

JONES &
SHIPMAN

TECHMASTER **Easy**

Touchscreen Controlled Heavy
Duty Surface & Profile Grinder

12" x 24" or 16" x 32"
(600 x 300 or 800 x 400mm)
Table Capacity



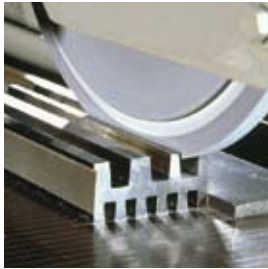
www.jonesshipman.com

TECHMASTER **Easy** TOUCHSCREEN CONTROL

Area or Multi Plunge & Area Grind



Slot or Multi Slot & Face grind



Form and Contour Grinding



Affordable & Sophisticated Surface Grinding with Simple Set-ups

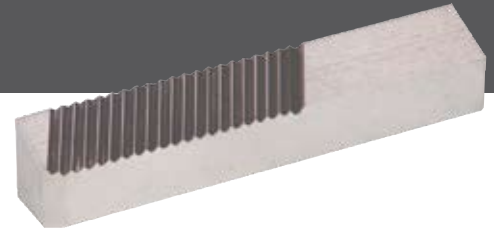
Following on from our highly successful 524/624 Easy surface grinders, the new 634 and 844 Easy surface grinders with their 12" x 24" & 16" x 32" (600 x 300mm & 800 x 400mm) table capacities, have again been specifically designed to offer unrivalled ease-of-use coupled to the highest levels of productivity.

Incorporating a GE-Fanuc® 'Touchscreen', used to access our own simple and fast-to-set software, coupled with membrane-type touch keys and electronic handwheels, either of these 'Self Teach' grinders will enable inexperienced and experienced operators alike to be immediately more productive.

An additional bonus comes from each model's automatic dressing and grinding cycles which means they can be quickly set, then left unmanned.

Features

- Rigid construction to optimize stock removal rates
- Easy & Rapid Set up for Automatic Cycles
- Easy Manual Operation
- In Cycle/Out of Cycle Dressing with Full Compensation
- Dress on Demand with Full Compensation
- Straight, Facing, Slotting or Vee Form Wheel Macros
- Easy Form Dressing of Complex Profiles
- No Expensive & Complex Dressing Devices Required
- Plunge, Area, Face, Multi-Plunge, Multi-Slot, Multi-Plunge & Area Grind Macros
- Easy Down Load/Up Load to PC, PDA and Network



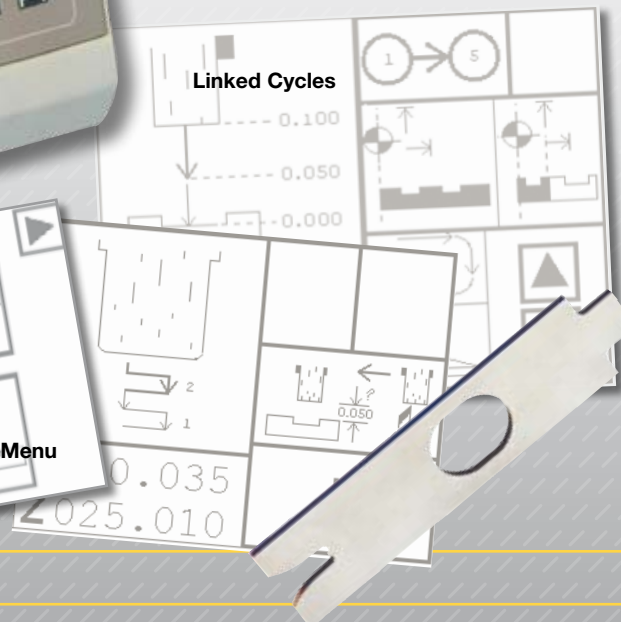
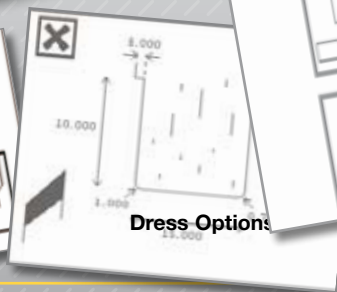
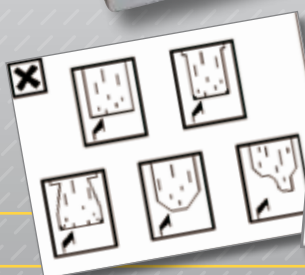
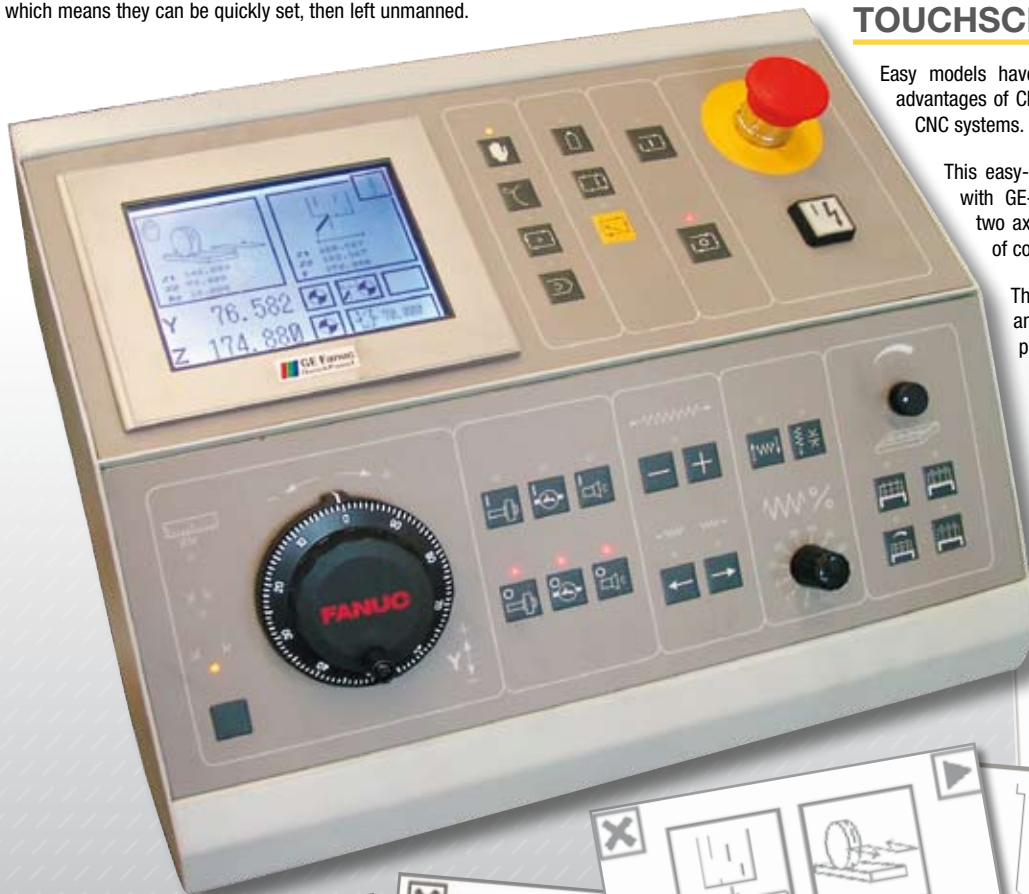
TOUCHSCREEN CONTROL

Easy models have been developed to offer the operator the advantages of CNC control without the complexity of traditional CNC systems.

This easy-to-use Jones & Shipman icon based software with GE-Fanuc® touchscreen control can interpolate two axes simultaneously to enable precision grinding of complex shapes, angles and surfaces.

This extremely simple system guides the operator and allows him to digitize positions and create programs without any computer knowledge.

The operator is offered three modes of operation; Manual, Dress or Grind by simple single membrane button selection adjacent to the 'Touchscreen'



Rigid Construction & Innovative Design

Main Machine Castings

Generously proportioned castings of the highest quality form the structure of the TechMaster Easy range. Each main casting, machine bed, column, saddle and table is designed to provide excellent rigidity.

Wheelhead

The direct drive wheelhead assembly contains a hardened and precision ground wheelspindle that rotates in precision angular contact rolling element bearings sealed and lubricated for life.

Slideways

The wheelhead slide moves vertically on widely spaced Turcite coated slides providing sensitivity, precision and rigidity. The table and saddle slideways are hand scraped, Turcite coated and automatically lubricated to ensure low friction.

Axes

Both Y and Z axes are controlled and positioned by GE-Fanuc® Digital AC servo motors. The table axis is hydraulically powered from a modular power pack. Table reversal length is set easily at any time by moving sliding dogs along their rail, which are detected by proximity switches in the saddle.

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. Dressing increments, speeds and frequency are offered via the menus.

Grind Mode allows from 1 only, or up to 20 grind cycles, as the complexity of the component dictates.

Operator friendly features such as DIGITIZE during setup, DRESS ON DEMAND at any time and TRIM for both dress and grind Datums plus a RE-GRIND for any individually selected grind element without having to alter or adjust any program make the 'Easy' a dream machine for operators both old and new.

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

634 EASY

844 EASY

General Capacities

Maximum grinding length x width	24" x 12" (600 x 300mm)	30" x 16" (800 x 400mm)
Maximum wheelhead movement	15¾" (400mm)	15½" (390mm)
Maximum table load (including chuck, if used)	550lb (250kg)	1100lb (550kg)
Standard magnetic chuck size	24" x 12" (600 x 300mm)	32" x 16" (800 x 400mm)

Wheelhead

Distance between table and grinding wheel (new wheel)	14" (360mm)	14" (355mm)
Size of grinding wheel: Maximum	14" x 2" x 5" bore (355 x 51 x 127mm bore)	14" x 2" x 5" bore (355 x 51 x 127mm bore)
Speed of grinding wheel – 60Hz motor	1730 rpm	1730 rpm
Wheelhead motor	5 hp (3,7kW) - (7.5 hp (5,5 kw) Option)	7.5 hp (5,5 kW)

Table

Working surface	24" x 12" (600 x 300mm)	30" x 16" (800 x 400mm)
Maximum longitudinal traverse, Manual/Hydraulic	28" / 25½" (710 / 650mm)	37¾" / 36¼" (960 / 920mm)
Traverse speed range (per minute)	10 – 80 ft (3 – 25m)	10 – 80 ft (3 – 25m)
Traverse per revolution of handwheel	3.35" (85mm)	3.35" (85mm)
Width of tenon slot	0.55" (14,4mm)	0.55" (14,4mm)

Crossfeed

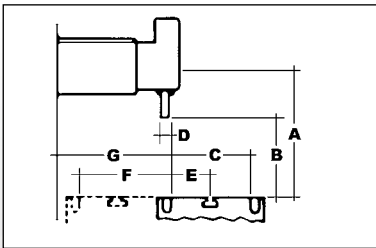
Total cross traverse	11.80" (300mm)	15.75" (400mm)
Feed per graduation of electronic handwheel	0.00005", 0.0005", 0.005" (0,001, 0,010, 0,100mm)	0.00005", 0.0005", 0.005" (0,001, 0,010, 0,100mm)
Automatic feed, least programmable increment	0.00001" (0,0001mm)	0.00001" (0,0001mm)
Automatic feed rate (per minute)	0,00001" - 118" (0,0001 - 3000mm)	0,00001" - 118" (0,0001 - 3000mm)
Rapid feed rate (per minute)	118" (3000mm)	118" (3000mm)
Sparkout under wheel	0 - 9 (& infinite)	0 - 9 (& infinite)
Crossfeed control (both models)	GE-Fanuc® Digital AC servo motor	
Feedback (both models)	Rotary Encoder (Heidenhain® 'Absolute' Linear Scale option)	

Wheelfeed

Feed per graduation of electronic handwheel	0.00005", 0.0005", 0.005" (0,001, 0,010, 0,100mm)	0.00005", 0.0005", 0.005" (0,001, 0,010, 0,100mm)
Automatic two rate: Minimum increment programmable	0.00001" (0,0001mm)	0.00001" (0,0001mm)
Rapid feed rate (per minute)	118" (3000mm)	118" (3000mm)
Downfeed control (both models)	GE-Fanuc® Digital AC servo motor	
Feedback (both models)	Heidenhain® 'Absolute' Linear Scale	
Data Transfer Protocol (both models)	RS 232 + Easy Comm	

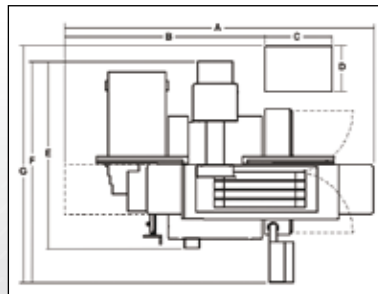
Dimensions

Machine weight, (approx.)	6500 lb (2600 kg)	7385 lb (3500 kg)
Shipping dimensions	368 ft³ (10,42m³)	495 ft³ (14m³)



Wheelhead Capacity

	634	844
A -	21.18" (538mm)	21.18" (538mm)
B -	14.17" (360mm)	14.17" (360mm)
C -	11.81" (300mm)	15.75" (400mm)
D -	0.98" (25mm)	1.06" (27mm)
E -	15.90" (404mm)	22.32" (567mm)
F -	5.90" (150mm)	7.87" (200mm)
G -	11.81" (300mm)	15.74" (400mm)



Base Plan

	634	844
A -	117.32" (2980mm)	135.82" (3450mm)
B -	37.55" (954mm)	88.38" (2245mm)
C -	29.29" (744mm)	29.29" (744mm)
D -	19.68" (500mm)	19.68" (500mm)
E -	68.50" (1740mm)	81.88" (2080mm)
F -	83.38" (2118mm)	96.77" (2458mm)
G -	103.54" (2630mm)	103.54" (2630mm)
Machine height (both models) - 102" (2590mm)		

Customer Warranty

All Jones & Shipman precision grinders come with a minimum twelve months comprehensive Warranty covering both parts and service.

Further information on Customer Warranty is detailed in our Conditions of Sale, subject to amendments for particular models and the specific markets into which they are sold.

Our endeavour is to supply machines that embody the latest developments in design and therefore, while the illustrations, text and specifications contained within this brochure are correct at the time of printing, we reserve the right to modify the design and construction of machines and equipment at any time without notice.

In the interests of safety, customers are reminded that when purchasing any technical product for use at work (or otherwise), any additional or up-to-date information and guidance, which it has not been possible to include in the publication, should be obtained by you from your local sales office in relation to the suitability and the safe and proper use of the product. All relevant information and guidance must be passed on by you to the person engaged in, or likely to be affected by or responsible for the use of the product.

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Jones & Shipman also offer Large Capacity Surface Grinders, Creepfeed and Cylindrical Grinders for Toolroom and Production applications. We also offer J&S Remanufactured and Used grinders plus a full Spares & Service facility.

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Jones & Shipman A Precision Technologies Group US LLC group company.

17 Talcott Notch Road, Suite 100, Farmington, Connecticut 06032-1818, USA

Tel: +1 860 409 7722 Fax: +1 860 409 7730

E-mail: info@JonesShipman.com Web: www.JonesShipman.com

Jones & Shipman Precision Limited

Murrayfield Road,

Leicester LE3 1UW, UK

Tel: +44 (0) 116 201 3000 Fax: +44 (0) 116 201 3002

Jones & Shipman S.A.R.L.

Zone Activillage, 8 allée des Ginkgos,

B.P. 112, 69672 BRON Cedex, France

Tel: +33 4 72 81 26 60 Fax: +33 4 72 81 26 69



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