



LAPMASTER MODEL#DSG-720 FINE-GRINDING SYSTEM



- The Lapmaster DSG line of dual-face fine grinding machines is based upon a 3-way planetary concept designed to yield precise and repeatable results at an economical price. Excellent results are obtained in the processing of a wide range of materials and components including glass, ceramics, crystals and ferrous metals.
- The Lapmaster DSG series of dual-face flat surfacing machinery is a versatile and unique solution for solving critical tolerance issues on parts requiring:

Excellent Flatness Capabilities: < 1 micron

Part to Part Size Variance: < 4 microns

Parallelism: < 3 microns

Surface Finish: < 0.25 μ m

Typical Material Removal: 0.6 mm

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Features & Benefits

MACHINE FEATURES	CUSTOMER BENEFITS
Cast Iron Base	Excellent vibration and thermal properties
Compact Form Factor	Maximum results using minimal floor space
Practical Design	Simple, but robust design with longevity and precision in-mind
Variable Speed Drive Motors	3 programmable & independent drives, optimizes process
Upper Head Position Swivel	Ergonomic parts load/unloading, simplifies wheel changes
Uniform Coolant Distribution	Top plate pattern design reduces loading, enables surface uniformity
Non-Contact Probe	Micron level resolution results in improved thickness tolerances
Gap Loading (Indexing)	AC servo center drive w/encoder for accurate carrier positioning
Integrated Modem	Allows remote service & support, fast response reduces down-time
Production Flexibility	Set-up for full automation or “tweak” parameters on-the-fly!
Allen Bradley PLC	Powerful, intuitive, well-known & reliable
Advantech Touch-Screen HMI	Allows fast process changes, real-time process monitoring
Lapmaster Programming	Optimizes system controls & parameters to your specific needs
Local-Source Primary Components	Faster lead times, reduced inventory level & lower cost of ownership

Equipment Specifications

Machine Model	DSG-720
Version	Fine-Grinder
Wheel OD	720mm (28.35")
Carrier Driver Type	Pin Drive
Maximum # of Carriers	6
Maximum Workpiece Diameter	180mm (7")
Maximum Workpiece Thickness	75mm (3")
Drive System	3-Way
Upper Wheel Drive	7.5 HP
Upper Wheel Maximum Speed	150 RPM
Lower Wheel Drive	7.5 HP
Lower Wheel Maximum Speed	150 RPM
Inner Carrier Pin Drive	3.0 HP
Inner Carrier Maximum Speed	100 RPM
Outer Carrier Pin Drive	Static
Applied Pressure System	Pneumatic
Maximum Applied Down Force	Approx. 2,000 lbs.
Machine Dimensions (WxDxH)	1,700mm x 1,500mm x 2,290mm
Machine Weight	2,800Kg (6,150 lbs.)
Air Requirement	90psi (6 Bar) of clean, dry air
Electrical Requirement	460V/3-Phase/50-60 Hz

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POWERFUL PROCESS CONTROL SCREENS



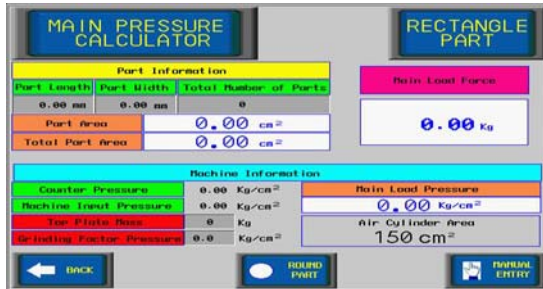
Set-Up Screen:

An intuitive “gateway” to the various programs & parameters with-in the system process controller



Program Storage Screen:

Program storage for up to thirty (30) process recipes!



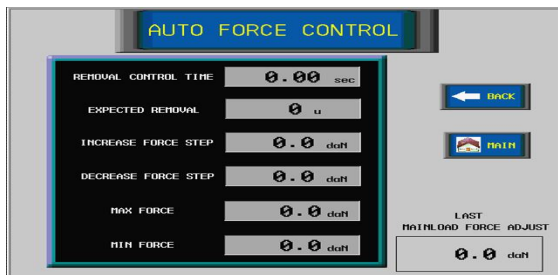
Pressure Calculator:

Automatically calculates optimum grinding pressure for round or square parts. Operator Friendly!



Size Control Screen:

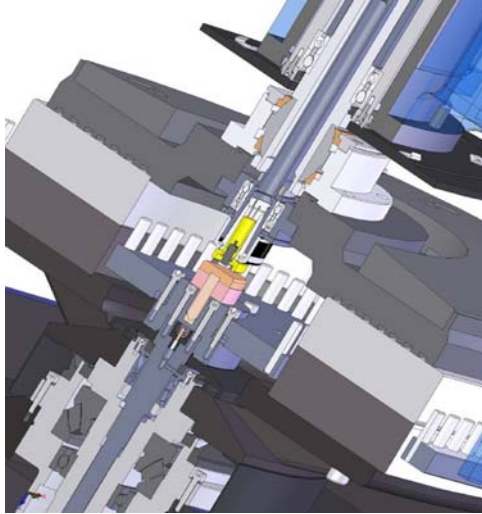
Used for the initial set-up of size control, plus any fine adjustments required



Auto Force Control:

Maintains a steady cut-rate, even for high stock removal rates, enables consistent production removal rates

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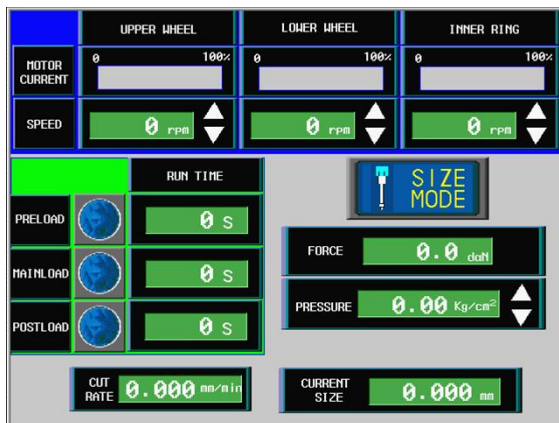


Smart Machine Design:

- Practical & robust design and materials = long service life
- Engineering & construction complements the ability to generate repeatable quality
- Low cost of ownership, easy to maintain & service
- Modern features include modem for remote service
- Parts loading & automation options are easily retro-fitted

Ease of Operation:

- Swivel upper plate assembly makes it easy to load-unload parts, thoroughly clean the work area, change wheels
- Optional parts loading systems enhance efficiency
- Simple, intuitive controls reduce operator intervention



Powerful, Modern, Affordable:

- Practical and compact design
- Top-line modern components
- High-resolution sizing device on a stable, rigid platform
- Fully programmable process
- Maximum production with minimum down-time
- In-control: Designed, built and serviced by Lapmaster



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