

Kemet

Precision Diamond Flat Lapping & Polishing Machines Series 40 Pneumatic Lift



Illustrative Picture of
Kemet 40 pneumatic lift
lapping machine with
Kemet Diamond
Dispensing System

The Kemet 40 Pneumatic Lift Lapping Machine is an up-rated version of the Kemet 36 lapping machine, with a larger diameter lap plate and support plate and correspondingly larger conditioning rings. Pressure weights are attached through self-aligning bearings to the rods of three pneumatic cylinders. These are mounted vertically on sliding rails within a fabricated hollow assembly, known as a "spider bar". This fabrication is cantilevered over the lap plate and is mounted onto a tubular upright column bolted to the machine frame. The free end is restrained by a tierod to prevent excessive bending stress when high lapping pressures are used. The pneumatic arrangement allows loading and unloading without the need to lift the pressure weights manually. Operator hand safety is ensured by the requirement of both hands on two separate buttons to lower the weights. Variable down pressure from 30 kg to 200 kg when connected to 60 psi air supply.

The lap plate drive system uses a separate motor and worm and wheel reduction gearbox with multi belt drive and is mounted in a substantial floor mounted base. The base is fabricated from welded hollow section steel, clad with removable panels for maintenance. The electrical controls are housed in a console mounted at the front of the machine, and a second emergency stop button is fitted at the rear of the machine.

As with all Kemet lapping machines, provision is made for lateral adjustment of the conditioning ring position relative to the lap plate track so that plate flatness can be finely controlled.

The machine can be used with conventional abrasives slurries or Kemet Diamond slurries. The conventional abrasive supply system consists of an integral stainless steel abrasive tank and pump system and an integral steel waste tank. The Diamond Dispensing system consists of an electronic dispenser for fully controlled metering of liquid diamond and lubricating fluid, Liquid diamond stirrer unit, dual dispensing bars and spray heads.

Standard Tooling

- Kemet Lapping Disc mounted on cast iron serrated lapping plate 1016mm OD x 210mm ID (40" OD x 8 1/4" ID). Wear life 32mm (1 1/4")
- Three cast iron serrated conditioning rings 466mm OD x 406mm ID (16.5" OD x 16" ID). Wear life 70mm (2 3/4")

Standard Features

- Heavy duty floor standing base with integrally mounted drive motor, reduction gearbox, abrasive distribution system, complete with control panel.
- Heavy duty work table, vertically adjustable.
- Three conditioning rings, with adjustable roller bearing yoke assemblies to maintain lap flatness.
- Abrasive feed system complete with pump, agitator tank and multiple point distribution.
- Operator control panel with start and stop controls, and multiple range automatic cycle timer.
- High torque drive unit with 4.0kW / 5.5hp motor and reduction gearbox. Lap plate speed 56 rpm.
- Electrical system wired for 220V 3 phase 50 Hz or 380V 3 phase 50Hz or 415V 3 phase 50Hz.