

# PowerHone

Versatile vertical  
honing solution



# Introduction to PowerHone

The Delapena Powerhone is a competitively priced vertical honing solution for large and heavy components in small to medium size batches and prototypes. The Powerhone is suitable for both through and blind bores, producing an excellent surface finish. The machine has been designed for durability, efficiency and economical honing.

## Precision Control

### Reliable accuracy and consistency

The Powerhone offers precision honing and maximum power via a highly efficient hydraulic stroking motor. Stable machine design, accurate and repeatable stroking movement, the capacity to short stroke at any position and a bore diameter range of 25.4 to 368mm all combine to provide a versatile honing solution for a wide variety of applications.

## Operational Efficiency

### Reduced cost per part

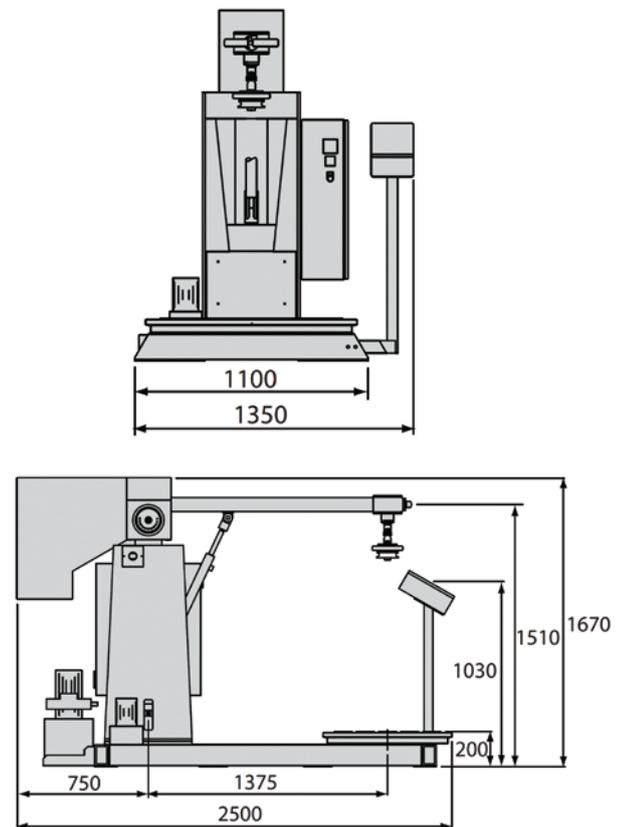
Compact and space saving, the Powerhone features an integrated worktable and an easily removable 60 litre honing fluid tank, with magnet and cartridge filtering system. A flexible jig and tool system and ease of access ensure swift production changeover for operational efficiency. The user friendly controller features a digital cycle timer and includes control of the feed unit. As standard the Powerhone is supplied with an automatic feed system, with an optional friction feed system available upon request.

## Versatile and Flexible

### Wide ranging application and capability

The Powerhone is supported by an extensive range of Delapena vertical tooling and associated consumables, including standard single stone, multi-stone or solutions tailored to specific applications.

- Versatile vertical honing solution
- Fully adjustable spindle and stroking speeds
- Accurate and repeatable stroking movement
- Highly efficient hydraulic stroking motor
- User friendly controller
- Bore diameter range of 25.4 to 368mm
- Accurate and repeatable stroking movement
- Short stroking at any position
- Integrated worktable
- Automatic feed system supplied as standard



## Capacity and Stroke

Diameter range	25.4 - 368mm. Other diameters upon request	
Maximum stroke length	1000mm. Fully adjustable at the spindle	
Stroking motor speed	Fully adjustable up to 20m/min	
Stroking motor power	1.5kW at 40 Bar	
Machining length - diameter dependent	<b>Diameter</b>	<b>Honing length</b>
	25.4mm	400mm
	31.8mm	520mm
	38.1mm	604mm
	44.5mm	660mm
	50.8mm	750mm
	57.1mm	812mm
	68.0mm	1000mm

## Spindle Drive and Stone Expansion

Spindle speed	Fully adjustable 40 - 250 RPM
Spindle motor power	1.5 kW

## Feeding System

Standard	Automatic
Option	Delapena manually operated friction feed system

## Electrical Equipment

Conformity	CE approved. Conforms to BS EN 6024 and BS7671
Motor protection category	IP54
Standard electrical supply	380 – 420V, 3 Phase, 50Hz or 220 – 240V 50, 1 Phase, 50Hz
Control voltage	24VDC

## Weight

Net	900kg
Gross	1000kg

## Machine

Dimensions	1300mm (W) x 2500mm (D) x 1800mm (H)
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## Freight packaging

Dimensions	1430mm (W) x 2750mm (D) x 1900mm (H)
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All dimensions are nominal. As a result of our policy of ongoing product development, Delapena reserves the right to revise specifications and design, without prior notice.

## After Sales Support

Having been at the forefront of honing technology for over eighty years, we continue to lead the way. Our equipment is backed by a comprehensive tooling service and an extensive range of consumables. Whatever your tooling requirement we are best placed to deliver solutions quickly and competitively. Delapena also offers a process trial and prototype service to help you meet your customers' exacting specifications. Delapena is committed to providing the very highest levels of after sales service and support.

# Delapena offers the complete honing solution

## To optimise performance of the PowerHone

### Tooling & abrasives

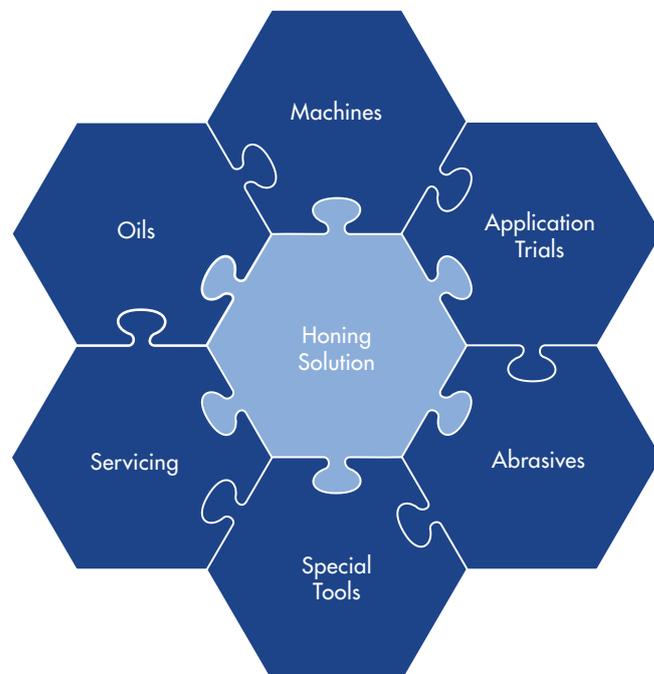
Delapena offers a complete range of horizontal, vertical and heavy duty tooling, plus special tooling which is designed and manufactured to order. Our tooling is supported by a full range of Standard and Super Abrasives to satisfy the most demanding requirements for the honing process, providing size, geometry and surface finish.

We also provide a professional refurbishment service for all variants of honing heads, to support your preventative maintenance programme.

### Oils

We offer a range of high quality oils that focus upon:

- Improved surface finish
- Reduced environmental impact
- Improved operator health and safety, with low misting additives
- Improved lubricity, for reduced tool wear, better surface finishes and consistency for components
- Improved oil longevity for better value



## To support use of the PowerHone

### Application trials

Each application trial includes data on surface finish, cycle times, abrasives and the best honing solution for the job.

### Commissioning

Every machine is commissioned by a Delapena engineer who manages the set up and provides training for all operatives.

### Training & continued education

To support clients to meet their Health & Safety requirements, we offer training as required for machine operatives. This is tailored to the specific client's requirements.

### Maintenance

The name Delapena is synonymous with reliability and the PowerHone is designed to be virtually maintenance free, with only annual checks required to ensure optimised operation.

## The wider range



### E1000S ProductionHone Mini

Competitively priced NC controlled horizontal honing machine for the production of small to medium sized batches.



### E2000S ProductionHone Maxi

The next step up from the ProductionHone Mini, offering increased capacity and torque, the ProductionHone Maxi is used for bores up to 80mm diameter. A NC controlled horizontal honing machine with a wide range of rotational and reciprocation speeds, allowing the workpiece to automatically stroke over the tool.



### E2000S-XL CalibreHone

An innovative long bore precision honing machine, designed specifically to hone straight and tapered bores at lengths up to 1200mm. The CalibreHone (E2000S-XL) achieves tolerances and geometries to below  $2\mu$ , for diameters up to 50mm.



### EAS SpeedHone

SpeedHone is a compact, electronically controlled machine that de-skills the honing process. Tooling changes are quick and easy, making SpeedHone ideal for one off and batch production work. With enormous flexibility, SpeedHone is an essential machine for every tool room.



### E3000S PrecisionHone

A high precision vertical honing machine with wide ranging capability to hone parts from small scale to heavy components, with a diameter range of 1.14mm to 80mm (subject to application) and a tolerance accuracy to 0.001mm, with sub-micron adjustment.

# Honing excellence

Part of Delapena Group, Delapena Honing Equipment is an innovator in the design and manufacture of high precision, technically advanced honing machines. Our company has an impressive history that spans over 85 years and we are exceptionally proud of our heritage. The name Delapena is synonymous with quality and is often used as a verb in the engineering world as the definitive for honing.

Today Delapena is recognised as a master in the honing market, operating internationally to offer complete honing solutions that include not only a range of technically advanced machines, but also the tooling, fixtures, abrasives and other consumables that optimise their performance. From manually operated machines to fully automated systems with Siemens electronic controls, Delapena offers a solution for every honing need and our customers rely upon our trusted expertise to optimise their process and surpass their objectives.



To learn more about the PowerHone or any other products and services from Delapena Honing Equipment please visit [www.delapena.co.uk](http://www.delapena.co.uk)

For further details or a quotation call **+44 (0) 1242 516341** or email [sales@delapena.co.uk](mailto:sales@delapena.co.uk)

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