



18" x 6' Monarch Motor Drive Lathe

# Dimensions and Specifications of 18 in. x 6 ft. Monarch Motor Drive Lathe

Swing over bed . . . . .	18 <sup>5</sup> / <sub>8</sub> "
Swing over carriage . . . . .	12 <sup>1</sup> / <sub>2</sub> "
Takes between centers, tailstock flush . . . . .	2' 2"
Takes between centers, tailstock overhung . . . . .	2' 7"
Base length . . . . .	6'
Base length shipping weight without motor . . . . .	3450 lbs.
Weight extra two feet . . . . .	300 lbs.
Hole through spindle . . . . .	1 <sup>1</sup> / <sub>16</sub> "
Front spindle bearing . . . . .	3" x 5"
Rear spindle bearing . . . . .	2 <sup>1</sup> / <sub>4</sub> " x 4 <sup>1</sup> / <sub>4</sub> "
Center Morse taper . . . . .	No. 4
Spindle nose, diameter and threads per inch . . . . .	2 <sup>3</sup> / <sub>4</sub> "—6 thd.
Back gear ratio, double . . . . .	3 : 1 and 10 : 1
Lead screw diameter and threads per inch . . . . .	1 <sup>1</sup> / <sub>2</sub> "—4 thd.
Range of threads per inch, quick change . . . . .	3 to 46
Range of feeds per inch, quick change . . . . .	12 to 184
Number of threads and feed changes, regular quick change . . . . .	32
Thread cutting range, semi-quick change . . . . .	3 to 46
Range of feeds per inch, semi-quick change . . . . .	12 to 184
Headstock base length . . . . .	27"
Tailstock base length . . . . .	13 <sup>1</sup> / <sub>2</sub> "
Tailstock, spindle diameter . . . . .	2 <sup>3</sup> / <sub>8</sub> "
Tailstock, spindle traverse and setover . . . . .	8 <sup>1</sup> / <sub>4</sub> " and 1"
Steady rest opening, regular . . . . .	6"
Maximum capacity oversize steady rests we can furnish . . . . .	12"
Carriage length . . . . .	27"
Carriage bridge width . . . . .	7 <sup>1</sup> / <sub>4</sub> "
Compound rest top slide travel . . . . .	5"
Countershaft friction pulleys, size . . . . .	12" x 4"
Countershaft speed . . . . .	190 R.P.M.
Size of lathe tool . . . . .	3 <sup>1</sup> / <sub>4</sub> " x 1 <sup>5</sup> / <sub>8</sub> "
Motor, size recommended ordinary service . . . . .	3 H.P.
Motor, constant speed, recommended . . . . .	1200 R.P.M.
Motor, variable speed, recommended . . . . .	500—1500 R.P.M.
Distance, spindle center to floor . . . . .	42 <sup>1</sup> / <sub>2</sub> "
Head and countershaft cone step diameters, double back gears . . . . .	7, 9, and 11"
Head and countershaft cone step face, double back gears . . . . .	3 <sup>13</sup> / <sub>16</sub> "
Speed of geared head driving pulley . . . . .	275 R.P.M.
Geared head driving pulley, diameter, face . . . . .	14" x 4"
Width of bed . . . . .	15 <sup>3</sup> / <sub>4</sub> "
Depth of bed . . . . .	13 <sup>1</sup> / <sub>2</sub> "
Length of bed, 6', and in multiples of 2 feet up to . . . . .	22'
Maximum collet capacity . . . . .	1 <sup>1</sup> / <sub>8</sub> "
Maximum diameter of work which can be relieved . . . . .	7"
Maximum amount of relief . . . . .	9 <sup>1</sup> / <sub>32</sub> "

Actual number of flutes that can be relieved: 3, 4, 5, 6, 7, 8, 10, 12 and 14.

Actual threads cut with full quick change gear box and semi-quick change gear box: 3, 3<sup>1</sup>/<sub>4</sub>, 3<sup>1</sup>/<sub>2</sub>, 4, 4<sup>1</sup>/<sub>2</sub>, 5, 5<sup>1</sup>/<sub>2</sub>, 5<sup>3</sup>/<sub>4</sub>, 6, 6<sup>1</sup>/<sub>2</sub>, 7, 8, 9, 10, 11, 11<sup>1</sup>/<sub>2</sub>, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44 and 46.

Spindle speeds obtained on geared head lathe with driving pulley operated at recommended speeds: 14, 28, 41, 53, 92, 165, 248 and 320.

Regular equipment consists of face plate, dog plate, steady rest, compound rest, centers, chasing dial, chasing stop, wrenches.

**THE MONARCH MACHINE TOOL COMPANY**

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