

# ABENE VHF-360



Note ! The machine in the picture is equipped with options

## CONTROLS

**HEIDENHAIN**

TNC-620 or TNC-640

**SIEMENS**

840D

**FANUC**

OiMD - Manual Guide

## ABENE VHF-360 TI

Vertical/Horizontal Milling Machine  
Unique design for optimal flexibility.

- Simple manual machining
- Combined manual/CNC with easy pre-programmed cycles.
- Full CNC machining 3-axis

All in one....

# ABENE VHF-360 TI



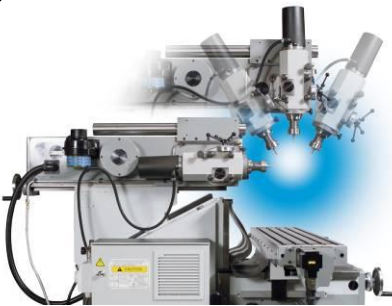
View from right side



View from left side



Heidenhain TNC-620  
Electronic handwheel HR510  
Connections: USB & RJ45



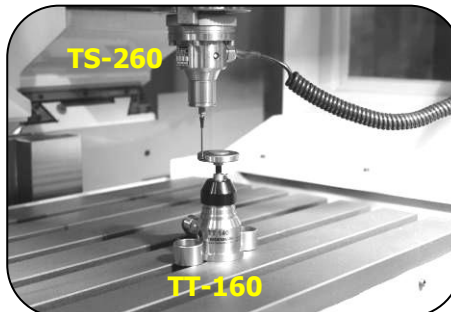
## Standard equipment

- Hardened and ground guide ways in all axes
- Heidenhain optical scales in 3 axes
- High precision ballscrews in X Y Z
- High torque spindle motor 7,5 kW
- Stepless feed rate manual & CNC
- Mechanical & electrical handwheel
- Open-door Manual machining
- ABENE pre-programmed Easy-Cycles
- Complete coolant system
- CE-guarding, table-mounted
- Machine lamp 24V LED
- Automatic central lubrication system
- Keys and manuals
- Spare parts book and Accuracy report
- 2-step automatic gearbox, digitally controlled spindle speeds
- Control Heidenhain TNC-620

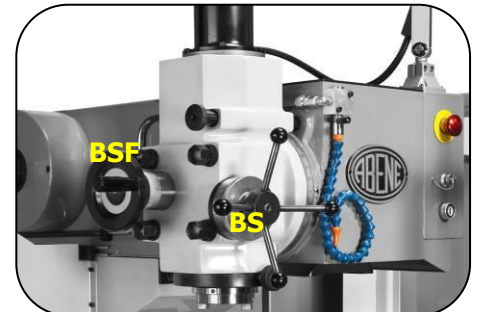
## OPTIONS



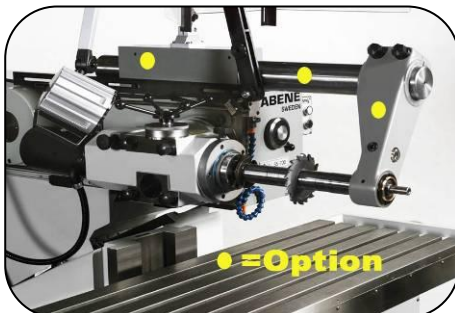
**TOOL CLAMPING**  
PD-100 : Air Power Drawbar  
TCS-300: Hydraulic clamping universal with pull studs for: DIN 2080/69871 & BT40.



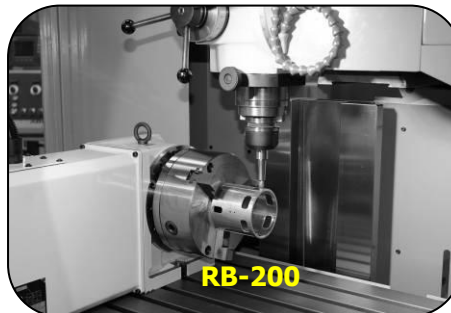
**MEASURING DEVICES**  
TS-260: Touchprobe for workpiece measurements.  
TT-160: Probe for tool measuring.



**SPINDLE HEAD TYPES**  
BS: Boring spindle, pinole movement 75 mm.  
BSF: Extra handwheel for fine executions, 1 turn / 3 mm.



**HORIZONTAL MACHINING**  
Arbor Support: to support horizontal machining with long arbors.



**ADDITIONAL MACHINING AXIS**  
RB-200: Full axis CNC rotary table, to be used as A, B or C axis.  
Tail-stock and chuck.

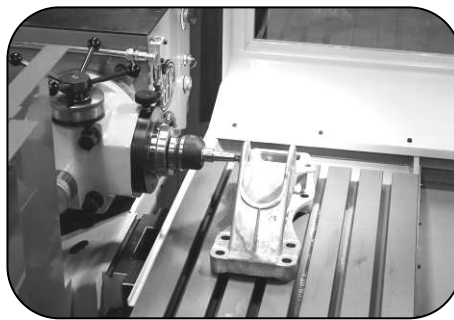


**OTHER EXTRAS**  
Pads: Adjustable M16, 120 mm/diam.  
Machine vices: Different sizes, to be advised.

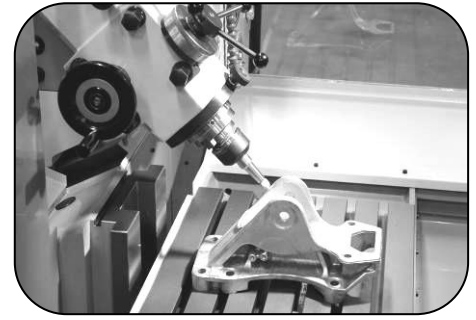
# MILLING PERFORMANCE



**VERTICAL POSITION (FIXED)**  
 Spindle head locked with a precision index-pin, and head stock/over-arm in upper position.  
 Spindle-table surface: 20-495 mm



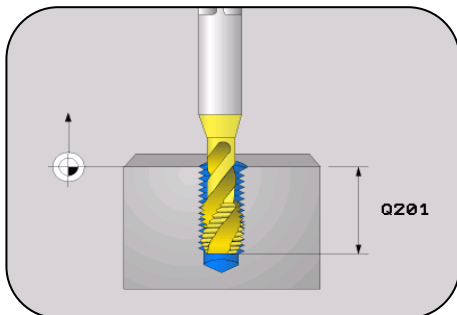
**HORIZONTAL POSITION (FIXED)**  
 Spindle head locked with a precision index-pin, and head stock/over-arm in lower position.  
 Spindle-table surface: 75-550 mm



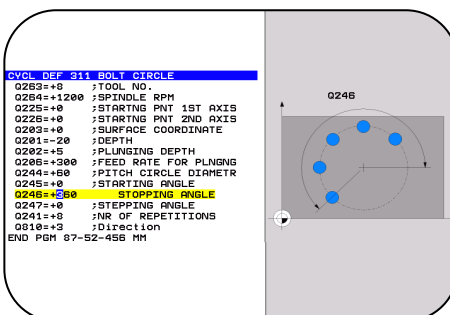
**ANY POSITION (STEPLLESS)**  
 The spindle head is possible to lock in any position inside 140° and mill/drill in any angle.

The machine is built according to the unique ABENE "angular frame plane" design concept, which has the spindle head sideways mounted. This radical (World Exclusive) feature allows rapid and precisely uniform changing from Vertical to Horizontal mode. The ergonomically positioned handles, along with the benefits of Heidenhain control **TNC-620** (also available with Fanuc or Siemens controls) allows the **ABENE VHF-360 TI** to let you decide how to best turn your idea into a presentable product with maximum economy and efficiency.

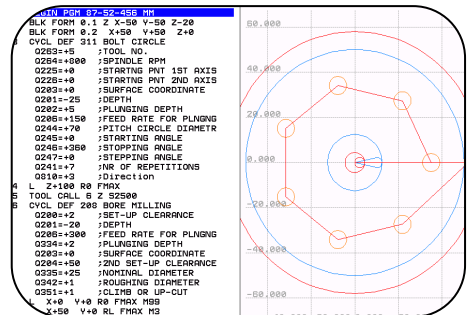
# SOFTWARE PERFORMANCE (TNC620)



**ABENE Cycles**  
 Easy to use all-in-one cycles for most operations, developed in cooperation with Heidenhain.



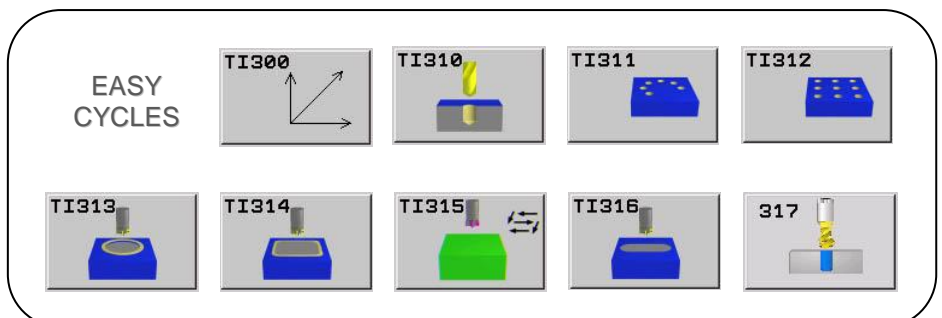
**All-in-one**  
 With ABENE Cycles, where you choose what to do, which tool to use and where to do it. The machine does the rest.



**Flexibility**  
 Combine ABENE Cycles freely with conventional Heidenhain programming and cycles or just use one cycle alone, as a complete program.

**Available ABENE Cycles**

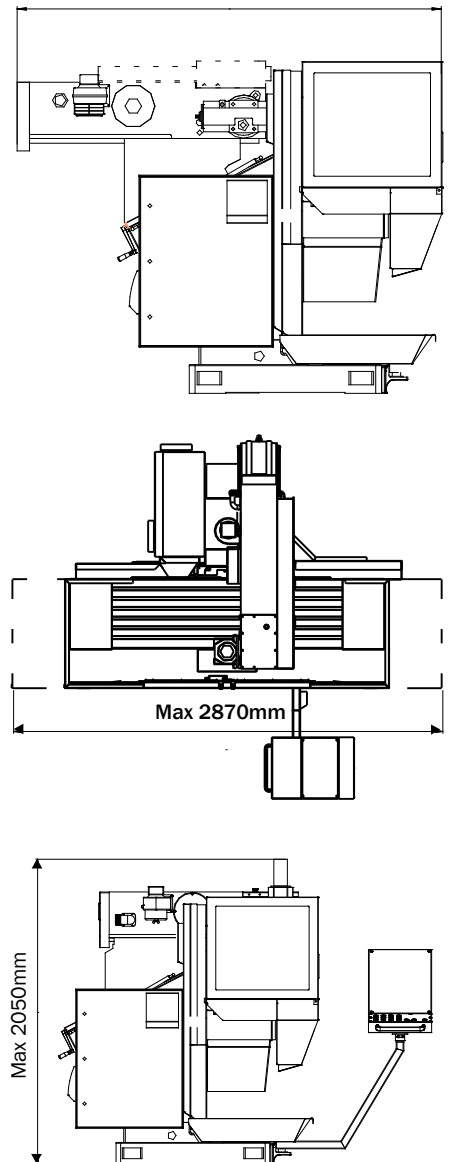
- Pre positioning
- Drilling
- Drilling – Circular pattern
- Drilling – Linear pattern
- Circular pocket
- Rectangular pocket
- Face milling
- Slot milling
- Tapping



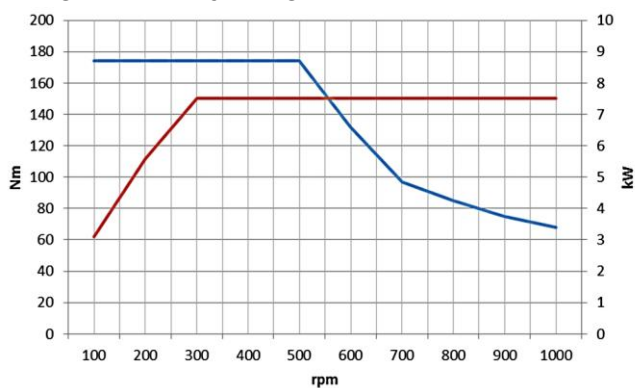
# TECHNICAL INFO

TECHNICAL DATA	VHF-360	VHF-360 /BS	UNIT
<b>TABLE</b>			
Table surface	1530 x 450	1530 x 450	mm
T-slot	6 x 18 (1 pc H7)	6 x 18 (1 pc H7)	mm
Max Load	350	350	Kg
<b>MOVEMENT</b>			
Longitudinal	650	650	mm
Cross	500	500	mm
Vertical	475	475	mm
Feeds n:o	Stepless	Stepless	
Rapid feed X,Y	6000	6000	mm/min
Rapid feed Z	3000	3000	mm/min
Feed.motor AC (Z)	4,2 (13)	4,2 (13)	Nm
<b>ACCURACY</b>			
Positioning	+/- 0,001	+/- 0,001	mm
Repeability	+/- 0,005	+/- 0,005	mm
<b>SPINDLE</b>			
Spindle speed	55-4000	55-4000	rpm
Spindle	ISO40 / DIN2080	ISO40 / DIN2080	
Spindle speeds n:o	Automatic	Automatic	2 Steps
Spindle Power	7,5	7,5	kW
Spindle head swivel	0-140	0-140	degrees
Spindle quill	-	75	mm
Hand wheel	-	3 (option)	mm/rev.
<b>INSTALLATION DATA</b>			
Power requirement	25/17	25/17	A/kVA
Air (if tool clamping)	6	6	Bar
Dimensions LxWxH	2300x2550x2200	2300x2550x2200	mm
Gross weight	2850	2850	kg
Net weight	2650	2650	kg

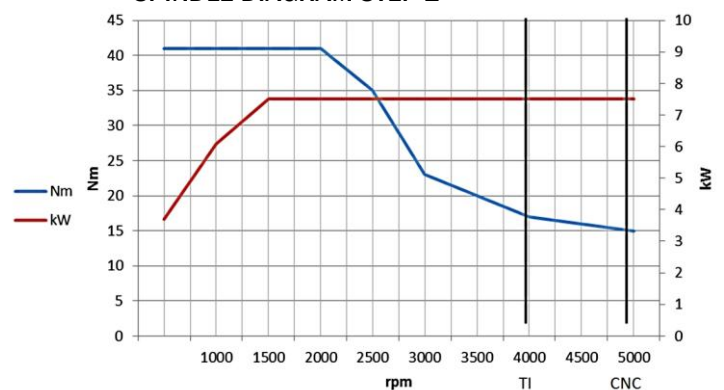
**GENERAL DIMENSIONS**  
Max 2395mm



**SPINDLE DIAGRAM STEP 1**



**SPINDLE DIAGRAM STEP 2**



## ABENE Machine AB

Box 147, 615 23 Valdemarsvik, Sweden

Tel: +46 123 51175

Fax: +46 123 51567

E-mail: sales@abene.se

[www.abene.se](http://www.abene.se)