

deePHONE

Horizontal and Vertical Honing Machines



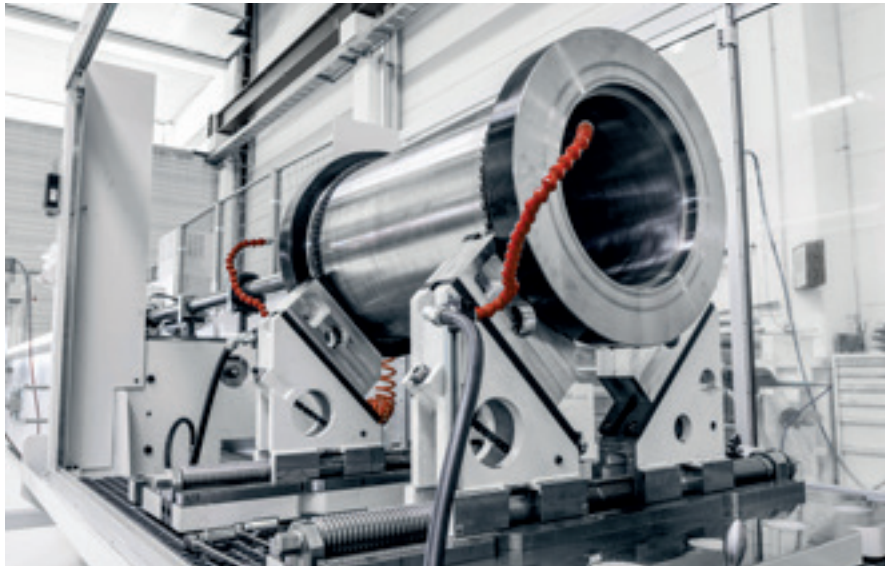
Excellence in motion.
Future in mind.

Horizontal and Vertical Honing Machines

Finishing with lowest piece costs

High performance drive systems and a high-precision feeding unit ensure a perfect configuration for the lowest piece costs in your production line. The spindle drive is powered by a high performance servomotor with max. 5.5 kW.

A 3-step transmission unit with an range from 3 to 380 rpm covers a large operating range. The stroke drive is powered by a servomotor and a high-performance chain. A position sensor along the entire stroke length guarantees precise stroke reversal and maximum process capability.



Bushing while inner honing

VERTICAL MACHINES

Inner and outer honing on one machine

The deephone offers a completely new concept which makes it possible to hone inside and outside on one machine. Instead of external grinding you can achieve higher qualities and better tribological characteristics by honing.

A larger spectrum of material can be processed. The machining of aluminium cylinders with thin walls for example is no longer a big challenge. If you take a look at the economics, the invest for a deephone lies under the one of a comparable grinding machine.

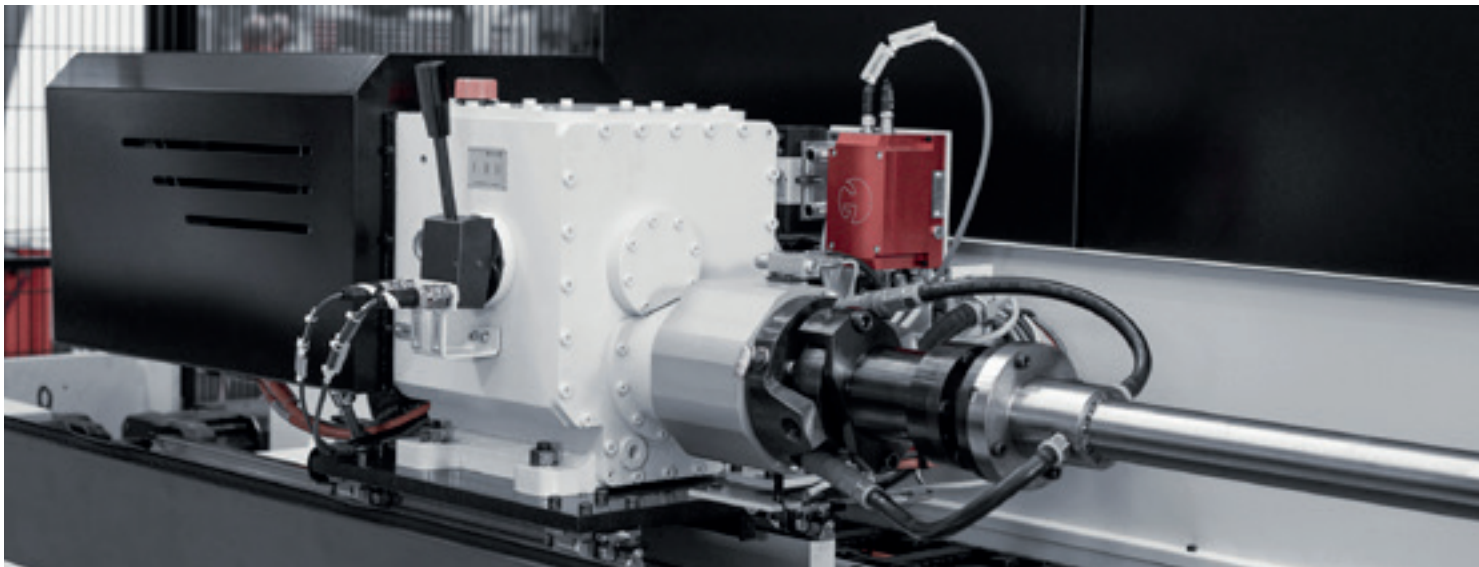


Diameter control

Machines and technical data

	Motor type	Power	Torque	rpm range	Stroke speed
Spindle drive	Asynchron servo motor	5,5kW	max. 1750Nm	(3-380) rpm	-
Feeding system	Servo motor	2kW	20Nm	-	-
Stroke drive	Servo motor	14kW	2060Nm	-	(0,1- 40) m/min

Machine variant	3000e	3000	6000	10000
Workpiece outer diameter	ø40 - ø650 mm	ø65 - ø1200mm	ø65 - ø1200mm	ø65 - ø1200mm
Honing diameter	ø20 - ø620mm	ø40 - ø1150mm	ø40 - ø1150mm	ø40 - ø1150mm
Honing lenght max.	3000mm	3000mm	6000mm	10000mm
Length [m]	9,5	9,5	15,5	23,5
Width [m]	2,1	2,8	2,8	2,8
Height [m]	2,2	2,2	2,2	2,2
Weight [t]	7,5	7,5	13	21



Gehring spindle drive with digital transducer for inprocess measurement and direct tooling rework by



Gehring Operator Panel

Easy operation thanks to the program assistant

The simple control increases the user friendliness. The programme assistant considerably eases machine operation for honing newcomers as well as experienced operators. After entering the relevant parameters of the component, material and tool, the process

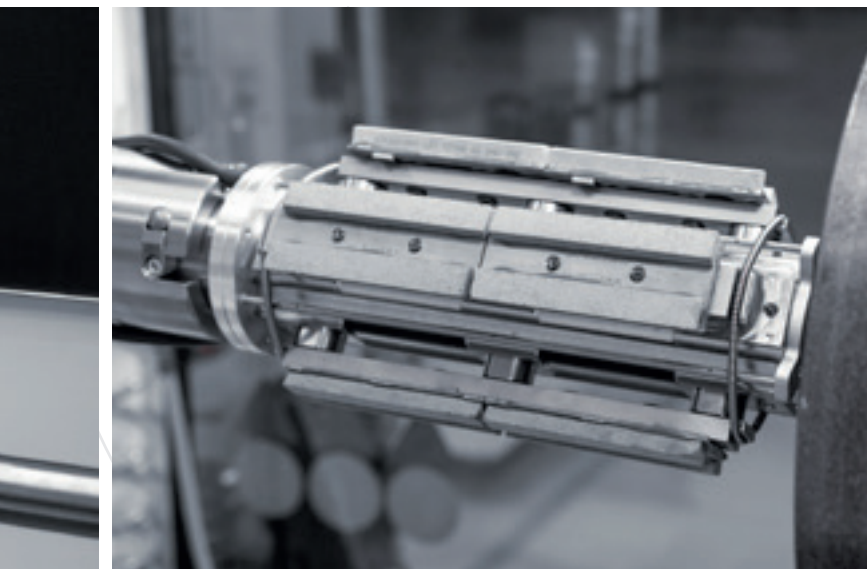
and stock removal can be defined, and honing can be started right after the tool has been positioned. The stroke position and all the other relevant parameters for machining the component are automatically calculated.

Precision with the Gehring tool system

Precision and longevity are the hallmarks of our tooling systems. Equipped with abrasives customised for the specific applications, our tool systems guarantee the highest level of efficiency, optimised surfaces, and the best possible bore geometries.

A high degree of standardization results in reduced production costs – an additional customer benefit in respect of economics in the application. Profit from the Gehring tool system which is especially customized for each machine.

Machine variant	Vertical*
Workpiece outer diameter	ø25 – ø1200mm
Honing diameter	ø20 – ø1150mm
Honing lenght max.	1500mm
Length [m]	3,7
Width [m]	2,3
Height [m]	5,7
Weight [t]	12



y drive shaft

Deephoning toolsystem (DTS 130-170mm)



Vertical honing

* Special length specifically adaptable on customer request.

EXCELLENCE IN MOTION.

Trust in the technology leader with many years' experience and global presence!

Innovative technology combined with an economical mindset set us apart.

Optimally equipped for flexible production right from the start

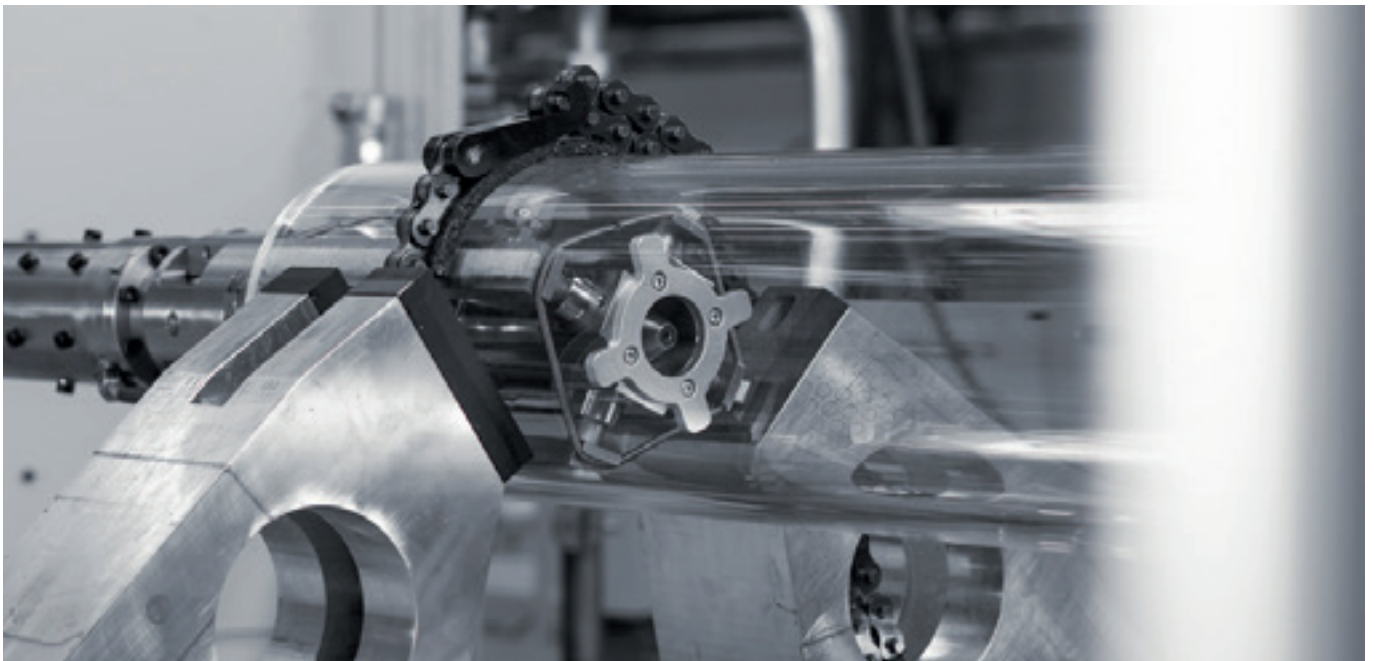
- graphical operator interface for fast and easy control
- electro-mechanical feeding system
- flexible component clamping devices with prism holders and clamping chain for parts with external diameters up to 650 mm
- automatic honing process workflow
- infinitely variable rpm and stroke speed
- modern safety systems

FUTURE IN MIND.

Optional equipment

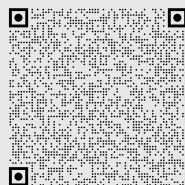
Upgrade the deephone to meet your specific requirements:

- Gehring air measuring system for air measuring tools (in-process measurement)
- Double infeed (push/pull) for pre-machining and finishing with only one tool
- Control system for „conical honing“
- Counter-turning device with Lynette and driven lathe chuck
- Manual control unit
- Oil drip pans with whg probe
- Central lubrication
- Coolant system with magnetic filter with flow rate from 60 to 200 l/min
- Special infeed for power honing
- Depending on the application appropriate cooling lubricant system





www.gehring-group.com



Gehring Technologies GmbH + Co. KG

Gehringstraße 28 | D-73760 Ostfildern
T +49 711/3405-0 | E info@gehring-group.com