

GRINDING

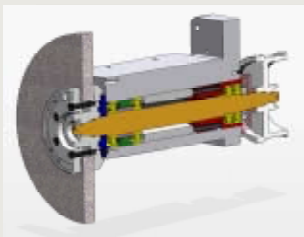


# JONES & SHIPMAN 524 / 624 EASY Touchscreen Controlled, Surface & Profile Grinders



[www.jonesshipman.com](http://www.jonesshipman.com)  
[www.kellenberger.com](http://www.kellenberger.com)

# Toolroom or batch production surface & profile grinding machine



## Rigid construction and innovative design

### Main machine castings

- Generously proportioned, high quality cast iron, bed, column, saddle & table form the structure of the 524 & 624 Easy.
- Each casting is designed to provide excellent rigidity.

### Slideways

- The wheelhead slide moves vertically on low friction, pre-loaded ball and roller bearings for extreme sensitivity.
- The table and saddle have hand scraped slideways, Turcite coated, automatically lubricated to ensure low friction.

### Wheelhead

- The wheelhead assembly contains a hardened and precision ground wheelspindle that rotates in precision angular contact, rolling element bearings which are sealed and lubricated for life.

### Axes

- Both Y & Z axes controlled and positioned by Fanuc® digital AC servo motors with linear scale feedback.
- The table axis is hydraulically powered from a modular power pack contained within the machine bed.
- Table reversal length is easily set via sliding table dogs and proximity switches in the saddle.

# machines 524/624 Easy

## Affordable & sophisticated surface grinding with simple set-ups

- Specifically designed to offer unrivalled ease-of-use coupled to the highest levels of productivity
- Easy manual, semi or fully automatic operation
- 'Self Teach' software enables inexperienced and experienced operators alike to be immediately more productive
- Quick set automatic dressing and grinding cycles enable unmanned operation
- Straight, facing, slotting or Vee form wheel macros
- Easy form dressing of complex profiles
- No optional complex dressing devices required
- Ability to use CBN and Diamond wheels
- Plunge, area, face, multi-plunge, multi-slot, multi-plunge and area grind macros
- Easy down load/up load to PC, PDA and Network
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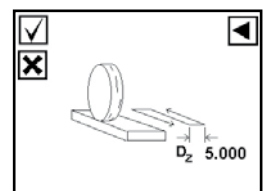
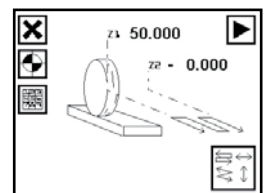
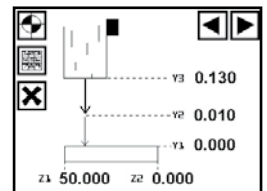
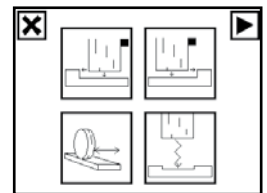
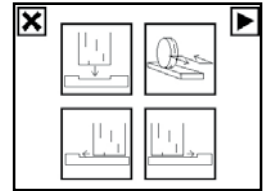
## Easy & rapid set-up for automatic grind cycles

- At start-up the operator is offered three simple options: Manual, Dress or Grind cycle mode
- In Manual Mode the Easy operates as a simple hand controlled machine, with manual dress and no setup procedures. Work speeds and feeds are adjustable via the touchscreen
- Dress Mode offers five standard wheel shape options, Flat, Slot, Facing, Vee form and Full ISO with one or two diamonds as needed.

## Optional equipment

- Elevating wheel dresser
- Coolant units, paper roll & magnetic
- Dust exhaust unit
- CAD/CAM package for producing complex wheel profile programs
- Interlocked table guarding
- Variable grinding wheel speed
- Semi-automatic wheel balancing

## Grind cycle screens

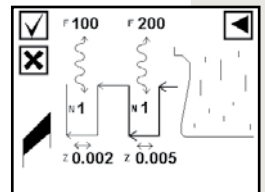
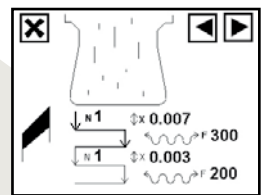
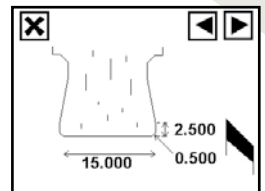
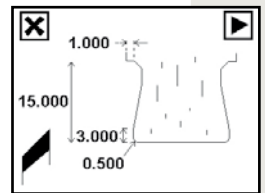
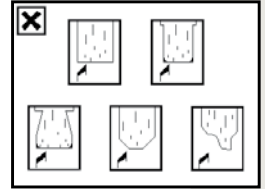


# Easy Touchscreen control



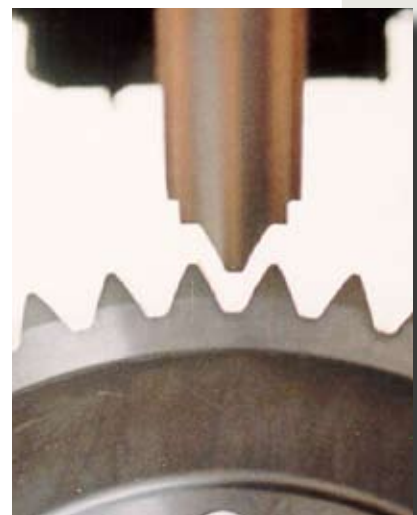
- Developed to offer to the operator the advantage of CNC control without the complexity of traditional CNC systems
- Jones & Shipman easy-to-use icon based software with Fanuc® touchscreen control can interpolate two axes simultaneously to enable precision grinding of complex shapes, angles and surfaces
- The operator is offered three modes of operation; Manual, Dress or Grind by simple single membrane button selection adjacent to the 'Touchscreen'
- This extremely simple system guides the operator and allows him to digitise positions and create programs without any computer knowledge

## Dress cycle screens



## Automatic Compensated Dressing On Demand, In or Out of Cycle

- Straight or Formed wheel dressing can be called up at the touch of a button at any time in either Manual, Single Cycle or Multi- Cycle mode with the "Dress on Demand" feature
- When in Grind Cycle mode, the wheel will then return and continue from its last position
- In addition, dressing can be selected to take place before and or during the grind cycle via the 'In or Out of cycle dressing' feature
- Compensation for dressing increments and diamond radii is automatic with all the above features



# Specification

## General capacities

Maximum grinding length x width  
 Distance between table & new grinding wheel  
 Maximum table load (including chuck, if used)

## Wheelhead

Size of grinding wheel: Standard  
 Size of grinding wheel: Maximum  
 No Cost wheel size Options  
 Speed of grinding wheel – 50Hz motor  
 Speed of grinding wheel – 60Hz motor  
 Wheelhead motor: Standard / Optional

## Table

Traverse, max. hand / hydraulic  
 Traverse speed range (per minute)  
 Traverse per revolution of handwheel  
 Width of tenon slot  
 Distance from floor to table

## Crossfeed

Total cross traverse  
 Feed per graduation of electronic handwheel  
 Automatic feed, least programmable increment  
 Automatic feed rate (per minute)  
 Rapid feed rate (per minute)  
 Sparkout under wheel  
 Crossfeed control  
 Feedback (Linear scale)

## Wheelfeed

Feed per graduation of electronic handwheel  
 Automatic feed, least programmable increment  
 Rapid feed rate (per minute)  
 Downfeed control  
 Feedback (Linear scale)

## Data Transfer Protocol

## Dimensions

Machine weight, (approx.)  
 Shipping dimensions

# 524Easy

500 x 200 mm  
 380 mm  
 160 kg

254 x 19 x 76,2 mm  
 254 x 32 x 76,2 mm  
 170 or 200 x 32 x 31,75  
 2400 rpm  
 2880 rpm  
 2,2 kW / 3,75 kW

610 / 500 mm  
 2 – 25 m  
 60 mm  
 14.4 mm  
 1025 mm

192 mm  
 0,001, 0,010, 0,100 mm  
 0,0001 mm  
 1 - 3000 mm  
 3000 mm  
 0 – 99  
 Fanuc® digital AC servo  
 Heidenhain® 'Absolute' scale

0,001, 0,010, 0,100 mm  
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RS 232 + Easy Comm

1370 kg  
 9,85 m<sup>3</sup>

# 624Easy

600 x 200 mm  
 380 mm  
 160 kg

254 x 19 x 76,2 mm  
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 170 or 200 x 32 x 31,75  
 2400 rpm  
 2880 rpm  
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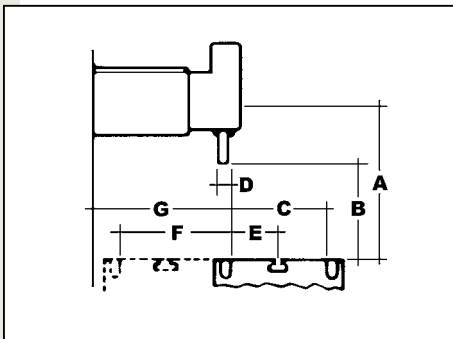
710 / 600 mm  
 2 – 25 m  
 60 mm  
 14.4 mm  
 1025 mm

192 mm  
 0,001, 0,010, 0,100 mm  
 0,0001 mm  
 1 - 3000 mm  
 3000 mm  
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 Fanuc® digital AC servo  
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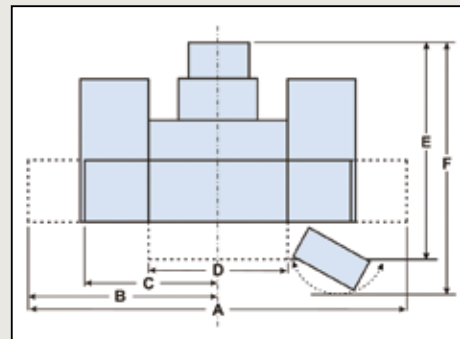
RS 232 + Easy Comm

1370 kg  
 9,85 m<sup>3</sup>



Wheelhead capacity - (Both models)

- A - Maximum/Minimum 505/85 mm
- B - Maximum with new standard wheel 378 mm
- C - 200 mm
- D - 10 mm
- E - 100 mm
- F - 192 mm
- G - 240 mm



Base plan	524	624
A -	2260 mm	2360 mm
B -	1180 mm	1180 mm
C -	710 mm	710 mm
D -	770 mm	770 mm
E -	1340 mm	1340 mm
F -	1675 mm	1675 mm

Machine Height (Both models)- 1858 mm

All specifications and designs are subject to alterations without notice.

Jones & Shipman also offer Large Capacity Surface Grinders, Creepfeed Grinders and Cylindrical Grinders for Toolroom and Production applications.

We also offer J&S Remanufactured and Used Grinders plus a full Spares & Service facility

# World-wide sales and service



Through our Group Companies and an established network of distribution Jones & Shipman guarantee competent advice and support in evaluating, purchasing and using high-quality cylindrical, surface and creepfeed grinding systems.

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