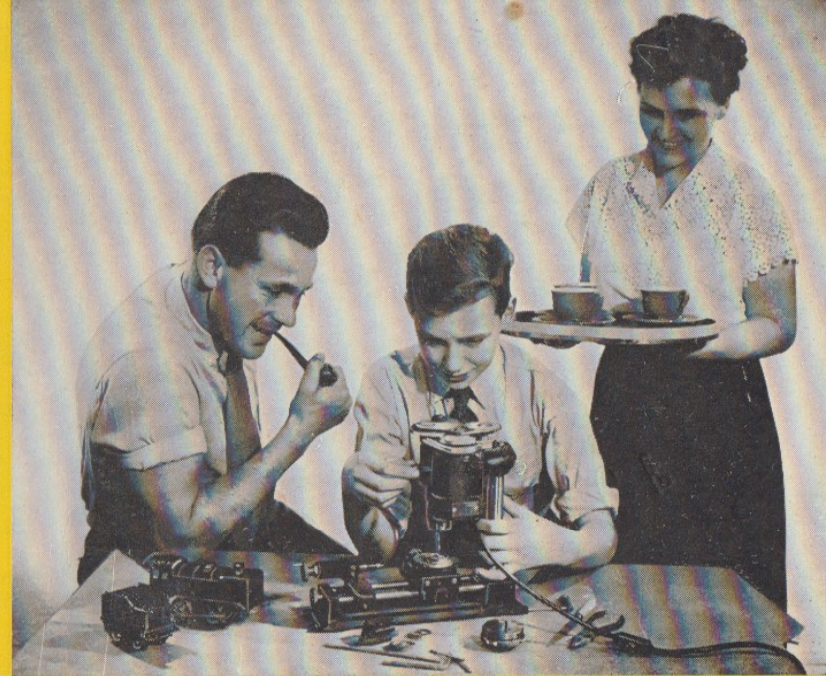


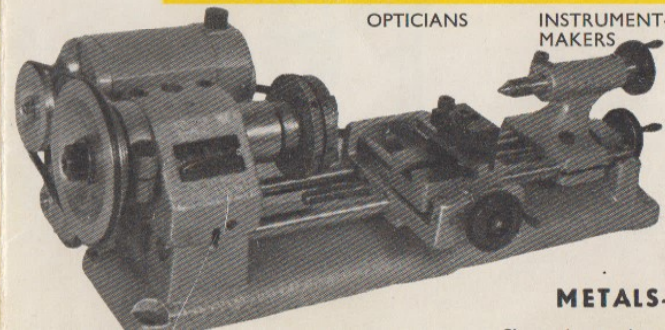
# U N I M A T



## THE COMPLETE HOME-WORKSHOP.

A universal small combination machine based on a unique construction principle, which can simply be converted from a lathe into a drill press, electric hand drill, milling machine, tool grinding machine, grinding and polishing machine, jig saw, circular saw, threading machine and dividing machine.

A precision product of Austrian manufacture which, when professionally used, operates within extremely narrow tolerances of less than .001" and which is consequently not only for the model-builder and do-it-yourselfer — also extremely well-suited as a complementary workshop unit for:



OPTICIANS

INSTRUMENT-  
MAKERS

BICYCLE &  
POWERCYCLE  
REPAIRMEN  
LABORATORIES  
IVORY- &  
GOLDCARVERS  
JEWELLERS  
ELECTRICIANS  
SEWING- & WRIT-  
INGMACHINE  
REPAIRMEN etc.

for machining  
**METALS-WOOD-PLASTICS**

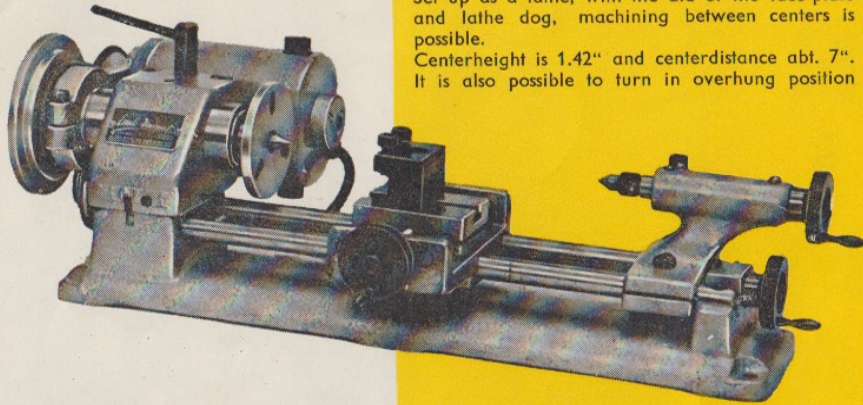
Obtainable at:



# BASIC UNIT (6 in 1)

## Lathe

Set up as a lathe, with the aid of the face-plate and lathe dog, machining between centers is possible. Centerheight is 1.42" and centerdistance abt. 7". It is also possible to turn in overhung position



The basic unit may be set up, by a few simple manipulations, as six different machines, viz.

LATHE  
DRILL PRESS  
HAND DRILL  
TOOL GRINDING MACHINE  
MILLING MACHINE  
GRINDING AND POLISHING  
MACHINE

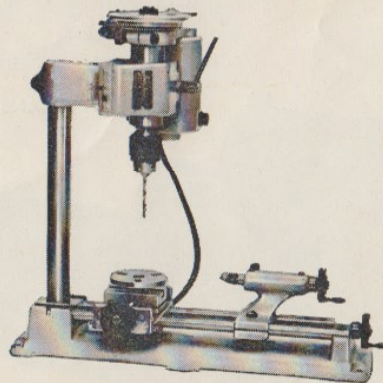
by using the selfcentring three jaw chuck (which has to be turned accurately to measure on the machine itself).

The pivoted headstock facilitates the turning of tapered surfaces — a most unusual feature in any amateur machine.

## Drill press

By inserting the vertical column into the bed and by attaching the headstock to this column, a drill press is obtained. Maximum height of drill chuck above table (for which the face-plate may be used) is 5", stroke of the headstock is abt. 1".

The drill chuck can hold tools up to  $\frac{1}{4}$ ". The pivoted headstock makes it possible to drill holes vertically as well as inclined at any angle.

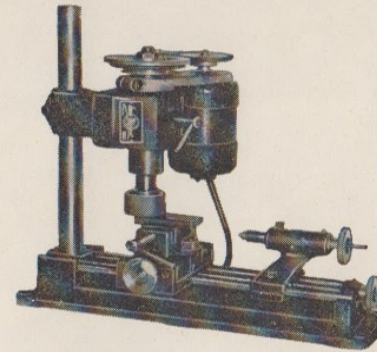


## BASIC UNIT DB 200

Every basic unit is delivered with a sturdy universal AC/DC motor (110 or 220 volts at choice) provided with built-in suppressor for eliminating radio and television interference.

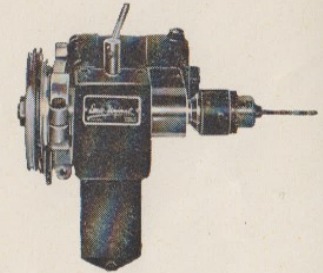
The reduction gear enables changing the speed of the headstockspindle in 11 variable speeds from 365 to 6000 r.p.m.

Also delivered with the basic unit are: pivoted tool holder, grindstone holder, lathe dog, two centers, column for setting up as a drill press, handle for use as a hand drill, hexagon wrench, cord with plug and switch, extensive manual. Packed in sturdy wooden case.



## Tool grinding machine

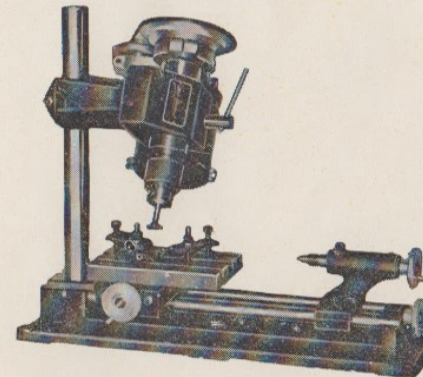
By means of the grindstone holder a grinding stone is attached to the headstock. As this headstock may be mounted in any position, both on the bed and on the vertical column, the grinding stone can be fixed at any desired angle in space. Thus, by using special auxiliary equipment the most complicated tools may be ground. All commercial grinding wheels up to 2.36" in diameter and pintype grinding tools may be used.



## Electric hand drill

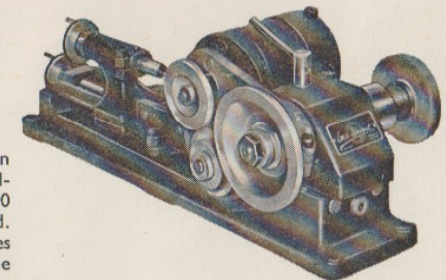
The column-connecting piece is removable and designed to serve as a handle.

Thus, the headstock and motor may be used as an electric hand drill or a hand operated polishing machine. Since the reduction pulleys permit a variation of speeds from 365 up to 6000 r.p.m. this is the **only hand drill in the world with variable speeds.**



## Milling machine

Each of the combinations shown may also be used as a milling machine. Milling operations of horizontal and inclined surfaces are easily carried out, as well as making prisms. By using a milling table and a flexible shaft (additional equipment) the most complicated milling operations are possible.



## Grinding and polishing machine

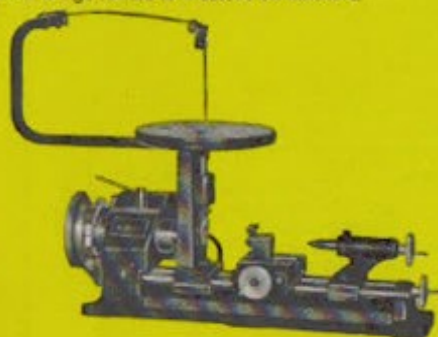
After the grinding or polishing wheels have been attached to the headstock by means of the grindstone holder, the headstock may be turned 90 degrees, thus operating outside the lathebed. This permits the use of larger grinding stones while the workpieces are more easily attainable and the grinding dust does not fall on the lathe bed.



The basic unit may be complimented by acquiring the various auxiliary attachments. All auxiliary equipment is separately obtainable and interchangeable on every machine. New attachments are issued regularly. At present the following attachments are available:

### Selfcentring 3-jaw lathe chuck No. 1001

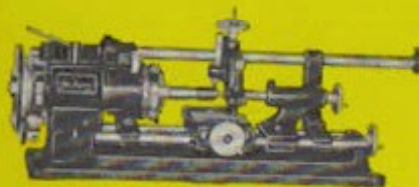
Cushman system with 3 reversible jaws; reach 55 mm. Complete with flange.  
With flange turned to measure on machine.



### Circular saw attachment No. 1230

The holder for the sawblade has to be turned to measure on the machine itself, thus permitting oscillationfree turning of the sawblades.

Wood and plastics are sawed with a woodblade, while metals are sawed with a special metalblade.  
Complete with table but without sawblades.  
Sawblade for wood and plastics (coarse teeth).  
Sawblade for metals (fine teeth).

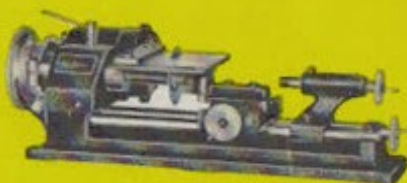


### Threading attachment No. 170

This attachment operates through patterns which may be ordered in all sizes.  
Thus, by exchanging the pattern metric

### Jig saw No. 107

Easily coupled to the headstockspindle. Ideal for all wood and plastic jig-sawing and even usable for jig-sawing in metals. Cutting speeds are variable through the reduction pulleys and can be set according to the requirements of the material to be sawed.  
Complete with table, holder, bow, excenter and one dozen assorted jig saw blades.

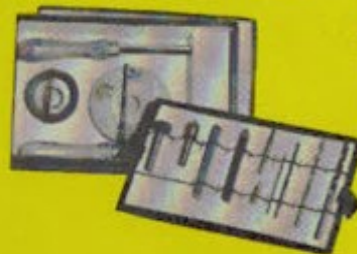


as well as BSW, NC and NF threads may be cut.  
Screws, bolts and threaded stock are easily made with this attachment, while even inside threads may be cut with a special formed tool bit.  
For the cutting of threads in hardened steel a special double reduction gear is obtainable, which reduces cutting speed to 125 r.p.m.  
Complete with cutting arm, tool holder, one pattern and tool bit for cutting outward threads.  
Extra patterns, obtainable in all sizes.  
Formed tool bit for outward threads.  
Ditto for inward threads.  
Special double reduction gear.

## UNIMAT



## AUXILIARY EQUIPMENT



### Clamping vise No. 1010/11

To hold pieces of every kind firmly in place for machining. Reach of the jaws is 1.35".



### Milling table No. 1210

Greatly facilitates all milling operations by firmly holding pieces of every shape in position.  
Fitted out with two clamps of 1.35" high.



### Steady No. 1201

For steadying the woodcutters. Complete with hexagon bolt and feeder wedge.



### Live center No. 1220

Facilitating all turning between centers and forestalls eating out of the fixed centers.



### Dividing and indexing attachment No. 180

Permits the accurate cutting and spacing of toothed wheels. Division up to 24 teeth.  
Complete with table and 3 clamps.



### Toolbox No. 1099

Sturdy cardboard box containing:  
2 formed tool bits of HSS steel 5% Co.  
4 twist drills of 2, 3, 4, 5 mm  
1 centre drill 1.5 mm  
1 countersink bit 90° 3/4" diam.  
1 longhole cutter  
1 slotting cutter  
1 standard grinding wheel } high grade  
1 cup grinding wheel } corundum  
2 turning graters for woodcutting



### Drill chuck No. 1005

Jacobs type, with key. Holding tools up to 1/4".



### Collet holder No. 190

For the utmost precision in drilling, grinding, milling, etc. The holder has to be turned to measure on the machine itself, thus guaranteeing absolute oscillationfree turning of the tools.  
Holds tools up to 5/16" diameter. Double conical collets obtainable in all sizes up to 5/16".



### Dentists spindle No. 1030

Indispensable for all polishing work of dentists. Has likewise to be turned to measure on the machine itself, in order to obtain oscillationfree turning of the polishing wheels.



### Flexible shaft No. 1250

Length abt. 3 1/3', to be mounted on the headstock-spindle. By means of the drill chuck or the collet holder all kinds of tools may be mounted on this shaft.



### Steady Rest No. 1040

For supporting the pieces of work in order to eliminate bending of same. Especially useful with thin pieces of work.





# LIST OF SPARE PARTS

1	Lathe bed varnished	45	Face Plate	170-10	Internal thread tool holder with screw M 6 x 20
2	Bed Slide	46	Centre	301-6	Handwheel with spindle and nut
4	Cone screw	50a	Rubber Belt 70 mm Ø	170-15	Drive screw
5	Lead screw	50b	Rubber Belt 50 mm Ø	170-16	Pressure ring
6	Handwheel	51	Lathe Dog	180-2	Graduated Plate with 3 countersunk screws M 4 x 25
6a	Nut for fastening the hand wheel	53	Hexagon wrench	180-3	Indexing pin
6b	Guide Plate (for re-alignment of the head stock)	100	Grinding wheel holder	180-4	Hollow screw
8	Headstock Housing, only	100a	Grinding wheel flange	180-5	Knurled nut
8a	Headstock complete, with headstock spindle, with large pulley and tension bolt, without motor bracket and motor	100b	Grinding wheel washer	190-3	Flange of collet holder
8b	ditto, with motor, motor bracket, drive gear and 3 pulleys	100c	Grinding wheel screw	1002	Flange of lathe chuck
8c	Headstock Spindle complete with ball bearings, spindle, pulley and nut	101ST	Motor 110, 160 or 220 volts 60-70 watts, complete with fastening screws, pulley and condensor	1006	Key of drill chuck
8d	Ball Bearing for spindle	102	Spare Carbon Brushes	1010	Machine Jaw Vice complete with groove stones and socket head screws
9	Tension Bolt	104	Motor Bracket with gear holder	1100	Tool bit of SS/MO Rapid Extra, 6 x 6 x 63 mm not ground
10	Headstock Spindle	105	Driving Gear		ditto, ground at one side
14	Pulley to the Head Stock Spindle	106	Motor Bracket with mounted gear and 2 rubber belts		ditto, ground at both sides (state grinding form)
14a	Nut for pulley	110-34	Spindle with pin of clamping vise	1110	Twist Drill 2 mm Ø
15	Motor pulley	110-51	Milling table	1111	ditto 3 mm Ø
15a	Pulley for driving gear	110-52	Clamp with	1112	ditto 4 mm Ø
22/26	Feed Lever with Pinion	till 54	screw, nut and washer	1113	ditto 5 mm Ø
27	Tail Stock	120-1	Saw Holder complete with clamping plate and 2 screws M 6 x 25	1114	Center Drill 1,5 mm Ø
27a	Tail Stock complete with Tailstock Spindle and Handwheel	120-3	Saw Table	1120	Standard grinding wheel 65 x 6 x 15 mm, grain 80, hardness M
28	Tailstock Spindle	120-4	Complete Saw Frame with leaf spring and clamping piece	1121	Cup grinding wheel 40 x 25 x 15 mm, grain 80, hardness M
29	Driving Screw (for Tail Stock Spindle)	till 6	Connecting rod with draw, Column, link bolt and ball bearing	1121	Disc grinding wheel 65 x 5 x 15 mm, grain 80, hardness M
30	Guide Nut (for Tail Stock Spindle)	120-7	Driving eccentric	1130	Longhole cutter 2,5 — 4 Ø
30a	Tapped pin	till 9	Manual spindle with nut	1131	Slotting cutter 16 x 4 x 6
31a	Socket Head Screw M 6 x 13,5	120-11	Sleeve	1132	Countersink bit 10 Ø, 90°
31b	Socket Head Screw M 6 x 15	130-1	Cup nut	1140	Pointed graver
31c	Socket Head Screw M 6 x 20	130-2	Housing with screw M 6	1141	Flat graver
31d	Socket Head Screw M 6 x 25	130-3	Driver	1150	Circular brush, brass wire
31e	Socket Head Screw M 6 x 30	130-5	Shaft with core	1151	Circular brush, steel wire
31f	Socket Head Screw M 6 x 35	130-6	Clamping lug complete with screw and washer	1160	Adjusting diamond for the facing of grinding wheels and for precision turning, square setting of 8 x 8 x 120 mm
32a	Slide Rest bottom part	130-7	Pin for tightening the clamping lug	1170	One dzn Jig saw blades for wood
32b	Slide Rest upper part	160-1	Bearing block complete with 3 screws and 2 slotted nuts	1171	ditto, double cut for wood
33	Slide	160-2	Locking bolt with 3 countersunk screws	1172	ditto, for metals
36	Toolholder without Screw and groove stone	160-3	Table without stop but with 2 screws and washers	1173	ditto, assorted
36a	Groove Stone	160-4	Stop	1231	Circular Saw Blade for metals
39	Cross feed screw	160-5	Angle clamp with 3 screws M 6 x 20	1232	Circular Saw Blade for wood and plastics
40	Drill column	170-1	Guide Rod		
41	Drilling Head	170-2	Cutting arm complete		
40/41	Drill column with Drilling head, cone screw and socket head screw	170-3	External thread tool holder with ring, screw M 6 x 20 and washer		
43	Slotted screw for fastening face plate to slide	170-4	Spring		
		till 5	Guide arm with 2 screws M 6 x 20		
		170-6	Leader with follower		
		till 9	Follower		
		170-9			