Product Information

jetline® engineering
An Illinois Tool Works Company

MODEL CWP-20
Precision Lathe

- One Model to handle a wide range of part sizes
- Precision Manufactured
- High Accuracy Rotation
- Wide Range of Accessories
- For all Arc Welding Processes

Introduction

The Jetline CWP-20 precision lathe is designed and built to provide superior accuracy and performance for even the most demanding GTAW (gas tungsten arc welding) or PAW (plasma arc welding) applications.

The headstock, tailstock, frame, and carriage components are made of cast iron for stability and accuracy. The spindle has a 0.8" (20 mm) through-hole which can be used for gas purging or specialized tooling. The front of the spindle has a flange designed to accept the supplied three jaw chuck, four jaw chuck, and faceplate.

Weight carrying capacity is 100 lbs (45 kg). The lathe accepts parts up to 20" (500 mm) in length with a maximum diameter of 5"(127 mm). Headstock spindle rotation has an accuracy of .001" (0.025 mm) TIR.

Description

Frame — The lathe's cast iron frame has machined ways that mount the headstock and on which the tailstock and torch mounting carriage move.

Headstock — The headstock spindle has a through-hole and rotates in the headstock housing on pre-loaded, tapered roller bearings. The bearings are designed to provide smooth, precise rotation and, because they are pre-loaded, also have the ability to carry the welding current.

The headstock spindle is driven through a tensioned timing belt by a high-quality DC servo motor fitted with a tach-generator. The supplied 9640 microprocessor control uses menu-driven software to permit the setting of rotational speed and the delays for the starting and stopping of travel. The control indicates speed before and during welding.

Tailstock — The tailstock slides on the precision ground ways on the frame of the lathe. A lever is provided to lock the tailstock when it is in its desired position. The tailstock uses a pneumatic spindle which extends to clamp the part into position when welding. Clamping pressure is adjustable; activation of the spindle movement is by a manual air valve.

The tailstock spindle has a Morse taper bore to accommodate a range of accessories. This can be used to hold an optional live center, faceplate, or custom designed tooling.

Torch Mounting — The torch mounting carriage slides on the machined ways of the frame. Positioning of the carriage along the length of the frame is through a manual wheel that engages a rack and pinon drive. Mounted on the top of the carriage is a micrometer adjustment slide used for manual fore/aft torch positioning.

The slide carries a vertical column that provides coarse vertical torch adjustment. A bracket mounted on the column carries a vee-style torch holder which is mounted on two precision slides for cross-seam and torch height adjustment. The bracket also includes manual tilt adjustment.

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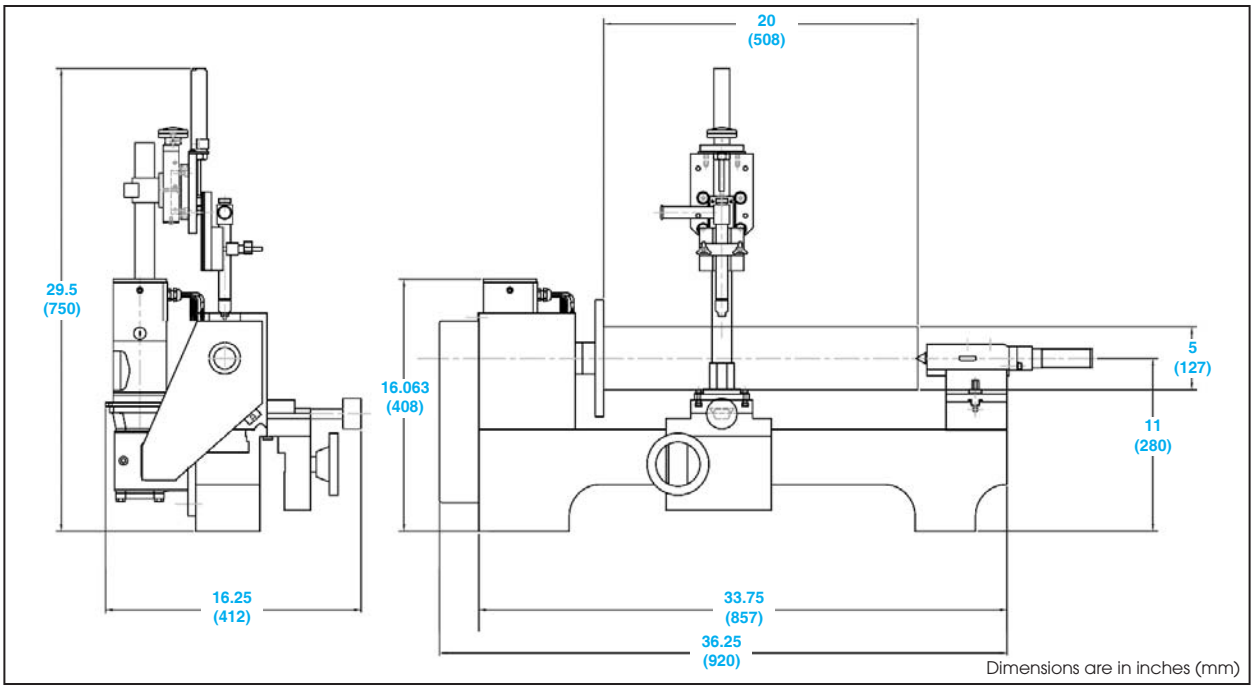
MODEL CWP-20 PRECISION LATHE



Dimensions are in inches (mm)

Specifications	
Maximum Part Length	20" (508 mm)
Maximum Part Diameter	5" (127 mm)
Torch Bracket Offset	6.125" to 9.625" (156 to 245 mm)
Headstock Spindle:	
Through-Hole Diameter	0.8" (20 mm)
Rotational TIR	0.001" (.025 mm)
Tailstock Spindle:	
Morse Taper	No. 2
Clamping Stroke	2" (51 mm)
Maximum Clamping Force	80 lbf (36 kg)
Head/Tailstock:	
Spindle Alignment	0.002" (.05 mm)
Weight Capacity	100 lb (45 kg)
Welding Ground	200 amps
Rotational Speed - Standard	0.2 to 9.0 RPM
Speed Holding Accuracy	±1%
Rotational Speed - Precision	0.036 to 18.0 RPM
Speed Holding Accuracy	±0.1%

Input Requirements:	
Electrical - Standard	115V, 1 Ph, 60 Hz, 3A
Electrical - Optional	220V, 1 Ph, 50 Hz, 1.5A
Compressed Air	80 PSI (5.6 kg/sq. cm)

Optional Items

A wide range of optional items are available to enhance the lathe. They include:

- Mounting Table
- Live center, fitted to the tailstock
- Pneumatic torch lift - moves the torch away from the part for loading and unloading
- Precision motor drive for applications requiring high accuracy rotation

Computer or Microprocessor Sequence Controllers, Arc Length Controls, Wire Feeders, and Oscillators provide completely integrated welding systems for all arc welding processes. Jetline is a specialist in the manufacture of arc welding controls and can produce a custom solution for all your applications.

See Jetline price list for complete ordering information

Distributed by:

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