

Extrude Hone

TEM • Thermal Energy Method

TEM P350

Rapid and cost-effective production deburring

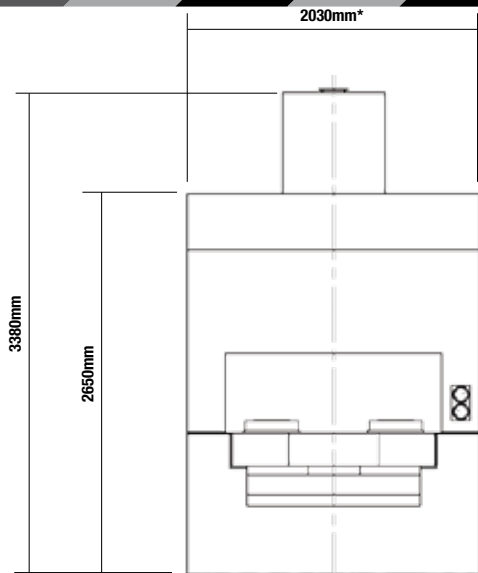
The fast and reliable P350 machine is the best solution for removing all internal and external burrs simultaneously in a single operation. The P350 is designed to accommodate medium- to large-production volumes, as well as handle a variety of difficult to deburr workpieces.

Available in two different chamber sizes with a clamping force of 3.5 MN, the P350 delivers long service life and consistent part quality even in three shift operational environments.



Features and Benefits

- Robust machine frame**
 Ensures highest levels of stability at each stage of the production process.
- Indexing table with five closure plates**
 Loading and unloading operations are made easy and high-volume production rendered feasible as the closure plates serve to accommodate the workpiece.
- Hydraulically secured closure plates**
 The deburring chamber is hermetically sealed off, eliminating contamination concerns and guaranteeing production safety.
- Gas metering via dosing cylinder**
 This feature provides highly precise metering of the required quantity of gas achieving a consistent quality level.
- Integrated noise suppression enclosure**
 The enclosure prevents noise emissions into the production environment and ensures safety for the machine operator.
- User-friendly and expandable Programmable Logic Controller (PLC)**
 The software can easily accommodate customer-specific parameters.
- Probing station with integrated seal cleaner**
 This feature avoids part and machine damage due to interference prolonging closure seal life.
- Mixing valve tester**
 Provides quick and easy inspection of the mixing valve prior to installation on the machine.



* Dimensions without swing-arm.



The machine also can be integrated into fully automated production lines.

Electrical Specifications

The main control cabinet is integrated into the Noise Reduction Enclosure. This cabinet contains the main control elements of the machine, including the PLC controller and the PC for visualisation. The Operator Interface is a 15" LCD touchscreen and is mounted on a swing arm convenient to the operator working position. Working cycles can be operated manually step-by-step or automatically with a single operator input.

Electrical

Voltage 400 VAC/
3 P/N/PE/50 Hz

Controls

Standard Siemens S7-300*
* Other controls are available as option.

Visualization

Siemens Microbox 427 PC with
15" Touchscreen**

** Optional process visualization display and interface to master computer are available.

Connection Requirements

Water

Port: G 1/2"
Pressure: min 3 bar

Pneumatics

Port: G 1/2"
Pressure: min 5 bar

Security

Exhaust fan with vacuum sensor.
Gas detection system.

Machine Specifications

The machine frame is a two-post-portal construction capable of working with clamping forces up to 3.5 MN. Workpieces are loaded into the deburring chamber by means of an indexing table, which is equipped with five closure plates.

Dimensions base unit approx.
(W x D x H) 3600 x 2100 x 3400mm
Dimensions with control cabinet

Available chambers (Ø x H)	Ø 250 x 300mm Ø 320 x 300mm
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More sizes available upon request.

Chamber pressure (max)	Ø 250mm = 22 bar* Ø 320mm = 16 bar*
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*With methane.

Noise level <70 dB

Weight approx. 13,000 kg**

**Filled hydraulic unit.

Cycle Time (single ignition)	50–60 seconds
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Approximate Values for Gas Mixture Pressures

Material	Natural Gas
Steel	8–20 bar
Cast Iron	5–20 bar
Zinc	5–10 bar
Aluminum	5–10 bar
Brass	8–20 bar

Fuel gas can be natural gas, methane, or hydrogen.

Accessories/Options

- Multiple chamber option.
- Automatic gas pressure regulation.
- Extended chamber heights.
- Gas compressor.
- Closed-Loop Cooling system.

All machines in this series comply with the applicable EU Directives governing machine safety and bear the CE mark. They also comply with accident prevention and the VDE and VDI regulations, as well as the requirements concerning electromagnetic compatibility.

Subject to technical changes serving to improve the system and in line with technological progress

NOTE: Specifications and availability are subject to change without notice.



Kennametal Extrude Hone GmbH
Berghauser Str. 62
D-42859 Remscheid
Germany
Tel: +49 2191 900250
Fax: +49 2191 900254
remscheid.information@kennametal.com

Kennametal Extrude Hone Limited
1 Sovereign Business Park
Joplin Court, Crownhill
Milton Keynes MK8 0JP
United Kingdom
Tel.: +44 (0) 1908 26 36 36
Fax: +44 (0) 1908 26 21 41

Kennametal Extrude Hone GmbH
Memminger Straße 37
D-87746 Erkheim
Germany
Tel.: +49 8336-8005-0
Fax: -500
erkheim.information@kennametal.com

www.extrudehone.com