TEM
Thermal Deburring

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.
TECHNICAL INFORMATION

TEM P350

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” touch screen**

** 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 (W x D x H)
approx.
3600 x 2100 x 3400mm

Dimensions with control cabinet

Accessories/Options

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

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.

Available Chambers
Ø 250 x 300mm
Ø 320 x 300mm

More sizes available upon request.

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

* With methane.

Noise level
<70 dB

Weight
approx. 13,000 kg**

** Filled hydraulic unit.

Cycle Time (single ignition)
50–60 seconds

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 can be natural gas, methane, or hydrogen.

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.