

# DSG 720



## DUAL FACE FINE GRINDING MACHINE SYSTEM



The Lapmaster DSG range of dual face fine grinding machines is based on a three 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:

- **Flatness capabilities:**  $< 1\mu^*$
- **Part to part size variance:**  $< 4\mu^*$
- **Parallelism:**  $< 3\mu^*$
- **Surface finish:**  $< 0.25\mu^*$
- **Typical stock removal:**  $0.6\text{ mm}^*$

\* Achieved on in house trials.

This simple yet robust machine system was designed with longevity and precision in mind. The process is optimised by utilising three programmable and independent drives.

The non contact thickness control provides micron level resolution resulting in improved thickness tolerances.

Gap loading is provided as standard with accurate carrier positioning being provided by an AC servo centre drive with encoder.

An integrated modem allows for remote interrogation of the machine thereby reducing downtime and allowing us to provide fast service and support.

Tolerances specified are achievable but may depend on process, material and experience.

### STANDARD FEATURES

- Cast iron base.
- Compact form factor.
- Practical design.
- Variable speed drive motors.
- Upper head position swivel.
- Uniform coolant distribution.
- Non contact probe.
- Gap loading (indexing).
- Integrated modem.
- Production flexibility.
- PLC and HMI touchscreen.
- Custom programming.

### STANDARD SPECIFICATIONS

- 720mm Diameter plates.
- Pin driven carriers.
- Six carriers standard (8 maximum).
- Max. Workpiece diameter 180mm
- Max. Workpiece thickness 75mm
- 3 Way drive system
  - Upper wheel
    - Drive 5.5 kW
    - Max speed 150 RPM
  - Lower wheel
    - Drive 5.5 kW
    - Max speed 150 RPM
  - Inner carrier pin drive
    - Drive 2.2 kW
    - Max speed 100 RPM
- Maximum downforce 700 kg



### Setup screen

An intuitive “gateway” to the various programs and parameters within the system process controller



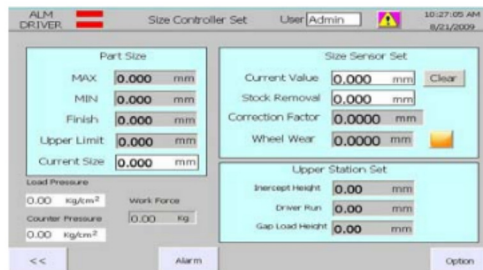
### Program storage screen

Program storage is available for up to thirty process recipes.



### Pressure calculator

Automatically calculates optimum grinding pressure for round or square parts.



### Size control screen

Used for the initial setup 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.

With micron level resolution, the non contact probe provides improved results for thickness tolerances. Together with the optimised Lapmaster programming, repeatable and accurate results are easily achieved.

### OPTIONAL FEATURES

- Parts loading systems.
- Filtration systems.
- Chiller for grinding oil.
- Non standard voltages.
- Corporate colours.

### APPROXIMATE WEIGHT

- 2800 kg.

### APPROXIMATE DIMENSIONS

- 1,700 X 1,500 X 2,290mm (w x d x h)

### SERVICES

- Electrical: 460V, 3 Ph, 60 Hz.
- Air: 600 kPa / 6 bar minimum.
- Water: 100 kPa / 1 bar. (if applicable).

Lapmaster International LLC  
Precision Surfacing Solutions

501 West Algonquin Road, Mount Prospect, IL 60056, U.S.A.

T: 224.659.7101 toll free: 877.FLATNESS F: 224.659.7103

E: sales@lapmaster.com www.lapmaster.com

