

Extrude Hone

TEM • Thermal Energy Method

TEM P80

Rapid and cost-effective production deburring

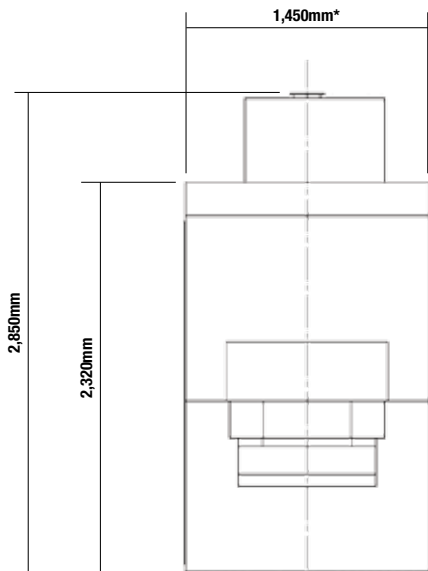
The fast and reliable P80 machine is the best solution for removing all internal and external burrs simultaneously in a single operation. The P80 is designed to accommodate medium- to large- production volumes, as well as handle a variety of difficult-to-deburr workpieces.

Available in two different chamber sizes with a clamping force of 800 kN, the P80 delivers long service life and consistent part quality even in three shift operational environments.

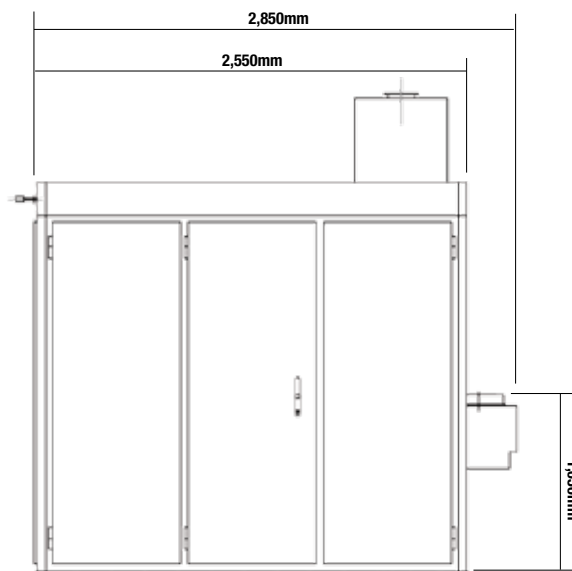
Features and Benefits

- Robust machine frame**
 Ensures highest stability in each stage of the production process.
- Indexing table with five closure plates**
 Loading and unloading operation is 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 guaranteeing utmost production safety.
- Gas metering via dosing cylinder**
 This feature provides highly precise metering of the required quantity of gas secures a consistent quality level.
- Integrated noise suppression enclosure**
 The enclosure prevents noise emissions into the production environment ensuring 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 and prolongs closure seal life.
- Mixing valve tester**
 Provides quick and easy inspection of the mixing valve prior to installation on the machine.





* Dimensions without control cabinet



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

Electrical Specifications

The main control cabinet is located to the right side of the noise-reduction cabinet. It is a freestanding cabinet that contains all of the control elements of the machine, including the PLC controller and operator interface. Working cycles can be sequenced manually in a single step mode or started in automatic mode.

Electrical

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

Controls

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

Visualization

Siemens OP270 6***

**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 three-portal construction capable of working with clamping forces up to 800 kN. Workpieces are loaded into the deburring chamber by means of an indexing table, which is equipped with five closure plates.

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.



Dimensions base unit
(W x D x H)

approx.
1,950 x 2,850 x 2,850mm

Dimensions with control cabinet

Available chambers
(Ø x H)

Ø 120 x 150mm
Ø 150 x 150mm
Ø 120 x 300mm
Ø 150 x 300mm

More sizes available upon request.

Chamber pressure
(max)

Ø 120mm = 25 bar*
Ø 150mm = 16 bar*
*With methane.

Noise level

<70 dB

Weight

approx. 3,800 kg**

**Filled hydraulic unit.

Cycle Time
(single ignition)

25–30s

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.

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