



emco unimat

The universal miniature machine tool Emco-Unimat now even more efficient, even more universal, an even better proposition!

The motor has a 90 Watt capacity and a speed rating of 4000 rpm. It can be supplied for any major voltage which should be specified in your order. All the motors are suitable for AC/DC and are fitted with radio and TV interference suppressors.

The basic equipment

of the Unimat comprises: headstock, bed plate, carriage, toolholder, tailstock, motor bracket with intermediate pulley, vertical column and locking head, grinding wheel holder, faceplate, lathe dog, T-slot bolt, 2 drive belts, motor pulley, 2 dead centres, Allen key and a comprehensive operating manual.



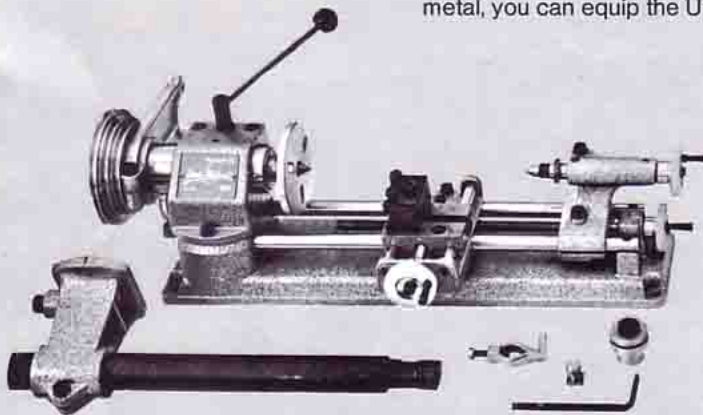
The Emco-Unimat approximately 4/5 of the actual size.

Even the basic unit alone together with the motor and a few inexpensive attachments (i. e. a 3 jaw lathe chuck, a 3 jaw drill chuck and a selection of tools) permits a large number of operations irrespective of whether the component is made of balsa wood, tool steel or one of the modern plastic materials. The Unimat gives you professional finish and accuracy. What earlier meant effort and toil is now sheer delight. The results obtained will ensure that recognition and success are not far away.

The Unimat offers many other uses with the aid of a few inexpensive sets of fittings or individual attachments. Depending on whether your preferred material is wood, plastic or metal, you can equip the Unimat as a:

**Circular metal saw
Jigsaw for metal
Drive for the flexible shaft
Screw cutting machine
Drilling and milling machine
Grinding machine**

**Circular wood saw
Fret- and jigsaw
Woodworking lathe
Routing and planing machine.**



The basic machine represents the features of a lathe, drilling and milling machine and grinding machine



The Emco-Unimat as a universal miniature machine tool for



metal

A complete precision engineer's workshop in the minimum space and at a modest cost.

Technical Data:

Lathe:

Centre height 36 mm (1.42"), distance between centres 170 mm (6.74"), swing between the centres over slide rest 40 mm (1.57"), over guide columns 70 mm (2.76"), spindle bore diameter 6.5 mm (0.256"), drilling stroke 20 mm (0.787"), speed range 365–6000 rpm.

Vertical Drilling and Milling Machine:

Maximum working height 120 mm (4.72"), throat 85 mm (3.35"), drilling stroke 20 mm (0.787"), headstock can be locked at any angle.

Thread Cutting Machine:

Suitable for cutting metric threads with pitches from 0.5 to 1.5 mm and for Whitworth threads having pitches from 16 to 56 tpi.



① The Unimat can be used for turning metal or plastics components.



② This bronze valve part belongs to a pressure vessel. It is made completely on the Unimat from bar material (Basic equipment + thread cutting attachment).

③ The illustration shows the manufacture of a spray pipe for a garden sprinkler, using the vertical column (Basic equipment + drill chuck + milling table).

④ A lost gear for an old pendulum clock which is no longer in stock with any clock-maker is quickly made on the Unimat (Basic equipment + milling table + dividing head + 3 jaw chuck + 0.5 module cutter).

⑤ The illustration shows the basic Unimat unit fitted with a grinding wheel adaptor for tool grinding (Basic equipment + grinding wheel guard). Suitable grinding wheels are available as extras.

⑥ Drilling, grinding and polishing operations can be carried out even in inaccessible places by means of the flexible shaft which is connected to the spindle nose of the Unimat.

Accessories and attachments for metalworking



3 jaw lathe chuck (selfcentring)
Order No. 100 100 ✓

Soft blank jaws for 3 jaw chuck
Order No. 100 300 ✓



4 jaw lathe chuck (independent)
Order No. 100 200 ✓



Fixed steady Order No. 104 000 ✓

Live centre, double ball bearing
Order No. 122 200 ✓



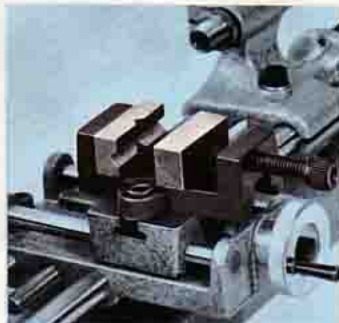
Watch maker's quill for watch
maker's collets Type B8
Order No. 102 200

Quill return spring
Order No. 100 800

1 pair of clamping shoes with
clamping bolts, Order No. 121 200 ✓



3 jaw drill chuck Order No. 100 500 ✓
Milling table with 2 clamps
Order No. 121 000 ✓



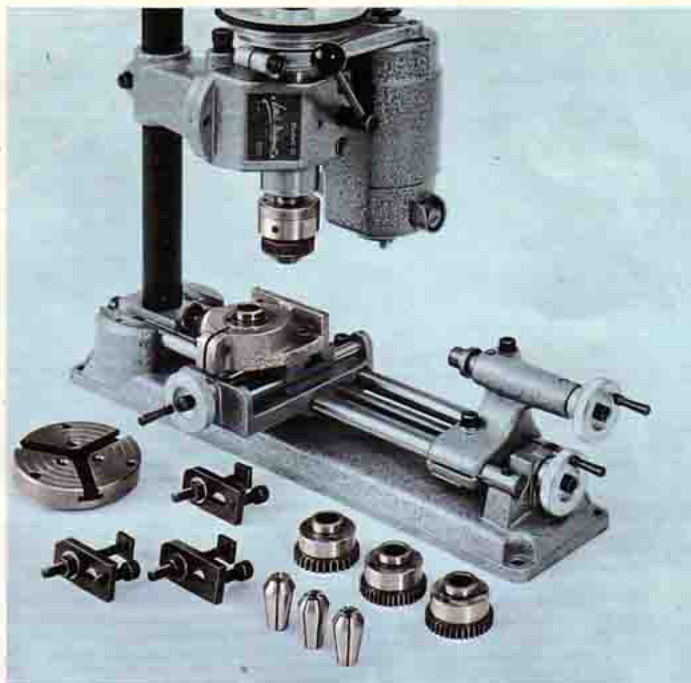
Machine vice Order No. 101 000 ✓



Milling arbor for module cutter
Order No. 124 500 ✓



Grinding wheel guard
Order No. 134 000



Dividing head with 48 division plate Order No. 126 000 ✓

30 Division plate Order No. 126 500 ✓

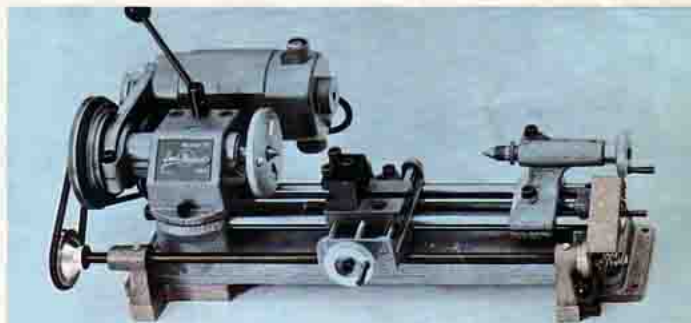
36 Division plate Order No. 126 600 ✓

40 Division plate Order No. 126 700 ✓

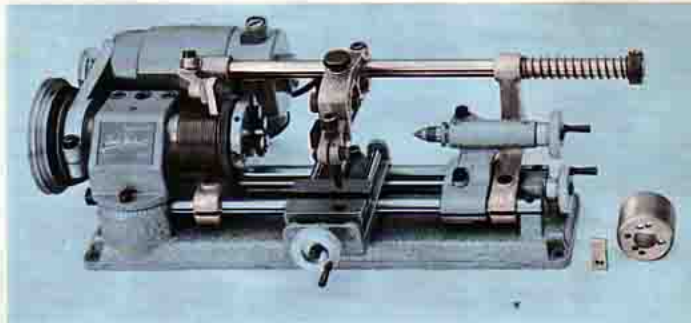
Circular table with 3 clamps Order No. 126 100 ✓

Collet attachment for collets Order No. 102 000 ✓

Collets in 16 sizes from 0.5 mm to 8 mm in steps of 0.5 mm or in 10 sizes from 1/32" to 5/16" in steps of 1/32" Order No. 102 1..



Automatic feed attachment Order No. 129 000 ✓



Thread cutting attachment
(With 1 mm pitch leader) Order No. 127 000 ✓

Additional leaders are available as follows:

0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1.0, 1.25, 1.5 mm pitch
and 16, 18, 20, 22, 24, 26, 28, 30, 32, 36, 40, 48, 50, 56 tpi.
(Please quote pitches when ordering), set of leaders Order No. 127 1..

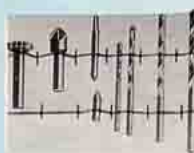


6 assorted tool bits, Order No. 111 500

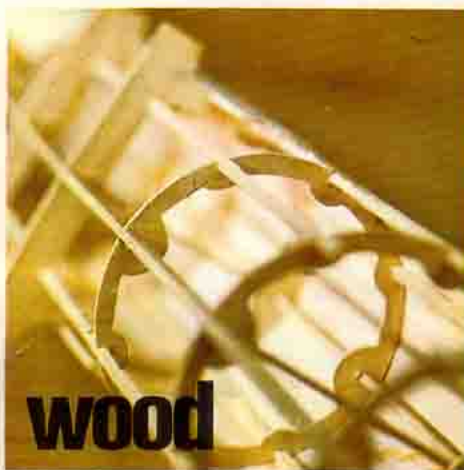
Assortment of drilling and
milling tools, metal work
consisting of: Order No. 119 000 ✓

1 twist drill 2 mm, 3 mm, 4 mm
and 5 mm ϕ ,
1 centre drill 1.5 mm ϕ
1 countersink bit 90°
1 longhole cutter 4 mm ϕ ,
1 slotting cutter 16 $\phi \times 4$ mm

Please find further tools for metal
on page 7.



The Emco-Unimat as a universal tool for



With a few attachments and accessories, the Unimat can be converted into a small but complete carpenter's and wood-turner's workshop.

Technical Data:

Circular Saw:

Maximum cutting depth 25 mm (1") with 90 mm (3 1/2") diameter blade and 10 mm (25/64") with a 60 mm (2 1/2") diameter blade.

Fretsaw and Jigsaw:

13 mm (1/2") stroke

Planer:

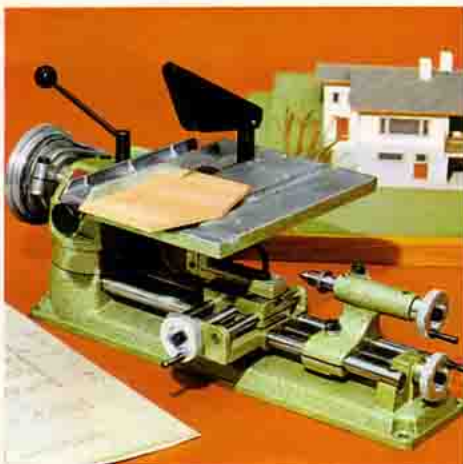
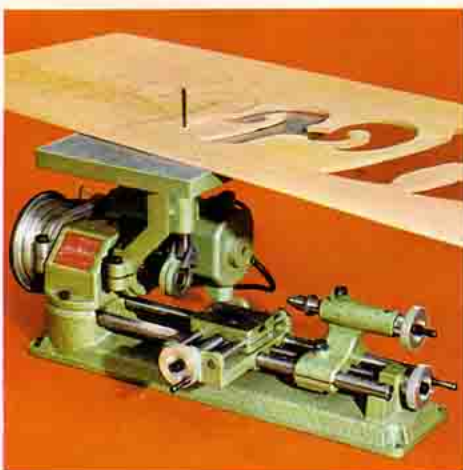
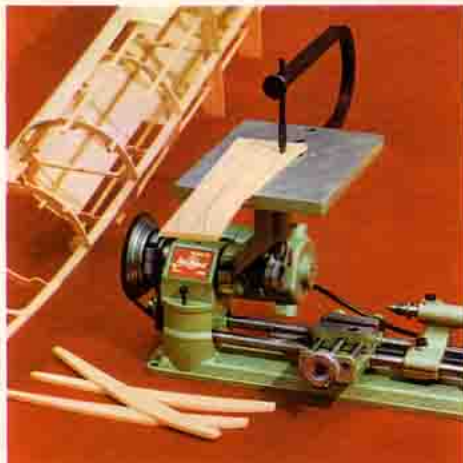
With a blade shaft of 25 mm (1"), depth of cut 0.5 mm (.02").

Router:

Blade envelope 28 mm (1 1/8") diameter, max. depth 12 mm (15/32").

Wood turning lathe:

Max. distance between centres 330 mm (13"), max. turning diameter between centres 70 mm (2 3/4").



① The Unimat fretsaw is indispensable to the skilled aeroplane and ship model maker. This equipment is also eminently suitable for arts and crafts.

② The jigsaw with its completely free table permits internal and external sawing on large workpieces. For this reason there are many window dressers and signwriters amongst the enthusiastic users of the Unimat.

③ Turning with decorative timbers or modern plastics is a hobby on its own. From chessmen to a pepper pot, from a keyring to spinning tops, there are a great many possible turning jobs.

④ The circular saw of the Unimat which permits very accurate cuts is especially welcome to architects and model makers.

⑤ The routing attachment facilitates the machining of steps and forms on rails and frames of all types. Hard and tough woods can be routed without effort when using the correct feed.

⑥ The planing attachment converts the Unimat into a small surfacing machine: panels etc. can be given a clean and smooth finish.

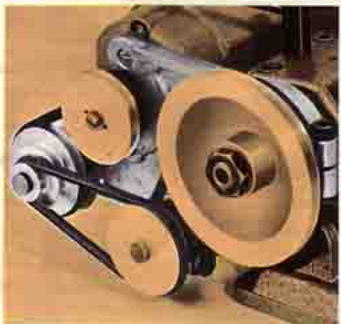
Accessories and attachments for wood- and metalworking



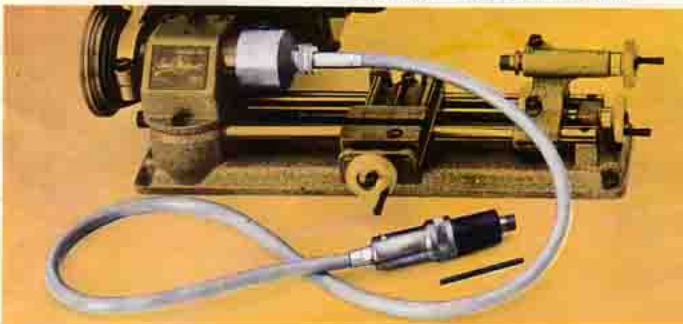
Circular saw attachment (without saw blade) **Order No. 124 000**
Adaptor No. 131 100 required



Adaptor **Order No. 131 100**
Mitre gauge **Order No. 124 100**



Motorbracket with additional reduction pulley, **Order No. 128 000**



Jigsaw and fretsaw
(Including 1 dozen assorted fretsaw blades) **Order No. 108 000**



Sanding disc 90 mm (3 1/2") diameter **Order No. 133 000**
(adaptor No. 131 100 required)



Polishing spindle **Order No. 103 000**



Rubber backing disc, 125 mm (5") diameter **Order No. 116 500**

Accessories and attachments for woodworking



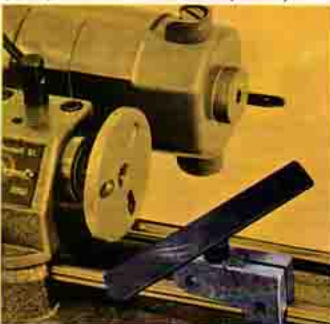
Routing attachment
Order No. 106 200



Drive centre **Order No. 120 500** ✓



Planing attachment
Order No. 105 000 ✓
(Adaptor No. 131 100 required)



Hand turning rest, fully adjustable
Order No. 120 200 ✓



Wood turning attachment
(Longer guide bars for 330 mm centre distance, drive centre, adjustable hand turning tool rest) **Order No. 139 500** ✓

Tools for metal- and woodworking

Description: **Order No.**

Tool bit, not sharpened **110 000**

Set of thread cutting tools: **111 600**
1 external thread cutting tool,
1 internal thread cutting tool

Module cutter M 0.5,
outside ϕ 40 mm
Size for number of teeth:
Size 1 12-13 **764 601**
Size 2 14-16 **764 602**
Size 3 17-20 **764 603**
Size 4 21-25 **764 604**
Size 5 26-34 **764 605**
Size 6 35-54 **764 606**

Circular saw blade for metal
60 mm ϕ x 1 mm **123 100**

Assortment of grinding
wheels: **119 100**
1 piece grinding wheel, straight
1 piece grinding wheel, cup
1 piece disc wheel

Diamond wheel dresser **116 000**
Assortment of turning tools: **119 200**
1 pointed hand tool,
1 flat hand tool,
1 turning gauge

Assortment of felt discs: **119 300**
1 piece of 40 ϕ x 8 mm
1 piece of 50 ϕ x 10 mm
1 piece of 70 ϕ x 15 mm

Circular saw blades for wood:
60 mm ϕ x 1 mm **123 200**
90 mm ϕ x 1 mm **123 300**

Assortment of jigsaw blades
for wood: **119 400**
1 piece each for metal,
plastics and wood

Fretsaw blades
metal (dozen) **117 200**
wood (dozen), coarse **117 500**
fine **117 000**

Set of circular brushes: **119 500**
1 circular brush, brass
1 circular brush, steel

Emery paper sanding discs
(for sanding disc, No. 133 000)
90 mm ϕ , one dozen each
grain 100 **112 500**
grain 80 **112 600**
grain 60 **112 700**

Adhesive for sanding disc **112 900**

Polishing lamb skin for
rubber plate **116 600**

Emery paper sanding
discs for wood,
grain 120 (dozen) **116 700**

emco

DISTRIBUTED BY

National Sales Representatives

GILES TOOL AGENCIES LIMITED

47 GRANGER AVENUE

SCARBOROUGH, ONT.

1-416-267-1111

MAIER & CO., A-5400 HALLEIN/AUSTRIA

Distributed by:

