

UNIMAT 3 Universal Miniature Machine Tool

- More features, accessories and precision than the world popular Unimat SL.
- Capabilities of a lathe, milling machine, drill press and complete woodworking center.
- Over 50 available accessories and attachments.
- Precision and accuracy by a fixed headstock and separate milling/drilling attachment.
- Two speed drive unit used on headstock & vertical.
- Compact construction, lathe bed has "VEE" guideways and cross ribbed body.
- Low speed of 130 RPM and high speed of 4000 RPM.
- Only small lathe available with capabilities of milling between centers.



"FREE color brochure available upon request"

Lathe #150.000 shown with #150.0LA - Three Jaw Chuck, #150.270 - Live Center, #150.190 - Top Slide, #150.300 - Power Feed, #151.101 - Vertical Attachment & Extra Drive Unit, #152.500 - Drill Chuck, #151.110 - Fine Feed.

Order Number	BASE MACHINES	Price
150.0LA	UNIMAT 3 — base machine with driving plate, lathe dog, 2 dead centers, toolholder, service tools and instructions	\$345.00
150.001A	UNIMAT 3 — base machine as described above, and in addition: fixed steady rest (150.240), three-jaw lathe chuck (150.410), set of six lathe tools (111.500) and live center (150.270)	\$499.00
150.002A	UNIMAT 3 — base machine as described above, and in addition: vertical head (151.100), fixed steady rest (150.240), milling table (150.350), three-jaw lathe chuck (150.410), three-jaw drill chuck (152.500), set of six lathe tools (111.500), set of eight drilling and milling tools (119.000) and live center (150.270)	\$725.00
150.004A	UNIMAT 3 — complete machine system including tools, accessories, and wood storage cabinet	\$2,684.50

PRECISION TOOLS AND MACHINES FOR HOBBY, INDUSTRY AND CRAFT

EMCO UNIMAT 3 - the universal machine tool for metal, wood and plastic work. Not a small machine but a scaled-down real machine tool for use by the hobbyist, homemaker, student and industrial uses for opticians, watchmakers, jewelers, electronics, etc. A universal machine for longitudinal turning, taper turning, thread-cutting, drilling, milling, dividing, grinding, cutting, polishing, sawing, wood-turning, planing, routing.

TECHNICAL DATA

Distance between centers	8" (200 mm)	TAILSTOCK	
Center height	1.75" (46 mm)	Barrel diameter	0.7" (18 mm)
Swing	3.6" (92 mm)	Traverse of barrel	0.9" (23 mm)
Travel of cross slide	2.1" (52 mm)	Drill chuck mounting	M 14 x 1
Required space	21.7" x 10.4"		
Net weight	15.4 lbs.	DRIVE UNIT	
		Ac/dc motor	95 Watts
		Motor speeds	2100/3600 rpm
HEADSTOCK		VERTICAL HEAD	
Hole through spindle	0.4" (10.2 mm)	Max. working height	5.5" (140 mm)
Spindle nose	M 14 x 1	Drilling stroke	1.0" (25 mm)
Spindle speeds	8 (130, 200, 350, 560, 920, 1500/2450/4000 rpm)	Spindle nose	M 14 x 1
		THREADS (With threading attachment)	
AUTOMATIC FEED GEAR		metric	9 (0.5-1.5 mm)
longitudinal feed	0.0008"/rev	inch	16 (16-56 tpi)

BASE MACHINE: T-ribbed cast iron bed with Vee-guideways, solidly mounted headstock with 8 spindle speeds, cross slide with adjustable dovetail guides, tailstock, 2-speed ac/dc motor; drive unit with round belts and belt guard; service tools, operating manual.

BOOKS

BOOK OF THE UNIMAT

By Laidlaw-Dickson. A beginners handbook on the Unimat 3 & SL. Written in clear simple language.

#150.068 \$7.95

MAKING THE MOST OF THE UNIMAT

By Rex Tingey. Illustrated and descriptive analysis on how to use the Unimat 3 and accessories.

#150.069 \$12.95

MACHINIST'S BEDSIDE READER

by Guy Lautard

Useful and helpful information for all metal working enthusiasts!

#150.066 \$18.95

OPERATING MANUAL

A complete manual showing all operations and functions.

#EN2050 \$7.00

UNIMAT 3 ACCESSORIES

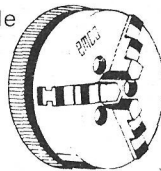
REPLACEMENT DRIVE BELTS

Set of 2 Belts, small and large #130.094 \$5.00
Small drive belt #130.095 \$2.75
Large drive belt #130.096 \$2.75
Auto feed belt #130.097 \$3.00

THREE JAW LATHE CHUCK

Workpiece is automatically centered. Jaws are reversible with a maximum gripping capability of 1.968". Use on the headstock, tailstock, cross slide, vertical unit and indexing attachment.

#150.410 \$81.00



SET OF THREE SOFT JAWS

For clamping sensitive surfaces. May also be turned to accommodate special pieces.

#100.300 \$29.00

FOUR JAW LATHE CHUCK

Used to hold square or irregularly shaped work-pieces. Round pieces may be chucked and indicated to run "dead" true.

#150.420 \$84.00



THREE JAW DRILL CHUCK

Use on any threaded spindle. Capacity of 5/16", (.3125").

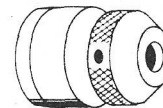
#152.500 \$22.00

COLLET HOLDER

When highest accuracy and concentric running are demanded. Holds drills, milling cutters and other cutting tools.

Use the ES-16 collets.

#150.290 \$55.00



TEN PIECE COLLET SET

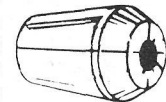
Type ES-16. 1-8mm, 1/32" to 5/16".

#152.200 \$375.00

SINGLE COLLETS

#152.210 0.5-1.0mm (1/32")
#152.215 1.0-1.5mm (3/64")
#152.220 1.5-2.0mm (1/16")
#152.225 2.0-2.5mm (3/32")
#152.230 2.5-3.0mm (7/64")
#152.240 3.0-4.0mm (1/8"-5/32")
#152.250 4.0-5.0mm (1/64"-3/16")
#152.260 5.0-6.0mm (13/64"-7/32")
#152.270 6.0-7.0mm (15/64"-1/4")
#152.280 7.0-8.0mm (9/32"-5/16")

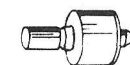
\$38.50 EACH ORDER NUMBER



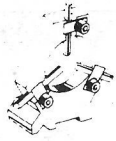
LIVE CENTER

For high speed turning.

#150.270 \$25.00



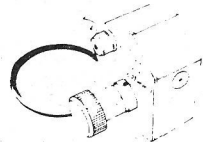
UNIMAT 3 ACCESSORIES



FIXED STEADY REST
Holds diameters up to 1 3/8".
#150.240 \$22.00

TOP SLIDE FOR TAPER TURNING

External & internal tapers up to 1.560".
#150.190 \$49.00



POWER FEED GEAR
Guarantees smooth & even finish. Carriage assembly will advance 0.00078" per spindle rotation.
#150.300 \$51.00

THREAD CUTTING ATTACHMENT

Cut internal & external threads up to 1.968" with selected formers & guides purchased separately.
#150.250 \$112.50

SET OF 9 METRIC FORMERS & GUIDES

0.5mm to 1.5mm.
#150.465 \$115.00

SET OF 14 INCH FORMERS & GUIDES

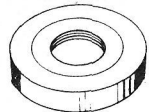
16 to 56 TPI
#150.555 \$180.00

SINGLE FORMERS & GUIDES

150.560 16 TPI **150.620** 26 TPI **150.670** 40 TPI
150.570 18 TPI **150.630** 28 TPI **150.680** 48 TPI
150.580 20 TPI **150.640** 30 TPI **150.690** 50 TPI
150.590 22 TPI **150.650** 32 TPI **150.710** 56 TPI
150.600 24 TPI **150.660** 36 TPI
Price Each: \$16.00

TOOL GRINDING ATTACHMENT

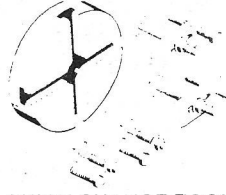
Grind turning tools, drills, center drills, etc.
#150.090 \$38.00



GRINDING WHEEL
Replacement for #150.090.
#152.090 \$8.00

DIAMOND TIPPED DRESSING TOOL

For truing grinding wheel.
#116.000 \$27.00



CIRCULAR CLAMPING PLATE
To clamp uneven and awkwardly shaped workpieces.
#150.360 \$39.00

QUICK CHANGE TOOLPOST

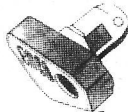
Gives the fastest tool changing available. Comes with two tool-holders and one boring bar holder.
#152.010 \$149.00

ADJUSTABLE TOOLPOST

Swivels 360° for any possible setting. The threaded ring allows quick height adjustment of the toolbit.
#153.000 \$17.00

VERTICAL MILLING & DRILLING ATTACHMENT

Turn the lathe into a milling machine and drill press. With the available accessories the applications are unlimited. Use power unit supplied with the lathe or use accessory.
#151.900 power unit.
#151.100 \$137.00



DRIVE UNIT

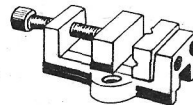
Ready to mount on vertical or lathe headstock.
#151.9LA \$199.50

VERTICAL ATTACHMENT & DRIVE UNIT

Complete set-up #151.000 & #151.900.
#151.101 \$324.00

MACHINE VISE

Drop forged steel body & hardened ground jaws. Opens up to 1 1/8" capacity.
#150.310 \$48.00

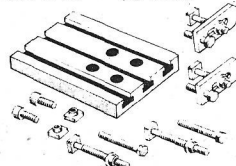


FINE FEED ATTACHMENT

When the dial is turned by one graduation the vertical spindle is lowered by 0.004".
#151.110 \$34.00

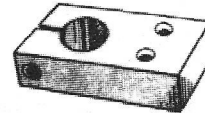
MILLING TABLE

Mounts on lathe cross slide to give a larger working area. Size: 3" X 5" X 1/2".
#150.350 \$44.00



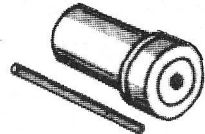
CLAMP SET FOR MILLING TABLE

Use when the set-up is difficult or when many clamping points must be secured.
#151.080 \$12.00



MOUNTING BRIDGE

Mount the vertical unit onto the cross slide for milling between centers. Cut key ways & mill flats.
#151.090 \$17.00



CUTTER ARBOR

Used for gear milling cutters and saw blades. 5/8" hole.
#151.070 \$16.00

INDEXING & DIVIDING ATTACHMENT

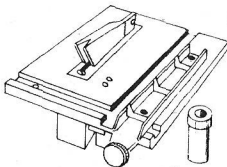
For milling gears, grooves, spline shafts, etc. at equal intervals. Plate 24 included.
#150.320 \$54.00

SET OF 3 DIVISION PLATES

Numbers 30, 36 & 40.
#150.323 \$25.00

FLY CUTTER

For planing large surfaces or boring larger holes. 0.87" to 1.77".
#150.100 \$22.00

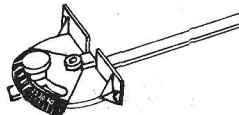


CIRCULAR SAW ATTACHMENT (without blade)

A miniature version of a conventional table saw. Cut wood, metal or plastic. Table — 7.97" X 6.81".
#150.380 \$81.00

MITRE GAUGE

Use with #150.380 Circular Saw. Adjustable angle.
#124.100 \$18.00

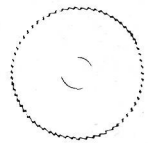


CIRCULAR SAW BLADES

2.4" diameter, for metal.
#123.100 \$20.00

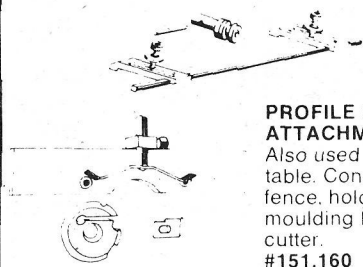
2.4" diameter, for wood.
#123.200 \$22.00

3.2" diameter, for wood.
#152.140 \$22.00



COMBING ATTACHMENT

Use with circular saw table & mitre gauge. Makes possible finger lap joints so often found in miniature furniture.
#151.130 \$23.00



PROFILE ROUTING ATTACHMENT

Also used with saw table. Consists of fence, hold downs, moulding head and cutter.
#151.160 \$66.00

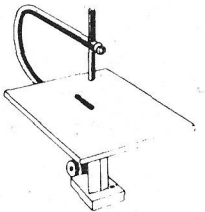


PROFILE CUTTERS

Set of 3 different cutters.
#151.165 \$45.00

FRET & JIG SAW ATTACHMENT

Table size 7.87" X 5.9". Throat: 9.84". Use as fret saw or jig saw.
#150.450 \$94.00

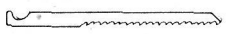


FRET SAW BLADES

117.000 (One Dozen) For wood, fine blade. \$5.50
117.200 (One Dozen) For metal, fine blade. \$9.25
117.500 (One Dozen) For wood, coarse blade. \$5.50
117.510 (One Dozen each) For wood, \$15.50
Coarse, Medium, Fine.

JIG SAW BLADES

118.005 (Set of five) For wood. \$12.25
118.105 (Set of five) For plastics. \$12.25
118.205 (Set of five) For metal. \$12.25

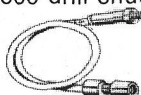


UNIMAT 3 ACCESSORIES

FLEXIBLE SHAFT

40" long shaft. Use #152.500 drill chuck for holding tools.

#152.330 \$86.00



SET OF TWO CIRCULAR WIRE BRUSHES

One steel, one brass wheel.
#119.500 \$13.00



RUBBER BACKING DISC

Use for sanding discs or polishing lampskin.

#607.000 \$7.50



POLISHING LAMPSKIN
Soft material for polishing.
#116.600 \$6.50



POLISHING ARBOR

Use polishing wheels or discs.

#150.370 \$23.00



SET OF THREE FELT POLISHING DISCS

2 1/2", 2" & 1 1/2" Diameter.
#119.300 \$8.25



WOOD TURNING ATTACHMENT

Drive center, cup center & adjustable tool rest.

#150.230 \$38.00



SET OF THREE WOOD TURNING TOOLS

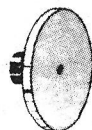
Gouge, skew & parting off.
#119.200 \$23.00



SANDING DISC SUPPORT

Use circular saw table for support. 3.55" diameter.

#150.280 \$18.50



SANDING DISCS

(one dozen) 100 grit \$112.500 \$3.50
(one dozen) 80 grit \$112.600 \$3.50
(one dozen) 60 grit \$112.700 \$3.50



ADHESIVE FOR SANDING DISCS

#112.900 \$5.50



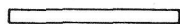
UNIMAT SL UNIMAT 3 COMPACT 5

CUTTING TOOLS (any small lathe)

CARLITT Cobalt alloy high speed steel

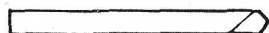
1/4" shank (5)

UNGROUND TOOL'S #110.010 \$15.00



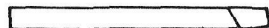
RIGHT HAND FACING #130.111 \$14.00

LEFT HAND FACING #130.112 \$14.00



RIGHT HAND TURNING #130.113 \$14.00

LEFT HAND TURNING #130.114 \$14.00



FINISHING TOOL #130.115 \$14.00



RIGHT HAND ROUGHING #130.116 \$14.00

LEFT HAND ROUGHING #130.117 \$14.00



CUT-OFF TOOL #130.118 \$14.00



EXTERNAL THREADING #130.119 \$14.00

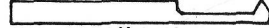


RIGHT HAND BORING #130.121 \$14.00

LEFT HAND BORING #130.122 \$14.00



INTERNAL THREADING #130.123 \$14.00

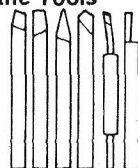


High Speed Steel Lathe Tools

SIX PIECE TOOL SET

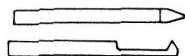
Six basic tools: RH & LH turning, RH facing, boring, finishing & cut-off. (HS)

#111.500 \$48.00



THREADING TOOLS

Internal & External 60°
#111.600 \$16.00



UNIMAT SL UNIMAT 3 COMPACT 5

CUTTING TOOLS (any small lathe)

CARBIT lathe cutting tool system

1/4" shank toolholders with preshaped high speed steel or carbide inserts that resharpen in 10 seconds.

RIGHT HAND TOOLHOLDER #130.141 \$12.00

LEFT HAND TOOLHOLDER #130.142 \$12.00



BORING BAR (45° & 90°) #130.143 \$17.00



SET OF 2 VEE-BLOCKS FOR BORING BAR
#130.161 \$4.00



SET OF 5 HIGH SPEED BITS FOR RH & LH
TOOLHOLDERS AND BORING BAR
#130.151 \$12.00



SET OF 2 CARBIDE BITS FOR RH & LH
TOOLHOLDERS AND BORING BAR
#130.152 \$12.00



CUT-OFF TOOLHOLDER #130.144 \$12.00



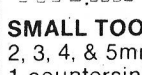
SET OF 3 CUT-OFF BLADES #130.153 \$12.00



LARGE TOOL SET

15 twist drills, 1-8mm dia. in steps of 0.5mm; 2 center drills; 4 T-slot cutters; 1 roughing tool; 8 assorted ground turning tools; 1 turning tool, unground; 1 circular saw blade; 1 countersink bit, 90°; 1 two flute cutter.

#152.100 \$168.00



SMALL TOOL SET

2, 3, 4, & 5mm twist drills; 1 center drill; 1 countersink bit, 90°; 1 slot cutter; 1 two flute cutter.

#119.000 \$30.00

GEAR MILLING CUTTERS

Set of six, module 0.5 cutter, number 1 to 6.

#152.110 \$270.00

AVAILABLE SEPARATELY

\$54.00 EACH

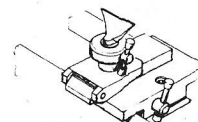


NEW UNIMAT 3 WATCHMAKER ACCESSORIES

HANDTOOL REST

For tiny workpieces using a handtool bit, the handtool rest can be swiveled.

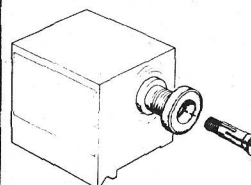
#150.260 \$121.00



COLLET HOLDER

Draw bar thread fits watchmaker collets.

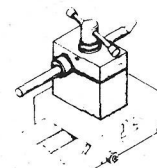
#150.340 \$39.00



SINGLE TOOLPOST

This toolpost uses round toolbits approximately 5mm. For easy height adjustment, toolbit is clamped in brass bushing eccentrically.

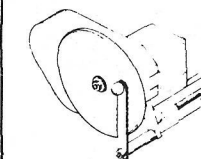
#150.390 \$39.00



DIVISION PLATE

This division plate includes fixing attachment. Gives you up to 120 divisions.

#150.440 \$112.00



TOOL STORAGE CABINET

Ideal for storing Unimat 3 machine, accessories and tools.

#152.600 \$490.00



UNIMAT TAP, DRILL & DIE

14 x 1 Plug Tap #141PT \$13.50

14 x 1 1-1/2" Die #141D \$15.50

12.75 mm Drill #1275 \$8.50

Set (1 each) #14TDD \$35.00