

MACTECH 16-36 END PREP LATHE SPECIFICATIONS

Mactech Model 16-36 Single Point End Prep Lathe is a portable I.D. mounted end prep lathe for machining pipe and valves from 16" to 36" (all schedules). Capable of simultaneously beveling, facing and counterboring. The tool has self-accepting torque, straight back feed and integral air or hydraulic drive.

The equipment listed is our current production Model 16-36, which when connected to the plant the hydraulic power supply according to the operating requirements specified below, can be used for the pipe machining functions described herein. At the rear of the 16-36 is an axial feed knob, which is manually rotated during form cutting, moving the tool bit and cutting head axially along the mandrel toward or away from the work piece.

Model 16-36 Components

Frame:

The lightweight frame is made of solid stock aluminum (stronger than cast aluminum). The frame has bearings mounted for the rotating head, a drive motor mount, and a torque housing which transfers the torque reaction generated by the cutting operation through the mandrel to the pipe being cut.

Mandrels & Locator Pads:

The 1636 includes a 3 jaw automatic chuck mandrels with locator pads are available for fast mounting on straight pipe.

Cutting Head Assembly:

The cutting head assembly is a heat treated 4340 alloy steel gear assembly, integrated into the aluminum frame.

Bearings:

The cutting head runs on high precision ball roller main bearings which provide for both axial and radial force reactions experienced in heavy wall pipe machining.

Drive Assembly:

The motor drive assembly is precision mounted to the machine frame and arranged with a pinion gear on a shaft supported by angular thrust radial ball bearings and needle bearings. The drive mounting bracket is designed to accept the reaction torque generated by the drive motor.

Tool Holders (Blocks):

The single point tool holder mounted to the cutting head assembly is provided with an automatic radial feed "star wheel" mechanism. This can be replaced with the extra form cutting tool block, which then gives the 16-36 simultaneous form bevel, land face, and counterbore capabilities. Once set up this way, the tooling can be used to prep repeated pipes with little or no re-adjustment. The slides feature adjustable gibs to adjust for wear.

Tool Bits:

Mactech tool bits are available for single and multi-angle beveling, J beveling, land facing, counterboring, flange facing, valve bonnet facing, victaulic grooving, etc. Tool bits are sold separately as consumables.

Model 16-36 Performance Data

Set-up Time:

A trained operation can set up the 16-36 on an unobstructed pipe end or flange in no more than 5 minutes.

Pipe Mounting Range: Nominal pipe diameter mounting range:

#2 Automatic Chuck
14.00" to 34.50" I.D.

Pipe Cutting Range:

Step cutting may be required for form cutting heavy wall pipe.

| <u>Type of Cut</u> | <u>Cutting Range</u> | <u>Wall Thickness</u> | <u>Clearance</u> |
|--------------------|-------------------------|-----------------------|------------------|
| Form Cutting | 16.00" I.D.-36.00" O.D. | All schedules | 25.00" |

Drive Capacity:

Drive capacities are based on in-house testing and extrapolation of test data.

Hydraulic Drive - Motor Data:

| | |
|-------------------------------|--------------------------------------|
| Max. Speed @ 15GPM; 1200psi | 320 rpm |
| Effic. Speed @ 10GPM; 1200psi | 207 rpm |
| Pressure Rating: | 1200 psi continuous 1800 psi peak |
| Max. Horsepower: | 6.5 hp |
| Torque: | 1327 in/lb |

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pipe.

Model 16-36 General Information

The Model 16-36 End Prep Lathe is packed in protective foam and typically comes complete with the following:

- * Hydraulic Drive
- * Form Bevel & Single Point/Face/Counterbore Blocks
- * Form Cutting Tool Block Slides
- * Automatic Chuck
- * All hand tools required
- * Metal gang box for machine storage
- * Operating Manual with parts list

Shipping Weight: 1020 lb.
Operating Weight: 675 lb.

Shipping Dimensions: 60x24x24 in.

Special Options:

Hydraulic Power Supply (480VAC)

Automatic Remote Feed for strict operating environment, with programmable digital display.

Right Angle Drive

Automatic Chucks 1 & 2

2T Counterboring Holder

24" - 36", 36" - 48", 48" - 60" Conversion Packages

Recommended Spare Parts:

Mactech, Inc. recommends purchasing extra parts to avoid time spent waiting for lost or damaged parts to be replaced.

Technical Support:

Mactech, Inc. recommends on-site training for your technicians by our technical support personnel to assure proper operation and maintenance. Costs would be predicated on travel expenses, number of days required to train technicians, per diem, expenses, etc.

Warranty:

Two (2) year limited warranty.