



MATTISON
GRINDERS

M2000
Modular Grinder



DESIGN
Makes the Difference

Mattison M2000 Multi-Axis

CNC Surface & Form Grinder

The Mattison M2000 CNC Grinder Series represents a new generation of high speed surface and form grinding technology. The M2000 technology allows grinding of hardened, heat treated work pieces, significantly reducing material handling and part production cost. Solid construction, highest quality components and state of the art control system combine for reliable, precision production. Featuring a unique modular design, the M2000 is adaptable to a wide variety of production applications, including:

- Creep Feed Grinding
- Surface Grinding
- Face Grinding
- Form and Contour Grinding
- Plunge Grinding

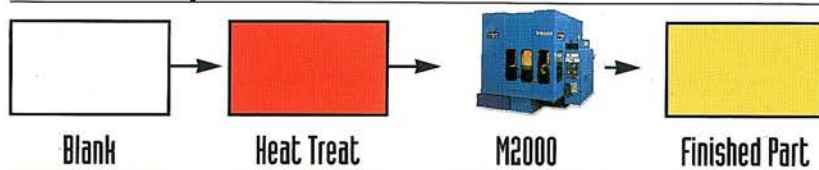
M2000 Benefits

- Adaptable to a variety of surface and form grinding applications
- Multi-axis capability provides production versatility
- State of the art CNC control with self-monitoring function
- Compact design minimizes free-standing components
- Ergonomic, safe design allows easy accessibility
- Digital axis drives, no homing required
- Clean, "dry floor" coolant containment system

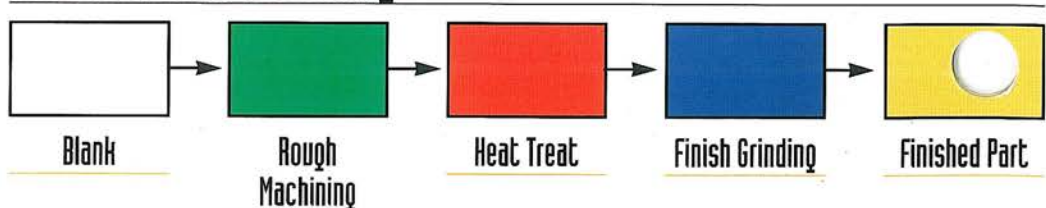
Production Efficiency

The M2000 allows many heat treated, high performance alloys or other hard to machine materials to be efficiently ground to extremely precise finished dimensions in just one pass. Soft state part machining can often be eliminated. Parts can often go from near shape to heat treat to finish, streamlining the production cycle.

M2000 Creep Feed



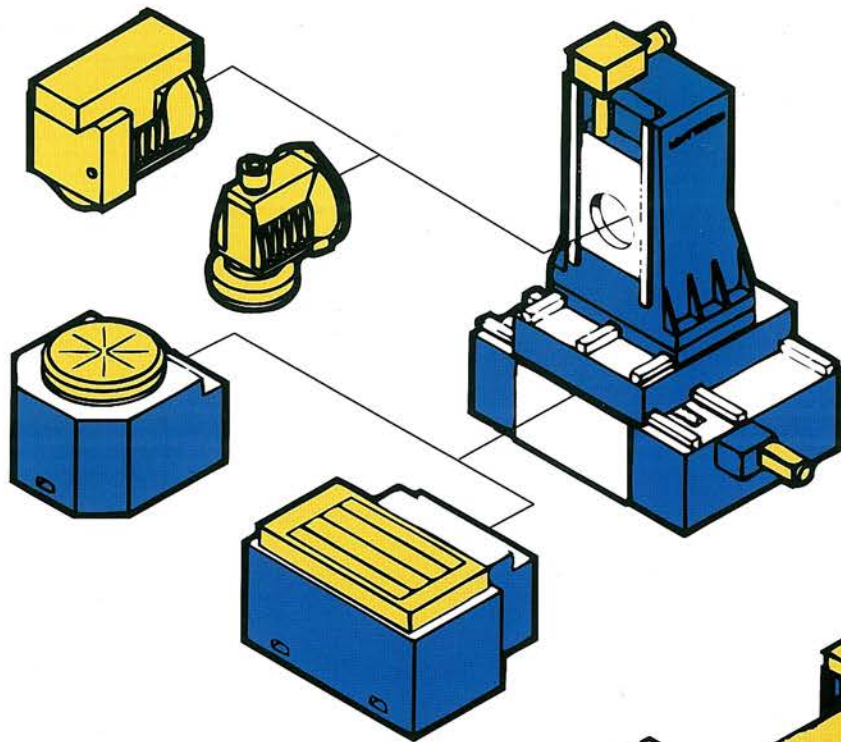
Conventional Processing



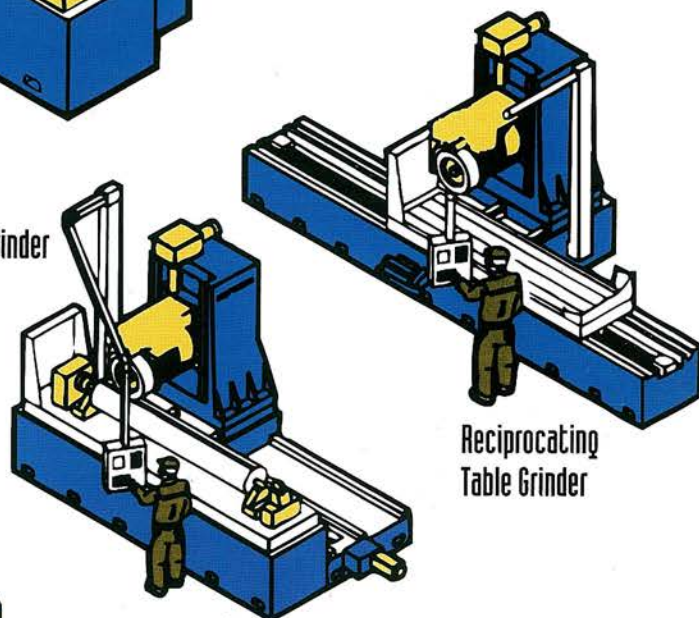
Modular Design

Employing advanced technology, the Mattison M2000 is designed for custom configuration. Modularity and a stable platform make the M2000 suitable for many types of grinding. Modular components include:

- Vertical Head
- Horizontal Head
- Compound Slide
- Customized Work Tables

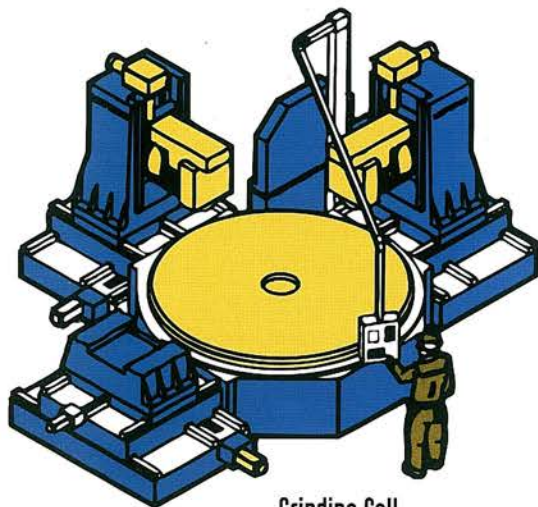
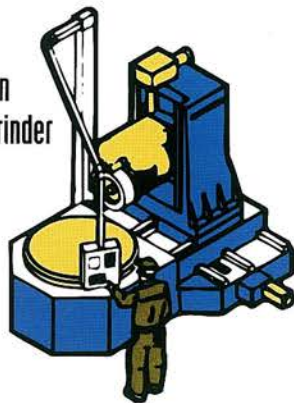


Corrugated Roll Grinder



Reciprocating
Table Grinder

M2000 Traveling Column
Large Indexing Table Grinder



Grinding Cell



The M2000 features a small footprint; compact design; quick installation and easy start-up; ergonomic, safe design for easy accessibility.

M2000 Components

Spindle

Precision balanced, infinitely variable speed with high rigidity combine to provide close tolerances and a quality surface finish.

Housing and Cartridge:

- Cast iron for high dampening
- Coolant-through capability
- 60hp-125hp liquid cooled motor

High Speed Operation:

- Ceramic ball/steel race bearings
- Super abrasive applications

Automatic Wheel Balancing

Column / Base

A polymer filled base and rigid column provide Y-Axis static stiffness that exceeds 1.5 million pounds. Excellent dampening characteristics.

Dresser Assembly

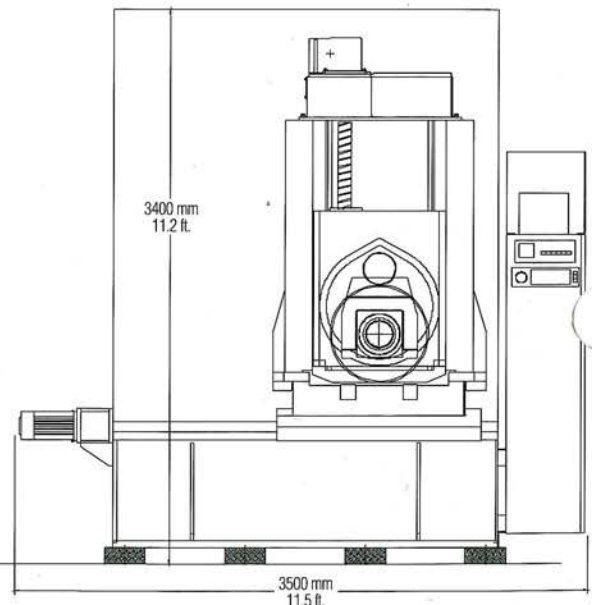
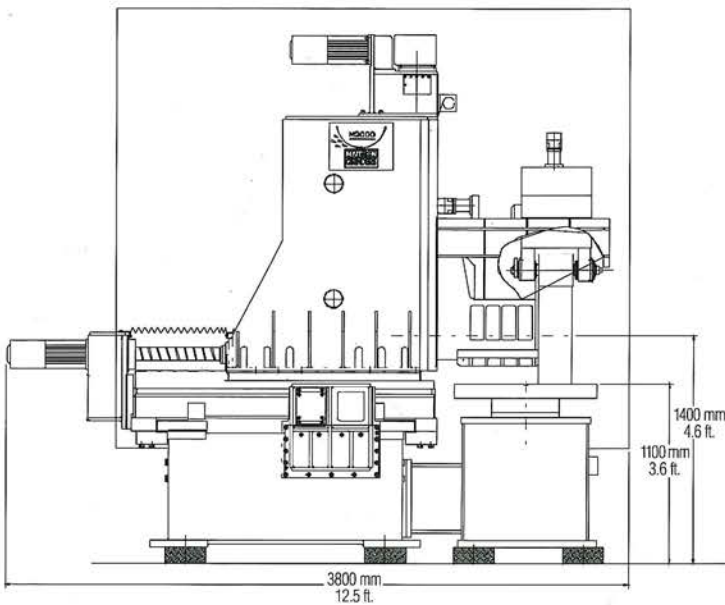
2-axis dresser with overhead gantry design for high accuracy positioning and excellent dampening characteristics.

- Liquid cooled motor
- High horsepower (7-1/2hp)
- Hybrid guideway
- Quick change dresser spindle

Electrical / CNC

Full function, high resolution multi-axis CNC control.

- Digital drive
- Plug-in connectors
- Self-monitoring/easy trouble shooting
 - Diagnostic messages appear on CRT
 - Bearing temperature indicator
- Adaptive process control
 - Wheel life optimization
- Touch probing/part sizing
- Rotary encoders eliminate limit switches



Model CF Specifications

Spindle Power	93 KW(125HP) at 1200 RPM(1:1.5)
Spindle Speed	0-6000 RPM
Wheel Diameter	600 mm (23.6 in.) max. 400 mm (15.75 in.) min.
Machine Size	3500 mm (11.5 ft.) Wide x 3400 mm (11.2 ft.) High x 3800 mm (12.5 ft.) Long
Work Envelope	300 mm (11.8 in.) x 400 mm (15.8 in.) x 600 mm (23.6 in.)

X-Axis Travel	900 mm (35.4 in.)
X-Axis Traverse Rate	0-25000 mm/min. (0-984 in./min.)
Y-Axis Travel	450 mm (17.7 in.)
Y-Axis Traverse Rate	0-4000 mm/min. (0-157 in./min.)
Z-Axis Travel	500 mm (19.7 in.)
Z-Axis Traverse Rate	0-5000 mm/min. (0-197 in./min.)

Dresser Specifications

Dresser Power	5.6 KW (7.5HP)
Dresser Roll Speed with a 75 mm (2.95 in.) Roll	0-8800 RPM
Dresser Roll Speed with a 200 mm (7.87 in.) Roll	0-3300 RPM
Roll Width	210 mm (8.27 in.)
V-Axis Travel	110 mm (4.33 in.)
W-Axis Travel	200 mm (7.87 in.)



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