W 100 F

BORING MILL



W 100 A is one of the most successful models produced by TOS VARNSDORF a. s. It is a manually controlled machine, advantages of which are robust frame, high technological versatility, and simple operation and maintenance. The borer is an ideal solution for one off and small batch production offering high reliability at low cost.



W 100 A is of a classical design with fixed column, live spindle, and cross travelling indexing table. Versatility of this machine is enhanced by its headstock having an integrated facing head. The machine design also allows the utilization of long boring bars armed with boring heads and supported by bar rest. For its outstanding performance W 100 A has become the most widespread product of TOS VARNSDORF a. s. As many as 5,000 machines of this model have been delivered worldwide since 1963.

As it comes to measuring systems and DROs TOS VARNSDORF a. s. offers **W 100 A** type with the following options:

- HEIDENHAIN DRO ND 750 for 3 axes (X-, Y-, Z-)
- HEIDENHAIN DRO POSITIP 855 for 4 axes (X-, Y-, Z-, W- or B-)
- Machine adapted for subsequent on-site fitting of any of the HEIDENHAIN DROs. (Fitting of other than Heidenhain DRO is the end-user responsibility).
- Machine equipped with engraved steel verniers

ND 750 as a simple DRO serves to displaying the position at axes X, Y & Z with the least increment of 0,005 mm.

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POSITIP 855 as a sophisticated DRO offers, apart of displaying position at four axes with the least increment of 0,001 mm, a lot of other useful features. These are graphic display, dialog windows, automatic offset calculations and calculator for computing of cutting conditions.



TOS VARNSDORF a. s. established in 1903, is located in Varnsdorf, Czech Republic and is among the world-wide producers of horizontal borning machines. Long term experiences of several generations of technicans and workers and current high technical level is being put on for its products known in all industrial countries.

Since 1996, TOS VARNSDORF a. s. is a holder of the ISO 9001: 2000 certificate, confirming quality development and production.

MAIN SPECIFICATIONS

Spindle dia	mm	100	inch	3.94
Spindle taper		ISO 50		ISO 50
Spindle speed range	RPM	7.1 - 1,120	RPM	7.1 - 1,120
Main motor power	kW	11	HP	15
Table transverse travel (X)	mm	1,600	inch	63
Headstock vertical travel (Y)	mm	1,120	inch	44.09
Table longitudinal travel (Z)	mm	810,* 1,250	inch	31.89,* 49.21
Spindle stroke (W)	mm	900	inch	35.43
Table clamping surface	mm	1,250 x 1,250	inch	49.21 x 49.21
Workpiece weight max.	kg	3,000	lbs	6,623
Feeds for boring - 32 stages	mm/rev.	0.02 - 12	inch/rev.	0.0008 - 0.47
Feeds for milling - 18 stages	mm/min	18 - 900	inch/min	0.71 - 35.43
Rapid traverse (spindle stroke, headstock and table)	mm/min	2,800	inch/min	110.24
Thread cutting range - 18 stages (metric)	mm	0.25 - 12	inch	0.01 - 0.47
Thread cutting range - 18 stages (inch)	threads/1"	120 - 2.5	threads/1"	120 - 2.5
Total power consumption	kVA	15	kVA	15
Machine weight	kg	14,000	lbs	30.905
FACING HEAD				
Diameter	mm	600	inch	23.62
Slide travel	mm	210	inch	8.26
Facing dia max	mm	900	inch	35.43
Speed range	RPM	7.1 - 224	RPM	7.1 - 224
OUTBOARD SUPPORT				
Boring dia with bar ø 80	mm	180 - 425	inch	7.09 - 16.73
Boring dia with bar ø 100	mm	250 - 425	inch	9.84 - 16.73
*) it is not possible to equip the machine with a standy rest of the having	a have			

*) it is not possible to equip the machine with a steady rest of the boring bars

Headstock. The spindle revs are driven by an asynchronous motor. The spindle is live, nitrided, carried in two coaxial quills. The outer quill carries the facing head.

The main guideways on the bed, column and longitudinal slide are plated with hardened steel inserts. The counter-ways on the longitudinal slide and the table saddle are lined with a lowfriction plastic.

Driving force for feeds is drawn from the main motor to each of the axes via their relevant driving mechanisms: lead-screws (acme) or drive pinion.

Measuring systems are, with DRO equipped machines, sealed electrooptic scales of HEIDENHAIN.

Electric cabinet is mainly equipped with electric components of Telemécanique.



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Optionals:

- FP 40 90° vertical milling attachment
- UFP 40 100 universal milling attachment
- RZ 100 Change gear kit for thread cutting
- PVD 100 550 Spindle guiding support
- SP 100 Spindle clamping support
- TD 50 Telescopic tool holder (for facing head)
- · Boring bars with boring heads
- Portable control panel
- UK 500 Clamping cube
- UU 800, UU 950, UU 1120, UU 1450 Clamping angle plates



