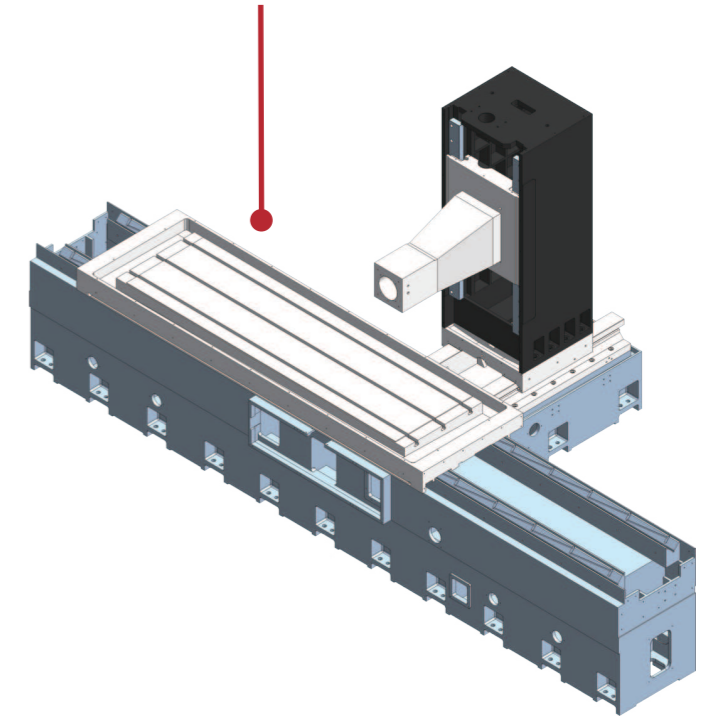
Column Type Design & Feature



- Hydrodynamic spindle offers steady oil pressure supply to support the spindle. Spindle run-out is less than 0.00008 in, and stiffness over 50Kgf/um. This feature is suitable for both light and heavy duty grinding operation. The hydraulic circuit is connected to a pressure sensor, once the oil pressure is too low, the grinding wheel will automatically stopped to prevent causing damage to the spindle.
- Bearing type spindle features high accuracy, non-vibration, low thermal growth. The spindle is equipped with precision angular contact ball bearings and the grease sealed lubrication makes the spindle easy to maintain and ensure of continuous operation. The spindle run-out is less than 0.00008 in.
- The X and Z Axis guideway lubrication system is equipped with a pressure-sensing function, to ensure sufficient lubrication pressure is consistently supplied.



Wider and heavier design of the column, which offers high stability and rigidity. The lubrication is supplied through an independent system to extend service life.



X-Axis

X-Axis Worktable Guideway Double-V Design

For large workpieces and heavy-duty applications, the worktable slideways are upgraded to a Double-V guideway design. The deepened and widened guideways, combined with a large-span design, provide the worktable with stable and smooth movement.

The X-axis guideway is precisely hand-scraped, coated with Turcite-B, and supported by oil-film lubrication to ensure positioning accuracy and long-term durability.

The integral "T" shape base is manufactured from Meehanite casting, with tempering & stress-relief treatment to ensure structure stability and avoid transformation.

The machine base is 2.5 times longer than the worktable, providing full support throughout the entire travel range. This design significantly enhances structural rigidity during grinding operations.

Z-Axis Saddle Structure

The saddle is precisely scraped and driven by precise ballscrew to move along the box guide way, increasing machine rigidity and extend the machine lifetime.

SURFACE GRINDER

Specification

	820NC/CXII	1224NC	1632NC	1640NC	2040NC	2060NC	2448NC	2460NC	2480NC	24100NC	24120NC
Grinding Capacity											
Max. Grinding Length	21"	24"	32"	40"	41"	61"	50"	61"	80"	100"	120"
Max. Grinding Width	9"	12"	16"	16"	20"	20"	25"	25"	25"	25"	25"
Distance from Table Surface to Spindle Center	15"	21.6"	21.6"	23.6"	23.6"	23.6"	27.5"	27.5"	27.5"	27.5"	27.5"
Max. Load on Table (incl. Magnetic Chuck)	475 lbs.	882 Lbs.	1,278 Lbs.	1,430 Lbs.	1,874 Lbs.	1,874 Lbs.	2,646 Lbs.	2,866 Lbs.	3,197 Lbs.	3,527 Lbs.	3,858 Lbs.
Table											
Table Size	8" x 20"	12" x 24"	16" x 32"	16" x 40"	20" x 40"	20" x 60"	24" x 48"	24" x 60"	24" x 80"	24" x 100"	24" x 120"
Standard Magnetic Chuck Size	8" x 20"	12" x 24"	16" x 32"	16" x 40"	20" x 40"	20" x 60"	24" x 48"	24" x 60"	24" x 80"	24" x 100"	24" x 120"
Saddle / Column Moving	Saddle	Saddle	Saddle	Saddle	Column	Column	Column	Column	Column	Column	Column
Longitudinal Movement (X-Axis)											
Travel Distance	20"	25.6"	33.5"	41.3"	43.3"	63"	53"	65"	84.6"	104.3"	124"
Table Speed	3.28'-82.02' /min	9.8'-82' / min	9.8'-82' / min	3.28'-82' / min	9.8'-82' / min	9.8'-82' / min	9.8'-82' / min	9.8'-82' / min	9.8'-82' / min	9.8'-82' / min	9.8'-82' / min
Manual Travel	23.6"	27.6"	35.4"	43.3"	x	x	x	x	x	x	x
Auto. Cross Movement (Z-Axis)											
Automatic Increment Feeds	9"	14"	18"	16.5"	21.6"	21.6"	28.5"	28.5"	28.5"	28.5"	28.5"
Rapid Travel (60Hz)	25.59"/min	67.3"/min	67.3"/min	39.4" - 118" / min	67.3"/min	67.3"/min	67.3"/min	67.3"/min	67.3"/min	67.3"/min	67.3"/min
Min. Input Unit	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"
Cross feed Z-Axis Motor	0.05 Hp	0.24 Hp	0.24 Hp	2.68 Hp	0.5 Hp	0.5 Hp	0.5 Hp	0.5 Hp	0.5 Hp	0.5 Hp	0.5 Hp
Manual Cross Movement (Z-Axis)											
Manual Travel	9.06"	14.5"	18.5"	18.5"	22.6"	22.6"	28.5"	28.5"	28.5"	28.5"	28.5"
Handwheel per Graduation	0.004" /MPG	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"	0.0008"
Handwheel per Revolution	0.00004" /MPG	0.2"	0.2"	0.2"	0.2"	0.2"	0.2"	0.2"	0.2"	0.2"	0.2"
Vertical Down Feed (Y-Axis)											
Automatic Down Feed Travel	15"	15.74"	15.74"	19.7"	19.7"	19.7"	19.7"	19.7"	19.7"	19.7"	19.7"
Max. Infeed Speed	9.2" / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min	8.2' / min
Min. Input Unit	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"	0.00004"
Y-Axis Servo Motor	0.5 Hp	1.35 Hp	1.35 Hp	1.35 Hp	1.35 Hp	1.35 Hp	4 Hp	4 Hp	4 Hp	4 Hp	4 Hp
Grinding Wheel											
Wheel Size (OD x W x ID)	7" x 0.5" x 1.25"	14" x 2" x 5"	14" x 2" x 5"	16" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"	18" x 2" x 5"
Spindle Speed (60Hz)	3600 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm	1800 rpm
Spindle Motor	3 Hp	4.8Hp / 7.6Hp(opt.)	4.8Hp / 7.6Hp(opt.)	7.5Hp / 10Hp	7.6Hp / 10Hp(opt.)	7.6Hp / 10Hp(opt.)	15 Hp	15 Hp	15 Hp	15 Hp	15 Hp
Motor											
Hydraulic Motor	1 Hp	2 Hp	2 Hp	5 Hp	3 Hp	3 Hp	5 Hp	5 Hp	5 Hp	5 Hp	5 Hp
Lubrication Motor	0.1 Hp	0.1 Hp	0.1 Hp	0.25 Hp	0.03 Hp	0.03 Hp	0.25 Hp	0.25 Hp	0.25 Hp	0.25 Hp	0.25 Hp
Machine Size & Weight											
Size (L x W x H)	70" x 63" x 87"	112" x 89" x 98"	126" x 89" x 100"	150" x 90" x 95"	142" x 90" x 100"	177" x 90" x 100"	157" x 118" x 100"	197" x 118" x 100"	244" x 118" x 100"	280" x 118" x 100"	303" x 118" x 100"
Net Weight	3,240 Lbs.	6,614 Lbs.	7,716 Lbs.	10,582 Lbs.	13,007 Lbs.	15,653 Lbs.	14,550 Lbs.	19,400 Lbs.	22,972 Lbs.	24,030 Lbs.	26,433 Lbs.
Gross Weight	3,561 Lbs.	7,716 Lbs.	9,921 Lbs.	11,905 Lbs.	15,212 Lbs.	18,960 Lbs.	16,755 Lbs.	21,605 Lbs.	24,074 Lbs.	25,794 Lbs.	28,220 Lbs.

Accessories

Standard Accessories

- Grinding Wheel & Wheel Flange
- PLC + Touch Screen & Control Panel
- Y-axis Ballscrew & Servo Motor
- Hydraulic System & Cooling Fan
- Operating Manual & Parts List
- Leveling Bolts + Blocks
- Balancing Stand & Arbor
- Standard Coolant Tank
- Semi-Enclosure Splash Guard
- Grinding Wheel Extractor
- Diamond Dresser + Stand
- Tools + Toolbox

Optional Accessories

- Fine-pole Electromagnetic Chuck + Automatic Demagnetizer
- Electromagnetic Chuck + Automatic Demagnetizer
- Coolant System + Magnetic Separator and/or Paper Filter
- Y/Z-Axis Linear Scales (Vertical/Cross) + DRO
- Y-Axis Linear Scales (Vertical) + DRO
- Overhead Parallel Dresser (Manual/Hydraulic)
- Overhead Parallel Dresser + Automatic Compensation (Stepping Motor)
- Permanent Magnetic Rotary Chuck
- Dual-Side Dresser
- Spare Grinding Wheel Flange
- Angular Dresser
- Radius Dresser
- Oil & Mist Collector
- Grinding Wheel Inverter
- Dust Collector