

System

Tools with character!







Performance at its best! The torque makes the difference! The smart alternative with keyless chuck.

The Precision Rotary Tool FBS 115/E – with soft grip two-component housing for comfortable handling and optimal control.

1001 uses for drilling, milling, grinding, polishing, brushing, de-burring, rust removal, engraving, carving and cutting. A special motor technology (no replacing of brushes necessary) with full-wave electronic speed control allows for powerful operation with constant torque, even at low speeds! This feature is especially important when micro-drilling, brushing and polishing on delicate materials (e.g. plastics, etc.).

The extremely balanced motor, which makes the tool run smoothly and vibration-free, as well as low weight and the improved ergonomic design with the soft-grip two-component material allow for optimal control while working. The spindle runs in a precision ball bearing. A button locks the spindle for an easy exchange of bits. The keyless precision chuck allows for quick exchange of all accessories with shanks from 0.3 – 3.2mm (Ø1/64" to Ø1/8"). The tool's 20mm (4/5") standard collar makes it fit easily into all other useful MICROMOT accessories, such as drill stands and vices, making this Precision Rotary Tool even more versatile.

Technical data:

Speed 5,000 – 20,000rpm

Keyless Chuck for shanks from 0.3 - 3.2mm (1/64" - 1/8")

Max Power 100W (1/8hp)
Volts 110 – 120V AC, 60 Hz
Length 220mm with chuck (8 1/2")

Weight 450g (1 lbs)

NO 38 472







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

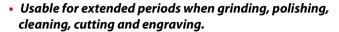


Our website <u>www.proxxon.com/us</u> offers an instructional video for the articles marked with this symbol. Come have a look!



Compact precision machines with aluminum die-cast head. True one-hand-operation tools. Quiet, precise and efficient!

Professional Rotary Tool IBS/E



 Ideal for mechanics, model builders, jewelers, opticians, artists and electronic enthusiasts.













Complete with 34 bits and cutters of industrial quality with shanks of 2.3mm (3/32") and six steel collets sized 1-3.2mm (1/32" -1/8") as well as a collet nut.

This high-revving motor has full-wave electronic speed control capable of producing variable speeds between 5,000 and 20,000rpm and is usable for extended periods at a time producing an exceptional power/weight ratio. The streamlined die-cast aluminum head provides a stable housing for the ground steel spindle. It runs in a double ball bearing assembly, minimizing play (max. runout 0.001").

The tool comes with six high concentricity collets sized 1, 1.5, 2, 2.4, 3 and 3.2mm (1/32", 1/16", 5/64", 3/32", 7/64" and 1/8") along with a collet nut as well as a selection of 34 industrial quality bits and cutters with shanks \emptyset 2.3mm (3/32").

Technical data:

 Speed
 5,000 – 20,000rpm

 Volts
 110 – 120V AC, 60Hz

 Max Power
 100W (1/8hp)

 Length
 230mm (9")

 Weight
 500g (1.2 lb)

NO 38 481

MICROMOT Steel Collet Set

Fits all MICROMOT machines, except the engraver GG 12.
One each in size 1,1.5,2,2.4, 3 and 3.2 mm (1/32", 1/16", 5/64", 3/32", 7/64" and 1/8") come as a set in a practical holder for storage along with one clamping nut.

NO 28 940







All depicted tools are supplied in a 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.

NOTE: The collet makes a big difference!

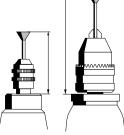
MICROMOT steel collets are hardened and have a high, consistent flexibility so that they maintain their accuracy, even if used regularly.
 The triple slit collet offers a substantially better load

bearing surface than the easier to produce four-slit type.
This is especially important for cutters
with small shank diameters.



NOTE:

Quality, triple-slit hardened steel collets are ideal for optimum concentricity and tightening force. Furthermore, bits and cutters may be fitted close to the chuck. This is especially important when sanding, routing and milling as side play is minimized.





The long slim die-cast head makes these sanders preeminently versatile!

Longneck Angle Grinder LHW/E





This light, compact and user-friendly unit is the real alternative to pneumatic tools for grinding, deburring, roughing, finishing – wherever working in tight spaces. It is also great for paint and rust removal, cutting small components and sharpening tools.

The powerful permanent magnet motor has a high lifetime and performs with high torque.

Technical data:

Volts 110 – 120V AC, 60Hz Max. Power 100W (1/8hp) Speed 3,300 – 13,000rpm Length 290mm (11 13/32") Weight 550g (1.2 lbs)

Disc Ø 50mm (2"), bore: 10mm (13/32")

Complete with one aluminum-oxide grinding disc (60 grit), one flap disc (100 grit) and one aluminum-oxide cut-off wheel.

NO 38 544



Flap Disc for LHW/E

The flap disc is made from aluminum-oxide with a high stock removal rate and is ideal for grinding and smoothing of cast iron, gray cast iron, stainless steel, steel, non-ferrous metal, wood and plastic.

NO 28 590 (100 grit) **NO 28 591** (240 grit)



Corundum Bound Cut-Off Wheel for LHW/E

Ideal for cutting steel, non-ferrous metals, smaller plastic and wooden bars.

NO 28 155 5 pieces



Corundum Grinding Disc for LHW/E

Ideal for grinding, deburring, sharpening, rust removal and roughing of steel and non-ferrous metal.

NO 28 585 (60 grit)



Tungsten carbide rasp- and cutting disc

High stock removal in wood and soft materials. Cranked design for convenient shaping and modelling in wood, gypsum and horn (animal hooves). Less heating up due to cooling holes.

Ø 50mm with 10mm bore.

NO 28 559



Silicon-Carbide Grinding Disc for LHW/E

Ideal for grinding, deburring, sharpening, rust removal and roughing of stone, glass, ceramics and other very hard materials.

NO 28 587 (60 grit)



Diamond-coated cutting disc

For fine cuts in hard materials such as glass, porcelain, ceramics and stone. Less heating up due to cooling holes.

Ø 50 x 0.6mm. With 10mm bore.

NO 28 558



Disc with tungsten carbide burrs

Carving wheel with needle-like tungsten carbide teeth. Ideal for carving and sculpting, roughing and finishing in wood plastics and fiberglass.

Smooth cutting and excellent control. Maximum 15,000rpm. Do not use on metal!

NO 29 050



Diamond-coated cutting and roughing disc

For cutting, grinding and roughing of hard materials such as glass, porcelain, ceramics and stone. Less heating up due to cooling holes. Ø 50 x 1mm. With 10mm bore.



Precision equipment for sanding. Small and comfortable. Die-cast aluminum heads.

Belt Sander BS/E









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

The belt arm itself is adjustable within an angle of 60° by the push of a button on the head.





A light, compact and user-friendly unit that makes sanding in tight spaces more convenient. Used in modeling, sculpturing, tool- and die-making or the automotive sector.

The belt sander has a speed control for variable speeds from 225 - 450m/min. (12 - 25 ft/s), which enables work on many different materials, such as wood, metal or plastic. It can be used for grinding and enlarging small openings, grinding in notches, regrinding moulds or polishing (flat surfaces).

It is also great for deburring, rounding edges or removing paint. Recentering or tilting the belt is easily done with a screwdriver.

Backing Disc for LHW/E

Hook and loop type, for use with sanding discs and sanding fleece.

NO 28 548



Corundum Sanding Discs for LHW/E

Hook and loop type, used on flat and convex surfaces.

NO 28 549 80 grit set of 12 NO 28 550 150 grit set of 12



Technical data:

Volts 110 - 120V AC, 60Hz Max. Power 100W (1/8hp)

Belt Speed 225 - 450m/min (12 - 25 ft./s)

Length 350mm (13 3/4") Weight 650q (1.4 lbs)

Belt Size 330 x 10mm (13" x 13/32") Comes with two 80 grit and two 180 grit sanding belts.

NO 38 536



Sanding Fleece for LHW/E

Hook and loop type, used for cleaning, matting and sanding of steel, stainless, steel, non-ferrous metals. Also used for paint removal.

NO 28 554 medium set of 5 NO 28 555 fine set of 5





The sets LHW/E and BS/E are supplied in a 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 Sanding Belts for Belt Sander BS/E

Made from high-quality aluminum-oxide on tough, woven, lightweight cloth backing. For sanding metal, non-ferrous metal, wood and plastic.

NO 28 581 180 grit set of 5 NO 28 582 120 grit set of 5 NO 28 583 80 grit set of 5

Silicon Carbide Sanding Belt

for use on glass, ceramics, brass, steel and cast iron.

NO 28 579 180 grit set of 5



The long slim die-cast head makes these sanders preeminently versatile!

Delta sander OZI/E



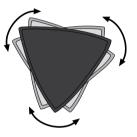






Head of die-cast zinc, ensuring exact and stable housing for the moving parts.

Sanding area 65 x 65 x 65mm (2 1/2" x 2 1/2" x 2 1/2") with hook & loop pads allows quick changing. The oscillating motion ensures lack of vibration and kickback and allows the fitting of cutting blades too!



Small yet efficient sander!

For grinding surfaces in very tight spots, e.g. corners, sides and inaccessible areas. The oscillating motion ensures quiet operation and also facilitates cutting, plunge cuts and filing. The variable speed facility ensures the correct speed for every material. Special, balanced, low noise DC motor with high life expectancy. Main housing of glass-fibre reinforced POLYAMIDE. Supplied with an HSS plunge saw blade (width

14mm) for square precision cuts in wood, plastics and aluminum as well as 10 each sanding pads of 80, 150 and 240 grit. Packed in a storage case of high-grade POLYPROPYLENE.



Technical data:

Volts 110 – 120V AC, 60Hz Max. Power 100W (1/8hp)

Speed 3,000 – 10,000 oscillations/min.

Length 230mm (9") Weight 550g (1.2 lbs)

Sanding plate dimensions 65 x 65 x 65mm (2 1/2" x 2 1/2" x 2 1/2")

NO 38 520



The OZI/E cuts in areas where a rotating saw blade can no longer be used (in this case using the HSS separation blade.

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



Sanding pads for OZI/E



High durability aluminum oxide pads. Deposited on special backing paper. Hook & loop type.

 NO 28 891
 80 grit
 25 pieces

 NO 28 893
 150 grit
 25 pieces

 NO 28 895
 240 grit
 25 pieces



HSS plunge saw blades for OZI/E

For exact square excavations and other forms. For making hatchways and windows in ship and aircraft models. Cuts wood, ply-wood, plastics and aluminum. Max. plunge depth 16mm (5/8").

Saw blade width 8mm (5/16") **NO 28 897** Saw blade width 14mm (35/64")



Continuously variable speed control for low and constant speeds even at high contact pressure.

Angle Polisher WP/E







For perfect surfaces even in tight spots: Rotary motion for efficient polishing and for cleaning, rust removal and the "finishing touches" after varnishing.

Balanced special motor, powerful, quiet and long-lasting. Quiet planetary gear in diecast aluminium housing and continuously variable speed control (full-wave electronics) for low and constant speeds even during high contact pressure.

Main housing of glassfibre reinforced POLYAMIDE with soft component. Securely stored in stylish case made of high-grade polypropylene with original equipment for immediate use: Foam backing pad Ø 50 mm with hook and loop fastening, polishing sponge (medium hard), lambswool polishing disc, polishing felt (medium hard), 12 sanding discs K 2000, two-stage SONAX polishing emulsion for refurbishing paintwork (2x 25ml), as well as a microfibre cloth. **Technical data:**

110 – 120V. 50Hz. 100W (1/8 hp). 800 – 2,500rpm Length 270mm (10.6"). Weight 720g (1.6 lbs). Insulated to class 2.

NO 38 660

Packed in storage case, including extensive original equipment for immediate use.



Accessories for angle polishers WP/E and WP/A. Suitable for their original backing pad (Ø 50mm (2")). All for hook and loop quick fastening.

Foam backing pad:



With hook and loop fastening.

NO 29 098 Ø 50mm

Lambswool polishing disc



Of high quality, dense lambswool for polishing scratch-proof paints. With hook and loop fastening. Ø 50mm (2").

NO 28 664 2 pieces

Professional polishing sponges



For applying the polishing compound to painted and metal surfaces with subsequent polishing. With hook and loop fastening.

Ø 50 x 25mm (2" x 1").

 NO 29 092
 2 pieces
 soft (black)

 NO 29 094
 2 pieces
 medium (yellow)

 NO 29 096
 2 pieces
 hard (white)

Super-fine sanding discs



Of silicon carbide. For adding finishing touches to paint or removing varnish runs and inclusions. With hook and loop fastening. Ø 50mm (2").

NO 28 667 12 pieces grit 400 NO 28 668 12 pieces grit 1,000 NO 28 670 12 pieces grit 2,000

Polishing felt, medium hard



For polishing metals (e.g. stainless steel, brass and copper). With hook and loop fastening. Ø 50mm (2").

NO 28 666 2 pieces

Professional set for finish grinding and polishing. Includes 80mm (3.15") extension and 30mm (1.2") backing pad (for hook and loop quick-fastening).

For repairs and work in tight places, e.g. on motorcycles, rims, car interior and engine compartment. 80mm (3.15") extension to reach deeplying problem areas. In addition to the extension and 30mm (1.2") foam support plate, the scope of supply includes wave edged sanding discs each 12 pcs. 1,000 and 2,500 grit as well as conical polishing sponges each one hard, medium and soft.





Precison equipement for cutting. Small and comfortable.

Super jig saw STS/E







This tool offers fantastic cutting capacity with the footplate adjustable up to 45 degrees for mitre cuts. The gear head is made of die-cast aluminum. The stroke speed is variable by means of full wave electronic speed control. Ideal for tight curves in wood (up to 12mm/1/2"), non-ferrous metals (up to 3mm /1/8") and plastics.

Volts: 110 – 120V AC, 60Hz Speed: 2,000 – 4,500 strokes/min

Max power: 100W (1/8hp)
Overall length: 230mm (9")
Weight: 700g (1.54 lbs)

NO 38 530

TENAN MARKUN

Jig Saw Blades. Special steel

Pitch of 1.5mm (1/16"), teeth ground & set. Usable on hard & soft woods, plywood, fiber-glass reinforced sheets as well as various plastics. Ideal for tight curves and clean cuts. For use with jig saws STS 12/E and STS/E.

NO 28 054

Pack of 2

Jig Saw Blades. HSS

Tooth pitch of 1.06mm (3/64"), with teeth set & ground. Usable on metals, aluminum and softer alloys, fiberglass, Plexiglass and insulating materials. For use with jig saws STS 12/E and STS/E.

NO 28 056 Pack of 2



The set STS/E is supplied in a 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.

MICROMOT Tool Clamp

For stationary use of MICROMOT hand-held tools.

Whenever working free hand is difficult or dangerous, here is the solution for the stationary use of MICROMOT hand-held tools. With a tough fiberglass reinforced construction, this tool clamp perfectly fits around the body of our hand-held tools with aluminum-die cast head such as Professional Rotary Tool IBS/E (38 481), Longneck Angle Grinder LHW/E (38 544), Belt Sander BS/E (38 536) and Detail Sander OZI/E (38 520), Angle Polisher WP/E (38 660) as well as our Jig Saws STS 12/E (28 534) and STS/E (38 530).

The tool clamp is easily clamped via two flaps in a vice (we recommend our Precision Vice FMS 75 or Precision Vice with Clamp FMZ).







This tool takes the work out of your carving projects.



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

It is also possible to process plaster. Special, balanced, low noise DC motor with extreme high life expectancy. Gear head made of die-cast aluminum. Main housing of fiberglass reinforced POLYAMIDE. Three high-grade Japanese knife inserts made from bimetal (U-shape, Vshape and flat blade) are included.

Technical data:

10,000 cuts/min. Speed Max. Power 50W (1/10 hp) Volts 110 – 120V AC, 60Hz Overall length 230mm (9") w/o knife Weight 680g (1.5 lbs)

NO 38 644

Replacement Carving Blades

High quality laminated steel (bimetal) blades in V shape, large and small gouge, flat with straight and rounded cutting edge. All 5 to a set. For carving and detailing wood (all types), plaster of Paris, aerated concrete, linoleum. Also for removing fine layers of paint or finish.



NO 28 572



Profiled Sharpening Stone

Pure oilstone for a razor sharp cutting edge. With pre-profiled surface for easy sharpening and reshaping all carving knives in the PROXXON program (see above). Approx.dimensions 100 x 63 x 15mm (4" x 2 1/2" x 5/8").



NO 28 578



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 LHW/E Long-neck Angle Grinder. Details on page 4.





The Power Carver MSG is supplied in a high-grade POLYPROPYLENE storage case. It is attractive, extremely stable and sufficiently large to enable the machine to be replaced in it after completion of the work without fiddly refitting. A clear label on the side identifies the contents.











Four power tools - one system!

High quality 10.8V lithium-ion battery with 2.6Ah for highest performance.

All tools with continuously variable speed control and special

 Gear head of die-cast aluminum. Main housing of glass-fibre reinforced POLYAMIDE with soft component in grip area.



craft and industry: For professional use. Slim, powerful tools to get your hands on! mum power. No other cordless tool lasts longer in this class!

All cordless tool sets come safely packed in a practical, attractive and super-sturdy plastic case made from high-quality PP.

A product label on the side of the case details its contents.

The MICROMOT lithium-ion battery system:





Managed Manage

Practical:The flat end cap of the battery enables the tools to stand upright as well.

Rapid battery charger LG/A2

One battery and one rapid charger for four professional tools:



Charges the PROXXON lithium-ion battery Li/A2 in one hour. With integrated temperature control.

LED signal light: Yellow = charging, Green = charged.

Technical data:

Input 100 – 240V AC, 50/60Hz. Output 12.6V, 2A. Weight approx. 340g (0.75 lbs).

NO 39 880

Lithium-ion battery Li/A2



For long and durable powerful operation of our MICROMOT cordless tools. With integrated temperature control for safe operation.

Technical data:

Voltage 10.8V. Capacity 2.6Ah. Length 85mm. Weight 180g (0.4 lbs).

NO 29 896

For several decades we have been producing high quality fine power tools for the MICROMOT system in Wecker/Luxemburg.





Compact and powerfull tools made in Europe.



Cordless professional drill/grinder IBS/A







For drilling, milling, grinding, polishing, cleaning, cutting and engraving.

Double-row ball bearing, precision spindle of ground steel and six triple slit MICROMOT steel collets 1-1.5-2-2.4-3 and 3.2mm (1/32", 1/16", 5/64", 3/32", 7/64" and 1/8") ensure high concentric accuracy. Bits and cutters run true. With 20mm MICROMOT collar for use in drill and horizontal stands. With 34 bits and cutters (see IBS/E, page 3). Set includes lithium-ion battery Li/A2 (10.8V) and rapid battery charger LG/A.2

Technical data:

 $10.8V.\ 7,000 - 23,000$ rpm. Length 270mm (10.6"). Weight approx. 700g (1.54 lbs) (including battery).

NO 39 800

Cordless professional drill/grinder IBS/A

As described on the left, with 6 MICROMOT steel collets. <u>But without battery, rapid charger and bits and cutters.</u> Packed in a cardboard box. **NO 29 802**

Cordless long neck angle grinder LHW/A



For working on steel, non-ferrous metal, glass, ceramics, wood and plastic. For cutting, roughing and grinding.

Supplied with corundum grinding disc (60 grit), fan sander (100 grit) and reinforced cutting disc. Set includes lithium-ion battery Li/A2 (10.8V) and rapid battery charger LG/A2.

Technical data:

10.8V. 5,000-16,000rpm. Discs Ø 50mm (2") with 10mm (13/32") bore. Length 320mm (12.6") . Weight approx. 800g (1.8 lbs) (including battery). **NO 39 815**

Cordless long neck angle grinder LHW/A

As described on the left, also including listed accessories. <u>But without battery and rapid charger</u>. Packed in a cardboard box.

NO 29 817

Note:

You will find a wide range of suitable accessories for all cordless tools on the pages of the corded sister tools (3, 4, 6 and 7).



Problemsolvers for Industry and Fabrication.

Cordless belt sander BS/A



For grinding of small openings, finishing of moulds, surfaces, radii, grooving, deburring and chamfering of precision parts.

The head rotates through 60° at the push of a button. Suction connection with vacuum cleaner adapter enables clean working. Supplied with 4 sanding belts (2 pieces each grit 80 and grit 180). Set includes lithium-ion battery Li/A2 (10.8V) and rapid battery charger LG/A2.

Technical data:

10.8V. Sanding belt 10 x 330mm (13/32" x 13") (usable sanding area 10×110 mm (13/32 x 4.3")). Sanding speed 200 - 700m/min. Length 380mm (15"). Weight approx. 900g (2 lbs) (including battery).

NO 39 810

Cordless belt sander BS/A

As described on the left, with 4 sanding belts. <u>But without battery and rapid charger.</u> Packed in a cardboard box.

NO 29 812

Cordless angle polisher WP/A



The mobile version of our already proven corded tool for more flexibility when polishing, cleaning, rust removal and adding the "finishing touches" after varnishing.

With plenty of accessories such as:foam backing pad Ø 50mm with hook and loop fastening, polishing sponge (medium hard), lambswool polishing disc, polishing felt (medium hard), 12 sanding discs K 2000, two-stage SONAX polishing emulsion for refurbishing paintwork (2x 25ml), as well as a microfibre cloth. Set includes lithium-ion battery Li/A2 (10.8V) and rapid battery charger LG/A2.

Technical data:

10.8V DC. Spindle speeds 1,100 - 2,800rpm. Length 305mm (12"). Weight 950g (2 lbs) (including battery).

NO 39 820

Cordless angle polisher WP/A

Including accessories as described on the left, <u>but without battery and rapid charger.</u> Packed in a cardboard box.

NO 29 822



Rotary Tools MICROMOT 60, 60/E and 60/EF – perfect for milling, drilling, routing, polishing, cutting, cleaning, brushing, deburring, sawing, engraving, carving, etc.





MICROMOT 60 and 60/E

These two lightweight high precision tools in a pen style design (Ø only 35mm (1 3/8")) are ergonomically formed to allow comfortable handling and optimal control. Their quietness and effortless, vibration-free drive via the special permanent magnet motor, the ground spindle and collar bearing all contribute to the ergonomic design. An efficient cooling system facilitates extended use under various load conditions. Both tools are useable on any workable material e.g. steel, precious metals, wood, glass, ceramics, plastics, precious stones. They are ideal for model builders, woodcarvers, jewelers, opticians, artists, dental technicians, tool and die makers, etc.



Rotary Tool MICROMOT 60/E

A specially balanced motor makes this tool run very smoothly at variable speeds from 5,000-20,000rpm (no load). It comes with 6 high precision triple slit steel collets in sizes 1-1.5-2-2.4-3 and 3.2mm (1/32" -1/16" -5/64" -3/32" -7/64" and 1/8") which ensure accurate clamping of the bits for highest concentricity and the precision you need for finest work pieces. Weight: 230g (1.2 lbs), length: 220mm (8 21/32"). Low voltage for optimal safety, 12V DC, max 40W input. As power supply source we recommend MICROMOT transformers of at least 1A.

NO 28 510

Rotary Tool MICROMOT 60

Same as 60/E, except without speed control. Load speed is 20,000rpm. If you run this machine while using our transformer NG 5/E as power supply, speeds are adjustable betweeen 5,000 and 20,000rpm via the speed control on the work station (see page 18).

NO 28 500



MICROMOT extension cord. 300cm (10 feet).

For all 12V machines. Plug and receptical reverse polarity-protected.

NO 28 992

MICROMOT 60/EF

With quick-action chuck. Practical for use with multiple shank diameters.

Slim, easily handled and light. Quick-action chuck and electronic speed control, with feedback effect (high torque at low rpm's). Specialty balanced, low noise DC motor with high life expectancy. A transformer is required for operation. We recommend MICROMOT network devices from 1A.

Technical data:

Direct voltage 12 – 18V. Power absorption up to 40W input. 5,000 – 20,000/min. Length: 220mm (8 21/32"). Weight: 230g (0.5 lbs).

NO 28 512



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

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

Quick-action chuck will accept 0.3 – 3.2mm (1/64" – 1/8") shanks. Primarily advantageous when working with HSS drill bits of different sizes.



The ideal starter set for all engraving applications.

Complete Model Building and Engraving Set.
The right choice for creative hobbyists and model makers.

The rotary tool MICROMOT 60/E (as described on page 12) comes in this set with 6 high precision triple slit steel collets in sizes 1-1.5-2-2.4-3 and 3.2mm (1/32" -1/16" -5/64" -3/32" -7/64" and 1/8") which ensure accurate clamping of the bits for highest concentricity and the precision you need for finest work pieces.

This kit includes a transformer (12 –18V, 1A) and a selection of 34 useful bits (1 diamond grinding bit, 1 fine cutter, 0.5 and 1mm (1/64" and 1/32") micro-drills, 1 brass brush, 4 aluminum-oxide grinding bits (cylinder, sphere, disc and cone shaped), 1 polishing pad, 4 grinding wheels 22 x 3mm (7/8" x 7/64"), 2 each aluminum-oxide and silicon carbide, 20 cutting discs and 1 mandrel. A neat storage solution!

NO 38 515



With engraver GG 12, trial glass, patterns and all necessary bits to start right away.

The engraver GG 12 spins at 20,000 rpm, yet weighs only 4 ounces! It allows for easy control and thus very safe operation featuring a touch sensitive switch for easy use and a simple push in/pull out shaft holder for easy accessory changeover (shaft capacity Ø 2.35mm (3/32") only). The set includes: Engraver GG 12, transformer (12 –18V, 0.5A) trial glass and four bits: two spherical head diamond grinding bits Ø 1mm (1/32") and Ø 1.8mm (5/64") for engraving and line work, two silicon carbide grinding bits (conical and bullet shape) for shading and frosting, one corundum grinding bit in ball and cylinder shape for grinding and engraving (all shanks 2.35mm (3/32")) as well as a bit holder usable for holding MICROMOT rotating bits. The bits are also optimal for working on metal, stone, shell and other hard materials.

Engraver GG 12

NO 38 635



Fast rotary action for effective engraving work

The unit (as described above) is also available by itself and comes with 1 diamond bit with spherical head size 1.8mm (5/64"). Engrave for hours without fatigue.

NO 28 592





Footswitch FS

This attachment frees your hands for easy on/off operation. To be used for all machines with a maximum power consumption of 500W (5/8hp). The switch has a housing



of glass-fiber-reinforced nylon. The connecting cord is 250cm (3ft 21") in length and the output cord is 50cm (19.5").

Ideal for both portable and stationary machines. If you are working with our 12V hand-held machines, the Footswitch FS is connected to the transformer.

NO 38 700



Precision Drill Grinder FBS 12/EF

For precision drilling, milling, sanding, polishing, brushing, rust removal, engraving and cutting.

Includes keyless chuck capacity 0.3 – 3.2mm (1/64" – 1/8"). A precision ball bearing minimizes spindle side play. Spindle lock button for bit changing eliminates the need for spanners. Recessed spindle head for inserting MICROMOT steel collets (see page 3). Special, balanced, low noise DC motor with high life expectancy. Variable speed control with feedback effect (high torque at low rpm's). Housing of glass-fibre reinforced POLYAMIDE.

Technical data:

Direct voltage 12 - 18V. Maximum power consumption 100W. Speed 3,000 - 15,000rpm. Length 185mm (7.3"). Weight 450g (1lbs). We recommend the use of MICROMOT transformers of at least 2A (see page 18).

NO 28 462

Note:

For operating this unit we recommend PROXXON MICROMOT power supplies NG 2/S and NG 5/E or other power supply units with a minimum capacity of 2 A (24VA).



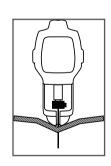
Jig Saw STS 12/E

For curved cuts in wood, corrugated boards, plastics and non-ferrous metals. Also ideal for gourd carving.

This very lightweight and powerful 12 volts machine is ideal for curved cuts in wood up to 10mm (3/8"), circuit boards up to 3mm (7/64") and non-ferrous metals up to 2.5mm (3/32") thickness. Its weight makes it easy to handle and thus allows for precise control of the cutting action.

The specially balanced powerful permanent magnet motor with electronic speed control ensures variable speeds between 2,000 – 5,000 strokes/min., 100W, stroke: 6mm (15/64"). With additional, rounded foot for cuts on rounded surfaces and clean interior cuts. Is exchanged for the normal saw table by unscrewing a screw. Ideal for gourd carving. Includes 2 saw blades (coarse and fine).







Jig Saw Blades. Special steel.

Pitch of 1.5mm (1/16"), teeth ground & set. Usable on hard & soft woods, plywood, fiberglass reinforced sheets as well as various plastics. Ideal for tight curves and clean cuts. For use with jig saws STS 12/E and STS/E.

NO 28 054 Pack of 2

Jiq Saw Blades. HSS.

Tooth pitch of 1.06mm (3/64"), with teeth set & ground. Usable on metals, aluminum and softer alloys, fiberglass, Plexiglass and insulating materials. For use with jig saws STS 12/E and STS/E.

NO 28 056

Pack of 2



Superfine sanding, shaping or sawing - select the right tool for you!

Pensander PS 13





This superfine sander with linear sanding motion (versus rotary or orbital) operates at 8,000 strokes per minute with a 2.5mm (3/32") stroke. It is ideal for surfaces, slots and tight corners. Included are four sanding attachments with straight shanks and 4 with angled shanks (four different shapes per shank style) as well as 3 sheets of pre-profiled adhesive sanding pads. The sheets are 180, 240 and 400 grit with 5 of each shape per sheet.

NO 28 594

Replacement Sandpaper for the PS 13

Three sheets, each with 20 pads (5 each of the four shapes, adhesive).

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

MICRO Screwdriver MIS 1, complete with 16 bits With pre-selectable torques of 0.35 – 2Nm (0.26 – 1.48 lbs ft).



Small, light and easy to handle. An ideally positioned rocker switch provides on/off/reverse. A 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 0.35-1Nm (0.26-1.48 lbs ft) (the sixth stage bypasses the clutch and yields approx. 2Nm (1.48 lbs ft)). Length 200mm (8"). Weight 415g (0.9 lbs). We recommend the use of MICROMOT mains adapters of at least 2A.

NO 28 690



Note:

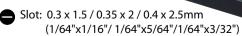
An AC adapter of at least 12 – 18V DC and 1A is required. We recommend PROXXON power supplies NG 2/S or NG 5/E. The electronic speed control on the NG 5/E unit allows the selection of different speeds for different applications and materials.

NOTE:

For operating these unit we recommend PROXXON MICROMOT power supplies NG 2/S and NG 5/E or other power supply units with a minimum capacity of 2A (24 VA).

Designed for industrial use.

The MIS 1 is the ideal tool for torques up to 18 in lbs. It is preferred over the compressed air types because of less costly running expenses, but also for its quietness and cleanliness. The highly flexible cord makes it easy to use. The MICRO Screwdriver MIS 1 is eminently suitable to cut threads!



Phillips: Size 0 and 1

TX: T6, T8, T10

Allen key, internal: 3 – 3.5 – 4 – 4.5 – 5mm

Allen key, external: 1.5 – 2 and 2.5mm



MICROMOT AC voltage adapters - safe and efficient power sources for hand held 12 volt PROXXON machines, with practical tool rest.

MICROMOT AC Adapter NG 2/S



These transformers are the optimal power source for these fine PROXXON tools:

- MICROMOT 60, 60/E and 60/EF (page 14)
- Pen Sander PS 13 (page 17)
- Jig Saw STS 12/E (page 16)
- Engraving Tool GG 12 (page 15)
- Precision Drill Grinder FBS 12/EF (page 16)

NOTE

Power consumption of portable machine tools is measured according to the internationally accepted IEC-60745-1 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 AC adapters are suitably dimensioned for

the recommended purposes.

Very compact design. Noryl casing is heat resistant;a necessity for transformer enclosures. Capacity 2A at 16 Volt open circuit - and 12 Volt under load = 24VA (DC). Primary supply 110 – 120V. Polarized socket for MICROMOT plug. Red LED indicates readiness for use. PTC (Positive temperature coefficient) element prevents overload, plugged

in tool will not automatically restart. After cooling down, the AC wall plug should be disconnected briefly to reset the adapter. Modern design with holes for storing bits. Foldable tool rest provides a secure place for keeping the MICROMOT tool ready for use.

NO 38 706

MICROMOT AC Adapter NG 5/E

This workstation with electronic speed control comes in a compact Noryl casing (the material is heat resistant, recommended for transformers) and has a capacity of 5A at 16V no load and 12 Volt under load = 60VA (DC). Primary supply at 110 – 120V. The thyristor electronic control (with feedback) allows for optimum tool speed and high torque at low speeds.

The workstation offers three polarized sockets for MICROMOT machines, so that three different tools can be plugged in at a time. In addition the unit features one pair of sockets for standard banana plugs with 4mm (5/32") diameter. It provides a master switch for turning off the transformer without needing to unplug. The red LED indicates "ready". A PTC (positive temperature coefficient) element guarantees protection against overload, the plugged in machine will not restart automatically.

After cooling down, the AC wall plug should briefly be unplugged to reset the adapter. The unit comes in a very compact and practical design with storage holes to insert bits and cutters with shafts of 2.35 and 3mm (3/32" and 7/64"). The foldable tool rest keeps the MICROMOT tool ready for being used and standing by safely.



Of die-cast aluminum. With plane-milled bearing surface. For MICROMOT units with standard 20mm collar.

Router base OFV

Made of die-cast aluminum. With plane-milled work base. For use with all MICROMOT tools with 20mm (4/5") system collar.

For slotting, milling grooves and edges, chamfering. With edge guide max. throat of 150mm (5.9"), plus interchangeable circle guide. Adjustable depth stop with preselectable travel stroke. Ideal also as drilling guide for round parts using the prism in the work base.

NO 28 566



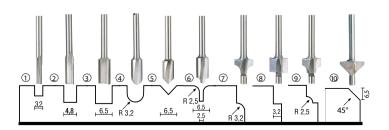
The wood router cutters offered here should only be used with tools that have a safety mechanism.



HSS wood router cutters

HSS wood router bits, with 3.2mm (1/8") shanks, inverse ground flutes and maximum speeds up to 30,000rpm in different profiles for optimal results.

① Straight Ø 3.2mm (1/8")	NO 29 024
② Straight Ø 4.8mm (3/16")	NO 29 026
③ Straight Ø 6.5mm (1/4")	NO 29 028
④ Core box Ø 6.4mm (1/4")	NO 29 030
⑤ V-groove 90° Ø 6.5mm (1/4")	NO 29 032
© Plunge Ø 6.5/2.5mm (1/4")	NO 29 034
② <i>Piloted</i> round over R Ø 3.2mm (1/8")	NO 29 036
	NO 29 038
	NO 29 040
Angle cutter R 45°	NO 29 044



10-piece HSS wood router cutter set

One each: Slot cutter Ø 3.2 – 4.8 and 6.5mm (1/8" – (3/16" and 1/4"), rounding over cutter Ø 6.4mm (1/4"), V-slot cutter Ø 6.5mm (1/4"), combi cutter 6.5/2.5mm (1/4"/3/32"), core box bit R 3.2mm (1/8"), rebating cutter 6.4mm (1/4"), edge cutter with pin 5mm (3/16"), angle cutter R 45. Neatly packed in wooden box.

Depicted rotary tool

and drilling bit are

not included in the scope of delivery.

NO 29 020





MICROMOT drill stand made of die-cast aluminum parts. With CNC-machined guides and fits. A world of difference.



MICROMOT drill stand MB 200

Head with dovetail guides can be tilted through 90° (scale ring available). Enables bevelled drilling and versatile milling operations.

Geared rack and pinion feed with return spring allowing effortless and sensitive operation. Practical drill depth scale with adjustable limit stop (maximum travel 40mm (1 1/2")). With standard 20mm (4/5") collar for MICROMOT drilling and milling devices. With solid, hard chromium-plated steel column 280 x 20mm (11" \times 4/5"), throat capacity (column inside to center of tool) 140mm (5 1/2").

Plane-milled table 220 x 120mm (8 11/16" x 4 3/4") with parallel limit stop and scale. Drilled, tapped holes for securing the MICRO compound table KT 70 and holes to fix the drill stand itself are also provided. Weight 2.2kg (4.5 lbs).

NO 28 600

Machine vice MS 4

Die-cast zinc.

With three machined sides. The slot fits the adjustable fence of the drill stand MB 200 and bench drill TBM 115.

Horizontal and vertical V-slots in jaw. Jaw width 50mm (2") and height 10mm (2/5"). Maximum clamping width 34mm (1 11/32").

NO 28 132



Flexishaft MICROMOT 110/P

with triple ball bearings for speeds up to 25,000rpm.

Two ball bearings in the turned light aluminum hand piece and one in the drive end prevent bits from chattering. The highly flexible shroud and core effortlessly transmit power without heating up even when bent tightly. Anti-kink springs at the grip and drive end. The flexishaft comes with 6 MICROMOT steel collets in sizes 1-1.5-2-2.4-3 and 3.2mm (1/32" -1/16" -5/64" -3/32" -7/64" and 1/8"). The drive shaft is 3mm (1/64") and so either fits our 3mm (1/64") steel collet or our chuck.



Flexishaft MICROMOT 110/BF PROXXON



As described above, but with 0.3-3.2mm (1/64"-1/8") keyless chuck. Practical when working with different shaft diameters.

NO 28 622

Universal Holder UHZ

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



Easily clamps to workbenches and tables of up to 60mm (2 3/8").

Alternatively, use 2 standard screws to secure to the work surface. The 20mm (4/5") bore accepts all MICROMOT drills and grinders.

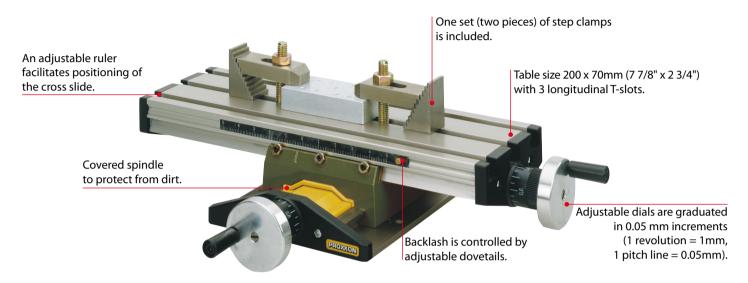




MICRO Compound Table KT 70

For precise milling, boring, drilling or grinding operations as well as positioning.





This high-precision cross slide table is the optimal attachment when working with the MICROMOT Drill Stand MB 200, the Bench Drill Machine TBM 115 or the Machine Vice MS 4. Step clamps for easy attachment on or below the above items come with the table. Of course, the table can also be used with other Drill Stands or Drill Presses.

The table is made from surface-treated aluminum, has three longitudinal T-slots and provides dual axes (lateral & cross) positioning via two hand wheels. The hand wheels have zero-resettable dials

graduated in 0,05mm (.002") increments (1 complete revolution of the hand wheel = 1mm (1/32"), 1 pitch line = 0.05mm (.002")). One set of step clamps is included.

Other technical data:

Table size: 200 x 70mm (7 7/8" x 2 3/4"), with 3 T-slots in size 12 x 6 x 5mm (15/32" x 15/64" x 13/64"). X-travel 134mm (5 9/32"), Y-travel 46mm (1 13/16"). Overall height: 43mm (1 11/16").

NO 27 100





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 (2 3/8"). Alternatively, use 2 standard screws to secure to the work surface. Ball and socket: rotates in all directions (even downwards). 75mm (3") jaws with protective covers (for delicate workpieces). Maximum clamping width 70mm (2 3/16"). Weight 1.6kg (3 1/2 lbs).

NO 28 608



Precision Vice FMS 75

As detailed above, but without clamp. A strong suction cup facilitates instantaneous grip to any smooth, flat surface.

NO 28 602





For engraving letters, numbers and individual shapes.

Engraving device GE 20

With standard 20mm (4/5") collar for all MICROMOT drilling and milling units which are equipped with steel collets.

For engraving letters, numbers and individual shapes on metal, plastics, glass or stoneware. For name plates, jewelry or valuable materials. Also easy to manufacture miniature, individual shapes, engravings, cut-outs and outline shapes, even in series, using self-made templates or commercially available templates (plants, animals, coats of arms). Guide bar (template holder) holds a maximum of 14 letters. Template contours are precisely to be followed using the guide marker (ball handle).

The lettering to be engraved is scaled down during transfer. The transfer ratio can be fixed at 2:1, 3:1, 4:1 or 5:1 by simply adjusting two screws. The work piece is aligned and fixed on the movable guide block with clamping jaws (here MICROMOT step clamp set NO 24 256) or a vice.

Scope of delivery:

two sets of letters from A to Z, incl. hyphen, full stop and slash (total 52 items), one each HX key 1.5 – 3 and 5mm as well as a HX (ball head) screwdriver 2.5mm. Complete with a comprehensive instruction manual.

NO 27 106

Solid carbide stylus for engraving device GE 20

For steel, cast steel, non-ferrous metal, plastic, glass, stoneware and tiles. Nose angle 60° (for V-shaped letters). Shaft diameter 3.2mm (1/8")

NO 28 765 Letter width 0.5mm (1/64")

NO 28 766 Letter width 1mm (1/32")



Professional drill/grinder IBS/E and clamping jaws are not included in the scope of delivery.

Stencil set for engraving device GE 20

Letters A - Z, incl. hyphen, full stop and slash. Also numbers 0 - 9. For use with guide bar of the GE 20.

NO 27 104

MICROFLAM Burner MFB/E - with piezo lighter

 $Super fine \ flame \ shape. \ Rechargeable \ with \ standard \ lighter \ fuel.$

For soldering, removing solder, brazing, heating of work pieces, baking and tinning. Ideal for model-building, electronics, jewelry design and repairs, dental laboratories, stained glass. The removable foot ensures stability on the worktop. Individually controllable gas and air supply. For finest flames and temperatures up to 2,192 °F/ 1,200 °C.

The tank contents of 50cc is sufficient for approximately 60 minutes operation with normal flame. For safety reasons the torch is delivered without gas.





Miniature screwdrivers for electronics, cameras, jewelry, mechanics and model builders.

MICRO-screwdrivers



Each driver has a fixed place in the practical holder. May be used as desktop stand or attached to wall. Blades of high alloy Nickel-Chrome-Molybdenum for maximum hardness and toughness. Chromed with brinelled tip. The ergonomically formed plastic handles are oil and impact resistant. The revolving top and finger mold improve ease of use. Fixed place for each item in the practical holder. May be used as desktop stand or fixed to a wall.

- Flat-blade: 1 x 50, 2 x 50, 3 x 50mm (.04" x 2", .08" x 1.6", .12" x 1.6")
- ♠ Phillips: PH 000 x 50, PH 0 x 50, PH 1 x 50mm (PH 000 x 2", PH 0 x 2", PH 1 x 2")
- TX 5 x 50, TX 6 x 50, TX 8 x 50, TX 10 x 50, TX 15 x 50mm (TX 5 x 2", TX 6 x 2", TX 8 x 2", TX 10 x 2", TX 15 x 2")
- Allen key: 1.5 x 50, 2 x 50, 2.5 x 50, 3 x 50 (metric)

NO 28 148 15 pieces in a stand



Note: It is important to use the MICRO screwdrivers with care and feel. The brute force associated with larger screwdrivers is best left for other tools. The revolving top and finger mould improve ease of use.

MICRO-Driver, 13-piece

Packaged in a practical zipper case for safe storage in the workshop or on the go.

Blades of high alloy nickel-chrome-molybdenum for maximum hardness and toughness. Chromed with burnished tip. The ergonomically formed 2-component plastic handles are oil and impact resistant. The revolving top and finger mould improve ease of use.

One tweezer for gripping small screws and small parts.

One MICRO-driver of each:

Flat-blade: 1 x 50 – 2 x 50

Phillips: PH 000 x 50 - PH 0 x 50 - PH 1 x 50
 TX: 5 x 50 - 6 x 50 - 7 x 50 - 8 x 50 - 10 x 50

HX: 1.5 x 50 – 2 x 50

NO 22 720

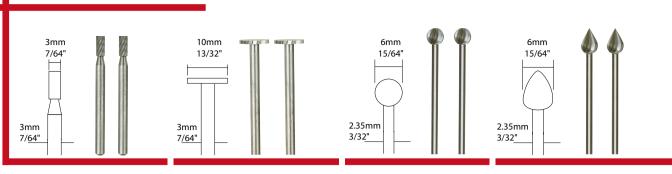




Bits and cutters for MICROMOT drills and mills of industrial and dental qua

Tungsten vanadium milling bits

For non-ferrous metals plastic plaster



NO 28 722 NO 28 727 NO 28 725 NO 28 724

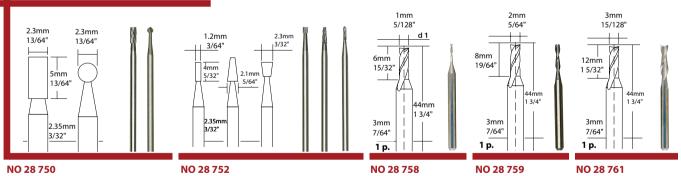
Tungsten Vanadium Milling Bits. Selected tungsten vanadium steel. Purposely made of stable construction with head and shaft out of a single blank. metals, as well as plastics and plaster of paris. Ideal for milling, routing, shaping, profiling and slotting.

HSS drill bits 1.6mm 0.8mm 1.2mm 0.5mm 1mm # 52 For #76 # 67 # 61 # 56 metal 44mm 6mm 1 3/4' 19/64" 13/32" plastic wood NO 28 864 NO 28 852 NO 28 854 NO 28 856 NO 28 858

Tungsten Vanadium Micro Twist Drills. Manufactured from one-piece blanks in tungsten vanadium steel for highest concentricity, providing breakage safety and long lifetime. For drilling metal, non-ferrous metals, plastic and wood. All shanks Ø 2.35mm (3/32"). Work speeds: soft materials approx. 8,000rpm., hard materials approx. 3,000rpm.

Tungsten carbide milling bits

For steel glass circuit boards



Tungsten Carbide Mi Iling Cutters. For working on extremely hard materials: steel, cast iron, non-ferrous metals, plastics. Vibration-free milling of high for technical work, engraving or milling circuit-boards. Shanks Ø 3mm (7/64") or Ø 2.35mm (3/32"). Note: Please make sure to clamp work piece securely

Milling Cutters

NO 27 116

These double flute cutters are made from solid tungsten and are to

be used for clockwise cutting. The fishtail profile ensures cutting to the center, allowing boring. Usable on cast iron, hardened cast iron, steel, cast steel, brass, aluminum, and even glass, plastics and carbon fiber. The set includes one each of 1, 2 and 3mm (1/32", 5/64" and 7/64") shank diameter: 3mm (7/64").



Three-jaw steel drill chuck

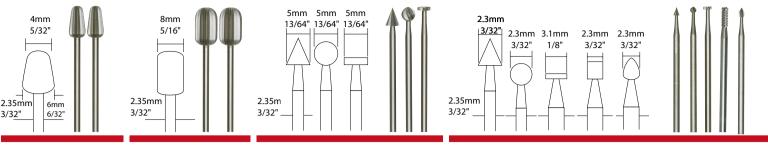


For all prepared MICROMOT devices. Advantageous when working with different shafts. Capacity 0.3 – 3.2mm (1/64" – 1/8").

NO 28 941

24

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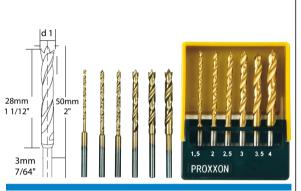


NO 28 723 NO 28 726

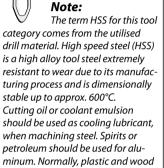
NO 28 710

The precise flutes and optimal concentricity ensure best life expectancy. All shanks 2.35 or 3mm (3/32" or 7/64"). For use on hard and soft woods, non-ferrous metals and precious

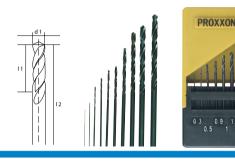
NO 28 720



NO 28 876 HSS Twist Drill Set with brad point. 1.5 – 2 – 2.5 – 3 – 3.5 – 4mm (1/64" – 5/64" – 3/32" – 1/8" – 9/64" - 5/32"). The titanium nitrate coating reduces friction and increases life expectancy.



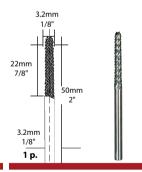
can be dry-machined.



NO 28 874 HSS twist drill in storage case 10-piece set. One each Ø 0.3-0.5-0.8-1-1.2-1.5-2-2.5-3-3.2mm (3/256"- 1/32" - 5/128" - 3/64", -2/32"-10/128" - 1/10" - 15/128" - 1/8"). For drilling non-ferrous metal, steel and stainless steel. In labelled cassette with fold back and stand function. For clamping we recommend our 3-jaw drill chuck (see below).



NO 28 760 accuracy dimensions. Ideal when milling.



NO 28 757 Rasp Cutter. Tungdten Carbide. For cutting and milling tiles, stoneware, wood and plastics. Shank Ø 2.35mm (3/32").

Drill chuck or collet?

Drill chucks provide more convenience to quickly change the tools when working with shafts of varying diameters. However, because of their technical setup, they have a few drawbacks compared to collets: Less clamping force and higher concentricity tolerances. If high precision is necessary, then working with MICROMOT steel collets is a must. See also note above.

Note:

MICROMOT steel collets are hardened and thus have a high, consistent flexibility. 1 They also maintain prolonged accuracy, even after regular use (these collets should not be compared with unhardened, four-slit collets of brass and aluminum). 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.



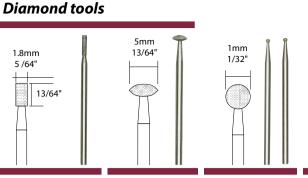
MICROMOT steel collet set



Triple slit and hardened. 1 each of 1 – 1.5 – 2 – 2.4 – 3 and 3.2mm (1/32" – 1/16" – 5/64" – 3/32" – 7/64" – 1/8"). With clamping nut and holder for storage (see note at left).

Diamond, cleaning and polishing tools. In professional quality, also for jew

For glass ceramics plastic



1mm 1/32" 1.8mm 5/64" NO 28 212 0.8/1.2mm 2/64"/3/64" 1.2mm 3/64" 13/4" 13/4" NO 28 255

NO 28 240 NO 28 250 NO 28 212 NO 28 222 Diamond Burs. Shape, grind, finish and engrave with precision! These high-quality, long lasting diamond burs offer the hardness of an even diamond coating over stainless steel to provide uniform cutting on a variety of materials such as glass, ceramics, porcelain, stones, non-ferrous metals, steel (even chrome-cobalt alloy), etc. All shanks Ø 2.35mm (3/32").

Diamond Twist Drills. With natural diamond dust for cleaning out holes in pearls, coral, turquoise and other precious stones. Shanks Ø 2.35mm (3/32").

NO 28 230 Ball-shaped diamond machining of glass use on drill presses Ø 2.35mm (3/32").

Cleaning brushes

For steel brass stainless steel



components. The flexibility of the wire makes the brush very conformable, so

that also contoured shapes are easy to work on. All shanks: Ø 2.35mm (3/32").

2 p. | 2 p. | 5 p. | 5 p. | NO 28 951 NO 28 952 Carbon Steel Bristle, Cup and Wheel Brushes. Use on metal, non-ferrous and precious metal, casting, plastic, semi precious stone, stone and wood for deburring, polishing, rust removal, matting, paint and lacquer or cleaning electrical

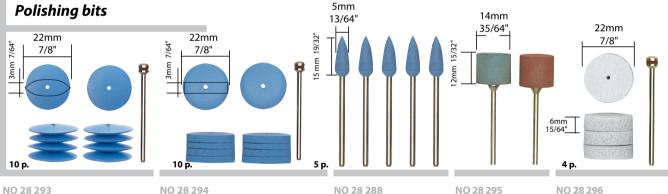
22mm

8mm 13mm 22mm 7/8" 7/8" 5/16" 5 p. NO 28 961 NO 28 963 NO 28 962

NO 28 961 NO 28 963 NO 28 962

Brass Bristle, Cup and Wheel Brushes. Ideal for surface cleaning on brass and brass alloys, copper, precious and semi-precious metals, stainless steel, semi-precious stones, plastic and wood. Acid resistant and electrically neutral, thus suitable for working with electronic components. All shanks Ø 2.35mm (3/32").

For gold stainless steel porcelain



Silicone Polishers Rubberized abrasives, used for surface smoothing and polishing of precious metals, non-ferrous metals, hardened metals, tensile steels as well as glass, porcelain, wood, rubber and plastic. Remove fine burrs and scratch marks left by grinding and sanding. All shanks Ø 2.35mm (3/32").

Protective covers for hand-operated MICROMOT machines with standard 20mm (4/5") collar



For working safely with saw blades, cutting discs, milling bits, grinding tools, steel brushes and polishing tools. One each for diameters 22(55/64") and 38mm (1 1/2"). Easy to assemble.

NO 28 946 set of 2 pieces

Silicon-Carbide Polishers Polishers made of highquality silicon-carbide in a conformable bonding of high resistance (no rubber). Used especially on precious metals, in mold and die production, fine mechanics, etc. Ideal for smoothing and polishing cut edges of Plexiglas. The edges will become clean and sleek. All shanks Ø 2.35mm

(3/32").



elers and for the jewelery industry!



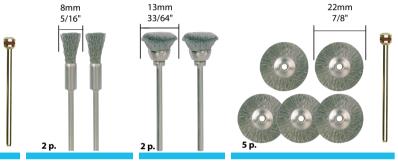
-coated grinding bits for glass and stone For drilling and and types of stone including granite. Recommended for with a speed of 2,000rpm with the use of coolant. Shaft

NO 28 840 NO 28 842

Diamond Cut-Off Wheels for cutting very hard and brittle materials. Only 0.6mm (3/128") thick, wheel Ø 20mm (13/16") or 38mm (1 1/2"), shank of mandrel: Ø 2.35mm (3/32").

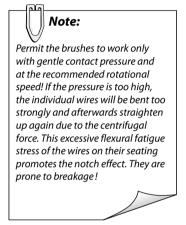
NO 28 844

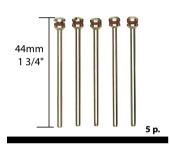
Diamond-Coated Cutting Discs with cooling holes For cutting, grinding and deburring. Same application as described on the left. Less heating up due to cooling holes. No burn marks! Shaft Ø 2.35mm (3/32").



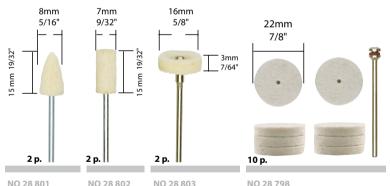
NO 28 955

Stainless Steel Brushes, Cups and Wheels. For cleaning, brushing and cleaning stainless steel. Remove cinders and scales on stainless steel welding seams and soldering points. Can also be used on aluminum and non-ferrous heavy metal. Shaft Ø 2.35mm (3/32").





NO 28 815 Spare Mandrels. For all rotating accessories of the MICROMOT-system without shank, all mandrels Ø 2.35 x 44mm (3/32" x 1 3/4").



Felt Polishing Tips. Assorted shapes for fine finishing jobs on work pieces of metal, non-ferrous metal and plastic as well as for cleaning those tough-to-reach areas. Shank Ø 2.35mm (3/32").



NO 28 297

High Gloss Polishing Set. Cotton, suede and felt buffing. Used with polishing compound for high gloss polishing of metal, non-ferrous metal, ceramics, porcelain. Also for polishing of plastics and lacquered woods. All shanks Ø 2.35mm (3/32").



NO 28 292 Polishing Compound

This universal solid-compound is used with cotton, felt, or suede polishing wheels or tips for high gloss polishing.

Holders for bits and cutters

For the clean storage of micro drills, grinding bits, brushes and other rotating tools with shaft diameters of 2.35-3.2mm (3/32"-1/8"). Without bits and cutters.

NO 28 359 2 pieces



Rasp cutter with tungsten carbide burrs

Unrivalled for sculpting, cleaning and smoothing wood and fibre glass. Extremely sharp and easy to handle: Material can be removed with control and without physical effort. High stability and easy to clean with a Bunsen burner. Also for use on rubber, foam and silicone. Rpm range: 5.000 – 20,000. Shanks Ø 3.2mm (1/8"). Not for use on metal!

 Ball nose cylinder
 7.5 x 12mm (5/16" x 1/2")
 NO 29 060

 Cone
 8 x 12mm (5/6" x 1/2")
 NO 29 062

 Taper
 4 x 19mm (3/4" x 1/8")
 NO 29 064

Selected cutting, sanding and polishing bits for professional use and long

Sanding bits 23/64 23/64 Ø 18mm Ø 18mm 45/64" 45/64" 20mm 20mm 13mm 13mm 13/16" 13/16' For steel stainless steel cast iron wood **5 p.** grit 120 **10 p.** grit 120 **5 p.** grit 80 **5 p.** grit 80 **5 p.** grit 150 **10 p.** grit 150 **5 p.** grit 150 **5 p.** grit 150

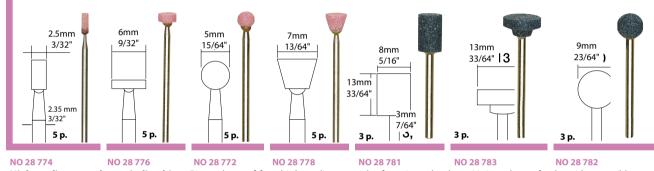
NO 28 282

Nylon Fleece Brushes For cleaning, polishing, light sanding, matt finishing and deburring of steel, stainless steel, gold, silver and titanium. One each brush coarse and fine. Shanks Ø 2.35mm NO 28 982 NO 28 983 NO 28 987

Sanding Discs, Bands and Caps. Made of standard compounds of tough consistency and different jobs on wood, plastic, leather, non-ferrous metal, steel, welded joints and castings. Ideal for surface carriers 3mm Ø (7/64").

Grinding bits and discs

For steel cast iron **HSS** steels



High quality corundum grinding bits. Bits and sets of fine, high quality materials of consistent hardness. Various shapes for the widest possible range and chiselling hard materials such as cast iron, cast steel, malleable cast iron as well as hard metal alloys and refined steel. Accurately dimensioned shafts ensure maximum concentricity. Grinding rule: soft materials = hard grinding bits; hard materials = soft grinding bits!

Cut off wheels For 5/64 wood 22mm 38mm steel 1 1/2 1 8mm 1.8mm 5/64 5/64 stainless steel 1.8mm 5/64 50 p.

10 p.

Metal Cutting Blades Spring steel metal cut-off blades for cutting non-ferrous metals, plastic and wood. Ideal for model-building. Wheel: one each Ø 16, 19, 22mm (5/8", 3/4" and 7/8"), 0.1mm thick, shank of mandrel: Ø 2.35mm (3/32").

NO 28 812 NO 28 820

Cut-Off Wheels. Synthetic resin bonded aluminum-oxide cut-off wheels for cutting metal, nonsteel, wood, plastics and some softer stones. Note: The cut-off wheel is designed for cutting on the face of the wheel for grinding! All mandrel shanks Ø 2.35 mm (3/32"). Wheels in 22 or 38 x 0.7

Cut off wheels For wood fibre-reinforced plastics

Tungsten carbide cutting disc. Thickness approx. 2mm (5/64"). For cutting and profiling wood, CFK, GRP, rubber, silicone. Cooling holes reduce heating up. Shaft Ø 2.35mm (3/32").

13-pieces set for model makers

For cutting, grading, milling, polishing and drilling. 1 fine milling bit each of 2.3mm

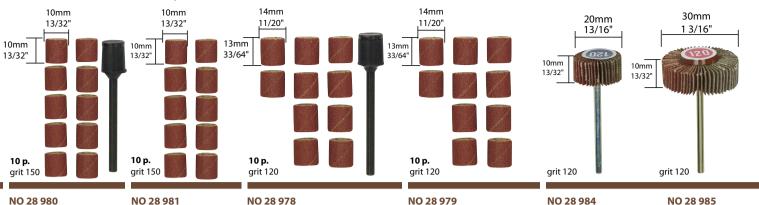


(3/32") ball shape and cylinder shape. One white corundum grinding bit each of 5mm (13/64") ball shape and cone shape. One micro drill each of 1mm and 2.3mm (3/64" and 3/32"). 5 separating discs Ø 22mm (7/8"). One Ø 22mm (3/32") saw blade and Ø 2.35mm (3/32") arbor.

5 p.

NO 28 989

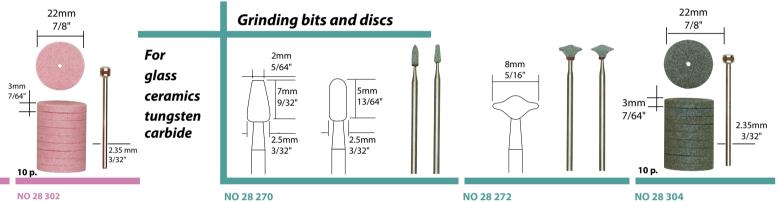
est life expectancy!



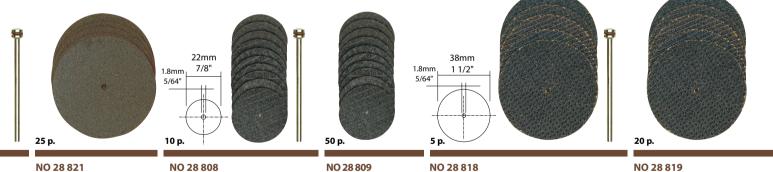
grits for different sanding/finishing stages. Use for furniture refinishing, removing rust, and multiple sanding/finishing and shape sanding, smoothing of surfaces, edges, even inside curves and tough to reach areas. All shanks of pad and drum

NO 28 984 NO 28 985

Flapwheel Conformable flapwheel for grinding and polishing flat or contoured surfaces and working inside round work pieces. Most effectively used as finishing sander after heavier surface sanding and material removal is completed. Shanks Ø 3mm (7/64").



Silicon carbide grinding bits Fine particles of consistent hardness for engraving and frosting of glass, ceramics and stellites. Also for grinding tungsten carbide, chilled cast iron and other hard steel alloys. Shafts Ø 2.35mm (3/32").



ferrous metal, alloys, stainless its outside edge only! Do not use mm (7/8" x 1/32" or 1 1/2" x 1/32").

of applications. For grinding

of 2.35 or 3mm (Ø 3/32" or 7/64")

Oxide with reinforcement The cutting discs are available in 22 x 0.8 and 38 x 1mm (7/8" or 1 1/2" x 1/32"). Nearly unbreak-able, making it usable to remove stock. Will cut alloyed, standard and stainless steels, non-ferrous metals, and even wood and plastics. Mandrel Ø 2.35mm (3/32").

4-piece glass working set

2 diamond grinding bits and 2 silicon carbide grind-ing bits.

For engraving, grinding or frosting glass.
Diamond bit 1: ball Ø 1mm (1/32"), diamond bit 2: ball Ø 1.8mm (5/64"), silicon carbide bit cone 3/2 x 5mm (5/64" / 1/6" x 13/64"), and bullet 2/2.5 x 7mm (5/64" / 7/64" x 9/32").
All shanks Ø 2.35mm (3/32").

NO 28 920

10-piece complete polishing set

For polishing metal, glass, precious metals, porcelain and plastic. Consisting of 3 felt polishing bits (cylinder, cone and wheel shapes), 3 silicon polishing bits (bullet, cylinder and disc shape), cotton polishing disc, chamois buffing wheel and polishing paste. Includes mandrel.





For cutting of styrofoam or hard foam hot wire cutters are clearly su Ideal for architects, designers, artists, in prototype construction, ins

Hot wire cutter THERMOCUT 650



110 - 120V AC connection with a 95" power cord. The heating element is operated with a safety voltage of max. 40V and 1.2A. Depending on the material, the cutting wire temperature is pre-selected using the practical control knob and remains stable while working. Supporting surface with lateral bore for fixing a c-clamp to allow for stationary use. A c-clamp and a spool with 30m (98ft) of cutting wire \emptyset 0.2mm are included in the scope of delivery.

Technical data:

110 – 120V. AC 50/60Hz. 50W. Secondary voltage max. 40V, 1.2A. Cutting temperature of wire Ø 0.2mm (0.008") continuously variable from 100 – 350 °C (210 – 660 °F). Weight 850g (1.9 lbs). Insulated to Class 2.

NO 37 084

Hot wire cutter THERMOCUT 12/E

For free modeling in Styrofoam.

Stable frame with pivotal fixture at the top and extendable lower wire fixture. Maximum extension 200mm (7.9"). Maximum work piece height 150mm (5.9"). Variable cutting wire temperature control. With a little practice, you can achieve perfect cuts depending on the material density and thickness at medium temperatures and with moderate pressure. Heat up time is 1 second. Comes with 5 shapable cutting wires.

Technical data:

12V. 60W. Variable cutting wire temperature ranges from approx. 150-350 °C (300 – 660 °F). We recommend the use of our MICROMOT transformer NG 2/S for operation.

NO 27 082

Replacement Cutting Wire

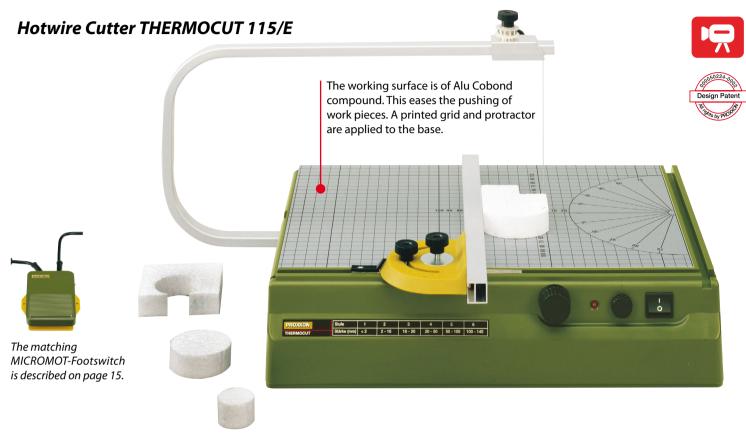
For the THERMOCUT 12/E. Easy to bend, therefore ideal for modelling. **NO 28 082** 10 pieces

Important note:

For operation of the THERMOCUT 12/E a mains adapter with a power rating of at least 2A is required. We recommend MICROMOT mains adapters NG 2/S (NO 28 706) (see page 10).



perior to other tools. No crumbling as when working with a knife or saw. ulation work and, not least, for classical model building.



Ideal for architects, designers, decorators, artists and teachers. For building architectural models, prototypes as well as classic model railroad, plane and boat items.

The large table with 390 x 280mm (15 11/32" x 11") ensures smooth and easy movement of the work piece. The printed grid and protractor assist with division and cutt-ing. The solid aluminum overarm has a 350mm (13 3/4") throat and offers 140mm (5 1/2") in height. The holder and wire coil (one spool of wire 30mm (98ft.), 0.2mm (0.008") diameter is included) may be shifted and adjusted along the overarm to enable miter cutting. An LED indicates operation and thus reminds you not to touch the hot wire to prevent burns (the wire heats to maximum in less than 1 second).

NOTE:

The correct temperature, being material and thickness dependent, is learned from experience. Profiles are ideally cut at lower temperatures and while applying less cutting force.

Technical data:

Volts 110-120 V AC 60 Hz Cutting wire temperature 100-200 °C (210-390 °F)

Transformer secondary max. 10V at 1A Weight 3kg (6.6 lbs)

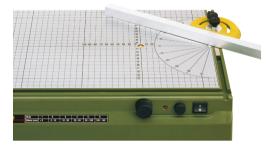
NO 37 080

Spare Cutting Wire for Hotwire Cutter THERMOCUT 650 and THERMOCUT 115/E.

Made of NiCr 8020.

Spool diameter Ø 24mm (15/16") Spool thickness 8mm (5/16") Bore diameter Ø 6.5mm (1/4")

Wire size Ø 0.2mm x 30m (0.008" x 98ft)



Double function fence with lockable feed bar.



Crosscuts are achieved by means of a simple, yet efficient solution: secure drawing-pin to table with tape, it serves as a fixed center.



For clean and safe chop and miter cuts in non-ferrous metals, plastics and wood.

!

Chop and Miter Saw KGS 80



Saw head moves laterally making it possible to get extremely close to the vise holding the work piece when making the cut affording a vibration- and burr-free cut.

Ergonomically correct grip with integrated switch and saw head release mechanism.

Saw blade protection cover made from POLYCARBONATE swings up automatically.

> Carbide tipped saw blade for non-ferrous metals, wood and plastics. Power transfer via quietly operated belt drive.

With longitudinal fence stop (overhang 300mm/12").

Integrated tightening mechanism with self-centering clamps. V-groove for round pieces. Front side groove for clamping thin work pieces.

Continually adjustable (may be tightened in any position) round table made of pressure-cast aluminum swivels 45° in both directions with positive stops at 15° intervals.

Cutting capacity at 90° Cutting capacity at 45° (Miter cut):					
With material thickness up to	Maximum material width	Maximum round stock diameter	With material thickness up to		Maximum round stock diameter
(in mm and inch)	(in mm and inch)	(in mm and inch)	(in mm and inch)	(in mm and inch)	(in mm and inch)
10 3/8"	65 2 9/16"		5 3/16"	36 1 13/32"	
18 11/16"	50 2"		10 3/8"	30 1 3/16"	
21 13/16"	40 19/16"	Ø 25 1"	15 9/16"	25 1"	Ø 20 3/4"
25 1"	25 1"		20 3/4"	18 11/16"	

Ideal for miter cuts. Instead of swiveling the saw head, the table with clamped down work piece is turned!

By using the fence and counter-rotating the table $2x\ 45^\circ$, one can get the opposite angles for two equally long framing pieces by simply reversing them. Powerful, very quiet DC motor. Power transfer via belt drive. Carbide tipped saw blade $80\ x\ 1.6\ x\ 10mm$ ($3\ 1/8"\ x\ 1/16"\ x\ 3/8"$), $36\ teeth$.

Other technical data:

Base with round table of pressure-cast aluminum and CNC-machined guides and fittings.

Volts 110 – 120V AC. 200W. 50/60Hz.

Speed 5,400rpm.

Table Area 230 x 230mm (9" x 9")

Weight 6kg (12 lbs) Cutting capacity see chart.

NO 37 160

High-alloy special steel (HSS)



Ø 80 x 1.1 x 10mm (3 1/8" x 3/64" x 3/8"). 250 teeth

Use on non-ferrous metals, soft and hard woods, laminates, GRP, CFK and composite boards.

NO 28 730

Synthetic resin bonded cut-off wheel



80 x 1 x 10mm (3 1/8" x 3/64" x 3/8").

For cutting wood, steel, non-ferrous metals and plastics.

NO 28 729

Carbide tipped saw blade



80 x 1.6 x 10mm (3 1/8" x 1/16" x 3/8"). 36

teeth. Extremely clean cutting edges when cutting balsa wood, plywood or soft wood as well as glassfiber reinforced plastics (GRP) because of large number of teeth. May also be used for cutting hard wood, POLYCARBONATE, plastics and aluminum. Also fits circular table saw FET.



Center to center 250mm (10") and 40mm (1 3/5") swing. Variable speed control covering 1,000 – 5,000rpm.





MICRO woodturning lathe DB 250

Turning miniatures is a pleasing hobby. One can make glasses, cups, saucers, vases and columns for a doll house. In model trains, one can make lighting masts, windows, tanks. Limbs for marionettes and

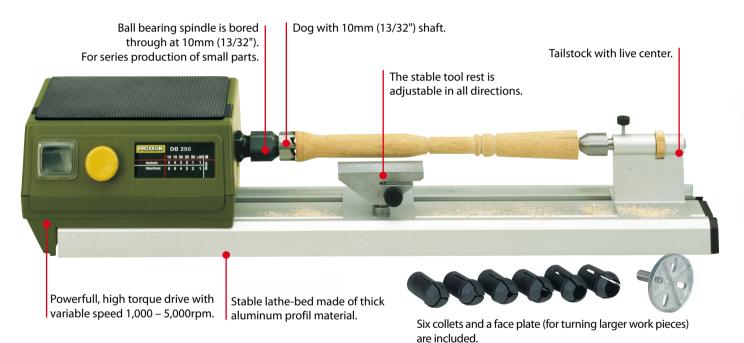


hundreds of classical miniature turning tasks may be carried out with ease. The electronic speed control assists in the lower range in a 'semiautomated' painting process.

Technical data:

Motor 110 - 120V AC, center to center 250mm (10"), 40mm (1 3/5") swing. 25mm (1") swing over support. 100W (1/8 hp), 60Hz. Variable speed control covering between 1,000 and 5,000rpm. Headstock spindle bore of 10mm (13/32"). Tailstock travel 20mm (13/16"). Includes 6 collets 2 - 3 - 4 - 6 - 8 - 10mm (5/64" - 1/8" - 5/32" -15/64" - 5/16" - 13/32"), drive center, live center and face plate. Weight: 2kg (4 lbs)

NO 37 020



Five piece HSS chisel set

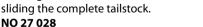
A high quality set with the most frequently used turning tools: beading tool, gouges 3mm and 6.4mm (1/8" and 1/4"), parting tool and scraper. Neatly packed in a wooden box.

NO 27 023



Drill chuck for the tailstock of the DB 250

Clamps up to 5mm (13/64"). Is inserted on the spot of the rotating back centre. The feed movement results from sliding the complete tailstock.



Independent four jaw chuck for the DB 250

With individually adjustable jaws. Used to clamp asymmetrical pieces such as rectangles. The reversible jaws clamp from 1.5 -35mm (1 1/16" – 1 3/8"), inside and from 14 – 67mm (9/16" – 2 9/16"), outside. The DB 250 headstock spindle of thread M16 x 1 screws directly into the chuck.



Three jaw chuck for the lathe DB 250

Used for concentric clamping. Made from steel and offering 1.5 to 32mm (1/16" - 1 1/4") and 12 to 65mm (1/2" - 2 9/16") when reversing the jaws. The chuck has a M16 x 1 thread for fitting directly to the DB 250 headstock spindle.



NO 27 026



A precision device for fine sanding work and minor material correction. Variable speed 1,150 – 3,600rpm (250 – 800m/min).

Disc Sander TG 125/E





Comes with c-clamp to quickly and securely fasten sander to workbench either vertically or horizontally.



125mm (5") sanding disc, with affixed silicon film. Adhesive sanding discs can be easily removed after use.

Table can be adjusted to 50° downward and 10° upward. With miter gage and c-clamp for horizontal and vertical clamping.

For all types of wood, steel, non-ferrous and precious metals, plastics (also Plexiglas and fiber glass).

Suction channel with adapter to connect a vacuum cleaner.

Powerful, vibration-free running due to a powerful and balanced DC motor. Housing made of fiber glass reinforced POLYAMID. Aluminum table, adjustable to incline 50° downward and 10° upward; with miter gage. Sanding disc with affixed silicon film. This surface ensures easy removal of self-adhesive sandpaper. Two additional square silicon sheets ensure that used discs can be stored and reused as necessary. Can be mounted horizontally and vertically to a table or workbench with the included c-clamp.

Also includes an adapter to attach a vacuum cleaner for dust free working, as well as 2 each sanding discs 80, 150 and 240 grit.

Technical data:

Volts 110 – 120V AC. 140W. 50/60Hz Speed Variable speed 1,150 – 3,600rpm

(250 - 800m/min).

Disc Diameter 125mm (5") sanding disc
Max. Sanding Height off the table 62.5mm (2.46")
Table Size 98 x 140mm (3.9" x 5.5")
Sanding Height Size 300 x 140 x 160mm

(11.8" x 5.5" x 6.3") 3kg (6.6 lbs)

Weight approx. **NO 37 060**

Adhesive Sanding Discs for TG 125/E



Industrial quality. For sanding of soft and hard wood, chip boards, fiber boards, non ferrous metals, steel, plastics, cork, rubber and minerals. Dia. 125mm (5"). One square silicon sheet for storage and reuse of used sanding discs is included.

 NO 28 160
 80 grit
 5 pieces

 NO 28 162
 150 grit
 5 pieces

 NO 28 164
 240 grit
 5 pieces



With electronically adjustable speeds from 820 to 2,460 ft/min for optimal control when working on delicate materials.

Disc Sander TSG 250/E

For sanding, polishing, de-burring and beveling of hard and soft wood, non-ferrous metal, steel, plastic (also Plexiglas and fiberglass reinforced plastics), cork and rubber. Sands long edges, end sections, radii, miters, and by turning work piece over,

accurate flat surfaces at right angles. The electronic speed control ensures optimal results on multiple types of material.

Sturdy construction:

Main body of ribbed die-cast aluminum (no steel tube or sheet metal construction) with machined aluminum die-cast work table. The table tilts 15° inwards and 45° outwards (a scale facilitates accurate adjustment) and has a slot for the adjustable miter gauge. Disc provided with a silicon film ensuring that affixed sanding discs can be removed effortlessly after use. Two additional square silicon films for storage and reuse of used sanding discs are included.

A simple chart indicates the recommended speeds on different materials.

Technical data:

Volts 110 – 120V AC, 60Hz Speed 820 to 2,460ft/min (belt drive

7.3:1 reduction ratio)

Disc Diameter 250mm (10") Max. Sanding Height 135mm (5 5/16")

Table Size 275 x 105mm (10 13/16" x 4 1/8"),

Adjusts 15° in, 45° out

Overall Size (w/o table) $330 \times 280 \times 230$ mm (3" x 11" x 9") Comes with miter gauge and two each 80 and 240 grit sanding

NO 38 060

Self-Adhesive Corundum Sanding Discs for TSG 250/E

Industrial quality. For sanding soft and hard woods, chipboards, fibre boards, non-ferrous metals, steel, plastic, cork, rubber and minerals. Ø 250mm (10"). Includes silicone film for storing used sanding discs.

NO 28 970 80 grit 5 discs NO 28 972 150 grit 5 discs NO 28 974 240 grit 5 discs

Self-Adhesive Silicone Carbide Sanding Discs for TSG 250/E

For sanding non-ferrous metals, steel, glass, PC cards, plastics and ceramics. \emptyset 250mm (10"). Includes silicone film for storing used sanding discs.

NO 28 976 320 grit 5 discs





A dust collection adapter for attaching a vacuum cleaner or dust extractor is included.

Self-Adhesive Silicone Film for easy sanding disc replacement Ø 250mm (10")

For retrofitting older disc sanders TG 250/E (production before 2008 with serial no. up to 7825). Is attached to the sanding disc. Ensures that affixed sanding discs can be removed effortlessly after use. With 4 square silicone films for storage and reuse of used sanding discs.



For perfectly straight cuts in wood, non-ferrous metal, plastics and fiberglass reinforced plastics.

Bench Circular Saw KS 115

The machine is for cutting small pieces, whenever working with a regular circular saw is impossible and too dangerous. The high-performance 110 – 120V motor is very quiet and has a prolonged life expectancy.

Cutting depths: in wood up to 8mm (5/16"), in plastic (also circuit boards) up to approx. 3 mm (1/8"), in non-ferrous metals up to 1.5mm (1/16"). Even fiberglass reinforced plastics can be cut with the carbide tipped saw blade (available as accessory). The machined and perfectly plane aluminum worktable in size $160 \times 160 \text{mm}$ (6 1/4" $\times 6 \times 14$ ")

Diamond Blade Ø 50mm (2") diameter (10mm (13/32") arbor).



With 0.5mm (1/64") layer of class "D107" diamond for cutting ceramics porcelain, tiles, stone as well as circuit boards.

NO 28 012

Crosscut Blade Super-Cut Ø 58mm (2.3") x 0.4mm (1/64"), arbor



10mm (13/32"), 80 teeth. Ideal for use on hard and soft wood, as well as plastic. For fast, clean cuts. The 80 teeth are alternately set and sharpened. For superior cutting power!

NO 28 014

Tungsten Carbide Saw Blade Ø 50mm (2") x 0.5mm (1/64"), arbor



10mm (13/32"), fine toothed, 80 teeth. The blade is ideal for cutting fiber-glass sheets, non-ferrous metal, miniature moldings, plastics, and other "difficult-to-cut" materials.

NO 28 011

allows for sliding the work piece easily. The housing is made of sturdy plastic (ABS) with a side door to conveniently remove saw dust. With the included Super Cut Saw Blade Ø 58mm (2.3") it is possible to cut soft wood up to 8mm (5/16"). Other saw blades, available as accessories in our program, with Ø 50mm (2"), still ensure up to 6mm (15/64") cutting depth. Overall size approx. $265 \times 195 \times 85$ mm ($10 \times 1/4$ " x $7 \times 5/8$ " x $3 \times 11/64$ "). Weight approx. 1.8kg (4×100 lbs).

NO 37 006

Tungsten Tipped Saw Blade Ø 50mm x 1.1mm (2" x 3/64"), arbor



10mm (13/32"), 20 teeth. For extremely clean cuts of balsa, plywood. Can also be used for cutting circuit boards and POLYCARBONATE.

NO 28 017

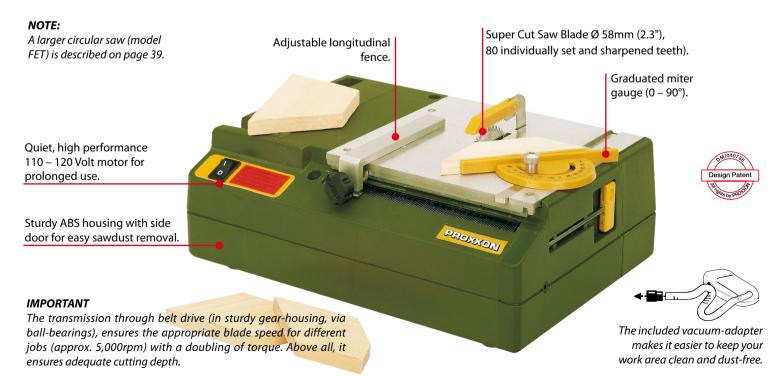
High-Alloy Special Steel Saw Blade \varnothing 50mm (2") x 0.5mm (1/64"),



arbor 10mm (13/32"), fine, 100 teeth. Alloy holding a high proportion of tungsten, vanadium and molybdenum for an even structure, high hardness and long life. Fine-toothed. For very fine cuts in non-ferrous metals (aluminum, brass, copper). Also suitable for cutting compound materials like PC boards and sawing wood and plastics.

NO 28 020

Your circular saw can only be efficient, if you use the appropriate saw blade. We offer a selection of high quality saw blades for various materials.





A saw without competition in its size - a wonderful machine for complex scroll saw projects up to 30mm (1 3/16") thick.

Scroll Saw DS 115/E

Adjustable patented head offers numerous advantages (see description below).

keep the work area cleaner.

NOTE:

Also consider our larger scroll saw (model DS 460) on pages 40/41.

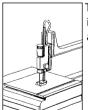


NOTE:

All described saw blades can also be used with our larger scroll saw DS 460 (pages 40/41).

This is the ideal machine for the delicate project: model building, toy manufacturing and precision work. It cuts soft wood (e.g. bass wood) up to 30mm (1 3/16"), hard wood up to approx. 10mm (13/32"), plastic (including circuit boards) up to approx. 4mm (5/32") and nonferrous metals up to 2mm (5/64") with standard scroll saw blades.

The machine has a very stable ribbed die-cast aluminum saw arm with 300mm (11 13/16") throat. The blade guide is equipped with an integrated blower. The patented head-piece is height-adjustable in three positions and offers numerous advantages:



The lifetime of the saw blade is tripled after shortening it twice (teeth in the middle part of the saw blade are finally used, too).

With the head in the lowest position, working with a blade shortened to 60mm (2 23/64") is even more precise.

The machined worktable of die-cast aluminum has a size of 160 x 160mm (6 19/64" x 6 19/64") and is equipped with an adjustable longitudinal

stop and graduated miter gauge (0 - 90°). The ABS plastic body provides a very practical sliding door on the right side of the housing for the removal of saw dust. The saw is powered by a 110 – 120V motor (85W) for prolonged use, low noise performance and driven by a quiet and wear-resistant toothed belt drive, running in a ball bearing assembly. The machine offers an electronically controllable stroke rate from approx. 150 - 2,500 strokes/min.

NO 37 088

'Super-Cut' scroll saw blades. High quality steel for extended use and prolonged cutting capacity. Standard version without pin.

Hard and soft woods, plastic, Perspex and soft non-ferrous metal.

Coarse-toothed blades, No. 9: 14 TPI

NO 28 116 130x1.5x0.48mm (5.1"x1/16"x1/52") 12 pcs

Standard-toothed blades, No. 5: 17 TPI

NO 28 117 130x1.20x0.38mm (5.1"x3/64"x1/64") 12 pcs

Fine-toothed blades, No. 3: 20 TPI

NO 28 118 130x0,8x0.34mm (5.1"x1/32"x1/64") 12 pcs

Hard materials such as steel and PERTINAX.

Standard-toothed blades, No. 5: 36 TPI

NO 28 112 130x0.85x0.4mm (5.1"x1/32"x1/64") 12 pcs

Fine-toothed blades, No. 3: 41 TPI

NO 28 113 130x0.75x0.36mm (5.1"x1/32"x1/64") 12 pcs

Very fine-toothed blades, No. 1: 50 TPI

NO 28 114 130x0.6x 0.3mm (5.1"x1/32"x1/64") 12 pcs



Perfect cuts in steel, non-ferrous metals, wood and plastic. With triple ball bearing blade guide.

MICRO-Bandsaw MBS 115/E



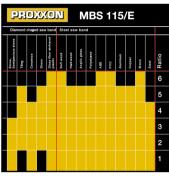






Solid, ribbed die-cast aluminum housing (no tubular or sheet metal construc-

tion) with a sturdy machined table with slot for miter gauge. The table tilts up to 45° for accurate miter sawing. The machine has a low noise high-quality motor with belt driver for quiet and prolonged operation. Electronically controlled speeds allow for exceptionally accurate cutting without the need for subsequent finishing. A chart indicates the recommended speed for practically all materials. The blade size of 1,065 x 5 x 0.4mm (42" x 13/64" x 1/64") is ideal for fine work and permits cutting small radii.



The machine comes equipped with one

band saw blade in size 1,065 x 5 x 0.4mm (42" x 13/64" x 1/64"), 14 TPI (also available as accessory, NO 28 176) as well as the blade guide (NO 28 187).

Technical data:

Volts 110 – 120V AC, 60Hz

Speed 395 to 820 ft/min (with feedback control)

Throat Depth 150mm (5 29/32") Max. Work Piece Height 85mm (3 13/32")

Table Size $200 \times 200 \text{mm} (7.7/8" \times 7.7/8")$, adjustable from $0-45^\circ$. The unit includes an adapter to connect a vacuum cleaner or dust extractor.

NO 37 172

Blade Guide, separately NO 28 187



Saw Blades

These high-performance band saw blades are extremely efficient and are very unlikely to break, even when being used for prolonged periods. Each band saw blade is alternately set with teeth in N-form, which are individually sharpened. This type of toothing provides oscillation free operation of the saw blade, which is extremely important in order to obtain straight and clean cuts.

Standard Bandsaw Blade, fine toothed (24 TPI)

 $1,065 \times 5 \times 0.4$ mm (42" \times 13/64" \times 1/64"). Of hardened Swedish steel. Ideal for cuts in steel and brass. **NO 28 174**

As above, coarse toothed (14 TPI)

1,065 x 5 x 0.4mm (42" x 13/64" x 1/64").

NO 28 176

Extra narrow Bandsaw Blade, coarse toothed (14 TPI)

 $1,065 \times 3.5 \times 0.4$ mm (42" x 9/64" x 1/64"). Of special tempered steel, with induction hardened teeth. Ideal for cuts in aluminum and plastics. Extremely narrow, and thus optimal for cutting tightest curves and radii.

NO 28 180

Bandsaw Blade of bimetal

 $1,065 \times 6 \times 0.6$ mm (42" x 13/64" x 1/32"). Carrier belt of alloyed tempering steel, sawing teeth of wear-resistant high-speed steel. Varying teeth 10-14 TPI. Ideal for cutting all standard steel qualities, non-ferrous metals and stainless steel.

NO 28 172

Diamond Blade

 $1,065 \times 3 \times 0.3$ mm (42" x 7/64" x 1/64"). Ideal for cuts in glass, stone, ceramic, PC cards.

NO 28 186

Scroll saw band, extra narrow (1.3mm / 3/64")

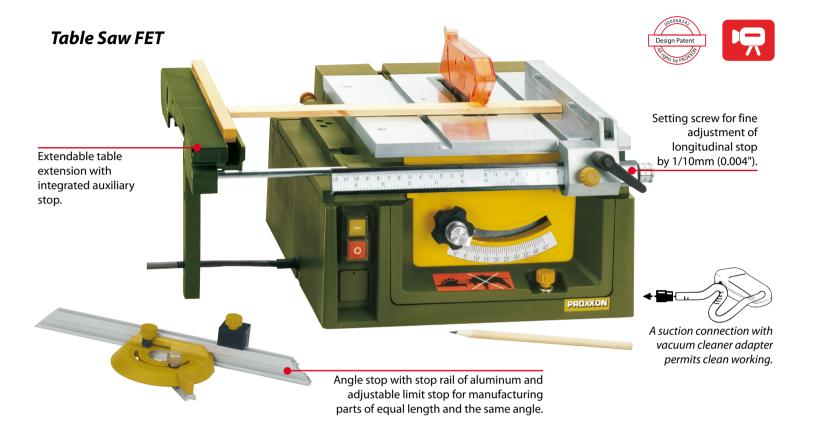
Made of tempered special steel for extremely tight radii (10 teeth). For all types of wood, plastics and non-ferrous metals.

NO 28 182 1,065 x 1.3 x 0.44mm (42" x 3/64" x 1/64")

(25mm per bandsaw blade)



Perfectly straight cuts. The ideal machine for model building, picture- framing, dollhouses, birdhouses and other intricate projects.



For fine mechanics, model building, mould construction, toy manufacturing, architects, model carpenters and fitters. For cutting wood, non-ferrous metals, plastics, Plexiglas, fiber-glass reinforced sheets, foam and many other materials. Stable construction because load bearing parts and plane-milled table are made of die-cast aluminum.

The micro-adjustable, precise and stable longitudinal stop provides decisive advantages: Corrections even smaller than 1/10mm (0.004") can be made after coarse adjustment using an adjusting screw. The height is adjustable and 45° tiltable saw blade makes it possible to cut double miters when used together with the angle stop.

Low-noise drive using DC special motor with compound belt driver. Ball-bearinged saw blade shaft. Tungsten tipped saw blade Ø 80mm (3 9/64") x 1.6mm (1/16") x 10mm (13/32") (36 T). Additional work piece push stick and non-slotted ABS zero clearance table insert for tight tolerances between saw blade and table.

Technical data:

110 - 120V AC. 60Hz. 7,000rpm. Saw blade angle infinitely adjustable up to 45° . Table size 300×300 mm ($12^{\circ} \times 12^{\circ}$). Cutting depth 1 - 22mm ($0.04^{\circ} - 5/6^{\circ}$). Saw blades between 50 - 85mm ($2^{\circ} - 311/32^{\circ}$) can be used (with 10mm ($13/32^{\circ}$) arbor). Weight approx. 6kg (12 lbs).

NO 37 070



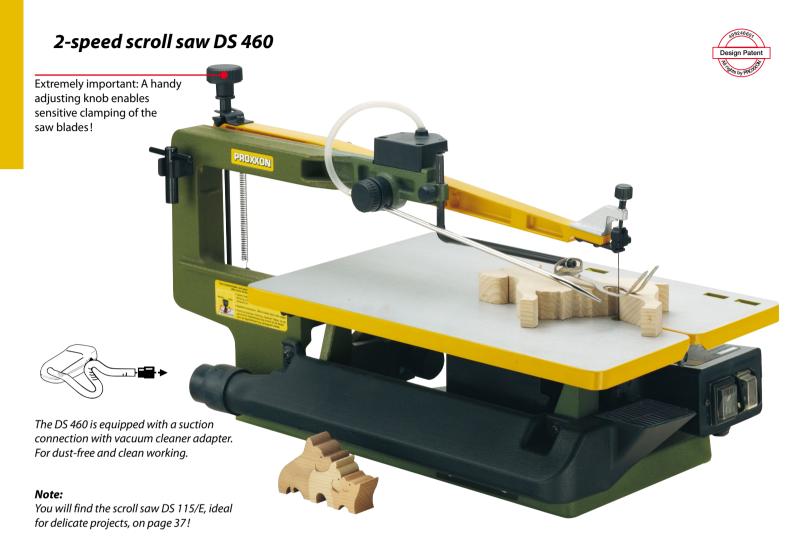








Approx. 460mm (18") throat! Extremely light magnesium saw arms for



Sturdy construction: Vibration-reducing base housing of cast steel, neatly CNC-processed and powder-coated. For stability and working without vibrations.

Magnesium saw arms precisely mounted on bearings: Extremely light and firm with a slender-shaped cutting area for clear view of the work piece. Chip blowing device with adjustable nozzle. Additional suction connection to connect a vacuum cleaner.

Large saw table made of die-cast aluminum 400 x 250mm (16" x 10"). For easier saw blade replacement, it can be unlocked and pushed back (see description at top right). Regular scroll saw blades are fastened by saw blade holders with high clamping force: This ensures true alignment in the saw arm! The machine has also been prepared for saw blades with pin ends that are used without blade holders. Extremely important for these types of scroll saws: A handy adjusting knob enables sensitive clamping of the saw blades!

Table angle adjustment possible from -5° to 50° (see bottom right). Cutting performance in wood 65mm (2 1/2"), in non-ferrous metals (depending on type) 10 – 15mm (3/8" – 5/8"). Also easily cuts Plexiglas, glass fibre reinforced plastic, foam, rubber, leather or cork. Includes 5 each coarse and fine saw blades.

Technical Data:

Volts 110 – 120V AC, 50/60Hz

Motor 190W powerful brushess 2-speed motor

Speeds 800 or 1,700 strokes/min.

 Stroke Length
 19mm (3/4")

 Throat
 460mm (18 2/16")

Cutting Depth $65 \text{mm} (2 \ 1/2"), 32 \text{mm} (1 \ 1/4") \text{ at } 45^{\circ} \text{ angle}$

Overall Dimensions L 580mm (22 7/8")

W 320mm (12 1/2") H 300mm (12")

Weight 20kg (44 lbs)

NO 37 094

Blade holders for DS 460 (one pair is already included with the machne).

For clamping regular saw blades with high clamping force: for true alignment of the saw arm.

NO 27 096 2 pieces



Easy saw blade replacement without tedious fiddling by pushing back the table!



Innovative solution (patented): To enable easy saw blade replacement, the horizontally positioned table can be unlocked and pushed back by 80mm (3"). For an unobstructed view of the bottom saw arm when fitting the saw blade holders or pin end blades.



Patented saw blade holders with high clamp-ing force ensure true alignment of the saw blades. Recesses in the table surface serve as guide line in assembly to define position and distance of the saw blade holders.



Table angle adjustment possible from -5° to 50°. With large dimensioned serrations at 0°, 10°, 20°, 30° and 45°. Additional fine adjustment for precise mitre and angle cuts.

Standard scroll saw blades with pin ends. 127mm (5"):

For cutting soft and hard wood, plastics as well as other soft materials and especially thicker work pieces. Coarse-toothed (10 TPI):

NO 28 741 127 x 3

127 x 2.61 x 0.51mm (5")

12 pieces

For cutting thin materials, soft and hard wood as well as plastics. Normal toothed (18 TPI):

NO 28 743

127 x 1.86 x 0.24mm (5")

12 pieces

For cutting non-ferrous metals, glass-fibre reinforced plastics, plastics, Plexiglas and wood.

Fine-toothed (25 TPI):

NO 28 745

127 x 1.76 x 0.25mm (5")

12 pieces

Spiral blade. 130mm (5.1") long with plain ends (without pins).



These blades cut all directions and obviate the turning of the workpiece (advantageous, especially with bigger workpieces). A 1.5mm (1/16") hole is required. Ideal for plastic, hard and soft woods.

NO 28 747

130 x 1.2mm (5.1")

12 pieces

"Super-Cut" scrill saw blades without pins. 130mm (5.1")

For cutting hard and soft woods, plastic, Perspex and soft non-ferrous metal. Coarse-toothed blades, No. 9: 14 TPI

NO 28 116

130 x 1.5 x 0.48mm (5.1")

12 pieces

Standard-toothed blades, No. 5: 17 TPI

NO 28 117

130 x 1.2 x 0.48mm (5.1")

12 pieces

Fine-toothed blades, No. 3: 20 TPI

NO 28 118

130 x 0.8 x 0.48mm (5.1")

12 pieces

Hard materials such as steel and PERTINAX.

Standard-toothed blades, No. 5: 36 TPI

NO 28 112

130 x 0.85 x 0.4mm (5.1")

12 pieces

Fine-toothed blades, No. 3: 41 TPI

NO 28 113

130 x 0.75 x 0.36mm (5.1")

12 pieces

Very fine-toothed blades, No. 1: 50 TPI

NO 28 114

130 x 0.6 x 0.3mm (5.1")

12 pieces



Competent drilling of micro holes down to 0,5mm (1/64").

Bench Drill Press TBM 115



The matching MICRO Compound Table is described on page 21.

With extremely high rotational accuracy and optimal power transmission via belt drive for three different speeds.

The unit offers a high quality machined work table of ribbed diecast aluminum (work table size 220 x 120mm (8 1/2" x 4 3/4") providing an adjustable parallel fence. The solid, hard-chromed steel column is 340mm high (13 25/64") and has a diameter of 20mm (4/5"). The powerful motor, which is built into the super stable die-cast head of the machine, runs very quiet and has a long life expectancy.

The power transmission by 3-step aluminum pulleys and flat belt provides 3 spindle speeds of 1,800, 4,700 and 8,500rpm allowing triple torque at lower speeds. The chrome feed lever has a practical adjustable drilling depth gauge.

The spindle is essentially free of play as a result of the three high quality ball bearing assemblies. It is recessed for the insertion of MI-CROMOT steel collets, but also threaded for attaching drill chucks with 3/8" thread. The spindle has an extremely high rotational accuracy and a 30mm (1 3/16") feed. The quill diameter is 32mm (1 1/4") with return spring, the throat depth (column to drill spindle) is 140mm (5 1/2"). The unit provides quick coarse height adjustment of the headstock via clamp lever. The max. height (worktable surface to spindle end) is 140mm (5 1/2").

Technical data:

110 – 120V AC, 60Hz, 85W (0.115hp), speeds 1,800 / 4,700 / 8,500rpm. The unit comes with six triple slit MICROMOT precision steel collets in sizes 1-1.5-2-2.4-3 and 3.2mm (1/32" – 1/16" – 5/64" – 3/32" – 7/64" and 1/8").

To clamp work pieces we recommend using either one of our machine vises or the X-Y table KT 70 (see page 21) to convert this machine into a high-precision machining center.

NO 38 128



Drill chuck

For drill shank sizes from 0.5 to 6mm (1/64" to 1/4") and maximum speeds up to 10,000rpm this chuck offers industrial quality with extra high-speed accuracy. With 10mm (3/8") thread. For MICROMOT Bench Drill

Press TBM 115. Including chuck key.





Small and beautiful - the accurate mill for lab, optician, jewelry, electronic and model building projects.

MICRO Mill MF 70

The unit is supplied with a stable base of cast iron. Both vertical column and compound table are of treated, high quality aluminum. All axes are play-free and have adjustable slides.

The headstock, made of die-cast aluminum, houses the 24 pin balanced special motor and provides stability even at high operating speeds. This stability facilitates the use of the finest cutters.

Six triple slit, hardened MICROMOT steel collets come with the machine and cover shank sizes of 1 - 1.5 - 2 - 2.35 - 3 - 3.2mm (1/32" - 1/16" - 5/64" - 3/32" - 7/64"and 1/8").

The table is fitted with three T-slots of the 12 x 6 x 5mm (15/32" x 15/64" x 13/64") MICROMOT-norm. An adjustable ruler scale eases the positioning of the work piece.

All hand wheels are zero adjustable with 1 revolution = 1mm (1/32"), 1 division = 0.05mm (.002").

Technical data:

Volts 110 - 120V AC, 60Hz Speed 5,000 - 20,000rpm

Table Size 200 x 70mm (7 7/8" x 2 3/4") X-Y Travel

134 and 46mm (5 17/64" and 1 13/16")

Vertical Travel 80mm (3 1/8")

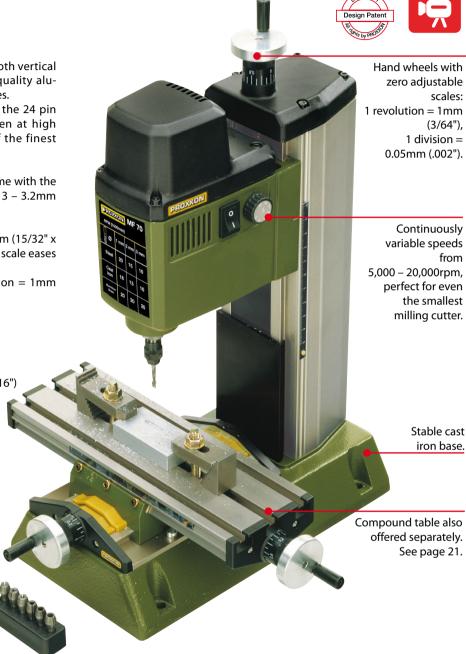
130 x 225mm (5 7/64" x 8 55/64") **Footprint Size**

370mm (14 9/16") Height Max. Power 100W (1/8hp) Weight 7kg (15.5 lbs)

NO 37 110

Note:

Optionally this machine may also be used with our three jaw keyless chuck (see page 25, NO 28 941).



Dividing Attachment for MICRO Mill MF 70

This dividing attachment has been especially designed for use with the MICRO Compound Table KT 70 which is identical to the X-Y table of the MICRO Mill MF 70.

All provided mounting holes match the slot distance of the above items, so that it can be mounted in no time with the included clamping parts either standing or lying on the table. When using it standing upright, also long work pieces can be worked on, as they can be pushed through a hole provided in the base plate. Comes in a wooden box.





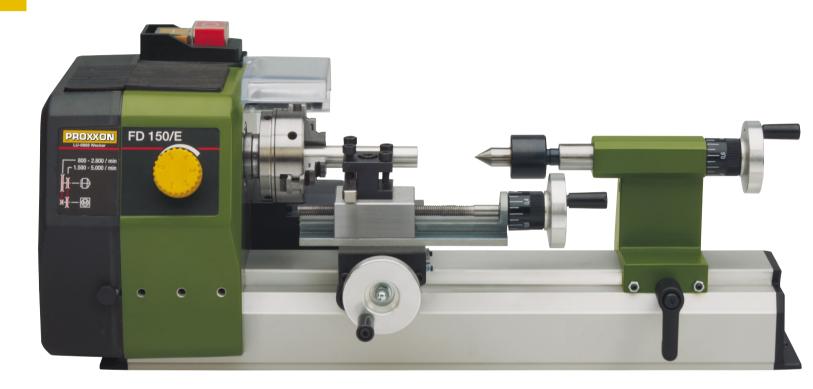
Light, stable and precise. 2-stage belt drive and additional electronic The right cutting speed for even the smallest pieces. Made in Europe.

Precision lathe FD 150/E



For face turning, longitudinal turning, boring, taper turning, slicing and drilling. Complete with 3-jaw chuck and live center.





Center distance 150mm (4"). Swing 55mm (2.2"). Height over cross slide 33mm (1.3").

Machine bed with dovetail guides of continuous aluminum casting.

Die-cast aluminum **spindle headstock**. With quiet special DC motor, 2-stage belt drive and additional electronic speed control for high torque at low speeds for larger work pieces and for the appropriate cutting speed, even for the smallest pieces. Main switch with emergency stop function and restart protection. Precision bearing mounted main spindle with continuous 8.5mm (21/64") bore. Chuck fit for standard ER 11 type collets.

Three-jaw chuck, self-centering (interchangeble jaws 1 - 20mm (1/32" - 4/5")), outside jaws 20 - 50mm (4/5" - 2")).

Die-cast aluminum **tailstock** with spindle and live center (fitting MK 0/short).

Support: To be shifted manually on the bed and clamped with lever. Rotating tool post for turning steels 6 x 6mm (15/64" x 15/64").

Processing via top slide (60mm (2.35"), travel distance Z) and cross slide (40mm / 1.57"), travel distance X). The angle adjustment of the upper carriage makes it possible to turn tapers up to $+/-45^{\circ}$.

Handwheels with zero adjustable scale ring (1 division = 0.05mm (0.002"), 1 revolution = 1mm (1/32")).

Other technical data:

110 – 120V AC. 50/60Hz. Distance between centers 150mm (4"). Swing 55mm (2.2"). Height over cross slide 33mm (1.3"). Cross slide travel (X) 40mm (1.57"), top slide travel (Z) 60mm (2.35"). Steel tool post for turning steels 6 x 6mm (15/64" x 15/64"). Spindle bore 8.5mm (21/64"). 2-stage belt drive with electronic speed control: Stage 1 = 800 – 2,800rpm. Stage 2 = 1,500 – 5,000rpm. Dimensions approx. 360 x 150 x 150mm. (14.1" x 4" x 4"). Weight 4.5kg (10 lbs).

NO 34 150

4-jaw-chuck, self-centering for FD 150/E



Used to clamp cylindrical, square or octagonal work pieces. High accuracy. Clamping range with reversible jaws from 1 – 20mm (inside) and 20 – 50mm (outside). Ø 50mm.

NO 24 158

6-piece turning tool set. Made of high-quality cobalt HSS steel. Ground.



One each boring, roughing out, parting, finishing, right and left cutter. Size $6 \times 6 \times 65$ mm (15/64" $\times 15/64$ " $\times 21/2$ ". For FD 150/E, supplied in wooden box.

NO 24 524 6 pieces

Drill chuck



Capacity 0.5 - 6.5mm (1/64" - 1/4"). Industrial quality with high concentricity (allowed up to 10,000rpm). Complete with arbour B 10 x MK 0/short. For the tailstock of the FD 150/E.

NO 24 152

Multiple range standard ER 11 type collets



Offering high concentricity. May be reduced up to 0.5mm below their nominal diameter (intermediate sizes not required). D = 11.5mm, L = 18mm. One each of 2. - 2.5 - 3

 $-\,4\,-\,5\,-\,6$ and 7mm are included. With clamp-ing nut M 16 x 1. Suitable for the main spindle of the FD 150/E. Supplied in a wooden box.

NO 24 154 7 pieces

MICRO-Press MP 120

A precision tool for precision mechanics and model making: Pressing in, pressing out, riveting, imprinting, edging, bending of wires and sheets. Embossing, beading and crimping of easy to form materials (e.g. copper, brass).



With 5 cylindrical punching tools Ø 3 – 4 – 5 – 6 and 8mm (7/64" – 5/32" – 13/64" – 15/64" – 5/16"), surface hardened, one each semi-spherical profile Ø 3mm (7/64") and Ø 9mm (23/64") and a 90° square prism for bending sheet metal. Punching tools are inserted into the toothed rack and fixed with a knurled screw. The counterpart is an easily adjustable, hardened revolving plate with all required holes and bottom dies for the above-specified punching tools.

Force of pressure approx. 1,000N, 100kg (220 lbs). Maximum stroke of toothed rack with inserted tool 65mm (29/16"), above revolving plate 50mm (2"). Solid steel arm 120mm with (4 3/4") throat. Ground base plate of steel, 80 x 190mm (2 3/16 " x 7 1/2") with an 8mm (5/16") -center and two fastening bores. Weight approx. 2,800g (6.2 lbs).

NO 27 200

Chip collecting tray with splash guard for FD 150/E

Of 1.5mm (1/16") thick sheet steel, powder-coated. Bevelled edges at the front and back enable easy cleaning.

Pre-drilled mounting holes for the secure stability of the FD 150/E. L $400 \times W$ $165 \times H$ 140 mm (L $15 \times 3/4 \times W$ $6.5 \times H$ $5.5 \times W$). The lathe depicted here is not included in the scope of delivery.





Precision lathe PD 250/E

For face, longitudinal and taper turning, thread-cutting. For machining steel, brass, aluminum and plastic. Mounting flange for fastening the mill/drill head PF 230.



Center to center 250mm (10"). Swing 70mm (2 3/4"). Height over cross slide 43mm (1 11/16").

Machine bed: Of cast iron, wide-legged prismatic guide. For vibration-free work even at high loads. Rear flange for mounting the mill/drill head PF 230. Covered lead spindle.

Headstock: Of die-cast aluminum. Precision bearing mounted main spindle (run-out without chuck 1/100mm (0.0004")) with 10.5mm (13/32") opening. Chuck side 70mm (2 3/4") hollowed to 14mm (0.56"). With MT2 bore. Rotary switch for engaging the automatic feed via lead and feed spindle (optionally 0.05 or 0.1mm/rev. (2/100" or 4/1000")).

Tailstock: Of die-cast aluminum. Sleeve Ø 20mm (3/4"), retractable up to 30mm. With millimeter scale, MT 1 bore and live center.

Support: Bed carriage made of die-cast zinc. Cross slide and top slide of steel (adjustment 60 or 45mm (2 3/8" or 1 3/16")). Turning tool post for cutting tools size $8 \times 8mm$ (5/16" x 5/16").

Drive: Quiet DC special motor with 3-stage belt drive for 300 – 900 and 3,000rpm. With additional speed control (full-wave electronics) conti-

nuously adjustable to 100-300 or 1,000rpm, depending on belt ratio. Clockwise - anticlockwise rotation. Main switch with emergency stop function and restart protection.

Lathe chuck: High quality 3-jaw chuck (concentricity tolerance 0.04mm (0.002")). Capacity through interchangable jaws from 2 - 75mm (5/64" - 3"). Including lathe chuck guard with safety shutdown.

Handwheels: Of aluminum, with adjustable scale ring (1 division = 0.05mm (.002"), 1 revolution = 1mm (3/64").

Thread cutting device: With change gears for left-hand and right-hand threads of the most important metric pitches (0.5 - 0.625 - 0.7 - 0.75 - 0.8 - 1 - 1.25 - 1.5 mm).

Other technical data:

110 – 120V. 50/60Hz. Size L 560mm (22") W 270mm (10 3/4"), H 170mm (6 5/8"). Weight approx. 12kg (26.5 lbs).

NO 34 002

Quick change tool post - easy to use!



For quick tool change and easy height adjustment. Includes 2 tool holder elements.

NO 24 026

Additional quick change tool holder (separately)

Can be used with the above above-mentioned quick change tool post.

NO 24 024



Note:

The work piece pictured here is not included in the delivery!

Gear set for turning of imperial thread

Contains 8 change wheels for making threads with 56, 48, 42, 36, 35, 30, 28, 24, 21 or 18 thread pitches per inch. The number of teeth is imprinted on all change gears.

NO 34 011

Collet set with ER 20 collets: For extreme true concentric accuracy. 2 – 10mm (5/64" – 25/64").

For high precision machining of round parts. The collet set is mounted instead of the lathe chuck. With 8 collets (2 – 2.5 –



3-4-5-6-8 and 10mm). Packed in a wooden box.

NO 24 038

4-jaw chuck with independent jaws



For clamping angular and asymmetrically shaped work pieces. Capacity up to 80mm (3.15"). Chuck Ø 75mm (2.95").

NO 24 036

Center turning attachment. For highest accuracy with high rotational precision.



This includes:

1 face plate, 2 fixed centers (MT 2 and MT 1/short) and 1 drive dog. Packed in a wooden box.

NO 24 014

Professional drill chuck with MT1



For the tailstock of the PD 250/E. Capacity up to 10mm (3/8").

NO 24 020

Fixed steady for longer work pieces



Especially for boring. Also required if the tailstock cannot be used to "counter".

Up to \emptyset 40mm (1,1/2").

NO 24 010

Self-centering 3-jaw chuck

Identical to chuck of lathe PD 250/E. High quality clamping fixture as per DIN 8386, Class 1 (concentricity accuracy 0.04mm (0.0015")). Capacity through reversing jaws from 2 – 75mm. (5/64" –2.95") Suitable for PD 250/E and the dividing attachment NO 24 044.

NO 24 034

Lathe system PD 250/E. Versatile and expandable. Precision made in Germany.

Splash guard and chip collecting tray for lathe PD 250/E



Made from 1.5mm (1/16") thick sheet metal, powder coated. Bevelled edges at the front and back allow slight cleaning. Mounting hole and raised base to secure lathe are pre-drilled. The depicted lathe is not included in the offer.

L 550 x W 240 x H 160mm (22 3/4" x 9 1/2" x 6 1/4") **NO 24 008** for PD 250/E

Universal dividing attachment UT 250

- · For accurate machining of circular work pieces.
- Used to manufacture sprockets, gears, ratchets, cams, etc.
- For fixation on compound table KT 150 and milling machines FF 230 and FF 500/BL.



Note: The work piece pictured here is not including in the delivery.

Worm drive for divisions through 360°. Feed adjustment by handwheel with graduated, zero-adjustable dial (1 revolution = 10°).

Unit may be fixed horizontally or vertically. For compound tables with distances between T-slots of 45 - 60mm. The flange of the dividing attachment is the same size as that of the main spindle of the PD 250/E lathe, thus 3 jaw chuck (NO 24 034) and 4 jaw chuck (NO 24 036) may be mounted. Incl. faceplate Ø100mm and step clamp set of steel: Two each step blocks and clamps. With matching slot nuts, threaded rods and nuts. Packed in a wooden box.

NO 24 046

Drill chuck (10mm / 13/32"). With adapter for PF 230 and FF 230

Industrial quality, however not as accurate as the collets. With 10mm adapter which fits into the 10mm collet. Includes the chuck key.



The Mill/Drill Head PF 230 converts your Lathe PD 250/E into a machining center

The Mill/Drill Head PF 230 comes with a column size 35×400 mm ($13/8" \times 153/4"$) including the necessary mounting bracket and bolts to attach it to the Lathe PD 250/E.

The lathe's top slide is then replaced with the table (supplied with the Mill/Drill Head PF 230). The table has a size of 110 x 70mm (4 5/16" x 2 3/4") and 3-T slots 15/32" x 15/64" x 13/64" longitudinal and cross-wise respectively.

Three collets of sizes 6, 8, 10mm (15/64" – 5/16" and 13/32") are included.

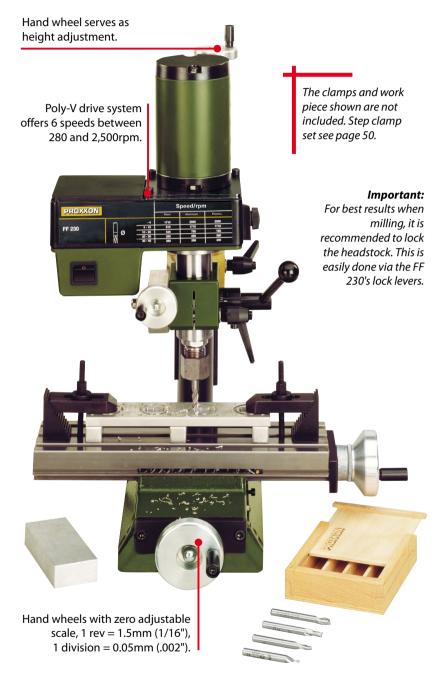
NO 34 104





A small, high accuracy machining system to mill, drill and bore.

MICRO Mill FF 230



Compound table KT 230

The individually available solid table is the same as described with the MICRO Mill FF 230 above, has a size of 270 x 80mm (10 5/8" x 3 5/32") and is T-slotted to 12 x 6 x 5mm (the MICROMOT norm of 15/32" x 15/64" x 13/64"). The compound table does not include the headstock and column. The Mill Drill/Head PF 230 may be attached to it.

NO 24 106

The MICRO Mill FF 230 is a small, accurate milling system used to mill, drill and countersink steel, cast iron, aluminum, brass and plastic. The headstock swivels 360° , indicated on a scale. Height is adjustable. One revolution equals 1mm (1/32") travel, 1 division equals 0,05mm (.002"). The quill and headstock may be locked in position, which is essential when milling. The powerful permanent magnet motor drives via a poly-v-belt, yielding high torques, especially at lower speeds. The machine comes with three collets of 6, 8 and 10mm. The solid table has a size of 270 x 80mm (10 5/8" x 3 5/32") and is T-slotted to $12 \times 6 \times 5$ mm (the MICROMOT norm of 15/32" x 15/64" x 3/16").

Technical Data

Volts 110 – 120V AC, 60Hz
Speeds 280, 550, 870, 1,200, 1,500, 2,200rpm
Table Size 270 x 80mm (10 5/8" x 3 5/32")
Column Size Ø 35 x 400mm long (1 3/8" x 15 3/4")
X-Y Travel 170mm x 65mm (6 11/16" x 2 9/16")
Overall Height 500mm (20")
Weight 41 lbs (17kg)

NO 34 108

Fine feed for milling machine PF 230 and miller FF 230

Easily installed. The feed may now be used via the height feed (vertical) or the fine feed in the tilted position. One revolution

is equivalent to 1.5mm (1/16") spindle travel, with 1 division = 0.05mm (.002"). The graduated scale can be reset to zero.

NO 24 140



Five piece collet set for PF 230 and FF 230

Includes 1 each collet for round stock 2.4 - 3 - 3.2 - 4 and 5mm. Supplied in a wooden box and lid.

NO 24 144

Splash guard and chip collecting tray for PROXXON milling machines



Made of 1.5mm (1/16") thick sheet steel, powder-coated. Secure stand due to drill holes for fastening to a work surface (the use of steel sleeves keeps the tray tightly sealed). L 700mm, W 420mm, H 40mm (27 1/2" x 16/12" x 1 37/64").

NO 24 322



Accessories and tools for the lathe and miller systems FD 150/E, PD 25

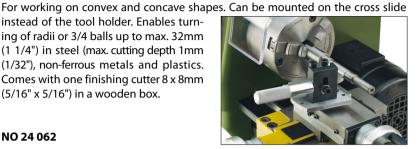
Nearly all accessories are supplied in wooden boxes. For proper and value preserving storage!



Radius cutting attachment

instead of the tool holder. Enables turning of radii or 3/4 balls up to max. 32mm (1 1/4") in steel (max. cutting depth 1mm (1/32"), non-ferrous metals and plastics. Comes with one finishing cutter 8 x 8mm

(5/16" x 5/16") in a wooden box.



NO 24 062

Precision Steel Vice



PM 60

Can be used on its side and back. Width of jaws 60mm (2 3/8"), clamping capacity 42mm (1 2/3"). Complete with mounting bolts. Packed in a wooden box.

NO 24 255

PM 40

Jaw width 46mm (1 13/16"), clamping capacity 30mm (1 3/16"). Total length 70mm (2 3/4"). Ideal for working with MICRO Mill MF 70 or Compound Table KT 70. Slot stones and fixing screws included. Comes in a wooden box.

NO 24 260

Tool Holder for rotary tools. For use on lathe machines.



This holder allows mounting of our rotary tool IBS/E (collar size 20mm (4/5")) to the tool post of the Lathe PD 250/E for grinding or polishing purposes.

NO 24 098

Step Clamp Set



Consists of 2 step blocks and 2 clamps, 2 nuts, 2 T-slot nuts. Secures objects to approx. 35 mm (1 3/8") high. May be used with PD 250/E and FF 230. Supplied in wooden

Clamps up to 20mm (4/5")

NO 24 256

Clamps up to 35mm (1 1/2")

NO 24 257

Precision V-Blocks





Used to clamp various work pieces. Made from hardened steel, precision ground in pairs. Four different depths of prism incisions V, all at 90°. Size 50 x 30 x 30mm (2" x 1 3/16" x 1 3/16"). The solid clamp and knurled knob ensure superb securing of the work piece.

NO 24 262

2 pieces

Die Holder for round dies, threads M 3 to M 10



Sizes: M 3 - 4 - 5 - 6 - 8 - 10. The straight shank 10mm (13/32") fits our drill chuck NO 24 020 when mounted in the tailstock of the PD 250/E. The holder is held by hand while cutting the threads. Comes in a wooden box.

NO 24 082

14-piece parallel supports set

Ground in pairs.

For adjusting work on drilling machines, lathes and milling machines. Made of highalloy, hardened steel (58 - 62 HRC). Parallel accuracy 0.002mm. 2 each of 8 x 10, 15, 20, 25, 30, 35 and 40mm. Length 100mm. Packed in a wooden box.

NO 24 266 6 pcs.



Milling Cutter Set 2 - 5mm

HSS, all with 6mm shank. Cutters of Ø 2, 3, 4 and 5mm. Double fluted. Supplied in wooden box.



NO 24 610

Milling Cutter Set 6 - 10mm

HSS, 4 cutters \emptyset 6, 7, 8 and 10mm. Four flute design. Supplied in wooden box.



NO 24 620

Three Piece Center Drill Set

HSS, 60°. Complete set with sizes of 2, 2.5 and 3.15mm (5/64", 3/32", 1/8").



NO 24 630

Edge Finder Set



Used for fast and accurate location of starting point of work pieces with respect to the machine spindle on milling machines. Size 6 x 6 x 50mm and 6 x 5 x 75mm. Comes in a wooden box.

NO 24 434

Parting tool holder and tool

Used in the PD 250/E quick change system.



Used to part stock and cut slots. The 12 x 3 x 85mm HSS tool contains cobalt. Spare tools available under NO 24 554.

NO 24 217

Spare tool for parting tool holder, as described above. **NO 24 554**

The lathe tools are made from high-quality Cobalt HSS, pre-ground. Packaged in a wooden box.

Five Piece Cutting Set



 $8 \times 8 \times 80$ mm (5/16" $\times 5/16$ " $\times 3 \times 9/64$ "). One each roughing out, parting, finishing cut, left and right cutter.

NO 24 530

Three Piece Thread Cutting Set



6 x 8 x 80mm (15/64" x 5/16" x 3 9/64"). One cutter for external thread (ground to 60°, metric), one for internal thread, one general cutting.

NO 24 540

HSS Boring Tool Set



One each cutter for 60 degree (metric) and 55 degree (Whitworth) inside threads, 1.3mm (3/64"), 2.65mm (7/64") and 4mm (5/32"). Shank: 6mm (15/64"). Length: 95mm (3 3/4").

The cutters are held by a tool holder that mounts to the tool post of the PD 250/E. Comes in a wooden box.

NO 24 520

6 pieces

Cutter Set with tungsten inserts



Three holders 8 x 8 x 90mm (5/16" x 5/16" x 1/2"), for

- ① roughing out,
- 2 finishing cuts and
- ③ boring bar, holes from 15/32". Standard tungsten tips, 55°, plated. Three additional inserts, secur-ing screws an key TX8 are included.

8 x 8mm (5/16" x 5/16")

NO 24 555

Tungsten Disposable Tips

for the holders 24 555. Ten piece set. **NO 24 557**

Offset cutter set with carbide inserts for PD 250/E and PD 400



Holder angled to the left by 45° for cylindrical carbide inserts Ø 6mm. For extra high surface quality and low surface roughness, for turning radii and cutting round grooves. Set includes two tungsten inserts, two insert securing screws and TX 8 key.

8 x 8 x 60mm (for PD 250/E) **NO 24 560**

Carbide inserts

For the holders as described above.

NO 24 564

10 pieces

Cutting tool set for precision lathe FD 150/E. Made of high-quality cobalt HSS steel.



One each boring, roughing out, parting, finishing, right and left cutter. Size 6 x 6 x 65mm (15/64" x 15/64" x 2 1/2"). For FD 150/E. Comes in wooden box with sliding lid.

NO 24 524 6 pieces



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