

JONES &
SHIPMAN

DOMINATOR

**Production CNC Creepfeed,
Surface and Profile Grinders**



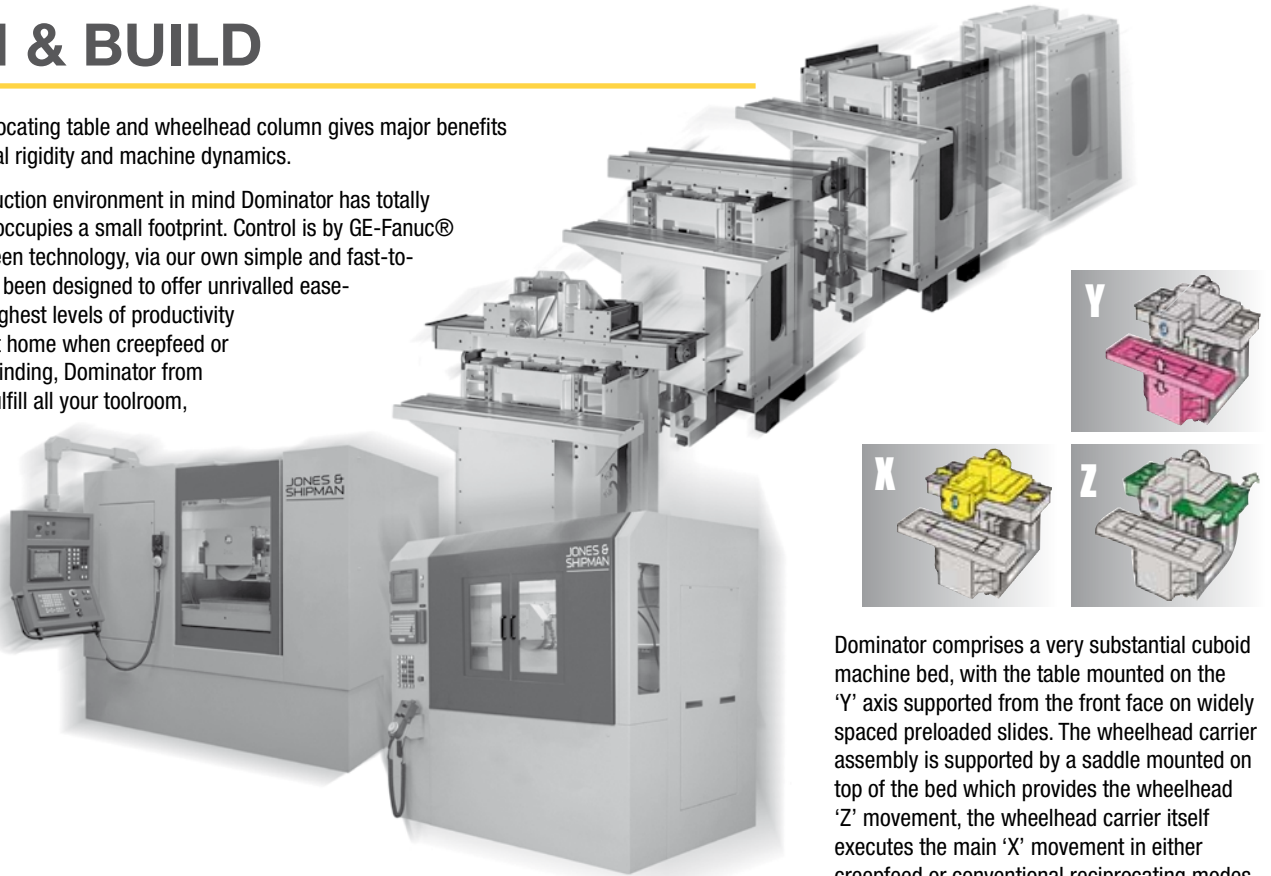
DOMINATOR

A radical new concept involving a total rethink of the surface grinding process has resulted in Dominator from Jones & Shipman. Now driven by customer demand, Dominator has grown from an initial single model to an ever expanding product range. Dominator from Jones & Shipman a technically advanced Precision Production Creepfeed, Surface and Profile Grinder.

DESIGN & BUILD

The absence of a reciprocating table and wheelhead column gives major benefits with respect to structural rigidity and machine dynamics.

Designed with the production environment in mind Dominator has totally enclosed guarding and occupies a small footprint. Control is by GE-Fanuc® CNC or 'Easy' Touchscreen technology, via our own simple and fast-to-set software, which has been designed to offer unrivalled ease-of-use coupled to the highest levels of productivity and accuracy. Equally at home when creepfeed or reciprocating surface grinding, Dominator from Jones & Shipman will fulfill all your toolroom, batch or production grinding needs.



Dominator comprises a very substantial cuboid machine bed, with the table mounted on the 'Y' axis supported from the front face on widely spaced preloaded slides. The wheelhead carrier assembly is supported by a saddle mounted on top of the bed which provides the wheelhead 'Z' movement, the wheelhead carrier itself executes the main 'X' movement in either creepfeed or conventional reciprocating modes. Axis movement is by substantial ballscrews actuated by GE-Fanuc® AC digital servo drives and motors with linear scale feedback.

Software to suit all Applications



JONES & SHIPMAN DEVELOPED WINDOWS® PROGRAMING

A full suite of dressing and grinding programs is available for the Dominator operator. Easy to follow Windows® set up pages allow the operator to quickly digitize diamond and wheel positions and by a minimum of mouse or softkey/keyboard inputs produce a finished program.

Graphical images prompt the operator and spreadsheet style programming ensures quick and simple input. The option of ISO programming is also available if required.

Ease of operation and Windows® based programming make Dominator the operator's choice.

A GE-Fanuc® CNC Intelligent Terminal, with associated GE-Fanuc® digital AC servos and a Windows® user interface provide the machine control. All control gear is housed in a single side mounted cabinet, which is available with a temperature control option if required.

'Easy' Touchscreen technology allying the technical innovations of both Jones & Shipman and GE-Fanuc® is also available as an option on most models.

Machine Control

Depending upon the model a pendant or cabinet mounted panel and remote hand set contain all user controls, these include:

- Alphanumeric keyboard
- Industrial fixed mouse
- Buttons for main machine control and mode selection

The remote contains:

- HPG handwheel
- Manual axes selection
- Feed rate override
- Emergency stop



EQUIPMENT TO SUIT ALL REQUIREMENTS

A wide range of extra equipment is available to the Dominator user.

Permanent or electro-permanent chucks, wheel dressers, truers and formers, rotary indexing units and autoloading options and on the larger models, automatic door opening, to name but a few.

CNC Wheel Dressing

From table mounted fixed diamond dressing attachments, through elevating dressing units with quick changeover fixed diamonds or diamond discs, to table mounted CNC form dressing attachments, the options are extensive. If your production application demands it, table mounted diamond roll or wheelhead mounted overtop continuous dress diamond roll units are also available. For all applications the choice is yours.

Rotary Indexers and Component Fixturing

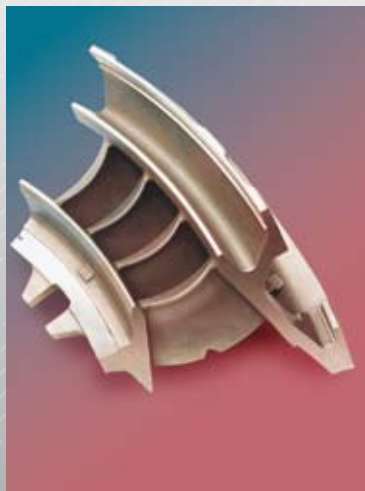
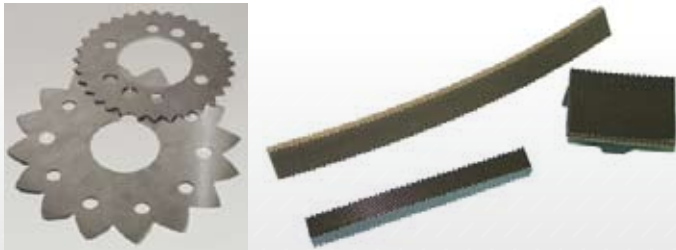
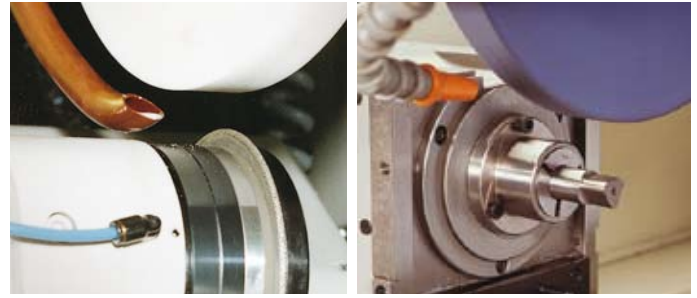
Rotary indexing units for inline, vertical or cross table mounting, with tailstock, and wheel conditioning options if required plus punch grinding and sophisticated automatic component fixturing can all be accommodated.

Applications tailored to individual specifications

By working in close co-operation with customers, Jones & Shipman tailor each machine to meet the precise requirements of individual specifications. This highly successful partnership philosophy is busy satisfying customers grinding needs worldwide for a diverse range of applications.

Dominator CD Continuous Dress model

Continuous wheeldressing while creepfeed grinding is provided on the Dominator 634CD (illustrated on right). A TD Table Dress option is also available.



SPECIFICATION

Capacities

	624	634	644
Maximum grinding length x width	23.62" x 7.87" (600 x 200 mm)	23.62" x 11.81" (600 x 300 mm)	23.62" x 15.75" (600 x 400 mm)
Distance between table & new wheel, maximum	6.53" (420 mm)	15.75" (400 mm)	15.75" (400 mm)

Work Table

Width of work table	7.87" (200 mm)	11.81" (300 mm)	15.75" (400 mm)
Length of work table	23.62" (600 mm)	23.62" (600 mm)	23.62" (600 mm)
Tee slot to accept bolts	M12 (x1)	M12 (x3)	M12 (x3)

Wheelhead – POLYVEE BELT DRIVE, VARIABLE SPEED

Grinding wheel, standard - diameter x width x bore	10" x 1" x 3" (250 x 25 x 76,2 mm)	14" x 2" x 5" (355 x 50 x 127 mm)	14" x 2" x 5" (355 x 50 x 127 mm)
Wheelspeed range rpm	1000 to 3200	1600 to 3200	1600 to 3200
Wheelhead motor, standard	10 hp (7,5 kW)	30 hp (22 kW)	15 hp (11 kW)
Wheelhead motor, maximum	15 hp (11 kW)	30 hp (22 kW)	40 hp (30 kW)
Spindle nose taper	15°	50 International	50 International

X Axis – Wheel Carrier - BALLSCREW DRIVEN

Travel	25.59" (650 mm)	25.59" (650 mm)	25.59" (650 mm)
Maximum slide velocity, per minute	78 ft (24 m)	78 ft (24 m)	78 ft (24 m)
Minimum programable increment	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)
Slideways	Turcite & CI - Vee & Flat	Turcite & CI - Vee & Flat	Turcite & CI - Vee & Flat

Y Axis – Elevation - BALLSCREW DRIVEN

Travel	17.32" (440 mm)	17.32" (440 mm)	17.32" (440 mm)
Maximum slide velocity, per minute	19.5 ft (6 m)	19.5 ft (6 m)	19.5 ft (6 m)
Minimum programable increment	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)
Slideways	Recirculating INA Roller	Recirculating INA Roller	Recirculating INA Roller

Z Axis – Crossfeed - BALLSCREW DRIVEN

Travel	7.87" (200 mm)	11.81" (300 mm)	15.75" (400 mm)
Maximum slide velocity, per minute	19.5 ft (6 m)	19.5 ft (6 m)	19.5 ft (6 m)
Minimum programable increment	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)	0.00001" (0,0001 mm)
Slideways	Turcite & CI - Roller Guide Box & Flat	Turcite & CI - Roller Guide Box & Flat	Turcite & CI - Roller Guide Box & Flat

Shipping Dimensions

Net weight, approximate	5843 lb (2650 kg)	10805 lb (4900 kg)	11246 lb (5100 kg)
Gross weight, approximate	6196 lb (2810 kg)	11576 lb (5250 kg)	12017 lb (5450 kg)
Shipping dimensions, approximate	256 ft ³ (7,26 m ³)	600 ft ³ (17 m ³)	631 ft ³ (17,86 m ³)

EQUIPMENT

A comprehensive set of standard equipment is provided. Please refer to price list for full specification.

Note: Machine enclosure guarding may vary depending upon the model and options, please refer to price list for full specification.

A comprehensive range of additional equipment is also available including the following units:

- Permanent and electro permanent chucks
- Table mounted diamond roll dressing, Conditioning and Forming units.
- Overhead wheelhead mounted continuous dress diamond rolls
- Rotary Indexing units
- Autoload and Pallet changer options.

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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Certificate No.
FM 09259