

# PowerHone EXL

robust/versatile/precise

Designed for robust honing of heavy duty components.



**PowerHone EXL**

robust/versatile/precise

## Welcome to the delapena group

delapena group are leading honing specialists in the UK and around the world.

We design and manufacture a wide range of standard and bespoke honing machines, tooling and abrasives for the Automotive, Aerospace and other manufacturing sectors.

Our services include application development, bespoke tooling design, process engineering, tooling refurbishment, maintenance, consultancy and training.



## Contents

**Page 3 - Introducing the PowerHone EXL**

**Page 4 - Features & benefits**

**Page 5 - Floor plan**

**Page 6 - Technical specifications**

**Page 7 - Intelligent honing**

**Page 8 - delapena brings you iHone technology**

**Page 9- delapena, your complete honing supplier**

**Page 10 - The wider range**

# Introducing the PowerHone EXL

## robust/versatile/precise

In the heart of the PowerHone EXL lies a robust design, crafted with heavy-duty components to ensure unwavering stability and vibration-free operation. This translates to unparalleled precision, with honed surfaces achieving mirror-like finishes and dimensional accuracy exceeding even the most stringent requirements.

The machine's rigid construction also empowers it to tackle large and heavy workpieces with confidence, making it ideal for diverse industrial applications.

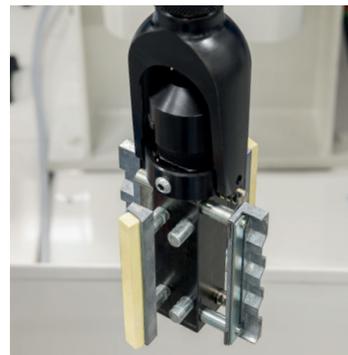
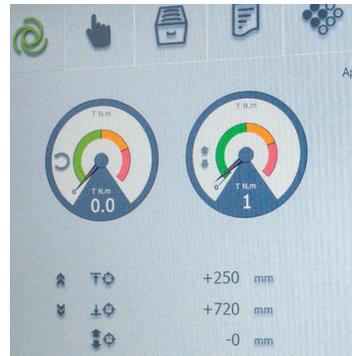
Beyond its robust physique, the PowerHone EXL boasts an impressive array of technical features that elevate its capabilities to new heights. The electronically controlled stroking mechanism guarantees consistent and precise honing strokes, regardless of the workpiece size or material. This level of control allows for fine-tuning the honing process to achieve the desired surface finish and geometry with remarkable repeatability.

Furthermore, the PowerHone EXL's ensures consistent material removal and also extends the lifespan of the honing stones, leading to reduced downtime and maintenance costs.

Versatility is another key strength of the PowerHone EXL. Its spindle speeds cater to a wide range of workpiece diameters and materials, from soft aluminium to hardened steel. This adaptability makes the PowerHone EXL a valuable asset for any workshop or production line, eliminating the need for dedicated honing machines for different applications.



iHone is delapena's icon based software providing the operator with a conversational touchscreen interface. Featuring clear graphics for quickly and easily defining honing parameters.



## Introducing the PowerHone EXL

### Features & Benefits

Benefits of using delapena honing machines:

- Improved surface finish and geometry
- Increased accuracy and repeatability
- Reduced scrap rates
- Extended tool life
- Increased productivity
- Lower production costs

The delapena PowerHone EXL is the perfect choice for businesses that are looking for a high-quality honing machine that can help them to improve their production efficiency and quality.

With a diameter range from 25.4mm to 1000mm and an impressive stroke of up to 1.1 metres \*subject to application the PowerHone EXL is honing at its most versatile.

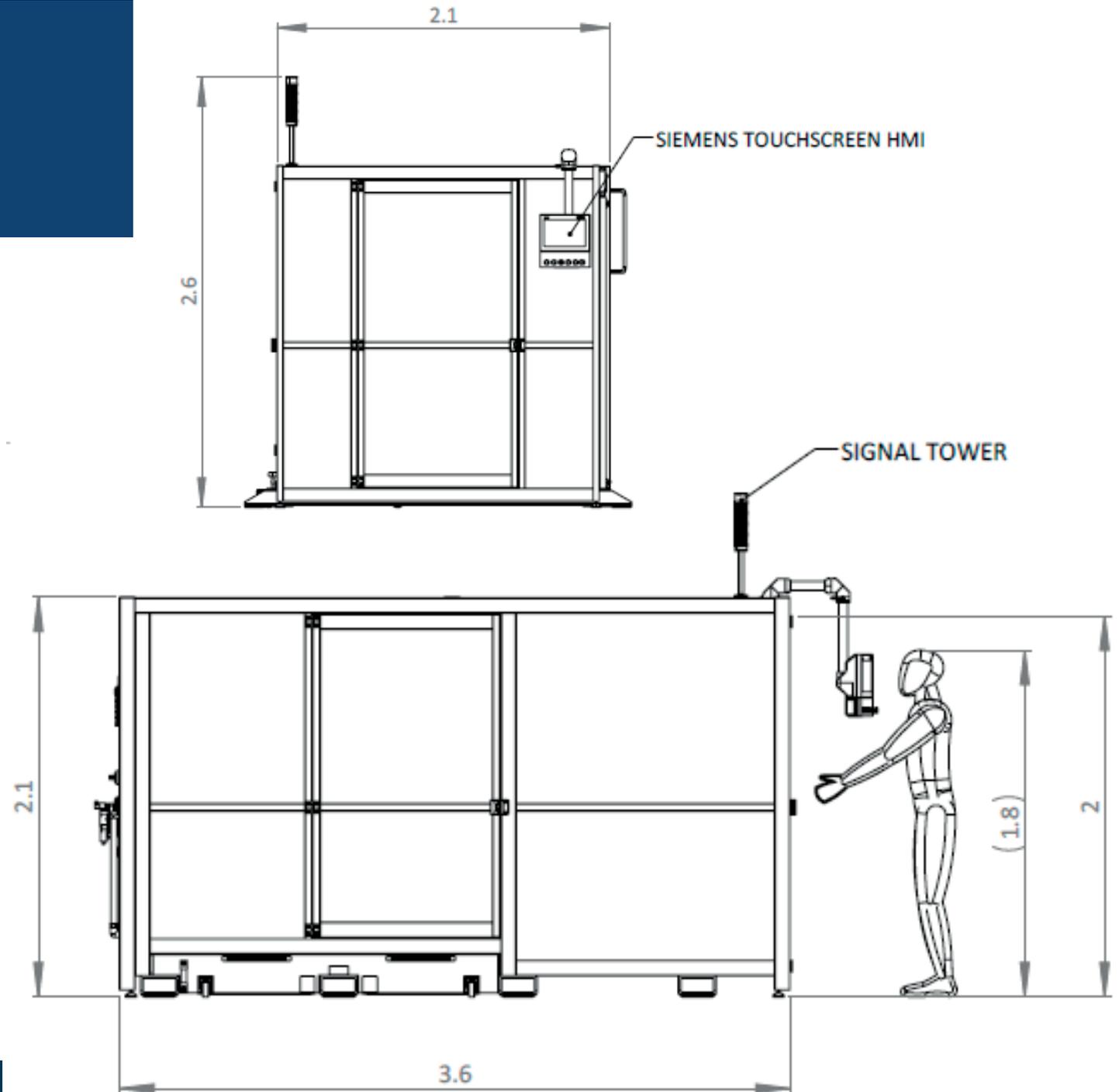
Fully programmable rotation speeds up to 250rpm and reciprocation speeds of up to 30m/min.

Cutting edge Siemens technology combined with a fully linear actuator allows for great functionality.

Fitted with delapena iHone's conversational programming, data provides the user with valuable feedback for process optimization and predictive maintenance.

# Floor Plan

Robust  
Versatile  
Precise



## Technical specifications

### Capacity

Diameter range – 25 – 1000 mm \*subject to application

Maximum reciprocation length – 1500 mm

### Motors

Rotation system

Spindle speed: Infinitely variable within range of 10 to 250 rpm.

Rotation motor:  
4 kW –AC motor.

Braking:  
Dynamic Braking Resistor.

Spindle Control:  
Variable Speed Drive with Incremental Encoder.

### Reciprocation system

Stroking motor: 2.2 kW with Incremental Encoder.

Stroking motion: Linear Actuator

Stroking speed: }

1.0 – 30.0 Metres / minute - Infinitely variable.

Stroking length: 1.0 to 1100mm

Short stroking (option):

Length and frequency of short strokes programmable

### Controls

Delapena iHone software

Display: 12" TFT Touch screen.

### Expansion System

Feed Type – delapena Friction Feed unit

Feed Rate - Programmable

### Electrical System

Conformity - UKCA/CE/UL Approved

Voltage - 400V, 50Hz -480V/60Hz

Control Voltage - 24 VDC

### Coolant System

Integral - 75L fluid tank with magnetic filtering

### Weight

Net – 3300 kg approx.

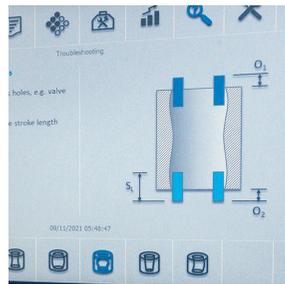
Gross – 3800 kg approx.

## intelligent honing

delapena brings you iHone; a graphical icon based machine interface designed to simplify the process of programming our honing machines. Using Siemen`s touchscreen technology we now offer a conversational style interface that is easy to use, but still packed with features.

Much of our honing knowledge and best practices are baked into the iHone system, included are on-screen help pages enabling the operator to diagnose geometry and finish issues on the machine. The controller allows for extensive program storage enabling fast setup of repeat work maximising productivity.





## intelligent honing

Large icon based function keys allow you to modify honing data on the fly and access in-process features.

In process monitors allows you to determine machine status at a glance from motor torques to cycle-time monitors.

Programs can be stored for later recall facilitating minimum set up time for repeat work.

Parameters are entered in a logical order and all pages accompanied by clear graphics to highlight the effect of each parameter.

The lower panel contains primary functions such as cycle time, mode select & emergency stop buttons.

All this is facilitated by a Siemens touchscreen panel that can be maneuvered to suit the operator.

# delapena

## complete honing supplier

### Tooling

At delapena we design, manufacture and supply a wide range of honing tools for our own machines as well as specialist fittings for many other manufactures machines. We also provide a range of manual held tooling.

### Tooling Refurbishment

Our honing tool refurbishment service covers all aspects of the tooling from full refurbishment of the honing tool to manufacturing new tools and spares.

delapena refurbishes honing tools for Automotive OEMs and has recently been extensively expanded to cope with the new demand.

Currently the department services Gehrung, Nagel and Diahone tools..

### Sintering

delapena sintered products is the UK`s specialist research and development facility for the honing market, producing specific super abrasives for customers` applications.

In a state-of-the-art production facility, first class standards are applied throughout the entire process, with complete traceability, from mixing and dosing powders to specialist sintering and quality control.



## PrecisionHone

flagship/advanced/accurate

Our flagship machine, the PrecisionHone is a vertical honing machine for production honing of small parts. Accurate and packed with features, for large batch work and tight tolerances the PrecisionHone is the machine of choice. Now featuring our iHone technology; enabling ease of use and fast set up.



## TubeHone

dynamic/commanding/dominant

The TubeHone is the ideal machine for cylinders up to 4m in length. Our standard TubeHone hones up to 650mm bores, with bespoke options up to 1m. Powerful motors and a belt drive system ensure rapid stock removal.



## ForceHone

rapid/powerful/robust

The ForceHone is the big brother to the SpeedHone, featuring faster drives and more powerful motors for small to medium parts and increased productivity gains.



## The wider range

### Selection of new generation honing machines

Our range of honing machines are user-friendly and versatile, producing consistently high-quality results. delapena honing machines feature control systems that allow for easy setup and storage of programs, with our iHone software making this easier than ever before on our range of new flagship machines.

delapena honing machines can be found in businesses all over the world. We provide comprehensive support, training, and guidance throughout commissioning and beyond.



## *i*Hone Technology



[sales@delapena.co.uk](mailto:sales@delapena.co.uk)

[www.delapena.co.uk](http://www.delapena.co.uk)

0044 1242 516341