



## Visible and tangible quality!

PROXXON precision electrical tools are made for those who work and enjoy miniature and engineering tools. We specialise in manufacturing high-quality tools offered at reasonable prices. All machines and tools produced have been individually tested, item by item. Our aim is to sell products of the highest quality.

We take great pride in our product and technical knowledge. If you wish to order or require further information please

email export@proxxon.com call +49 (0) 65 02 - 93 17 - 0 visit www.proxxon.com

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The tools depicted in the contents represents the range and breadth of Proxxon tools and machinery.



Our website <u>www.proxxon.com</u> offers an instructional video for the articles marked with this symbol. Come have a look!



# Multiversatile equipment for delicate projects. Precise and quiet. With quick change chuck for 0.3 – 3.2mm shanks.

# Precision drill/grinder FBS 240/E Strength comes from quality!

## For drilling, milling, grinding, polishing, cleaning, carving and engraving.

The maximum speed of 20,000rpm is continuously variable down to 5,000rpm. The full wave electronic speed control results in virtually constant torque, even at lower speeds, in turn facilitating micro drilling, cleaning and polishing. The spindle runs in a precision ball bearing and is lifted with a lock button. The 20mm collar fits MICROMOT drill stands and vices.

The machine is fitted with a special, balanced, low noise DC motor with high life expectancy. Stable housing of glass-fibre reinforced POLYAMIDE with soft components in the finger grip area.

Complete with 43 quality inserts in a sturdy plastic case.

### **Technical data:**

5,000 – 20,000rpm. Maximum power consumption 100W, 220 - 240V. Length 200mm. Weight 450g. Insulated according to class 2 requirements. Keyless chuck with 0.3 – 3.2mm capacity.

NO 28 472



Complete with 43 high-quality bits and cutters in a durable polypropylene case.

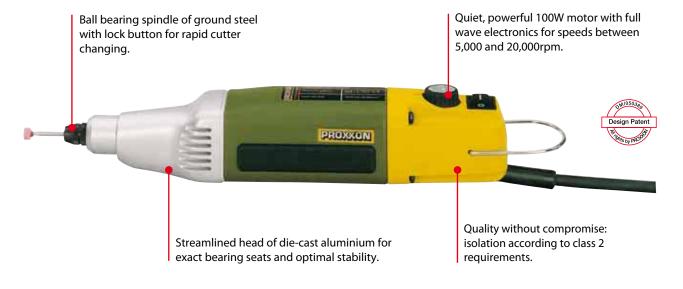




# Precision electrical tools. Genuine single handed use. With die-cast aluminium heads. Quiet, precise and efficient!

## Professional drill/grinder IB/E

 For drilling, milling, grinding, polishing, cleaning, cutting, carving, engraving and signing.  For precision mechanics, model builders, jewellers, opticians, artists and electronic enthusiasts.





With 34 bits and cutters of industrial quality, all shafts Ø 2.35mm. Complete with six triple slit steel collets covering 1.0 to 3.2mm (see page 21).

### High concentric accuracy (maximum runout 3/100mm). No runout in your bits and cutters.

This high-revving, special balanced, low noise DC motor has full-wave electronic speed control. The ground steel spindle runs in a ball bearing. Six high concentricity MICROMOT collets, (1.0-1.5-1.5)

2.0 – 2.4 – 3.0 and 3.2mm and closure nut) are included.



### Technical data:

Speed 5,000 to 20,000rpm. Power consumption (max) 100W, 220 – 240V. Stable head of die-cast aluminium and main housing of glass-fibre reinforced POLYAMIDE. Length 230mm. Weight approx. 500g. Insulated to class 2. The 20mm MICROMOT collar allows fitting of optional drill stands, horizontal stands, etc. Supplied with 34 bits and cutters in a stable plastic case.

NO 28 481

### Note:

MICROMOT steel collets are hardened and thus have a high, consistent flexibility. They also maintain prolonged accuracy, even after regular use (these collets should not be compared with unhardened, four-slit collets of brass and aluminium). The triple slit collet is substantially more difficult to manufacture than the four-slit type,

2) but offers a better load-bearing surface. This is especially important for cutters with small shaft diameters. Also see page 21.





Storage case of high-grade polypropylene. Attractive design, very sturdy and large enough to put the machine back in the case after completing work, without having to "fumble".

A label on the side identifies the contents.

## Long neck angle milling/drilling unit WB 220/E



With a set of gears running on several ball bearings in a stable, die-cast aluminium housing head.

Also suitable for right-angled separation of rods. With a special balanced, powerful, quiet and long-lasting DC motor. Infinitely variable rpm (full wave electronics). Main housing is made of glass-fibre reinforced POLYAMIDE.

Safely stored in an attractive and extremely stable case made from high-grade polypropylene, as described on the left.

With MICROMOT hardened steel collets (1.0 - 1.5 - 2.0 - 2.4 - 3.0 and 3.2 mm).

#### **Technical data:**

220 - 240V. 100W. 3,000 - 15,000rpm. Length 270mm. Weight 550g. Insulated to class 2.

NO 28 492



## Long neck straight drill/grinder LB/E

Bit holder for storing rotating bits and cutters is included in the delivery.



### Head of die-cast aluminium with 100mm long spindle neck (and 20mm MICROMOT collar).

Ideal for internal grinding and the use in slots and channels. Special balanced, powerful, quiet and long-lasting DC motor. Variable

(full wave) electronic speed control; main housing of glass-fibre reinforced POLYAMIDE. MICROMOT collets (1.0 - 1.5 - 2.0 - 2.4 - 3.0 and 3.2mm).



220 - 240V. 100W. 5,000 - 20,000/min. Length 300mm. Weight 630g. Insulated to class 2.

Safely stored in an attractive and extremely stable case made

from high-grade polypropylene, as described on the left.

NO 28 485

## Pocket drilling machine COLT 2

### Tough and durable special balanced, powerful, quiet and longlasting DC motor.

Quiet planetary gear gearbox of die-cast aluminium (main housing made of glass-fibre reinforced POLYAMIDE).

Handy switch with integrated electronic speed control and lock. The RÖHM chuck allows the precision removal of the inserts. Safely stored in an attractive and extremely stable case made from high-grade polypropylene, as described on the left.

### **Technical data:**

220 - 240V. 100W. 0 - 3,000rpm. RÖHM chuck capacity 0.5 - 6mm. Capacity in steel 5mm. Length 225mm. Weight 900g. Insulated to class 2.





# The long, slim head of die-cast aluminium makes the LWS ideal in numerous applications including detailed sanding.

## Long neck angle grinder LWS







For working steel, non-ferrous metals, glass, ceramics, wood and plastic. For cutting, rough-machining, grinding, precision polishing, fine polishing and carving wood. Special balanced, powerful, quiet and long-lasting DC motor. Stable head mad of glass-fibre reinforced POLYAMIDE. A corundum grinding disc (grit 60), a fan sanding disc (grit 100) and a reinforced cutting disc are included. Safely stored in an attractive and extremely stable case made from polypropylene.

#### **Technical data:**

220 – 240V. 100W. 13,000rpm. Disc diameter 50mm with 10mm interval. Length 270mm. Weight 550g. Run down time less than 1 second. Insulated to class 2.

NO 28 547



### **Backing disc for LWS**

Self-adhesive type, for use with corundum bound sanding discs and sanding fleece. Ø 50mm.

**NO 28 548** 1 piece



### Corundum grinding disc for LWS

Used for de-burring, grinding, sharpening and derusting steel and non-ferrous metals. Ø 50mm.

**NO 28 585** 60 grit



### **Corundum sanding discs for LWS**

Self-adhesive type, used on flat and convex surfaces. Ø 50mm.

**NO 28 549** 80 grit 12 pieces **NO 28 550** 150 grit 12 pieces



### Silicon carbide grinding discs for LWS

Used on hard materials such as glass, stone, ceramics and even hardened steel. Ø 50mm

**NO 28 587** 60 grit



### Sanding fleece for LWS

Self-adhesive type, used for cleaning, matting and sanding of steel, stainless steel and non-ferrous metals. Also used for paint removal. Ø 50mm.

**NO 28 554** medium 5 piece **NO 28 555** fine 5 piece



### Corundum fan sander for LWS

For grinding tempered cast iron, cast iron, stainless steel, non-ferrous metals, wood and plastic. Low wear-resistant. Ø 50mm.

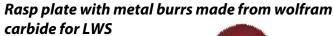
**NO 28 590** 100 grit



### Corundum bound cutting disc for LWS

With woven reinforcement, 50 x 1 x 10mm. For cutting steel, non-ferrous metals, plastic and wood. Ø 50mm.

NO 28 154





For model-making, cleaning and smoothing of wood, plastics and glass-fibre reinforced objects. No expenditure of effort is needed, easy and precise hand-

ling. Not suitable for metal processing.

NO 29 050



Storage case of high-grade polypropylene. Attractive design, very sturdy and large enough to put the machine back in the case after completing work, without having to "fumble".

A label on the side identifies the contents.



## Small, torque resistant, solid and versatile Die-cast aluminium heads for high stability!

### Belt sander BSL 220/E



### For shape finishing, mortising, fine polishing (flat surfaces). Also for de-burring metal, paint removal and fine finishing.

Head of die-cast aluminium for high stability and precise ball bearing





fitting. Main housing made of glass-fibre reinforced POLYA-MIDE.

Variable (full wave) electronic speed control. The head rotates through 60°. Complete with 2 off 80 and 2 off 180 grit belts.

Safely stored in an attractive and extremely stable case made from high-grade polypropylene, as described on the left.

The head rotates through 60°.



### **Technical data**

220 - 240V. 100W. Belt size 10 x 330mm (usable sanding area 10 x 110mm). Belt speed 300 – 700rpm. Length 350mm. Weight 650g. Insulated to class 2.

NO 28 536

### Replacement belts for BSL 220/E



Corundum on tear-resistant, woven backing. Sands metal, nonferrous metals, wood and plastics efficiently. 10 x 330mm.

NO 28 583 80 grit 5 pieces NO 28 582 120 grit 5 pieces 180 grit NO 28 581 5 pieces

Identical with the foregoing item, but with burrs made from silicon carbide for grinding and de-burring of glass and ceramics. Also suitable for grinding brass, steel and cast iron.

NO 28 579 180 grit 5 pieces

## Super jig saw SS 230/E



The alternative 12V jig saw STS 12/E is described on page 14.



### This unit offers fantastic and precise cutting

capacity. Stable head of die-cast zinc for precise fitting.

The housing head is made of glass-fibre reinforced POLYAMIDE. Special balanced, low noise DC motor with high life expectancy. The stroke speed is variable by means of full wave electronic speed control. Footplate adjustable up to 45° for mitre cuts. Ideal for tight curves in wood (up to 12mm), PC cards to 5mm and non-ferrous metals to 3mm. Complete with 4 super-cut sawing blades of various pitches for wood, plastic and metal. Safely stored in an attractive and extremely stable case made from high-grade polypropylene, as described on the left.

### **Technical data:**

220 - 240V. 100W. Stroke speed of 2,000 - 4,500/min. Length 230mm. Weight 700g. Insulated to class 2.

NO 28 530

### Jig saw blades made of special steel

Pitch of 1.5mm, teeth ground and set. Usable on hard and soft woods, plywood, fibreglass reinforced sheets as well as soft plastics. Fits SS 230/E and STS 12/E.

NO 28 054 Pack of 2

### Jig saw blades made of HSS

Tooth pitch of 1.06mm, with teeth set and ground. Usable on metals, non-ferrous metals, aluminium and softer alloys, fibreglass, Plexiglass and insulating materials. Fits SS 230/E and STS 12/E.

NO 28 056

Pack of 2



## Oscillating motion far better than conventional orbital motion. Hence suitable for cutting and precision carving.



Storage case of high-grade polypropylene. Attractive design, very sturdy and large enough to put the machine back in the case after completing work, without having to "fumble". A label on the side identifies the contents.

The OZI cuts in those cases where a rotating saw blade can no longer be used (in this case using the HSS separation blade, see p. 9).

220 – 240V. 100W. Sanding frequency of 3,000 – 10,000rpm. Length

230mm. Weight 550g. Insulated to class 2.

NO 28 520



For precision square excavations, HSS immersion saw blades are available with an 8 and 14mm width of cut.



## Compact, light and well balanced. Now with an extra powerful drive for a high material removal capacity.

### Sanding pads for OZI 220/E



High durability corundum (aluminium oxide) pads. Grain filled with special filler to prevent premature clogging. Deposited on special backing paper. Self-adhesive.

NO 28 891 80 grit 25 pieces NO 28 893 150 grit 25 pieces NO 28 895 240 grit 25 pieces

### HSS cutting blade for OZI

Oscillates, making it ideal for cutting metal, wood, PC cards, plastics, plaster of Paris and many other



The segment cut facilitates exact cutting right into corners.

NO 28 900 ø 65mm

### Diamond cutting blade for OZI

Operation as described above for the HSS blade. Cuts marble, bricks, dry walling and many other



materials. Ideal for interior finishing and sanitary and electrical installation.

NO 28 902 ø 65mm

### **HSS immersion saw blades for OZI**

For exact square excavations and other forms. For making hatchways and windows in ship and aircraft models. Cuts wood, plywood, plastics and aluminium. Max. immersion depth 16mm.



NO 28 897 Saw blade width 8mm NO 28 898 Saw blade width 14mm



### Powerful special DC motor, quiet and long-lasting.

Left-justified band grinder, making it possible to process surfaces 'right to the corner'. Fine adjustment of rollers prevents lateral rolling off. Easy replacement of bands by means of a spring tension system without the use

of tools. Housing is made of glass-fibre reinforced POLYAMIDE. Complete with screw clamp and with 5 x 150 grit and 240 grit grinding bands.

Supplied in a practical case as described on page 8.

### Technical data:

220 - 240V. 150W. Grinding band 40 x 265mm. Grinding surface 60 x 40mm, band speed 160m/min. Length 175mm. Weight 700g. Class 2 insulation.

NO 28 526



stationary use. is included.

A screw clamp

### Grinding bands made from high-quality corundum (aluminium oxide)

Mounted on a high-performance support. For the grinding of metal, non-ferrous metals, wood and plastics. 40 x 265mm.

NO 28 922 80 grit 5 pieces NO 28 924 150 grit 5 pieces NO 28 928 240 grit 5 pieces

### MICROMOT tool holder

For stationary use of MICROMOT electrical precision tools with metal head in combination with a vise.

Especially suited for industrial drill/grinder IB/E, belt sander BSL 220/E, longneck angle grinder LWS, super jig saw SS 230/E and delta sander OZI 220/E. Made of glass-fibre reinforced POLYAMIDE.





## For joiners, model makers and wood carvers. With die-cast aluminium gear head.



## For the carving of all types of wood. For the restoration of furniture. For the restoration of antiques. For linocuts and precision

It is also possible to process plaster. Special, balanced, low noise DC motor with extreme high life expectancy. Gear head made of die-cast aluminium. Main housing of glass-fibre reinforced POLYAMIDE. Three high-grade Japanese knife inserts made from bimetal (U-form, V-form

and flat blade) are included. In an attractive and extremely stable case made of high-grade polypropylene.

#### **Technical data:**

220 - 240V. 50W. Stroke speed 10,000rpm. Length 230mm. Weight 680g. Class 2 insulation.

NO 28 644



Storage case of high-grade polypropylene. Attractive design, very sturdy and large enough to put the machine back in the case after completing work, without having to "fumble". A label on the side identifies the contents.

### Replacement carving blades for MOS

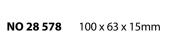
Super-quality bimetal (Made in Japan). Base steel (carrier material) is bonded with extremely hard tungsten steel. The tips are hand-ground piece by piece. One blade each in V-shape large and small, rounded, and flat with straight and round corners.



NO 28 572

### Multiform grindstone

For the Proxxon carving blades. Profiled for blade shapes. A pure oilstone for really sharp carving tools.





For wood processing: insertion tools with wolfram carbide burrs for model-making, cleaning and smoothing of wood and glass fibre reinforced synthetics. Not suitable for metals!

Extremely sharp and easy to work with; material is removed in a controlled way, without force, working along or against the grain. Highly durable and easy to clean, using a Bunsen burner. Also suitable for rubber, plastic foam and silicone. For working at 5,000 to 20,000rpm. Shafts 3.2mm.

NO 29 062 8.0 x 12mm Cone NO 29 060 Cylinder with round head 7.5 x 12mm NO 29 064 Taper 4.0 x 19mm

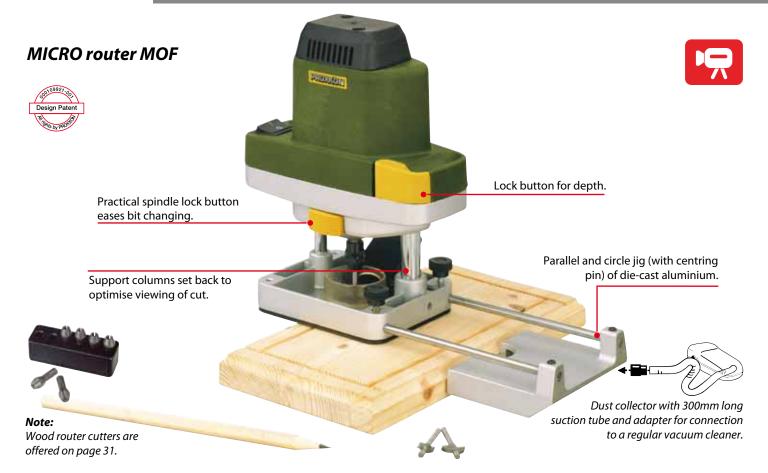


### Note:

The new wolfram carbide rasp plate is ideal for woodcarvers and as a supplement for a motorised carving machine (material as described earlier) in connection with our long-neck angle grinder LWS. Details on page 6.



# Small, handy, precise and particularly easy to handle. Main housing of die-cast aluminium.



**Ideal for slotting, rounding over, counter boring and stock removal** in wood, plastic, acrylic plastic, MDF, URIOL, ceilings and many more. Powerful universal AC motor. Base housing of die-cast aluminium and face of smooth gliding synthetic material. Main housing of glass-fibre reinforced POLYAMIDE. With MICROMOT collets (1.0 - 1.5 - 2.0 - 2.4 - 3.0 and 3.2mm). Parallel and circle jig and fitted with a dust collector.

### **Technical data:**

220 – 240V. 130W. Footprint 70 x 100mm. Total height 180mm. Weight 1,400g. Class 2 insulation.

NO 28 568

### **MICRO Cutter MIC**

### Cuts materials up to 4mm thickness effortlessly and cleanly with a cutting width of only 0.5mm.



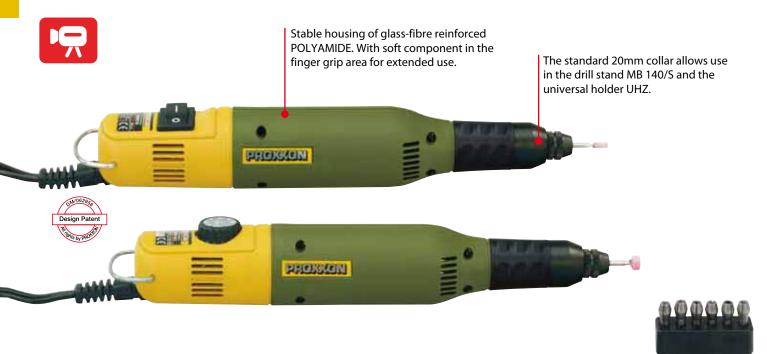


# Precision milling/drilling machines MICROMOT 50 and 50/E. Ball bearing spindle and high-quality collets for efficient insertion of tools.

### MICROMOT 50 und 50/E



- For milling, drilling, grinding, polishing, brushing, cleaning, de-rusting, cutting, engraving, signing.
- For working steel, precious metals, glass, ceramics, plastics and precious stones.
- Ideal for electronic hobbyists, model-builders, mechanics, jewellers, opticians, artists, chiropodists, dental technicians, tool and casting makers, etc.
- 12V supply allows the safe use of coolant (wet grinding and cutting)!



### The tens of thousands of these units in use speak for themselves: they are a joy to use!

The diameter of only 35mm makes it easy to handle. The weight of 230g, quietness and effortless drive via the balanced motor with ground spindle and collar bearing all contribute to the ergonomic design. The high-quality MICROMOT steel collets (see page 4) ensure accurate clamping of the cutters, without rattling or thumping of bits and cutters. The size of the machine dictates a 12V drive system, use of a transformer is thus required. MICROMOT transformers of at least 1.0A are recommended.

### Mill/drill unit MICROMOT 50/E

**High precision: ball bearing spindle.** Special balanced, low noise DC motor with high life expectancy. Variable electronic speed control with feedback effect (high engine power in the lower revolutions area). Housing of glass-fibre reinforced POLYAMIDE with soft component in the finger grip area. 20mm-collar for fitting MICRO-MOT accessories. Six MICROMOT collets (1.0 - 1.5 - 2.0 - 2.4 - 3.0 and 3.2mm) are supplied.

**Technical data:** Direct voltage 12 - 18V. Power consumption is 40W max. Stroke speed from 5,000 to 20,000rpm. Length 220mm. Weight 230g.

NO 28 510

### Mill/drill unit MICROMOT 50

As MICROMOT 50/E, except that no electronic speed control is fitted. No load speed is 20,000rpm.

NO 28 500

### Manual for creative model-makers

Over 370 pages of information and tips from all areas of model building. All illustrations in colour.

Attractively produced, this book affords a good insight into the areas of materials and their application possibilities. It describes tools and work techniques in general and gives comprehensive technical explana-tions concerning MICROMOT devices and available accessories.

A large portion is devoted to practical tips and a clear appendix of useful tables completes the contents of this helpful manual.

German only!





## The 50/EF with quick-action chuck. Practical for use with different shaft diameters.

## **MICROMOT 50/EF**

12 VOLT



The MICROMOT 50/EF can also be used with MICROMOT steel clamp-



ing devices. This is recommended when milling continuously at high lateral pressure. This makes it impossible for the shafts to become loosened after prolonged working. Using clamping devices makes

true running better than using the quick-action chuck.

Quick-action chuck of 0.3 – 3.2mm. Primarily advantageous when working with HSS drill bits of different power, complying with DIN 338.

20mm-system adaptation. For flange mounting of MICROMOT accessories.

Stable housing made of glass-fibre reinforced POLYAMIDE. With a pleasantly soft handle.

## Footswitch FS For free-hand precision work .

For all machines with a Euro plug (class 2 insulation) and maximum power absorption of 500W. Ideal for both portable and sta-



tionary machines. Housing of glass-fibre reinforced NYLON. The connecting cord (230V) is 250cm in length and the output cord 50cm. The transformer is connected to the FS when using 12V machines.

NO 28 700

### Slim, easily handled and light.

Quick-action chuck and electronic revolutions adjustment, with feedback effect (high engine power in the lower revolutions area). Special, balanced, low noise DC motor with high life expectancy. A transformer is required for operation. We recommend MICROMOT network devices from 1.0A.

### Technical data:

Direct voltage 12 – 18V. Power absorption up to 40W. 5,000 – 20,000/min. Length 220mm. Weight 230g.

NO 28 512



# Model building and engraving set. Complete with MICROMOT drill/grinder 50/E, mains adapter and 34 bits and cutters of dental quality.

MICROMOT drill/grinder 50/E (as described on the left). The set includes 34 industrial respectively dental quality bits and cutters:

1 diamond grinding bit, 1 fine miller, 0.5 and 1.0mm micro-drills, 1 brass brush, 4 high-grade corundum grinding bits (cylinder, sphere, disc and cone shaped), 1 saw blade, 4 grinding wheels (2 corundum, 2 silicon carbide), 20 cutting discs and 1 arbor. The 6 MICROMOT collets ranging from 1.0 – 3.2mm (description on page 4) are also included. With mains adapter for 220 - 240V operation (12V, 1.0A).





Both sets are packed in an attractive plastic case, with 34 industrial respectively dental quality bits and cutters.





# Power and precision also when wet grinding. Includes keyless chuck (capacity 0.3 – 3.2mm).

## Precision drill grinder FBS 12/EF

## For precision drilling, milling, sanding, polishing, brushing, derusting, engraving, chiselling and cutting.

Includes keyless chuck (capacity 0.3 - 3.2mm). <u>A precision ball bearing minimises spindle side play.</u> Spindle lock button for bit changing obviates the need for spanners. Recessed spindle head for inserting MICROMOT steel collets (see page 4). Special, balanced, low noise DC motor with high life expectancy. Variable speed control with feedback effect (high engine power in the lower revolutions area). Housing of glass fibre-reinforced POLYAMIDE.

#### **Technical data:**

Direct voltage 12 – 18V. Maximum power consumption 100W. Stroke 3,000 - 15,000rpm. Length 185mm. Weight 450g. We recommended the use of MICROMOT transformers of at least 2.0A (see page 17).

NO 28 462



### Note:

The speed control of our 12 volt devices only works when operated via nonstabilised power supply units (e.g. all MICROMOT mains adapters). Connection to stabilised power supply units is possible. However, the devices will then operate with maximum rotational speeds (also applies to operation with batteries).

### Jig saw STS 12/E



## Ideal for curved sawing of wood (up to 10mm), printed circuit boards (up to 3mm), and non-ferrous metal (up to 2.5mm).

Powerful special low noise DC motor with high life expectancy. Varia-

ble speed control with feedback effect (high engine power in the lower speed range). Housing of glass-fibre reinforced POLYAMIDE. With additional ball adapter for working on convex and concave surfaces. Is exchanged for the normal saw table by unscrewing a screw. Includes 2 saw blades (coarse and fine). We recommend MICROMOT mains adapters as of 2.0A for operation.



Direct voltage 12 - 18V. Maximum power consumption 100W. Stroke 6mm (adjustable from 2,000 - 5,000rpm). Length 180mm. Weight 480g.



## Superfine sander with linear (not rotary) sanding motion.

### Pensander PS 13

### Ideal for working on surfaces in recesses, slots and small corners.

Linear (not rotating) stroke. Long-lasting special DC motor. Housing of glass-fibre reinforced POLYAMIDE. Four sanding arbors with straight shanks and four angled (all different shapes) as well as three sheets of pre-profiled self-adhesive sanding pads are included.



The sheets are of grits 180, 240 and 400 with 5 of each shape per sheet.

### **Technical data:**

Direct voltage 12 - 18V. 8,000 linear strokes/min. (2.5mm stroke length). Length 160mm. Weight 130g.







### Additional sandpaper for PS 13

Three sheets, each with 20 pads in different shapes. Silicon carbide, self-adhesive.

NO 28 822 180 grit NO 28 824 240 grit NO 28 826 400 grit

### MICRO screwdriver MIS 1

### With pre-selectable torques of 0.35 - 2.0Nm.

Small, light and easy to handle. An ideally positioned rocker switch provides on/off/reverse. A RÖHM chuck facilitates acceptance of all bit shanks of up to 6.5mm (also for standard 1/4" bits). Housing of glass fibre-reinforced POLYAMIDE. Complete with 16 inserts of chrome molybdenum steel.

### **Technical data:**

Direct voltage 12 - 18V. Maximum power consumption 50W. Torques of 0.35 - 1.0Nm (the sixth stage bypasses the clutch and yields approx. 2Nm). Length 200mm. Weight 415g. We recommend the use of MICROMOT mains adapters of at least 2.0A.

NO 28 690



Slot: 0.3 x 1.5 / 0.35 x 2.0 / 0.4 x 2.5mm

Allen key, internal: 3.0 - 3.5 - 4.0 - 4.5 - 5.0mm

Allen key, external: 1.5 - 2.0 and 2.5mm



The bit holder shown here (50 x 76 x 15mm – 2 pieces without bits), usable for holding rotating bits with shaft of Ø 2.35 – 3.0 and 3.2mm is available as No 28 359.



# The ideal complete starter kit including the tried and tested engraving tool GG 12!

## Complete engraving kit with "trial glass".

### Engraving kit GG12 with special balanced, powerful, quiet and longlasting DC motor.

Housing of glass fibre-reinforced POLYAMIDE. Plus mains adapter, trial glass, motifs and instruction booklet as well as all necessary bits: 1.0 and 1.8mm diamond grinding bits with spherical head for engraving and line work, silicon carbide grinding bits in both conical and bullet shape for frosting glass as well as one corundum grinding bit in ball and cylinder shape for grinding and engraving. Including bit holder usable for holding MICROMOT rotating bits.

#### **Technical data for GG 12:**

Direct voltage 12 – 18V. 20,000rpm. Length 145mm. Weight 50g. **NO 28 635** 

### Engraving tool GG 12, available individually

Includes 1 diamond bit (spherical head, 1.8mm). **NO 28 592** 





Every piece has its own place in the attractive, extremely durable plastic storage case.

# MICROMOT flexible shafts with precision aluminium handle. Optionally available with steel collets or quick-action chuck.



### **MICROMOT Flexishaft 110/P**

Dual ball-bearinged milled steel shaft with tool holder for MICROMOT steel collets. Ball-bearinged shaft end on machine. Highly flexible core (does not run hot when working on tight radii). Length 100cm. For a maximum of 25,000rpm. Includes 6 steel collets (1.0 - 1.5 - 2.0 - 2.4 - 3.0 and 3.2 mm).

NO 28 620

### MICROMOT Flexishaft 110/BF



As described above, but with 0.3 to 3.2mm quick-action chuck. Practical when working with different shaft diameters.

# MICROMOT mains adapters: safe and efficient power sources for MICROMOT low-voltage tools.

### MICROMOT mains adapter NG 2/E



#### Note:

Power consumption of hand-held power tools is measured according to the internationally accepted ICE-745-1 specification. The current drawn is measured, not the power consumption with a hot motor just before stalling. In practice, this condition seldom appears, if ever. All PROXXON mains adapters are suitably dimensioned for the recommended purposes.

The adapters do not include the illustrated drills/grinders.

## NORYL casing (heat resistant – a necessity for transformer enclosures).

Polarised socket for MICROMOT plug. Red LED indicates readiness for use. PTC (Positive temperature coefficient) element prevents overload (and plugged in tool will not automatically restart). After cooling down the mains plug should be disconnected briefly to reset the adapter. With holes for storing bits. Foldable tool rest provides a secure place for keeping the MICROMOT tools at the ready. Variable speed control with feedback effect for adjusting bit speed to suit the job, as well as providing high torque at low speeds.

#### **Technical data:**

220 – 240V. Supplies 2.0A at 16 Volt open circuit and 12 Volt under load. Weight 1,000g. Class 2 insulation.

NO 28 707

### MICROMOT mains adapter NG 2/S

**Without electronic speed control**, otherwise exactly as mains adapter NG 2/E.

NO 28 706

## MICROMOT mains adapter NG 5/E

## With superior capacity of 5A. In compact NORYL casing (heat resistant – recommended for transformers).

Variable speed control with feedback effect for optimum tool speed and high torque at low speeds. Three polarised sockets for MICROMOT machines. A pair of sockets for standard banana plugs (4mm diameter) is also supplied. Master switch for turning off the transformer without needing to unplug. Red LED indicates 'ready'. PTC (Positive temperature coefficient) protection against overload (plugged in machine will not restart automatically. After cooling down, the mains plug should briefly be unplugged to reset the adapter). With storage holes for tools with 2.35mm and 3mm shafts. Foldable tool rest for the MICROMOT tool.

### **Technical data:**

220 – 240V. Supplies 5.0A at 16 Volt open circuit and 12 Volt under load. Weight 2,000g. Class 2 insulation.



## The KT 70, small and accurate. Ideal for drill stand MB 140/S and drill press TBM 220.

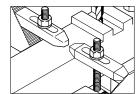
### MICRO compound table KT 70

Made of solid aluminium with surface treatment and fitted with adjustable dovetail gibs and three T-slots of the MICROMOT standard (12 x 6 x 5mm). Adjustable ruler eases workpiece positioning. Both handwheels have zero-resettable dials with graduations indicating 1 revolution = 1.0mm and 1 division = 0.05mm. The clamps and securing bolts for the MB 140/S and TBM are included.

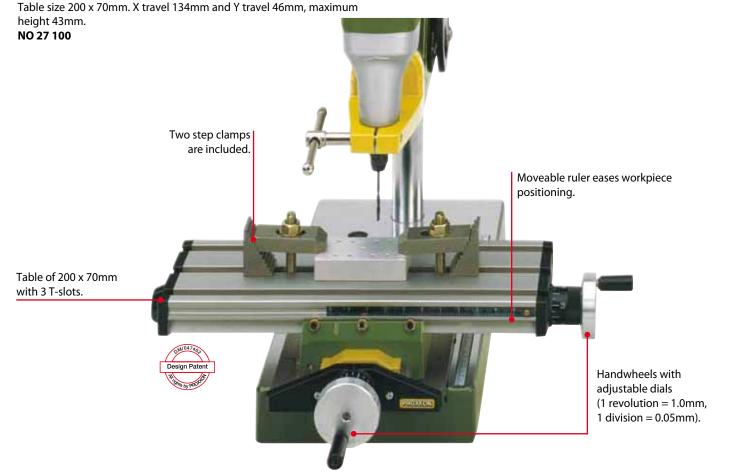
Other technical data:

### Step clamps made of steel

The step clamps set is supplied with the KT 70, but can also be ordered separately. Set consists of 2 stepped blocks and clamps, T-slot nuts of the MICRO-MOT standard (11.5 x 11 x 4mm), bolts. This set also fits the mill/lathe systems PD 230/E and PD 400.



NO 24 256





## Precision vice FMZ with integrated clamp

### Rotates in all directions. Made of die-cast zinc.

Easily clamps to workbenches and tables of up to 60mm. Alternatively, use 2 standard screws to secure to the work surface. Ball and socket: rotates in all directions (even downwards). 75mm jaws with protective covers (for delicate workpieces). Maximum clamping width 70mm and weight 1.6kg.

NO 28 608

## **Precision vice FMS 75**

### As detailed above, but without clamp.

A strong suction cup facilitates instantaneous fixing to any smooth, flat surface.





# The MB 140/S offers fine feed via the drive disc and ball-bearing drive.

### **MICROMOT drill stand MB 140/S**

## Solid steel column (280 x 20mm). Sturdy arm of die-cast aluminium.

Table 120 x 220mm (flat-milled). Adjustable limit stop with scale. Throat capacity (column inside to centre of tool) 140mm. Travel 30mm. Chrome-plated feed lever operates via drive disc and ball

bearing system, offering a sensitive feed set-up.

Slotted guides and fits and pinch screws allow simple height adjustment as well as the fixing of the mill/drill units (standard 20mm collar).

The mill/drill collar, with scale, tilts through 90° in both directions.

A depth stop as well as drilled, tapped holes for securing the MICRO compound table KT 70 and holes to fix the drill stand itself are also provided.

NO 28 606



Our technicians prefer the use of die-cast aluminium as it is clean and stable. All fittings and feeds are machined on our ultra-modern CNC machines, i.e. milling, turning, etc. Pure precision!

### Machine vice MS 4

**Die-cast zinc.** With three machined sides. The slot fits the adjustable fence of the drill stand MB 140/S and bench drill TBM 220. Horizontal and vertical V-slots in jaw. <u>Jaw width 50mm and height 10mm. Maximum clamping width 34mm.</u>

NO 28 132



### Universal holder UHZ

### With ball joint. To be rotated and swivelled in all directions.

20mm collar for MICROMOT drilling and milling devices, such as FBS 240/E, FBS 12/EF, IB/E, LB/E, MICROMOT 50, 50/E and 50/EF. Made of die-cast ZINC. With clamp for quick and secure fastening to workbenches and table tops up to 60mm thickness. Alternatively, it can also be fixed to any workplace with 2 standard screws.





# An accurate device for parallel drilling, thread-cutting and milling. Made in high-precision aluminium die-casting.

### BV 2000 drilling device



## With two-way pivotable articulated arm and 20mm standard collar.

Once the device is clamped, it can be guided very precisely both sideways and vertically across the entire working area. It always remains vertically aligned. This means that, e.g. drill holes are always exactly perpendicular to the work piece surface! Preselectable drill depth using depth control with easy-to-read scale. After drilling, an adjustable spring automatically pulls the device back into its top rest position. Flat-milled, solid base plate with 200 x 200mm usable table area and two continuous T-slots. Stable drill column (Ø 45mm, 500mm long).

The standard 20mm collar enables the precise clamping of the drilling devices, such as the precision drill/grinder FBS 240/E, professional drill/grinder IB/E, long-neck straight drill/grinder LB/E, MICROMOT 50, 50/E and 50/EF.

#### NO 20 002

#### Note:

Professional drill/grinder IB/E and step clamps are not included in the package.

## Protective device for hand-operated MICROMOT machines with standard 20mm collar

For work with saw blades, cutting discs, milling bits, grinding tools, steel brushes and polishing tools. Maximum useable



tool diameter 22mm. Easy to assemble.

### NO 28 944

## **Edge milling attachment KAVO**

## For all machines with MICROMOT standard 20mm collar.

For chamfering and bevelling inside and outside edges of wood, plastic and metal work pieces. Also suited for glass and ceramics when using suitable accessories.

A 20mm flange on the KAVO enables stationary use in conjunction with the universal holder UHZ. Cylindrical milling bits up to a maximum 10mm diameter can be used in the central position (45°). The angle can be adjusted on both sides by 15°. For bevels from 30° to 60°.

Differently shaped milling bits can also manufacture round edges, hollow edges, chamfers for seals (example: ball-milling bit for O-ring seals).

For hand-held MICROMOT machines with 20mm standard collar, such as the precision drill/grinder FBS 240/E, professional drill/grinder IB/E, longneck straight drill/grinder LB/E, MICROMOT 50, 50/E and 50/EF.





Precision parallel limit stop. Adjustable, for different chamfering widths and depths.



The parallel limit stop is removed when working on round or curved work pieces. The remaining cylinder is used as limit stop.