

JONES &
SHIPMAN

DOMINATOR

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



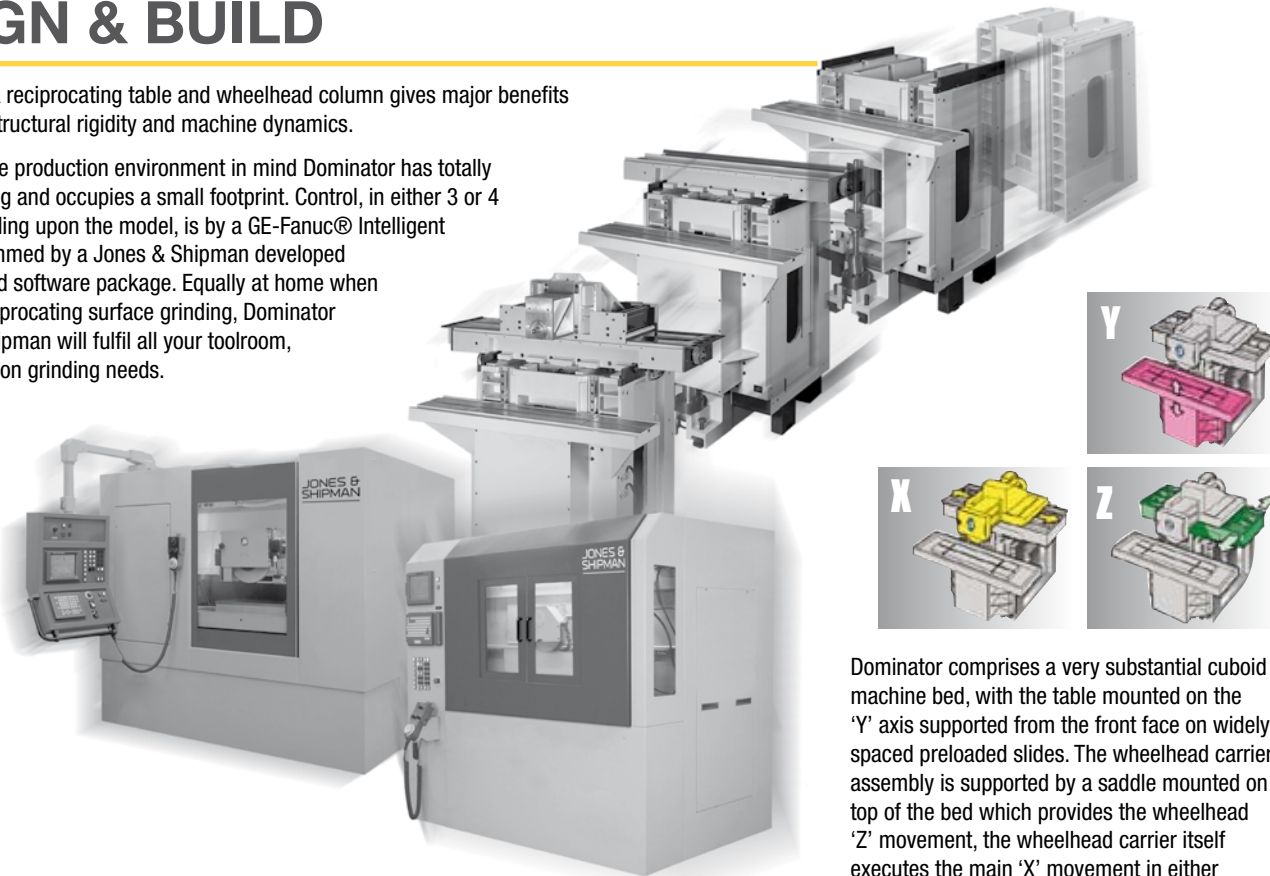
DOMINATOR

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, in either 3 or 4 axis form depending upon the model, is by a GE-Fanuc® Intelligent Terminal programmed by a Jones & Shipman developed Windows® based software package. Equally at home when creepfeed or reciprocating surface grinding, Dominator from Jones & Shipman will fulfil all your toolroom, batch or production grinding needs.



Software to suit all Applications



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.

JONES & SHIPMAN DEVELOPED WINDOWS® PROGRAMMING

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 digitise 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.

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

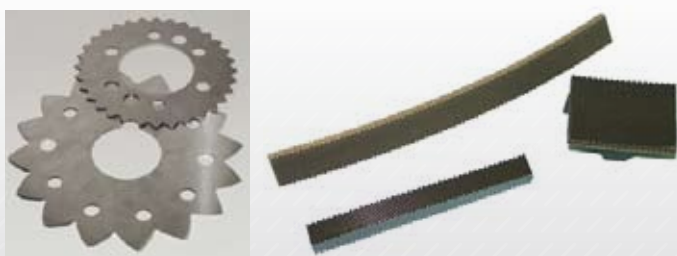
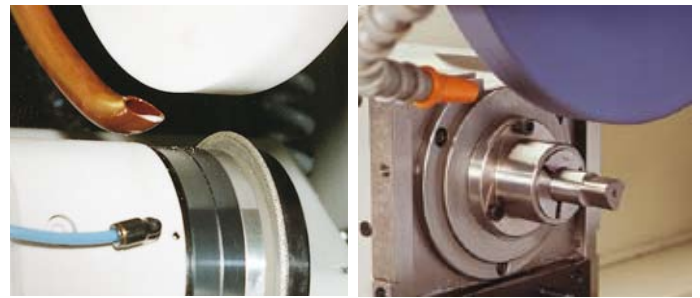
Rotary indexing units for inline, vertical or cross table mounting, with tailstock, and wheel conditioning options if required plus punch grinding and sophisticated automatic component fixturing can all be accommodated.

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 wheel dressing whilst 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	600 x 200 mm	600 X 300mm	600 x 400 mm
Distance between table & new wheel, maximum	420 mm	400mm	400 mm

Work Table

Width of work table	200 mm	300mm	400 mm
Length of work table	600 mm	600mm	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	250 x 25 x 76,2 mm	355 x 50 x 127 mm	355 x 50 x 127 mm
Wheelspeed range rpm	1000 to 3200	1600 to 3200	1600 to 3200
Wheelhead motor, standard	7,5 kW	11 kW	11 kW
Wheelhead motor, maximum	11 kW	22 kW	22 kW
Spindle nose taper	15°	50 International	50 International

X Axis – Wheel Carrier - BALLSCREW DRIVEN

Travel	650 mm	650 mm	650 mm
Maximum slide velocity, per minute	24 m	24 m	24 m
Minimum programmable increment	0,0001 mm	0,0001 mm	0,0001 mm
Slideways	Turcite & CI - Vee & Flat	Turcite & CI - Vee & Flat	Turcite & CI - Vee & Flat

Y Axis – Elevation - BALLSCREW DRIVEN

Travel	440 mm	440 mm	440 mm
Maximum slide velocity, per minute	6 m	6 m	6 m
Minimum programmable increment	0,0001 mm	0,0001 mm	0,0001 mm
Slideways	Recirculating INA Roller	Recirculating INA Roller	Recirculating INA Roller

Z Axis – Crossfeed - BALLSCREW DRIVEN

Travel	200 mm	300 mm	400 mm
Maximum slide velocity, per minute	6 m	6 m	6 m
Minimum programmable increment	0,0001 mm	0,0001 mm	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	2650 kg	4900 kg	5100 kg
Gross weight, approximate	2810 kg	5250 kg	5450 kg
Shipping dimensions, approximate	7,26 m ³	17 m 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, whilst 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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