

# Extrude Hone TEM Thermal Energy Method

## TEM S-250



### **Compact and flexible deburring machine concentrating maximum economy into minimum machine space**

The new Extrude Hone TEM S-250 thermal deburring machine is designed to be flexible and compact and offers a host of options. Being a fully-featured single station unit, it is provided with all necessary functions to ensure a controlled deburring process and easily integrates into lean manufacturing environments.

The S-250 thermal deburring machine has a closing pressure of max. 250 US tons (2,250 kN), is available with different chamber diameters thus perfectly meeting individual customer requirements. With its optional "extended chamber" the deburring unit provides the possibility of machining larger workpieces, thus providing high flexibility and economy in operation.

With its compact design, the TEM S-250 requires very little floor space. Nevertheless, it is ideal for machining not only small batches but also mass-produced parts. This deburring machine is, therefore, an extremely economical solution for manufacturers with a diverse range of parts and batch sizes. It is also easy to integrate the system into a linked production line.



### **System Features at a Glance:**

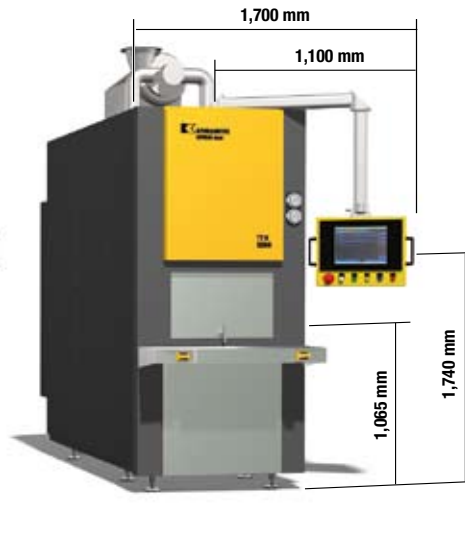
- **Robust machine frame**  
*It is designed to give long lasting fatigue strength and performance.*
- **Modularly constructed enclosure**  
*The housing prevents noise emissions into the production environment and delivers increased safety for the machine operator.*
- **Water cooled deburring chamber and closing plate**  
*Enabling the system to be used in continuous operation.*
- **Hydraulically operated gas dosing system**  
*This feature provides highly precise metering of the required quantity of gas whereby a consistent quality level is achieved.*
- **Automatically operated vertical sliding door and ergonomic loading device\***  
*Thus loading and unloading operations are simplified.*
- **User-friendly computer control with integral fault diagnostics**  
*These features facilitate quick set-ups and fine-tuning of parameters and support process-reliable operation.*
- **Touch screen interface**  
*Mounted on a swing arm, it makes machine monitoring and operation very comfortable from either the left or right side.*

\* U.S. patent pending

# Technical Data TEM S-250 Series



S-250 Extended chamber (option)



S-250 Standard chamber

The machine can also be integrated into full function production lines.

## Electrical Specifications

The control cabinet is integrated into the machine outside of the sound reduction cabinet. The machine is PLC controlled. The operator interface terminal is a touch screen mounted on a swing arm. Working cycle can either be sequenced manually in single step mode or started in automatic mode.

### Electrical

Voltage 400 V AC  
3P / PE / 50 Hz

### Controls

Standard Siemens S7-300\*

\* other controls available as option

## Connection Requirements

### Water

Port 3/4"  
Pressure < 6 bar  
Flow approx. 10 l/min

## 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 - 25 bar

Fuel gas can be natural gas or methane

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 regulations 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.



## Machine Specifications

The machine frame is of heavy-duty welded and machined construction.

TEM S-250	Standard chamber	Extended chamber
Dimensions base unit (W x D x H)	1,700 mm x 2,960 mm x 2,860 mm (with pendant mounted HMI)	
Loading height to floor	1,040 mm	1,155 mm
Available chambers (Ø x H)	Ø 200 x 150 mm Ø 250 x 150 mm	Ø 200 x 300 mm Ø 250 x 300 mm
Usable Area (Ø x H)	Ø 180 x 150 mm Ø 230 x 150 mm	Ø 180 x 300 mm Ø 230 x 300 mm
Max. chamber pressure	Ø 200 mm = 27 bar Ø 250 mm = 19 bar	
Part loading (standard)	Manual loading device	
Cycle time at 50 Hz	60 sec	76 sec
Weight	approx. 5,800 kg	
Noise level	75 dBA	

## Standard Features

- Exhaust system
- Built-in oil containment tray
- Machine diagnostics built in to PLC
- Modular sheet metal enclosure with easy access doors for maintenance
- Touch screen interface
- Water cooled deburring chamber and closing plate
- Roof with gas sniffer

## Accessories / Options

- Hydraulically operated loading device
- Double shot
- Interior work light
- Hydrogen fuel gas

More information about finishing equipment...

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