

Product type: Vertical honing machine
Denomination: MVRL 160
Honing range: Ø 1,5 to 70 mm

Length: 1'900 mm
Width: 900 mm
Height: 2'200 mm
Weight: => 1'700 kg
Workplace width: 640 mm
Workplace height: 880 mm
Ground surface: 1,7 m²

Power supply: 4x 400 VAC, 50 Hz
Electrical wires: 4x 6 mm²
Power installed: 20 kW

Air pressure: 6 bars (min.)
Air consumption: 50 l/min



Description:

- Honing machine for through and blind bore with vertical stroking movement.
- All modules required for the functioning of the machine are integrated into the body of the machine.
- The machine is equipped with security features to stop the dangerous moving elements when tangible or intangible safety barriers are crossed.
- The user interface (HMI) is represented by a mobile panel installed inside the enclosure of the machine.
- Help design for the operator to correct easily a bad geometry.
- Calibration of the hone to set its own consumption of current.
- Possibility to retract and to introduce the hone in the bore still in rotation.
- Possibility to set two stroking movement in the same program for a blind bore.
- The machine has a rotating table to load / unload parts during machining.

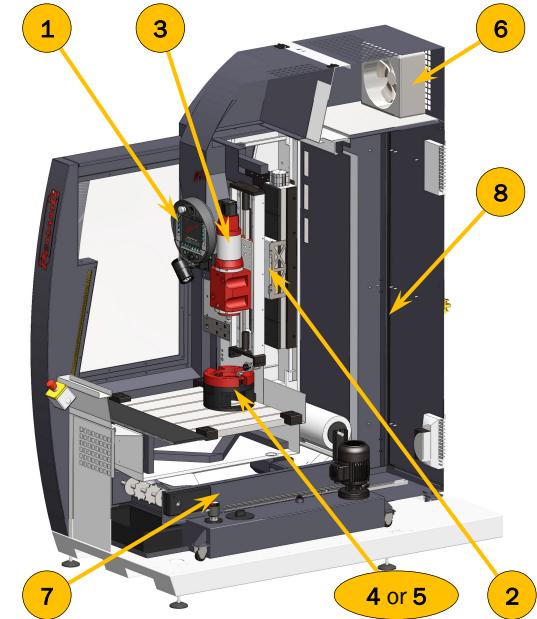
Structure of the machine:

- The entire mechanical modules requiring precision are mounted on a rigid structure.

HMI 8" Mobil Panel:
 PEMAMO software
 Honing modes:
 - Speed
 - Force
 - Increment

Cooling of the linear motor and honing spindle.
 Power: 1,2 kW

Tank capacity: 65 l
Pump rate flow: 20 l/min
Filters: 10µm/5µm



Details:

Nr	Description
1.	Large touch screen panel for an easy setting of the honing parameters. Possibility to remove it from his standard position and to use it on each side of the machine.
2.	The vertical slide is driven by a linear motor which aloud a fast positioning of the hone into the bore and can generate a stroking movement up to 500 mv/min.
3.	The honing spindle has been developed completely by PEMAMO. The standard version can rotate from 50 to 8'000 RPM.
4.	The standard table TS with T slots.
5.	The concept and the modularity of this rotating table aloud the customer to choose a 2, 4 or 6 clamping position without much modifications.
6.	The chiller is positioned on the top of the machine in the way that the heat generated by the pump do not influence the rest of the machine.
7.	The oil tank 65 liters with paper filter is located just under the working zone. The dirty paper is easily evacuated from the front door. In option, a filter cartridge 5 µm can be added.
8.	The electrical cabinet can rotate on a left or right hinge and aloud you the reach easily the technical area.

External connection: device-monitoring on location (SiteManager), RJ45, 3G. This connection is not needed to run the machine. It's only used for maintenance.

Number of honing station

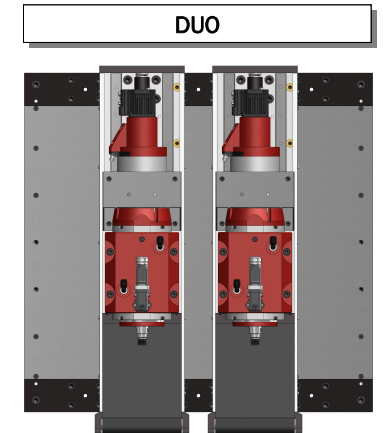
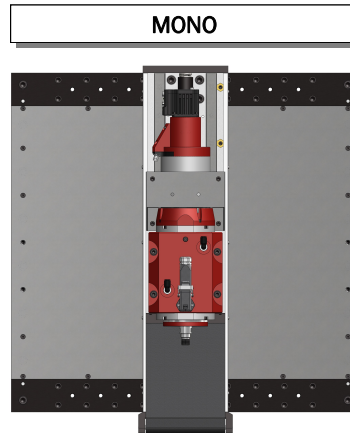
Combination of vertical slide and honing spindle

Vertical slide

stroke max : 340 mm
a max : 26 m/s²
V max : 500 mv/min

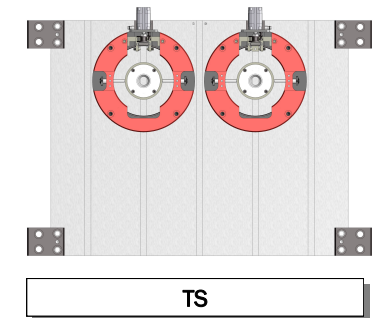
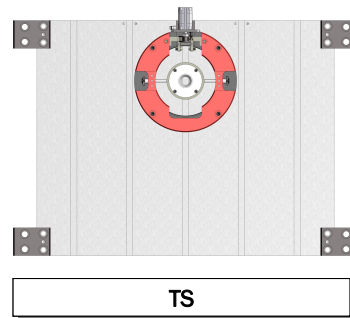
Honing spindle

C = 11 Nm up to 4'000 RPM
n = 50 - 8'000 RPM
P = 4,6 kW



Fixture holder

Standard table with T slots with single clamping unit, including cardan centering.



Rotating table with 2, 4 or 6 positions, including table indexing and cardan centering.

