



**MATRIX
THREAD GRINDING
SOLUTION**

0550

Matrix Model 0550 External Thread Grinding Machine

Standard Features Include:

- | | |
|---|--------------------------------|
| Servo Motor Driven Work Head | Siemens 840DE CNC Control |
| Motorised Wheel Head | Coolant Clarification System |
| Automatic Wheel Balancing | Centrifugal Separator |
| Programmable Helix | Magnetic Separator |
| Absolute Encoders fitted on all configured Axes | Spindle Chiller Unit |
| Manual Tailstock | Totally Enclosed Hood |
| Work Head Mounted Dresser | Fume Extraction |
| Remote Diagnostics | Air Conditioned (ECC) |
| 1 x Diamond Dressing Media | MT Work Centres x 2 |
| 1 x Grinding Wheel | 1 x Test Grind (Customer) Part |
| Matrix ProfileMATE Software | Installation & Commissioning |





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CNC Precision External Thread Grinding Machine



Machine:

| | |
|---|------------------------------|
| Max Diameter Admitted | 150 mm |
| Max Diameter Ground | 100 mm |
| Min Diameter Ground | 5 mm (Component Dependant) |
| Max Length Between Centres | 500 mm |
| Max Length of Thread Ground Between Centres | 400 mm (Component Dependant) |
| Lead Range | 300 mm |

Work Head: (C Axis)

| | |
|-------------------|----------------|
| Work Head Torque | 46 Nm |
| Work Speed Range | 0.4 to 120 RPM |
| C Axis Resolution | 0.001° |

Wheel Head:

| | |
|--------------------------|---------------------------------|
| Spindle Power | 8.8 Kw @ 2000 RPM |
| Automatic Balancing | Integral Dynamic Balancing Unit |
| Helix Capacity (A Axis) | ± 45° |

Capacity (Z Axis)

| | |
|---------------------------------|-------------|
| Table Slide Travel | 540 mm |
| Table Slide Position Resolution | 0.0001 mm |
| Table Slide Traverse Speed | 0 - 7 M/Min |

Capacity (X Axis)

| | |
|---------------------------------|-------------|
| Wheel Head Slide Travel | 290 mm |
| Wheel Head Position Resolution | 0.0001 mm |
| Wheel Head Slide Traverse Speed | 0 - 7 M/Min |

Wheel Dressing Unit:

| | |
|--------------------|-------------------------------|
| Work Head Mounted | Fixed |
| Variable Speed | 0 ~ 6000 RPM (Bi-Directional) |
| Dressing Feed Rate | Programmable |

Control System:

| | |
|-------------------------|-------------------------------|
| CNC System | Siemens 840 DE Solution Line |
| System Specification | PCU 50.5 |
| User Interface | Siemens HMI Advanced Software |
| 8" Colour TFT Screen | Resolution 640 x 480 Pixels |
| Operating & Programming | Matrix Advanced Programming |

Machine - Physical:

| | |
|-----------------------------|-------------------|
| Approx Gross Machine Weight | 6500 Kg |
| Approx Machine Floor Area | 3800 mm x 3500 mm |

Note: These capacities are subject to inevitable restrictions, depending upon wheel head, Helix angle, Work Holding, Support Equipment and are subject to change without notification.



Matrix Machine Tool (Coventry) Limited.

Unit 4, Spitfire Close, Coventry Business Park, Coventry, CV5 6UR England.

Tel: +44 (0) 2476 71 8886 · Fax: +44(0) 2476 67 8899 · Email: sales@matrix-machine.com

<http://www.matrix-machine.com>