

## Precision drilling-milling machine with infinitely variable electronic speed control and digital spindle sleeve travel display

### Convincing arguments: quality, efficiency and price

- Solid dovetail slideway, hand-scraped, provides for highest stability and optimum precision
- Solid, precise, largely dimensioned and precisely machined surface
- Heavy solid casting
- Adjustable V-ledges
- Very wide speed range
- Infinitely variable drive
- High concentricity precision due to taper roller bearings, less than 0.015 mm measured in the spindle sleeve
- Gearhead  $\pm 90^\circ$  rotatable
- Digital spindle sleeve travel display, accuracy of the display 0.01 mm. reversible mm/inch
- Drill depth stop
- special steel covering of Z-Axes
- Digital speed display
- Threading mode
- Automatic mode

<b>Model</b>	<b>OPTI BF 30 Vario</b>
Item No	333 8430
<b>€ (VAT excl.)</b>	<b>2,190.00</b>

### Features of performance

#### Electrical connection

Motor power 1.5 kW / 230 V ~50 Hz

#### Drilling-milling capacity

Drilling capacity in casting (max.)  $\varnothing$  35 mm

Drilling capacity in steel (max.)  $\varnothing$  30 mm

Milling capacity cutter head (max.)  $\varnothing$  75 mm

Milling capacity end mill cutter (max.)  $\varnothing$  30 mm

Working range 220 mm

#### Spindle holding fixture

Spindle holding fixture MK 3

Sleeve travel 90 mm

Sleeve travel diameter 70 mm

Draw-in rod M12

#### Drill-mill head

Head rotation  $\pm 90^\circ$

Gear stages 3 stages

Z-axis travel 470 mm

#### Speeds

Gear stage slow 65- 650 rpm

Gear stage average 150 - 1.500 rpm

Gear stage fast 330 - 3.300 rpm

#### Cross table

Cross table length x width 750 x 210 mm

X-axis travel 430 mm

Y-axis travel 200 mm

Distance Spindle - Cross table 470 mm

T-slot size / distance 12 mm / 63 mm / number 3

#### Dimensions

Length x Width x Height 1.076 x 733 x 1.108 mm

Net weight 265 kg



Substructure available from July 2008

#### Solid substructure

- Illustration with switch combination the optional Universal coolant equipment
- Solid provides for stability and absorbs vibrations
- Blade  
Item No. 335 3004 **€ 349.00 (VAT excl.)**

#### Standard equipment

- Draw-in rod M 12
- Operating tools

Exchange	Item No.	€(VAT excl.)
· Spindle ISO30 for change incl. assembly	900 0438	<b>100.00</b>

Accessories	Item No.	€(VAT excl.)
· Machine vice FMS 125	335 4125	<b>149.00</b>
· Hydraulic machine vice HMS 125	335 5127	<b>599.00</b>
· Parallel spacer kit, 18 pcs.	335 4000	<b>169.00</b>
· Universal coolant equipment 230 V	335 2002	<b>179.00</b>
· Clamping tool kit SPW 10	335 2016	<b>75.00</b>
· Cutter head copy and surface MK3	335 0213	<b>179.00</b>
· Draw-in Collet chuck kit 8-pcs. MK3	335 2050	<b>189.00</b>
· End mill cutters kit HSS 20-pcs.	338 6200	<b>95.00</b>
· Horizontal-vert-circ. div. table RT 150	335 6150	<b>199.00</b>
· Height-adjustable tailstock RST 1	335 6155	<b>89.00</b>
· Universal table feed V 99	335 2020	<b>429.00</b>



· Mounting set V99	335 2026	<b>69.00</b>
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Machine available from July 2008

## BF 30 Vario

**NEW**

- High-performance **Vario** drive

### Gear

- Three-step

### Spindle sleeve feed

- Via star grip (drilling)
- Coupler to change from manual rough feed to manual fine feed
- Handwheel for spindle sleeve fine feed

### Upright

- With solid dovetail slideway, hand-scraped, provides for highest stability and optimum precision

### Stainless Steel drive cover

- Z-axis

### Spindle speeds

- Infinitely variable speed adjustment from 65 bis 3.300 rpm

### Control panel

- Digital speed display
- Emergency-stop push button
- Selector switch operating mode/rotating direction
- Potentiometer

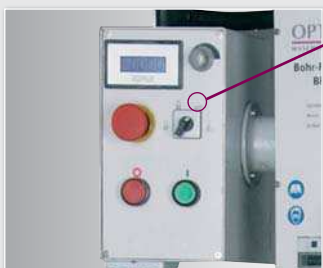


### Digital Depth gauge

- accuracy of the display 0.01 mm
- Reversible mm/inch

### Cross table

- Solid, precise, largely dimensioned and precisely machined surface
- With T-slots
- Adjustable V-ledges
- Adjustable by 3 pluggable handwheels
- Included length measuring scale
- Adjustable limit stops



### Operating mode „auto“

- In the automatic mode, the engine will start automatically upon lifting the lever and stops in the initial position. This way, it is not necessary to press the push button Start and Stop for repeated drilling tasks



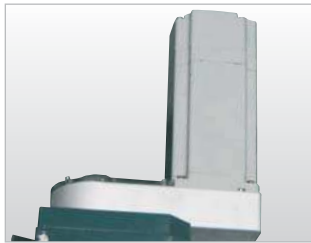
### Operating mode “Threading”

- The engine is being activated by moving the star grip downward. The turning direction is changed by pressing the end switch on the adjustable drilling depth stop

Optional:  
**CNC**  
complete and add-on kit

## Complete and add-on kits for CNC milling suitable for OPTI BF 30 Vario

**NEW**



Z-axis



Y-axis



X-axis



Fig.: BF30 Vario-CNC

Travels may change

### CNC - complete kit

#### for BF 30 Vario

Consisting of:

- 1 x CNC-Controller IV
- 3 x control cards
- 1 x reference switch
- 1 x add-on kit MK F30DP

#### Standard equipment MK F30 DP

- Three step motors 8 Nm
- Three assembly housings incl. lids
- Six tooth pulleys
- One pulleys
- One Support Sleeve
- One Distance pice
- Two nuts
- 15 meters screening cable
- Screw kit
- Mounting instruction
- Incl. assembly (without software)

Item No. 353 9023

€ 3,190.00 VAT excl.

### Recirculating ball screw

#### Complete kit

Item No.

€ VAT excl.

Consisting of:

- 3 x recirculating ball screws with nuts
- Assembly kit of recirculating ball screws for all three axes

**without assembly**

357 4455

**850.00**

**with assembly**

353 9223

**1,490.00**

#### Recirculating ball screws with spindle nuts

**X-axis** Ø 20 mm

357 4311

**299.00**

**Y-axis** Ø 20 mm

357 4312

**289.00**

**Z-axis** Ø 25 mm

357 4313

**289.00**

#### Assembly recirculating ball screw

900 0523

**195.00**

- For each axis



Machine available from July 2008

### Add-on kit for CNC milling

**MK F30DP** for BF30 Vario 357 0030 **890.00**

- Step motors with integrated terminal board
- Especially smooth running due to little self resonance
- IP 54 enclosed motor protected against water and chips
- Extended axle shaft · 400 steps per rotation
- Toothed belt of HTD type (High Tork Drive) by Gates

**Standard equipment:**

Three step motors 8 Nm, Three assembly housings incl. lids,  
Six tooth pulleys,  
One pulleys,  
One Support Sleeve  
One Distance pice  
two nuts, 15 meters screening cable,  
Screw kit  
Incl. assembly



**Factory assembly of Hardware MK F30DP** 900 0502 **350.00**

- "Step motors" · For all 3 axes

### Control electronic for step motors

**CNC - Controller IV** 357 1953 **990.00**

- For 4 card slots - without control cards
- L x W x H: 545 x 275 x 160 mm
- connecting plug (5 connector)
- external emergency stop for CNC Controller IV



**CNC control card** 357 1962 **295.00**

- For all Axis universal (one card per axis is required)



**CNC instruction** 900 0510 **500.00**

- Instruction in the house
- Instruction on-site plus travel cost and vernight stay if required

### Reference switch

**Universal Reference switch set** 357 1980 **129.00**

- With universal add-on parts
- High repeating accuracy · Contactless
- For add-on to the machine, machine zero point
- Protective system IP 65

**Factory assembly reference switch kit** 900 0506 **99.00**



Fig.: Reference switch

### Mega NC CNC software for milling

**CNC basic software "NCdrive"** 358 2110 **300.00**

This is an executive program – no plotting program  
NC programs can be imported (from 2D or 3D programs)  
or can be directly entered to DIN 66025

- CD-Rom incl. NClzyer
- Power supply unit
- Connection cable RS 232
- NCdrive as external box



Fig.: Cable



Fig.: NCdrive as external box



Fig.: Power supply unit

**Mega NC 2D** 358 2112 **750.00**

- 2D CAD-program
- In order to work with the machine, the NCdrive basic software needs to be available

**Mega NC 3D** 358 2114 **980.00**

- 3D CAD-program
- In order to work with the machine, the NCdrive basic software needsto be available

### pcdreh CNC - software for milling

**Version Windows** 358 2020 **345.00**

**Standard Version**

- Adapter RS 232 on LPT1
- Connection cable RS 232
- Dongle
- CD-Rom
- Power supply unit



Fig.: Power supply unit



Fig.: Cable



Fig.: Dongle



Fig.: Adapter

**Plus Version** 358 2060 **170.00**

- This is a dongle update. Concerning this, pcdreh version Windows is required
- Special function e.g. reference switch, tool change, milling cutter database, selectable 4th axis

**Milling Plus** 358 2070 **170.00**

- This is a dongle update. Concerning this, pcdreh version Windows and pcdreh Plus version is required
- DIN-ISO milling

**USB-Adapter RS232** 357 1969 **19,90**

Optional for PPs without RS232 connection

