

PRECISION OPEN FACE PITCH POLISHING MACHINE


The Lapmaster Model 72 is equipped with a 1829mm diameter optical pitch annular lap and four workstations that can be reciprocated.

The pitch lap is manufactured and cast by Lapmaster International to suit the requirements of the customer. This is specified by measuring the pitch hardness using the Twyman penetration test. Various groove patterns can be cut, most commonly concentric grooves.

The depth of pitch is approximately 50mm. Externally it is retained by an aluminium band, internally a stack of removable rings is used. A full pitch lap recasting service is offered by Lapmaster International.

Pitch Plate Conditioning

A glass disc faced conditioning weight is fitted to the fourth work station situated at the rear of the machine. The precise lateral position of this weight relative to the lap plate track can be controlled. This is positively driven to ensure continuous rotation of the weight and drive is applied to one of the yoke roller bar bearing assemblies. The conditioning

load can be controlled by the addition or removal of semicircular weight plates, which locate in a recess in the weight. A manually operated screw hoist is fitted which allows the weight to be suspended above the lap when the machine is not in use. It can also be swung clear of the worktable so that inspection or cleaning can be carried out.

Workholder Ring

The machine can accommodate unblocked and irregular shaped pieces, which are laid loose in the cut outs of the workholder. This consists of a Tufnol disc locating on a shoulder within the workholder ring to keep it clear of the pitch surface. The internal diameter of the workholder ring is 400mm, and is made of aluminium.

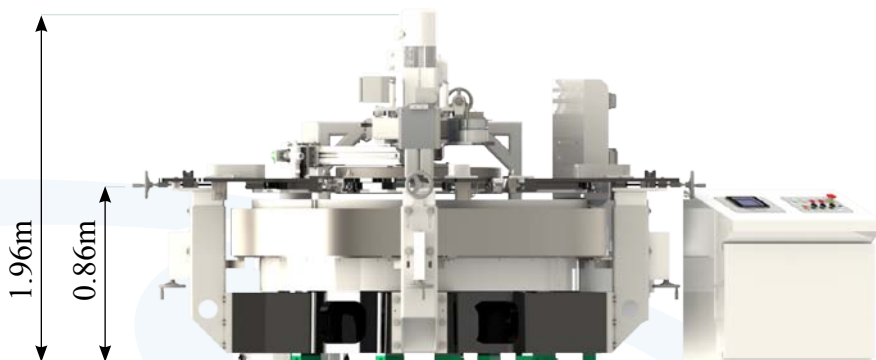
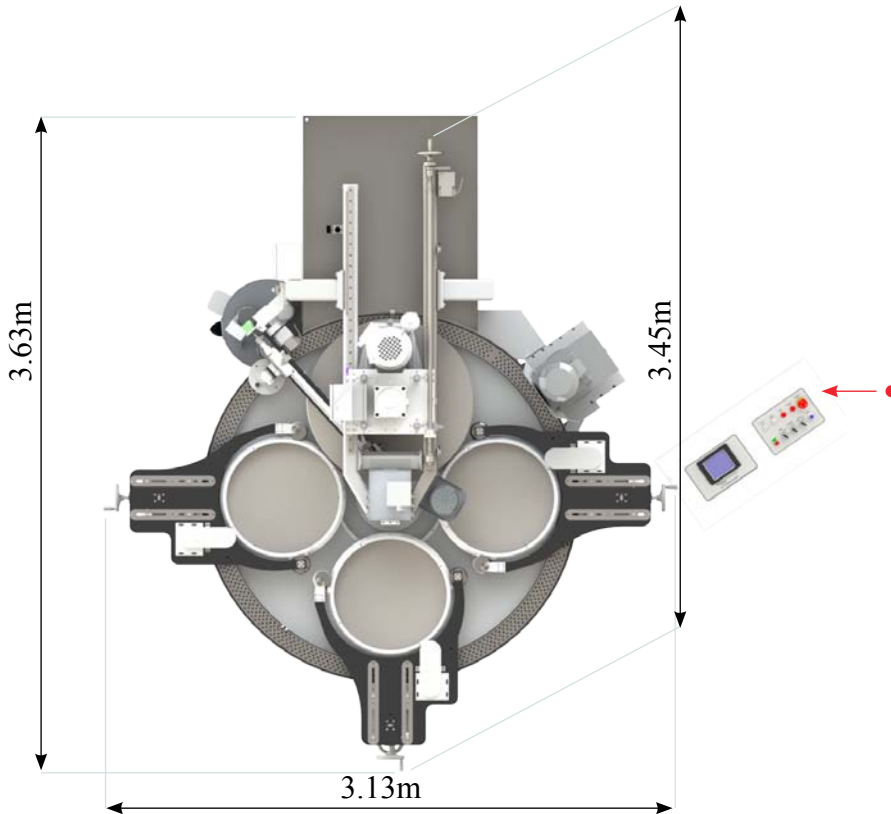
The four workholder ring stations are fitted with positive drive, ensuring continuous rotation. The drive system incorporates a clutch mechanism so that the ring is only positively driven if conditions are such that it stalls.

STANDARD FEATURES

- Heavy duty floor standing base with integrally mounted drive motor, reduction gearbox, abrasive distribution system, complete with control panel.
- Four suspended conditioning rings, with adjustable, sealed roller bearing yoke assemblies to maintain lap flatness.
- Free standing abrasive system complete with pump and driven stirrer tank with multiple point distribution.
- High torque drive unit consisting of 30kW motor and reduction gearbox. Lap plate speed 36 rpm.
- Operator controls at 100V, complies with EN 60 204.
- CE compliant.
- Electronic variable speed drive.
- Operator panel with start / stop controls, and multiple range digital process timer.
- Waste tank.

STANDARD TOOLING

- Lapmaster Pitch polishing plate. 1829mm O.D. x 457mm I.D.
- Four aluminium conditioning rings. 762mm O.D. x 692mm I.D.
- Operation and maintenance manual.



OPTIONAL FEATURES

- Reciprocating ring drives.
- Non-standard voltages.
- Peristaltic pump.
- Corporate colours.
- Temperature Control Facility
Machines can be provided in two different forms:

i) Plumbed ready for connection to an in-house water supply system.

or ii) Complete with a freestanding temperature control system, which incorporates a thermostat, refrigerator and heater and allows pumping of recirculated water through the support plate below the pitch lap. This permits better flatness control, and by temperature adjustment, modification of the flow properties of the pitch matrix.

- Pitch Trimming Bar (motorised).

This tool can be fitted to the central recess of the lap and to the work table. It is fitted with a special pitch cutting tool which is traversed across the lap surface.

It is used for cutting concentric grooves, or facing off the pitch, following the fitting of a newly cast lap, or if significant damage should occur to the surface. The cutting tool can be raised or lowered to permit various depths of cut to be made.

APPROXIMATE WEIGHT

- 6000 kg.

SERVICES

- Electrical: 230/380V, 3 Phase, 50Hz.
- Air: 400 kPa / 4 bar minimum. (if applicable).
- Water: 100 kPa / 1 bar minimum. (if applicable).

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