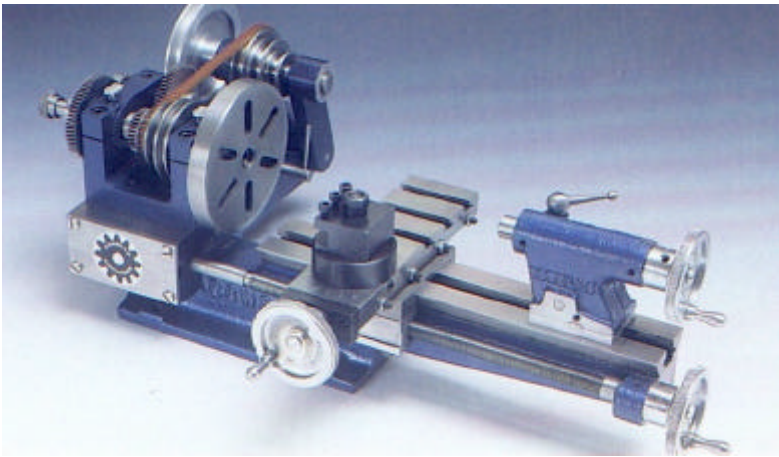


# COWELLS 90E BASIC LATHE



## STANDARD FEATURES

- Tee slotted Crossslide
- Backgearing
- Gap Bed
- Tailstock with Off-Set
- Test Certificate
- Handbook
- Toolkit
- 5 Year Guarantee

### Catalogue Ref: R90

A basic version of the Cowells 90ME Lathe (R900) that may be added to and attain the same specification if desired. A compact lathe of conventional design constructed from cast iron and steel, the 90E is individually built and issued with an engineers test certificate.

### Lathe Bed

A one piece massive iron casting of cantilever form incorporating auto-traverse clutch box. The bed is dovetail in form and ground on all faces. A central tee-slot provides a positive and accurate location of the tailstock. A gap in the bed allows for the swinging of a loco wheel or flywheel.

### Saddle and Slides

The cast iron saddle carries a long steel crossslide, which is tee-slotted to enable the mounting of a wide range of accessories. The crossslide has an etched angular scale  $45^\circ - 0 - 45^\circ$  to facilitate taper turning should the topslide (R6) be added. All slides are fitted with full-length adjustable gib strips. Hand wheels are of steel and incorporate laser etched, re-set to zero calibration dials.

### Headstock and Backgears

The headstock is of cast iron and employs a ground steel spindle running in honed bearings split with adjusters for the elimination of tool chatter and wear. An oiler for each bearing is fitted. The spindle is bored to pass 6.7mm and has a no. '0' Morse taper. Drive is via a three stepped cast iron vee pulley. A speed reducing backgear is fitted for the machining of large diameter cast iron and to facilitate screwcutting (when the Auto Traverse Kit (R7) and R45 screwcutting gear set is added).

### Tailstock with Off-Set

The tailstock is of cast iron and is bored and honed to accommodate the ground steel barrel. The barrel has a no. 0 Morse taper and will self-eject tooling. Locking handles are fitted to both body and barrel. The tailstock may be off-set for the turning of long and shallow tapers.

### Countershaft and Pulleys

The countershaft consists of a three stepped steel pulley that drives the headstock pulley and a double aluminium reduction pulley for motor drive. A fast action cam is fitted for speed changes and belt tensioning.

### The Cowells 90 Lathe Handbook

Written by A. Smith, C. Eng. author of many 'Stuart Models' publications. The handbook is comprised of 127 pages taking the lathe owner from absolute basics through all main facets of turning including the complexities of screwcutting.

### Test Certificate

Each lathe undergoes a meticulous examination of its accuracy prior to delivery. Eight main tests are recorded on an engineers test certificate. The certificate carries the lathe's serial number, is signed and dated and represents Cowells accuracy guarantee. Typical overall accuracy is 0.007mm (0.0003").

### Instructions

Full information covering care, maintenance and adjustments are provided.

### Toolkit

Set of hexagonal keys.

### Specification

**Spindle Speeds** (r.p.m.) Direct Drive - 280,500,640, 880,1130,2100  
Indirect Drive - 60,110,140,180, 240, 440. These speeds assume the use of a 1425 rpm motor and double pulleys to motor and countershaft, (please enquire for full details).

### Overall Dimensions

Height	:	140mm	- 5.5"
Length	:	445mm	- 17.5"
Width	:	250mm	- 10"
Weight	:	8.5Kg	- 19 lbs

### Dimensions

Centre height over bed	:	44.45mm	- 1.75"
Distance between centres	:	203mm	- 8.0"
Swing in Gap	:	120mm	- 4.7"
Swing over Crossslide	:	47mm	- 1.85"
Crossline Travel	:	89mm	- 3.5"
Taper in Headstock Spindle	:	'0' Morse Taper	
Taper in Tailstock Barrel	:	'0' Morse Taper	
Leadscrew and Feedscrew Pitches	:	1mm	
Spindle nose thread	:	14mm x 1mm	

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