

PowerHone

Versatile vertical
honing solution



Introduction to PowerHone

The Delapena Powerhone is a competitively priced vertical honing machine 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 PowerHone has been designed for durability, efficiency and economical honing.

PowerHone - Speed, Safety, Simple.

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 from 25.4mm 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 from 25.4 internal to 740mm external
- Short stroking at any position
- Integrated worktable
- Automatic feed system supplied as standard



PowerHone: Speed, Safety, Simple



“PowerHone offers versatile vertical honing, with moveable arm, quick and easy set-up and hands-free operation. Auto-stop guarding ensures operator safety and operational efficiency cuts production time by up to 80%. Ideal for general purpose honing, PowerHone suits a wide array of large components requiring small bore honing. It achieves rapid stock removal to precise and consistent tolerances.”

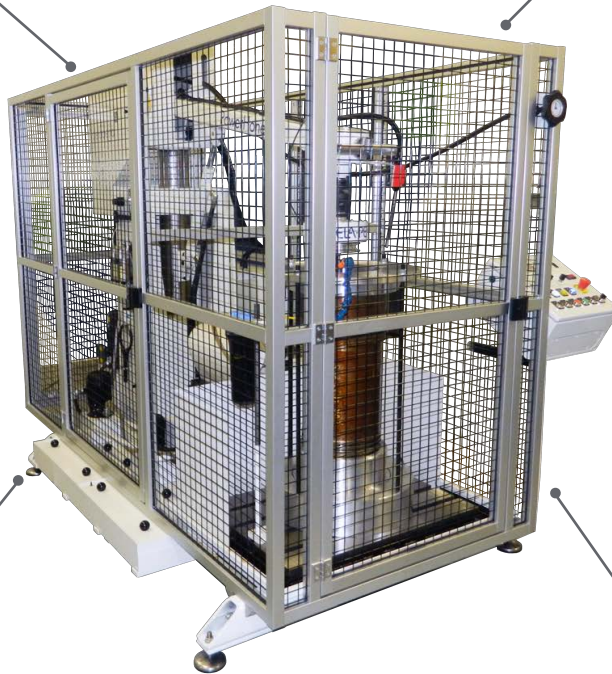
Martin Elliott, Managing Director

Innovative in design, flexible in operation

- Diameter range from 25.4mm internal to 740mm external as standard
- Movement of arm creates flexibility
- Options for larger diameter tooling
- Capacity from small batches to hundreds of parts
- Power and consistency in a compact footprint

Electronic control system

- User-friendly control panel with digital cycle timer
- Tolerance accuracy to 0.01 mm
- Built with Siemens components



Operational Efficiency

- Quick and easy set up
- Automatic feed system as standard
- Reduced cost per part
- Cuts production time by up to 80%
- Operation by non-skilled workers

Workforce safety

- Failsafe auto-stop guarding
- Hands-free operation
- Closed door, push button automatic

PowerHone in Action

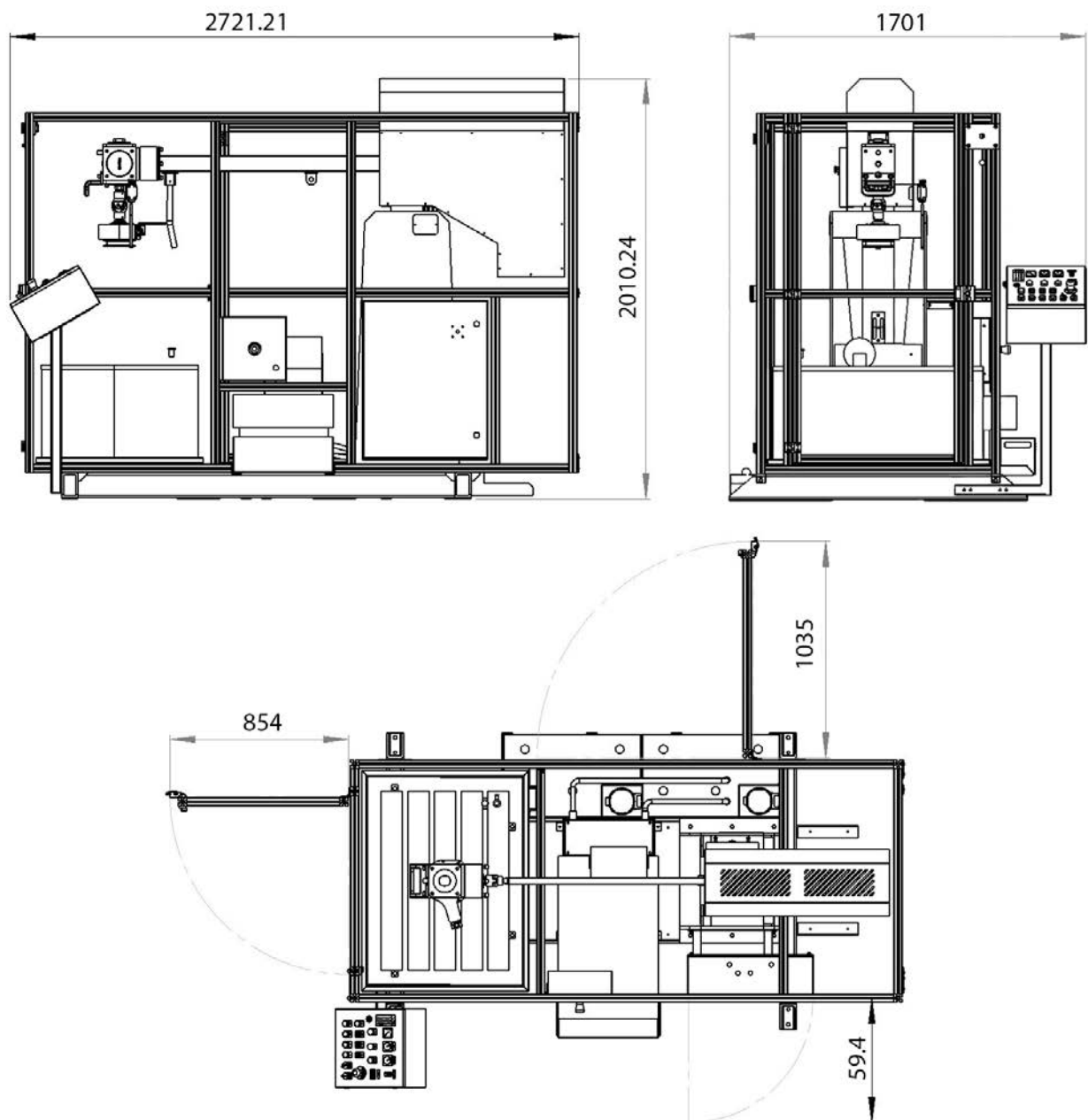
PowerHone for

- Bore diameter range from 25.4mm internal
- External diameter upto 740mm as standard
- User-friendly control panel with digital cycle timer
- Maximum power via hydraulic stroking motor
- Accurate and repeatable stroking movement
- Fully adjustable spindle and stroking speeds
- Short stroke capacity
- Automatic feed system as standard
- Space-efficient footprint
- Extending component life with post chrome plating honing

Ideal for

- Marine cylinder liners
- Pump bodies
- Hydraulic cylinders
- Large valve bodies
- Compressor bodies

Customised tooling and tailor-made abrasives are offered by Delapena to further extend the flexibility of these machines.



Technical specifications

Capacity and Stroke

Maximum external diameter	740mm. 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	
Honing length guide - diameter dependent	Diameter	Maximum honing length
	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 0 - 250 RPM
Spindle motor power	4 kW

Feeding System

Standard	Delapena automatic friction feed system
Option	Delapena manually operated friction feed system

Electrical Equipment

Conformity	CE approved. Conforms to BS EN 60204.1:2006 AI:2009
Motor protection category	IP54
Standard electrical supply	380 – 420V, 3 Phase, 50Hz or 220 – 240V 50, 1 Phase, 50Hz
Control voltage	24VDC

Coolant System

Standard	60 litre fluid tank with magnetic and cartridge filtering system
Option	30 l/min Paper media filtration

Weight

Net	1100kg
Gross	1300kg approx

Machine

Dimensions	1701mm (W) x 2721.21mm (D) x 2010.24mm (H)
------------	--------------------------------------------

Freight packaging

Dimensions	1920mm (W) x 3000mm (D) x 2200mm (H)
------------	--------------------------------------

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

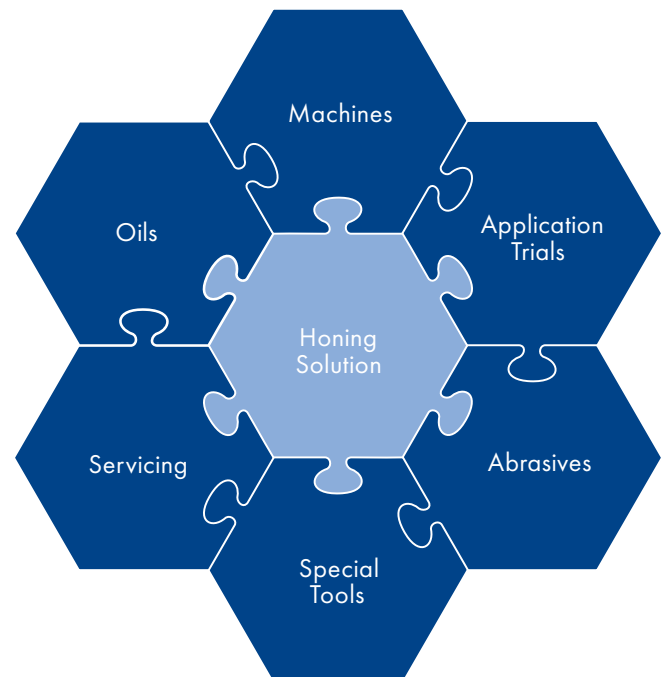
Delapena offers a complete range of horizontal, vertical and heavy duty tooling, plus special tooling which is designed and manufactured to order. Our tooling is supported by a full range of Standard and Super Abrasives to satisfy the most demanding requirements for the honing process, providing size, 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. An 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 2μ , for diameters up to 50mm.



EAS

SpeedHone

SpeedHone is a compact, electronically controlled machine that simplifies 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.



4200

TubeHone

TubeHone is a safe, robust and powerful machine. Fully interlocking guarding, coupled with Delapena's Heavy duty tooling and oils make the TubeHone an excellent choice for horizontal honing.



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 all over the world

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**

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

Delapena Honing Equipment Ltd

The Runnings | Cheltenham | Gloucestershire | GL51 9NJ | UK

Tel: +44 (0)1242 516341 | Fax: +44 (0)1242 221246

sales@delapena.co.uk | www.delapena.co.uk



Delapena is a independently owned British company

