

Drilling-milling machine

quantum BF 16 Vario

Small economical milling machine for the professional user for the hobbyist and model maker

Convincing arguments: quality, efficiency and price

- Wide range of applications
- With dynamic infinitely variable drive from 100 to 3000 rpm
- Milling head is turnable to any direction by 90° and thus allows milling and drilling operation in every angle position
- Upright laterally adjustable for further application
- Simple and clear operation
- User-friendly automatic switch according to IP 54 with low-voltage release
- Scale collars for all axes are adjustable
- Spindle holding fixture MT2
- Clearance freely adjustable dovetail slideways on all 3 axes
- Unrestricted milling access through clampable guideways
- Produced according to toolmaker's precision with test certificate
- Cost-efficient and of stable value



Extent of supply:

- Draw-in rod M 10
- Morse taper MT2/B16
- Operating tools

Optional accessories:

- **Universal substructure**
with lockable door and shelf
L x W x H: 420 x 340 x 800 mm

Model	BF 16 Vario
Item No.	333 8116
€ (VAT excl.)	790.00

Technical data	
Drilling capacity (max.)	16 mm
Milling capacity of cutter head	(max.) 63 mm
Milling capacity of end mill cutter	(max.) 20 mm
Distance spindle/table (max.)	285 mm
Working range	175 mm
Spindle holding fixture	MT 2 / M 10
Spindle speeds	100 - 3,000 rpm
Sleeve travel	50 mm
T-slot size	10 mm, distance 35 mm
Table size (L x W)	400 x 120 mm
Drill head swivel angle	180°
Travel Z - axis ^{*)}	210 mm
Travel Y - axis ^{*)}	160 mm
Travel X - axis ^{*)}	220 mm
Motor power 230 V / 50 Hz	500 W
Dimensions (L x W x H)	510 x 450 x 760 mm
Net weight	60 kg

*Guideways travel are briefer during use of measuring gibs for digital displays



Optional accessories:

- **Attached adaptor** (without engine)
A high speed engine can be assembled at the upright (up to 26.000 rpm).
L x W x H: 100 x 195 x 170 mm
Seat: ø 42 mm



Optional accessories:

- **Attached adaptor**
For assembling of upright and milling head at the engine bed of the turning machines:
OPTI D 240 / D 280, quantum D 250



Optional accessories:

- **Digital magnetic measuring system MPA 3 kit**
Item No.: 338 3911
refer to page 42

New

- User-friendly automatic off-switch according to IP 54 with lockable emergency-stop button
- Continuous speed adjustment from 100 to 3000 rpm
- Simple and clear operation

- Precise running due to taper roller bearing less than 0.015 mm measured in the sleeve



- Groove milling by picking-up the cutter with the draw-in collet chuck
- Tool holding fixture MT2 /M10
- Precision worked cross table with T-slots and coolant gutter
- Incorporated length measuring scale

- Feed spindles adjustable free from play



BF 16 Vario - illustration with optional collet chuck holder and cutter

- 2-step gear transmission



- Drilling-milling head inclinable +/- 90° to both sides for milling and drilling works in angular position as required

- Clear surface of milled work by individually clampable guidances

- Stable and precise dovetail guidance with V-ledges free from play to all 3 axes



- Upright movable laterally

- Correct feed motion with positionable graduated collar on all handwheels

- Adjustable limit stops

Accessories	Item No.	€ (VAT excl.)
■ Universal substructure	335 3002	169.00
■ Collet chuck kit 5 pcs. MT2/M10 4/6/8/10/12 mm direct clamping	335 1980	89.00
■ Collet chuck holder MT2/M10 (ER 25)	335 2044	99.00
■ Collet chuck kit 1-16 mm, 15 pcs. ER 25	344 1109	240.00
■ Quick-action drill chuck (0 - 13 mm); B16	305 0623	31.00
■ MT for taper mandrel MT2/M10/B16	305 0670	14.90
■ Milling cutter kit 12 pcs (4 - 5 - 6 - 8 - 10 - 12) each size with 2 and 4 cutting edges, TIN	335 2113	55.00

Accessories	Item No.	€ (VAT excl.)
■ Cutting holding taper MT2/M10/B16	335 2102	39.00
■ Machine vice FMSN 100	335 4110	219.00
■ Triaxial vice MV3 - 75	335 4175	149.00
■ Triaxial vice MV3 - 125	335 4178	199.00
■ Vice with two axis ZAS 50	335 4170	89.00
■ 3-axis position display MPA 3	338 3911	799.00
■ Factory assembly MPA 3 with material	900 0420	580.00
■ Adaptor for D 240/D 280 /D 250	335 6568	89.00
■ Adaptor (high speed motor)	335 6567	89.00