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Accura **MicroTol™** Ultra-Precision Grinding and Turning Platform

*The Accura **MicroTol™** is a flexible, ultra precision CNC manufacturing system that can be configured as a grinding system, a turning system, or as a multitasking system combining operations.*

Precision Performance

Designed for ultra-precision, sub-micron performance with hydrostatic slide bearings, linear motors, and glass scales, temperature control, and Accura's exclusive "symmetrical centered force" design.

Maintainability

All service points are easily accessed and are monitored through the CNC controller, which also has full diagnostics.

CNC Control

Accura MicroTol™ uses the latest Bosch Rexroth CNC Control providing a flexible platform integrated into a Windows 2000 user interface.

Choice of Workholding

Can be furnished with many forms of chucking: collet, air, mechanical, diaphragm, magnetic and vacuum.

Production Ready

Totally enclosed slides with stainless steel enclosure. Full chip and coolant collection through base. Robust construction for shop floor use. Supports auto loading and gaging.

Large Capacity / Small Size

With a swing capacity of 16" diameter over bed, x, z travels of 8" x 4" and a foot print of less than 20 sq.ft., the MicroTol is much smaller than other machines of similar capacity.

Flexibility

Fixed bed and moving slide assembly design permits a variety of grinding and turning machine configurations. The large fixed bed facilitates multi-tooling/process setups as well as fixed or moveable spindles.

Choice of Spindles

A variety of ball bearing spindles with various speed ranges are available. AccuraCentric™ hydrostatic or air bearing spindles can also be provided.

Micro-Inch Technology



Applications:

- ID Grinding
- OD Grinding
- Contour Grinding
- Face Grinding
- Hard Turning
- Multitasking
- Precision Turning
- Precision Boring
- Optical Grinding & Turning
- Precision Milling & Turning

For more information
see reverse side, or go to
www accuratronics.com.

Machine Specifications			
General	Machine Configuration		Horizontal Grinder / Lathe
	Workpiece Capacity		16" over bed, up to 24" in "gap", approx. 4" dia. x 2" L part size for automated load / unload configuration
	Base Structure		Computer optimized cast iron bed on weldment base, optional vibration isolation
	Utilities		460 VAC, 3 phase, standard shop air (80psi 6 SCFM), chilled water
Control System	Machine Floor Space		48"W X 59"L (1200mm X 1500mm), less than 20 sq. ft.
	CNC Controller		Bosch MTX or PNC – Multi-tasking CNC for precision multi-axes contouring utilizing the latest digital intelligent drives with high-speed SERCOS interface
	Programming Resolution		0.01 micrometer (0.4 micro-inch), X and Z axes.
Axes Specifications	HMI Interface		Color touch-screen with fully sealed QWERTY keyboard, USB, RS-232, and RJ-45 Ethernet network ready
	Type	X and Z Axes	Fully captured preload, temperature controlled, oil hydrostatic slide bearings
	Travel	X Axis	8"
		Z Axis	4"
	Drive System		Linear motor
Spindles / Tool Mounting	Feedback Resolution		Glass linear scales providing nanometer level servo resolution
	Wheel	Type	A wide variety of wheel spindles are available with a range of power and speed capability. Several standard or custom nose configurations are available.
		Type	AccuraCentric™ hydrostatic, pneumostatic, or ball bearing with error motions to 0.05micron (2micro-inch)
	Tooling	Workpiece Mount	Standard A-4 spindle nose or custom.
		Type	Single point, gang tooling, and / or live turret tooling are supported

Machine Overall Dimensions

