

UNISON CORPORATION

MANUFACTURER OF CNC FLUTE GRINDERS SINCE 1976



Unison's TruFlute Series



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

TruFlute Grinding Series

The New Unison **Model 688 Four-Axis CNC TruFlute Helical Grinding System** produces straight or helical flutes in one pass. This machine automatically grinds straight and tapered fluted tools such as drills, reamers and end mills. The Model 688 is a rigid and proven helical grinding system specifically designed for the manufacturer of both standard and special tools.

The Model 688 is known as the **“Workhorse”** of the New Unison product line.



MAJOR BENEFITS

- » Proven Reliability
- » New Control Featuring A Pentium Processor
- » Flute & Relieve In One Chucking
- » Software Which Includes A 3 Dimensional Predictor
- » Program Custom Shapes With Ease
- » Easier To Use Multi Wheel Pack
- » Ease In Programming Custom Shapes
- » Capacity To Store Up To 10,000 Part Programs & Wheel Packs
- » Easy Parametric Programming With Instant Recall Of All Programs
- » Production Monitoring/Parts Count

STANDARD MACHINE FEATURES

- ▶ The wheel spindle is belt-driven, oil mist lubricated and is constructed with two pairs of super precision angular contact bearings.
- ▶ Wheel speed 3600/6000 RPM
- ▶ Cast iron ways with adjustable gib
- ▶ Zero backlash, preloaded ballscrews with servo drives
- ▶ Oil mist lubrication system for the wheelhead with automatic low level shutdown.
- ▶ Automatic Bijur way lubrication system
- ▶ Fused disconnect

SPECIFICATIONS

Work Capacity	Axis Travel	Axis Drives	Maximum Wheel Diameter	Spindle Drive	Approximate Floor Space
Maximum Diameter: 10" (254mm) Maximum Length 20" (508mm)	A-Unlimited X-20" (508mm) Y-7" (178mm) Z-8.5" (216mm) C-90° RH; 45° LH	Servo Motors Encoder X,Y,Z & A	Maximum 8" (203mm)	A-C Motor 3600/6000 RPM 5 H.P. Standard 10 H.P. Optional	71" x 94" (1803 x 2388mm)

TruFlute Grinding Series

The Model 9100 for Regrinding Pulverizer Blades



The Model 9100 Pulverizer Blade Regrinder is a 5-Axis turnkey grinder featuring an integrates 25 horsepower, direct drive, dual ended spindle. The direct drive spindle motor provides a continuous torque rating through its entire operating range.

The Model 9100 incorporates our latest tool grinding software utilizing Windows™ Operating System. The Model 9100 incorporates our latest tool grinding software utilizing Windows™ Operating System. The flexibility of our software allows your machine operators to customize grinding programs to meet your needs. Our Geometral™ software permits the operator an easy means of quickly modifying geometry making the Model 9100 one of the most powerful and flexible machines on the market today.

The Model 9100 regrinds Pulverizer Blades in your factory thereby eliminating the costly expense of shipping them to a third party regrind facility. In addition, you can minimize the number of blades you maintain as spares since the blades can be quickly reground in-house for a fraction of the cost.



For more information on how the Model 9100 can help your company become more efficient and cost effective, please click on "Unison News" at the top of the page and read the article in the April 2009 issue of Cutting Tool Engineering Magazine

The Model 9100 was designed to achieve four major goals:

- » High Consistent quality of finished parts
- » Fast programming and machining
- » Long machine life with reduced unscheduled downtime for maintenance
- » Allows minimal stock removal which extends the pulverizer blade life

If you have questions or would like a quote, contact any member of our Marketing Department at (248) 544-9500.

Bringing Cutting Tool Manufacturers Complete Capability



- ▶ The **Ultimate Consistent Quality** capability for finished fluted tools
- ▶ The **Fastest Machine** capability in terms of machining, programming and changover
- ▶ The **Longest Wear Life** capability without maintenance or unscheduled downtime

The Model 4000 is the ultimate machine for fast, accurate cutting tool production, consisting of five axes having the most advanced state-of-the-art controls. Some of the design features are hydrostatic ways, air conditioned electrical panel, automatic coolant filtration system and touch probe. Everything is designed for speed and long life.

The Super TruFlute features a fully programmable five axis motion control capable of simultaneous A/C/X/Y and Z grinding in any direction enabling operations such as :

- » G Drill/Reamer
- » Step Tool
- » End Mills (standard, ballnose, & corner radius)
- » Taper Tools with Consistent Helix, Consistent Lead
- » Compression Tools
- » Standard Drills and Subland Drills
- » Router Bits
- » Milling Cutter/Saws
- » Spade Drill
- » Burr Tools
- » Specialty Tools

Work Capacity	Axis Travel	Axis Drive	Maximum Wheel Diameter	Spindle Drive	Approximate Floor Space
Diameter Range: .020"-12" Maximum Length: 12"	A-Unlimited X-13" Y-8" Z-12.5" C-180°	Servo Motor Encoders X,Y,A &C Glass Scale Z	Maximum 10"	10 HP Variable Speed (Programmable)	84" x 96" 2134mm X 2438mm



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