



11-inch Underneath Motor Driven Precision Lathe—Series "T" Quick Change Gear and Standard Change Gear Types

The 11-inch Lathe with underneath belt motor drive is popular for both production operations and tool room work. This lathe is made in the Quick Change Gear Type as shown, also in Standard Change Gear Type. See page 36 for specifications of lathe.

The Underneath Motor Drive is entirely self-contained and is fully enclosed. It provides an unusually wide range of spindle speeds. A precision belt tension adjustment is provided. The belt drive to the spindle is silent in operation and develops a smooth, steady pull entirely free from gear vibration. See page 4 for description of motor drive.

Attachments, Chucks and Tools for this lathe are listed on pages 90 to 111. This complete line of attachments and accessories greatly increases the usefulness of the lathe.

Regular Equipment included in price consists of 1/2 H.P. instant reversing ball bearing motor, reversing switch, wiring, V-belt, flat leather belt, large and small face plates, forged steel heat treated tool post, adjustable thread cutting stop, tool steel centers for headstock and tailstock spindles, headstock spindle sleeve, wrenches, quick change gear box or set of independent change gears, installation plan, and book "How to Run a Lathe."

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11"
LATHES

Quick Change Gear 11-inch Underneath Motor Driven Lathes

Bed Length	3 1/2-ft.	4-ft.	5-ft.	5 1/2-ft.
Distance Between Centers.....	18-in.	24-in.	36-in.	42-in.
Catalog Number.....	111-Z	111-A	111-B	111-S
Shipping Weight of Lathe.....	935 lbs.	965 lbs.	1035 lbs.	1070 lbs.
Code Word.....	Bimeb	Bimuf	Bimza	Binfo

Standard Change Gear 11-inch Underneath Motor Driven Lathes

Bed Length	3 1/2-ft.	4-ft.	5-ft.	5 1/2-ft.
Distance Between Centers.....	18-in.	24-in.	36-in.	42-in.
Catalog Number.....	110-Z	110-A	110-B	110-S
Shipping Weight of Lathe.....	920 lbs.	950 lbs.	1020 lbs.	1055 lbs.
Code Word.....	Badod	Badti	Badzo	Bafka

The above lathes are also made in bench type. See price list.

Specifications of Series "T" 11-inch Precision Lathes

Applying to all 11-inch Lathes Shown on Pages 37 to 43

All types of 11-inch swing lathes shown in this catalog are identical in workmanship, material and quality, having similar headstock, tailstock, carriage and bed. The only difference between the various models of lathes is in the type of drive and the equipment supplied.

Capacity of Lathe

Swing over bed and saddle wings.....	11 $\frac{1}{8}$ "
Swing over saddle with chip guard removed.....	7 $\frac{3}{8}$ "
Swing over saddle with chip guard.....	6 $\frac{3}{4}$ "

Threads and Feeds

Thread cutting range	
Quick change gear lathe—48 threads R.H. or L.H.....	2 to 112 per inch
Standard change gear lathe—43 threads R.H. or L.H.....	4 to 112 per inch
Longitudinal feeds through friction clutch	
Quick change gear lathe—24 feeds R.H. or L.H.....	.003" to .0208"
Standard change gear lathe—26 feeds R.H. or L.H.....	.0021" to .0156"
Cross feeds through friction clutch	
Quick change gear lathe—24 feeds.....	.001" to .0077"
Standard change gear lathe—26 feeds.....	.0008" to .0056"
Size of lead screw, diameter and threads per inch.....	$\frac{7}{8}$ "-8

Headstock

Hole through spindle.....	$\frac{7}{8}$ "
Maximum collet capacity.....	1 $\frac{1}{32}$ "
Size of Center, Morse taper.....	No. 2
Spindle nose diameter and threads per inch.....	1 $\frac{5}{8}$ "-8
Width of cone pulley step for belt.....	1 $\frac{1}{2}$ "
Large face plate diameter.....	9"
Small face plate diameter.....	5 $\frac{5}{8}$ "
Standard spindle speeds	
R.P.M. of spindle, back gears engaged.....	40, 69, 118
R.P.M. of spindle, direct belt driven.....	238, 377, 608
High spindle speeds in addition to standard spindle speeds (Optional at extra cost)	
R.P.M. of spindle, back gears engaged.....	77, 122, 195
R.P.M. of spindle, direct belt driven.....	460, 728, 1163

Compound Rest

Cross slide will travel.....	6 $\frac{7}{8}$ "
Angular hand feed of compound rest top slide.....	2 $\frac{3}{4}$ "

Tool Post

Size of opening for tool holder shank.....	$\frac{3}{8}$ " x $\frac{7}{8}$ "
Size of cutter bits tool holder takes.....	$\frac{1}{4}$ " sq.

Tailstock

Size of Morse taper centers.....	No. 2
Spindle travel.....	3"
Each graduation on tailstock spindle advances spindle.....	$\frac{1}{16}$ "
Tailstock top will set over for taper turning.....	$\frac{7}{8}$ "

Motor

Horsepower of standard motor used on 11-inch motor driven lathes.....	$\frac{1}{2}$
R.P.M. of standard motor.....	1725
Number of V-belts used.....	1

Countershaft

Speed in R.P.M. of shaft.....	300
Size of pulleys.....	6 $\frac{7}{8}$ " x 2 $\frac{3}{16}$ "

Taper Attachment (telescopic type)

Maximum length turned in one setting.....	8 $\frac{1}{2}$ "
Maximum taper per foot.....	$\frac{3}{3}$ "

Metric Lathe Specifications

Applying only to lathes with metric lead screw and metric graduations. See pages 108 to 110.	
Quick change gear lathe cuts 46 threads R.H. or L.H.....	7.5 mm to 0.2 mm
Standard change gear lathe cuts 35 threads R.H. or L.H.....	7.0 mm to 0.2 mm
Lead screw pitch.....	3.0 mm
Cross feed screw pitch.....	2.5 mm
Compound rest feed screw pitch.....	2.5 mm
Each graduation on cross feed micrometer collar advances tool.....	0.02 mm
Each graduation on compound rest micrometer collar advances tool.....	0.02 mm
Each graduation on tailstock spindle advances spindle.....	1.0 mm

For description of lathe features see pages 6 to 11