

PrecisionHone

flagship/advanced/accurate

pioneering the way forward in honing
with the advanced iHone software



PrecisionHone

*i*Hone Technology



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.



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Introducing the PrecisionHone

Developed by delapena`s expert engineers, this machine joins our suite of electronically controlled state-of-the-art honing machines.

The PrecisionHone with wide ranging capacity to hone parts from small scale to heavy components, with a diameter range of 1.14mm to 80mm* and a tolerance accuracy to 0.001mm, with a sub-micron adjustment.

The PrecisionHone delivers precision control, advanced intelligent honing software, accurate operational efficiency all combines giving you and excellent return on your investment.

flagship/advanced/accurate

“The value offered by our new PrecisionHone is best measured by the precise tolerances achieved, its versatility in application, the extended tool life it supports and the reduction in cost per part when competitively evaluated”

Martin Elliott, Managing Director



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.



Features & benefits

With a diameter range from 1.14m to 80mm and a stroke length of up to 500mm the PrecisionHone is honing at its most versatile.

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

With fully interlocking safety enclosure the PrecisionHone is both operator friendly and health & safety compliant.

Fully adjustable Spindle speed

Adjustable stroking speed from 0.1 -25m/min

Incremental feed adjustment from 0.1 – 30 micron/second

Touchscreen conversational programming

Two stage programming allows discreet cutting data for stock removal and/or finishing

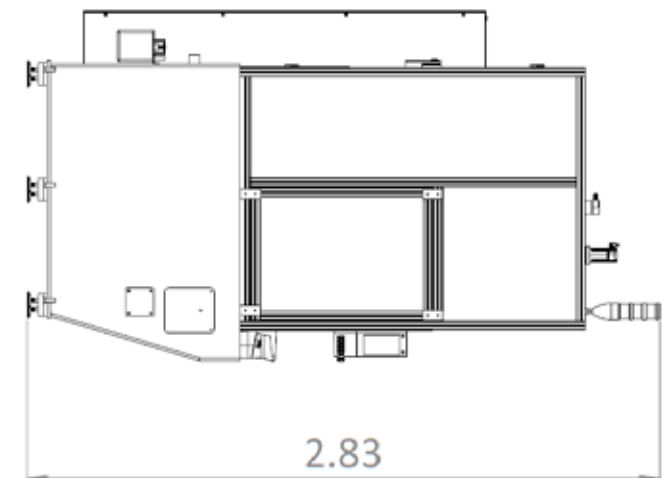
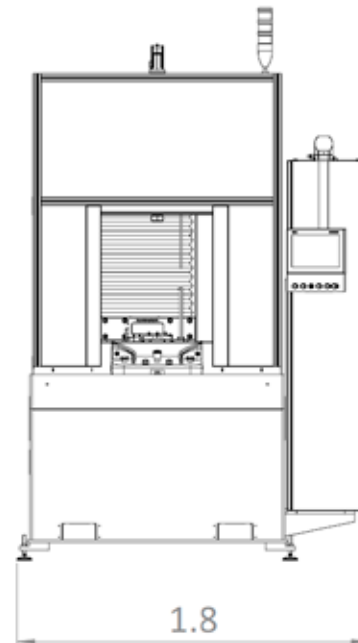
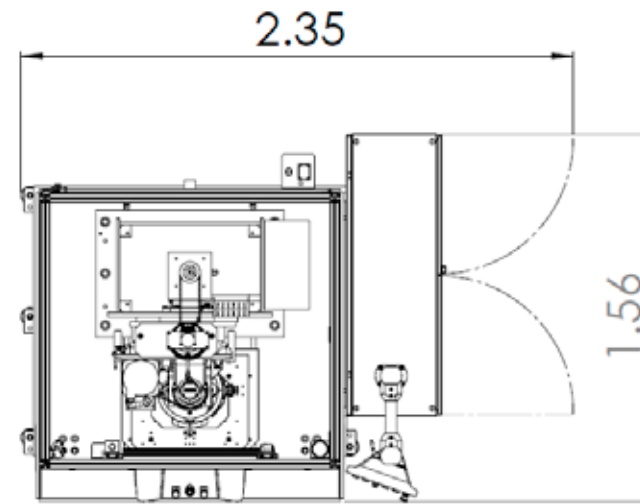
Fully programmable short stroking for blind/ misshapen bores

Flexible fixturing & table layout – XY & rotary options available on request

pioneering the way forward in honing

Floor plan

flagshp
advanced
accurate



Technical specification

Capacity and stroke

Diameter range 1.14mm – 80mm
Maximum stroke - 500mm
Stroking motor speed – Fully adjustable 0.1 – 25m/min
Stroking movement – Precision recirculation ball screw
Short stroking – Fully adjustable length and frequency
Short stroke override – Manual

Spindle Drive and Stone Expansion

Spindle speed Fully adjustable 200 - 3000 RPM
Spindle motor power 3.75 kW
Braking Dynamic braking resistor
Feed type Programmable
Feed rate Fully adjustable 0.1 – 30 micron/second Two programmable speeds for each cycle and timer
Incremental feed 0.1 - 10-micron increments
Feed movement Precision ball screw
Stone pressure Variable maximum 1000N
Wedge retraction Programmable
Wedge retraction speed Programmable

Electrical Equipment

Conformity CAUK/CE approved. Conforms to BSEN60204 and BS7671
Motor protection category IP54
Standard electrical supply 380 – 415V,3 Phase, 50Hz
Control voltage 24VDC

Controller

Type - Siemens

Honing Fluid Filtration

System - External filtration system (Specified by customer)

Colour

Standard White RAL 9002

Weight

Net 3200kg
Gross 3400kg

Machine Dimensions

1800mm (W) x 1850mm (D) x 2800mm (H)

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 Seimens 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 Gearing, Nagel and Diahon 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.



PowerHone

precise/efficient/versatile

The PowerHone E is a vertical honing machine for large and heavy components in small to medium size batches and prototypes. Sturdy machine design, accurate and repeatable stoking movement.



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.



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sales@delapena.co.uk

www.delapena.co.uk

0044 1242 516341