

DTL GENERATOR SERIES



PRECISION DIAMOND
MACHINING TECHNOLOGY

INDUSTRIAL-STRENGTH,
EXPANDABLE PLATFORM

ADVANCED LENS PROCESSING

The DTL generator is an affordable high-speed, dry-cut, single point diamond turning lathe that employs precision diamond machining technology for traditional or advanced lens processing such as **Cut-to-Polish** and **Digital** (free-form) lens production. When using advanced lens processing, generated lenses move directly to conventional or sub-aperture polishers, eliminating the fining process. Built for speed and precision, the unique **Dual Axis-Cutting Controller**, **Dry-Cut Swarf Chamber**, and **User Interface** promote smooth lens surface throughput, ease of operation, and a clean environment. And because the DTL uses a dry-cut process, the need for an expensive water reclaiming filtration system is eliminated.

DTL MODELS

- The **DTL150** is a high-speed generator that employs standard generating parameters to produce lens surface qualities which require conventional fining and polishing. The DTL150 is upgradeable to both cut-to-polish and digital (free-form) processing as well as automation.
- The **DTL200** offers advanced lens processing to produce digital (free-form) lenses. The DTL200 is available as a manual unit or may be upgraded to automation.

STANDARD FEATURES

- The DTL employs **Dry-Cut Generating Technology** to process all plastic, hi-index, polycarbonate, and Trivex® lenses. Because of this method, no reclaim water filtration system is needed to dispose of non-EPA lens waste materials, eliminating costly water treatment chemicals and coolants.
- The **Dual Axis-Cutting Controller** uses single point cutting axes to provide precision lens surfaces. The DTL can be equipped with one or two axes depending upon the lens processing preference.

- The **X-Axis** is designed for high-speed, traditional fining and polishing, cut-to-polish plastic and hi-index with hard-tool polishing. The **V-Axis**, or voice-coil axis, is used for all materials, soft-tool and digital lens processing.
- The **Swarf Management System** keeps the laboratory environment clean by containing lens debris in the chamber until it is evacuated. Airflow through the cutting/swarf chamber cools the cutter and evacuates debris for easy disposal.
- A full color, adjustable tilt angle **Resistive Touch Screen** allows the operator easy viewing while entering, displaying, or changing job information. The touch screen provides a quick-press response without cumbersome keyboard or mouse devices. A bar code reader enables operators to enter job data electronically, reducing any input errors.
- The **Intelligent Software's** large buttons, descriptive labeling, and Windows-like programming provides ease-of-navigation and data entry. Password protection, job status display, and activity counter features allow laboratories to configure and manage daily job production. For maintenance support, DTL generators offer on-screen, diagnostic reminders that help operators keep DTL in top working condition.

AUTOMATION

- Depending on the lab's preference, the motorized bi-directional conveyor can be configured for a single or double automation tray. The **Automation Ready Job Tray** travels down the conveyor where a bar code reader scans the job number. The job information downloads from the host computer, the lock pin releases, and then the tray enters to its next position. A proximity sensor recognizes that a tray has entered the second position, then it signals the DTL for processing.





DUAL AXIS-CUTTING CONTROLLER



V-AXIS FOR SOFT-TOOL AND DIGITAL (FREE-FORM) LENS PROCESSING



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TECHNICAL INFORMATION

SPECIFICATIONS

POWER	208 – 253 VAC, 50/60 Hz, single phase, 20 Amps (Requires dedicated circuit)		
AIR REQUIREMENTS	80 – 100 psi @ 10 CFM—clean, dry shop air		
DIMENSIONS	48" w x 39" d x 64" h 1220 mm x 990 mm x 1626 mm		
WEIGHT	2,800 lbs/1270 kg		
CURVE RANGE	High-Speed/Cut-to-Polish Base Curve: +7 to -20 diopters Cylinder: 10 diopters Prism: 10 diopters/2 diopters	Soft-Tool Polish +3 to -12 diopters 6 diopters 4 diopters (generated)	Digital (free-form) Lenses Specifications are dependent on lens design
LENS & LAP MATERIALS	Plastic, Hi-index, Polycarbonate, Trivex Q391, XRL, SG Plastics, LapMaster™		
BLOCK STYLE	Gerber Coburn Standard Pin and AcuBlock™, LOH		
LENS DIAMETER	50 mm – 90 mm Cut-to-oval (high-speed/CTP)		
SAFETY BEVEL	Programmable		
CUTTER INSERT	Single 16 mm PCD 40,000 lenses per tool* Single 6 mm diamond for cut-to-polish polycarbonate 1,500 lenses per tool*		
CONNECTIONS	RS-232 and Ethernet		

OPTIONS

SWARF MANAGEMENT	Vacuum – 9" water lift, 4,200 FPM (feet per meter) at generator Granulator – 230 VAC, 50/60 Hz, single phase (required for polycarbonate processing) <i>See GC-IV and GC 1000 specification sheet for details.</i>
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Trivex is a registered trademark of PPG Industries, Inc.

**Cutter life may vary when lap and Trivex materials are processed.*

11/07 Specifications subject to change without notification.



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