



MODEL

DFO700

Dual Face Oscillating Optical Polishing/lapping Machine

The Lapmaster DFO700 is a 5-way infinitely variably stroked oscillating optical polishing/lapping machine with a sophisticated control system. It can execute complex polishing/lapping routines while producing precise and repeatable results.

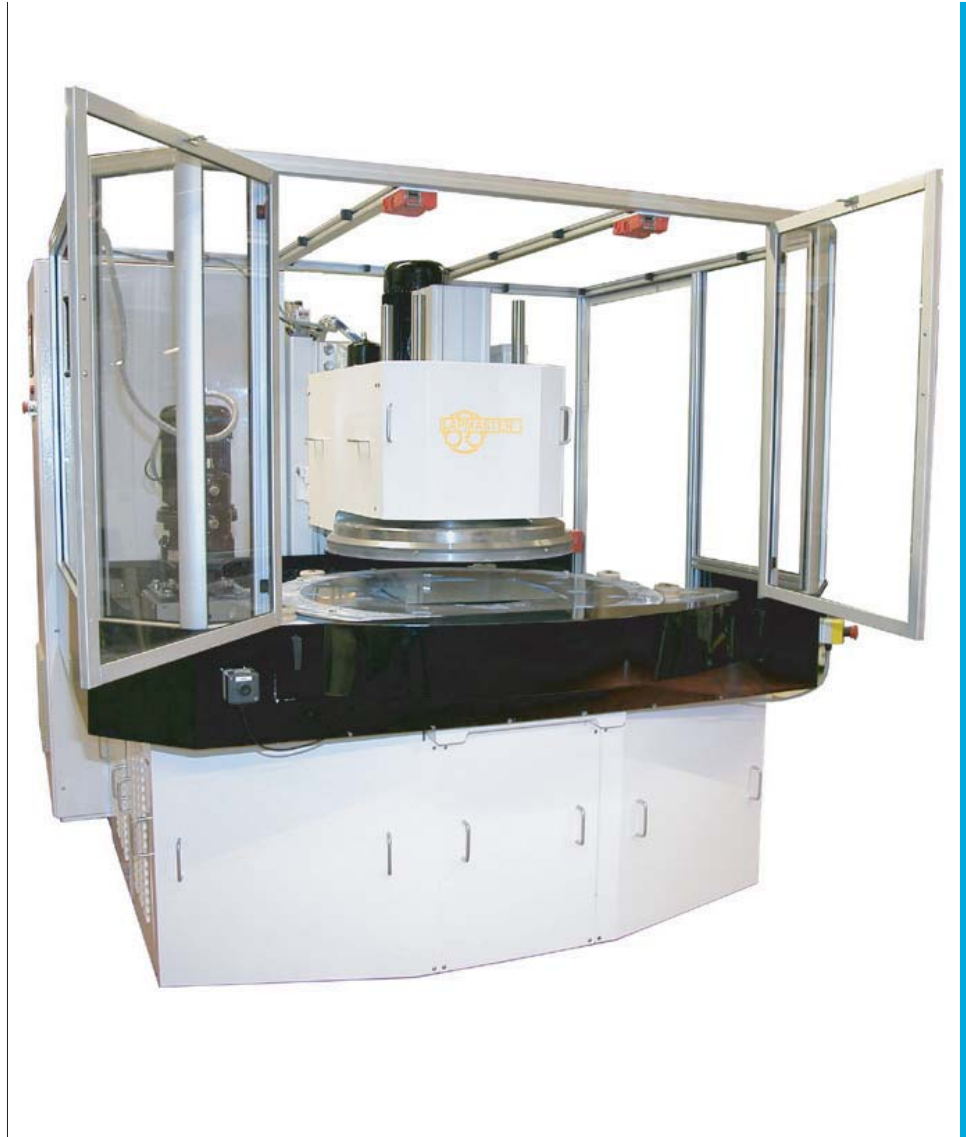
Depending on the application the DFO700 utilises fixed polishing pads with a polishing medium or a loose abrasive for lapping or polishing a wide range of materials to very tight specifications.

The DFO700 represents the state of the art in precision optical polishing/lapping technology with many advantages over traditional processes. The polishing/lapping process is fully programmable in auto or manual mode with adjustable stroke, oscillation and reciprocation producing an infinitely variable motion ensuring the work piece never follows the same path which eliminates problems associated with conventional methods.

The DFO700 is driven by 5 variable speed motors which are all independently controlled for maximum process control and flexibility. In process down pressure is pneumatically regulated and continuously monitored by load cell.

The machine is operated through a fully programmable interface. The custom design software allows for complete manual or automatic control of up to 10 programs each with up to 10 different process steps which can be recalled for later use.

The work holder is driven for smooth action while processing fragile parts. Plates, carrier, oscillation and reciprocating speeds and acceleration are precisely controlled through AC



frequency converters for gentle machine cycle start and end steps.

the DFO700 is built on a heavy duty fabricated frame. Wetted parts and hardware can be made of corrosion resistant materials as an option.

The entire head assembly is supported by a heavy duty fabricated stanchion and pivoting gantry system that can raise, lower or swing out of the way and a manual jog feature is

also included for ease of loading and unloading.

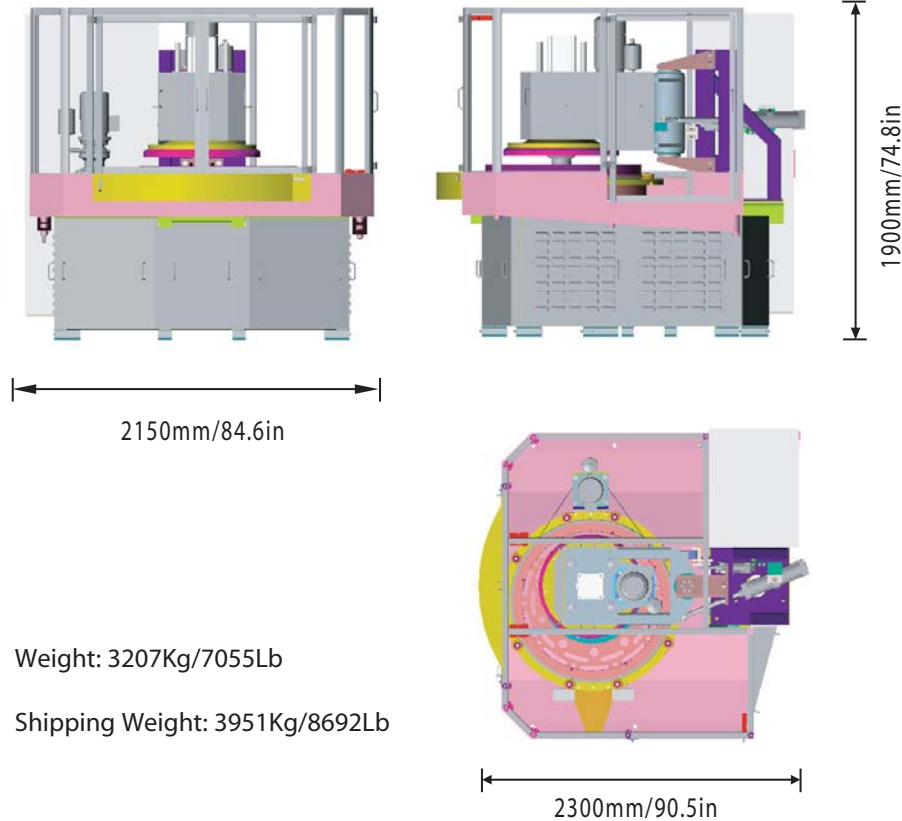
The exposed rotating parts are enclosed in a polycarbonate and alloy structured guarding system with fully interlocked doors allowing full and safe access to worked components.

An optional abrasive feed cooling system and/or bottom plate cooling system with separate chiller can control working temperature for guaranteed thermal stability.



MODEL

DF0700



Weight: 3207Kg/7055Lb

Shipping Weight: 3951Kg/8692Lb

Standard Features

- Programmable process control.
- Pneumatic top plate control with precise in-process monitoring by load cell.
Loads to 363Kg/800Lb
- Five independently controlled plate and work piece carrier drives.
- Transparent interlocked safety guards with machine access to two sides.
- Anti-vibration mounting and leveling pads.
- Abrasive dispensing system.
- Jog facility for easy loading and unloading.

Available Options

- Water cooled bottom Plate complete with temperature control and 5kW chiller system.
- Corrosion resistant wetted parts and hardware.
- Machine to suit electrical supplies.

Standard Tooling

- Two polishing/lapping plates.
Dimension: 700mm/27.5in O.D.
- One set of dresser/conditioner as required.
- One set of work piece carrier to suit.
- Dial type precision flatness gauge.
- Set of Allen keys.
- Operating and maintenance manual.

Machine Specifications

- | | | | |
|----------------------------|-------|----------------------|---------------|
| ■ Upper Plate Drive (kW) | 4 | ■ Number of Carriers | 1 |
| RPM range | 8-80 | ■ Carrier Diameter | 1000mm/39.4in |
| ■ Lower Plate Drive (kW) | 4 | ■ Max part diameter | 630mm/24.8in |
| RPM range | 8-80 | | |
| ■ Carrier Plate Drive (kW) | 1.5 | | |
| RPM range | 8-80 | | |
| ■ Oscillation Drive (kW) | 1.5 | | |
| RPM range | 10-60 | | |
| ■ Reciprocating Drive (kW) | 4 | | |
| RPM range | 10-60 | | |



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International Lapping and Polishing Machine Systems

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