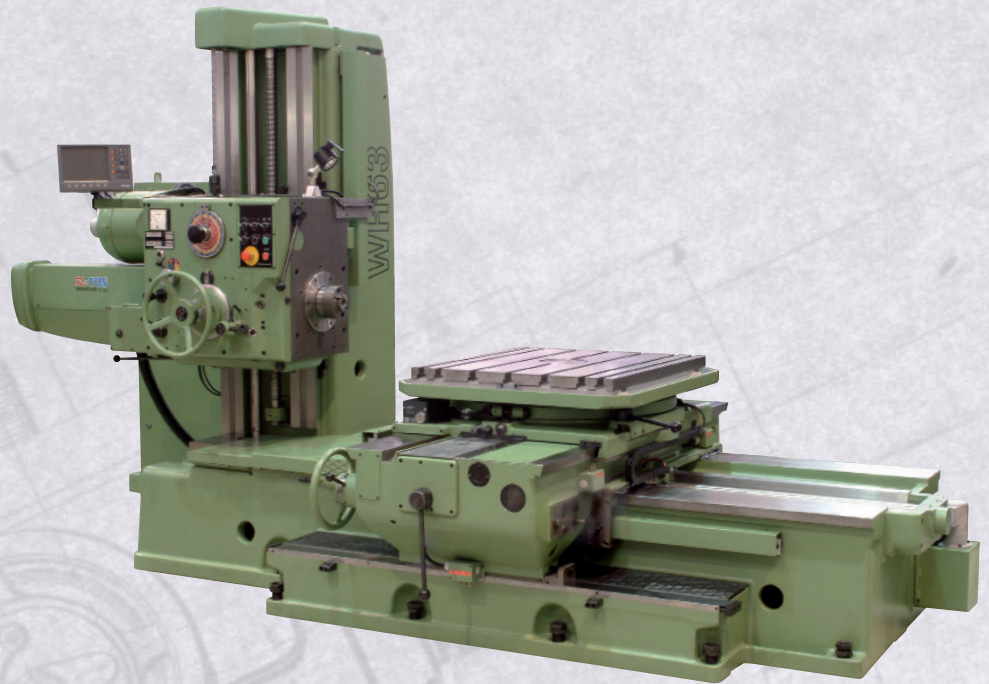


ReTOS Varnsdorf s.r.o., The Czech Republic, followed up with 40 years tradition in the field of horizontal boring machines overhauls. We use the most modern technologies as our parent company TOS Varnsdorf a.s.



WH63

Features

- manually controlled horizontal boring machine
- fixed column, crosswise travelling table
- 4 linear axes, rotary table
- sliding workspindle
- machine designed for piece and low-volume engineering production
- suitable for roughing as well as for finishing
- digital optical admeasuring of linear axes and table rotation with DROs
- optionally can be fitted by f.e. facing head with tool slide, tool cooling kit (CHZ), outboard support, spindle clamping / guiding support, rectangular milling head etc.

Configuration

Travelling groups

- X - travel of rotary table slide on saddle
- Z - travel of saddle on bed
- Y - vertical headstock travel on column
- W - spindle travel
- B - table rotation
- S - workspindle rotation

Group guidance

- guideways on all linear axes are grinded
- counterways of table slide and saddle casted by plastic
- counterways of headstock are scrapped
- guideways of bed and saddle are reinforced with hardened steel plates
- guideways of rotary table are

scrapped

Lubrication

- X, Z, B axes - central, manual, by pump
- W axis - by grease nipples
- Y axis - by wick lubrication from headstock
- other places manually according to lubrication plan

Clamping

- X, Y, Z, W, B axes - manually by levers

Headstock

- sliding workspindle
- motorical tool clamping ISO 40 - up client request (only WH80)
- asynchronous motor for driving of spindle speed and of feeds of all axes
- asynchronous motor for driving of rapid traverses of all axes

- spindle speed and feeds driven by mechanical lines - gears
- mechanical shifting of spindle speed and feeds
- most of controls placed on headstock
- headstock balancing - flat rope and counterweight led in column

Admeasurement of position

- HEIDENHAIN digital optical admeasuring and DROs
- DRO PT 880 for admeasuring of X, Y, Z, W, B axes
- DRO ND 780 for admeasuring of X, Y, Z axes
- X, Y, Z axes - LS 688 rules
- W axis - LS 388 rule
- B axis - ROD 480
- 4x90° optical readout



TÜVRheinland®
COTI
ISO 9001
ISO 14001

ReTOS
VARNSDORF s.r.o.

Energy distribution

- X, W axes - IGUS chain energy carriers
- Y, Z axes - protective tubes

Coverage of machine

- bed guideways between column and saddle partly protected by telescopic way cover

CE - valid only for the European Union

- comprehensive safety elements according to the applicable legislation and technical standards
- working area of the machine is fenced off

Optional accessories

- outboard support
- LD-63, LD-80 facing head
- CHZ-63/80 tool cooling kit
- VP-63, VP-80 spindle guiding support with roller-bearing
- SP-63, SP-80 spindle clamping support
- FP-30, FP-40 rectangular milling head
- UFP-40 universal rotary milling head with sliding workspindle
- RZ-63, RZ-80 change gear kit for thread cutting
- UK-500 clamping block
- UU-800, UU-950 clamping angle plate
- ZZ-63/80 rotary crane equipment
- spares kit for 3-year operation
- 2D touch probe KT 130 HEIDENHAIN

List of the optional accessories is noted for completeness, some of them are very hardly available and their delivery could not be guaranteed.

- Machine design can be tailored to suit the needs of the client

Machine parameters

	WH63	WH80	
Workspindle diameter	63	80	mm
Clamping taper	---	40	ISO
	4	5	Morse
Spindle speed range - 21 gears	18 - 1800	14 - 1400	rpm
Main motor power	5,5	7,5	kW
Speed of main motor	1425	1440	rpm
Motor power of rapid traverse	1,6	2,2	kW
Motor speed of rapid traverse	2800	2800	rpm
X...transversal travel of table	1000	1250	mm
Z...longitudinal travel of table	1000	1250	mm
Y...vertical travel of headstock	710	900	mm
W...spindle stroke	560	710	mm
Table clamping surface	800 x 890	1000 x 1090	mm x mm
Table loading capacity	2000	2800	kg
Width of T-slots	23 H8	23 H8	mm
Centring hole diameter / depth	100H6 / 12	100H6 / 12	mm
Feeds...X, Y, Z, W - 26 gears	0,02 - 6,3	0,025 - 8	mm / rev
Rapid traverse...X, Y, Z, W	1600	1600	mm / min
Rapid traverse of table rotation...B	1,5	0,9	rpm
Total power consumption	7,3	10	kVA
Machine weight	7600	10850	kg
Total area including CE - approximate	5500 x 4000	---	mm x mm

Facing head parameters

	WH63	WH80	
Facing head diameter	450	530	mm
U...tool slide travel	210	250	mm
Maximal facing diameter	710	850	mm
Facing head speed range	18 - 224	14 - 180	rpm
Feeds...U	2,8 - 45	2,8 - 45	mm / min
Motor power of facing head	0,09	0,18	kW

Outboard support parameters

	WH63	WH80	
Face of hollow spindle to bearing of outboard support	1850	2250	mm
Bearing axis above table	0 - 710	0 - 940	mm
Rapid traverse of bearing	800	800	mm / min
Bearing bore	135	135	mm
Motor power of outboard support	0,175	0,175	kW
Motor speed of outboard support	2775	2775	rpm

Crane equipment parameters

	WH63	WH80	
Loading capacity	125	125	kg
Whip-gin travel	710	710	mm
Lifting speed	2,25	2,25	m / min
Motor power	0,4	0,4	kW