

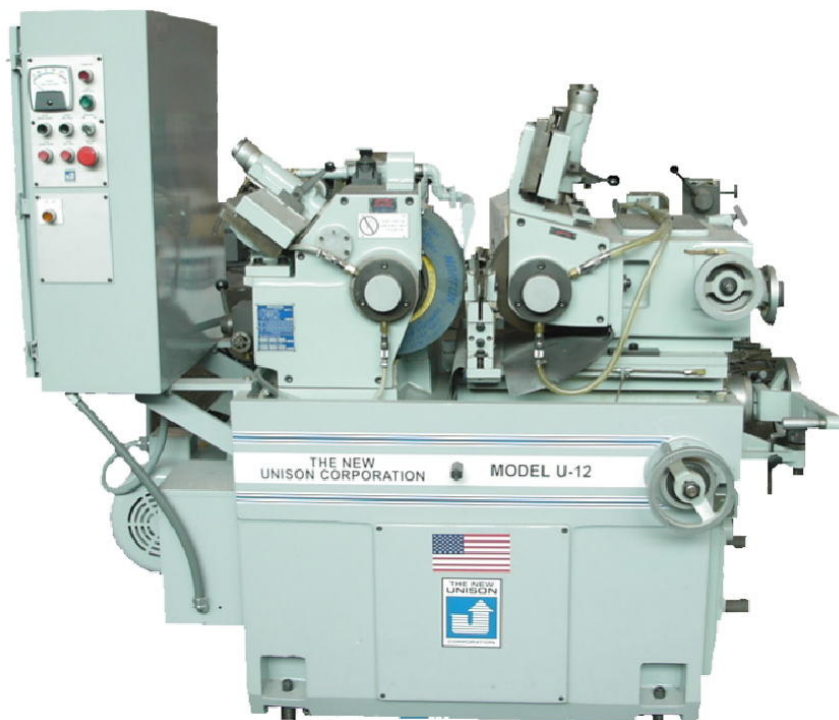
UNISON CORPORATION

MODEL U-12

Centerless Grinding System

HIGH QUALITY

HIGH PRODUCTION



Designers and Builders of DedTru, TruFlute and
Other Precision Grinding Equipment.

MODEL U-12

THE NEW UNISON MODEL U-12 is a general purpose centerless grinding machine designed specifically for *rapid, accurate grinding* of small diameter parts. The machine features a twin support outboard bearing system whereby the regulating roll and the grinding wheels are supported at each end thus providing better rigidity and higher stock removal rates. It also limits spindle deflections while holding roundness to within 50 millionths.

FEATURES

- ▶ 12" Diameter Grinding Wheels, 6" Wide
- ▶ 7-1/2" HP Spindle Motor
- ▶ 6 Regulating Wheel Spindle Speeds-
21 to 140 RPM and A 333 RPM Dressing
Speed
- ▶ Regulating Wheelhead Tilts $\pm 5^\circ$ and
Swivels $\pm 5^\circ$
- ▶ 1 HP Regulating Wheel Motor
- ▶ Standard Workrest From

THE MODEL U-12 CAN OFFER YOU.....

- » Accurate, Rapid Grinding of Small Diameter Parts
- » High Quality, High Productivity
- » Versatility and Dependability
- » Ease of Operation

Centerless Grinding System

The Model U-12's standard tooling will allow for grinding parts from .312" diameter through 1.56" diameter. Optional tooling will increase this capacity from .04" diameter through 2.38" diameter. The machine is versatile, durable and easy to operate, offering high quality at a low cost.



OUTSTANDING CHARACTERISTICS

The grinding and regulating wheel spindles are made of high quality alloy steel, induction hardened and super finished. They are sturdy and strong enough to permit heavy duty grinding at high speeds and assure superior finish.

The grinding wheel spindles and the regulating wheel spindles utilize a 3 point support method employing two major segments type bearings and a plain sleeve bearing.

Automatic lubrication to the spindle bearings by variable displacement vane pump assures long working life and saves operator's time. Electrical cut off prevents operation of the spindle drive motor until the spindle bearing is receiving adequate lubrication. Also the lubricant flow to the spindle bearings is cleaned by an extra filter that is located outside the machine, permitting quick access for servicing.

Electrical equipment is completely protected from dirt, grit and cutting fluid.

The truing device for both grinding and regulating wheels is hydraulically operated so the smooth evenly-trued wheels can be obtained for efficient cutting action and highly uniformed finish.

A profile truing device for the grinding wheel is available as an option for work which requires multiple diameter, crowned or formed wheels.

The application of an automatic work feeder (available as an option for infeed grinding) enables an operator to attend more than one machine so that maximum production may be attained at minimum cost.

The regulating wheelhead can swivel horizontally to permit angular adjustments in infeed grinding.

Centrally located controls allow for easy operation of equipment and maximum efficiency.

SPECIFICATIONS

STANDARD WORK REST

Diameter: 0.04" - 1.58" [1-31mm]

SPECIAL WORKREST

1.18" - 3" [30—75MM]

GRINDING WHEEL

[diameter x width x hole]

12" x 6" x 5" [305 x 150 x 120mm]

GRINDING WHEEL SPEED

1,750 RPM

REGULATING WHEEL SPEED

21-333 RPM [7 step]

REGULATING WHEELHEAD

Tilt Angle: $\pm 5^\circ$

DRIVE MOTOR

Grinding Wheel: 7-1/2 HP

Regulating Wheel: 1 HP

Hydraulic Pump: 1/2 HP

Coolant Pump: 1/4 HP

NET WEIGHT: [Approximate]

3860 LBS [1750kg]

STANDARD EQUIPMENT

- ▶ Standard Electrical Equipment
- ▶ Grinding Wheel with Flange
- ▶ Regulating Wheel with Flange
- ▶ Throughfeed Grinding Workrest
- ▶ Infeed Grinding Workrest
- ▶ Diamond Tools for Truing
- ▶ Work Support Blades, Carbide
- ▶ Spanner Wrenches, Screwdrivers, etc.
- ▶ 38 Gallon Collant System
- ▶ Balancing Stand and Arbor

OPTIONAL EQUIPMENT

- » Equipment for Long Bar Grinding
- » Work Ejector for Infeed, hydraulic
- » Tracing Plate for Profile
- » Manual Work Feeder for Infeed
- » Automatic Loading/Unloading Attachment for Infeed Grinding
- » Automatic Loading/Unloading Attachment for Throughfeed Grinding
- » Automatic Feed Attachment
- » Magnetic Coolant Separator
- » Filter Paper
- » Special Workrest

Let us know your specific requirements by sending us blueprints of the parts you are trying to make and we will be more than happy to work with you in identifying the system suited specifically for your needs. I am sure we can recommend a viable solution.

When you choose New Unison, you make an economical choice by selecting the grinding machine that dollar-for-dollar delivers the best value.



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"Unison Corporation = "Grinding Solutions"