



**MGM**



**10 STV**

**\*AUTOMATIC SINTERING MACHINE mod. 10STV, WITH CONTROLLED ATMOSPHERE, 1 STATION 60Kva MONOPHASE, 26TON.**

**Main Features**

- Sintering machine suitable for producing segments and small series of diamond tools.
- Mould heating system for direct passing of alternate current.(Joule effect)
- Sintering with graphite moulds.
- Sintering under controlled atmosphere by means of vacuum/inert gas programmable wash.
- K - type thermo-couples for operating temperatures of up to 1000°C.
- Cooling plates, transformer and vacuum chamber with flow visualisation and water temperature.
- 60 kVA Monophase transformer, (maximum power is limited electronically to 165A) by switch for 5 different tensions between the electrodes (maximum power limit for heating).
- Controller program with cycles divisible into 12 steps. Each step includes:
  - temperature
  - pressure
  - max. power limit
  - heating time
  - holding time
- Compression force controlled electronically (loop system)
- Process data visualisation (set and real) and alarms.
- Machine complies with EEC regulations.

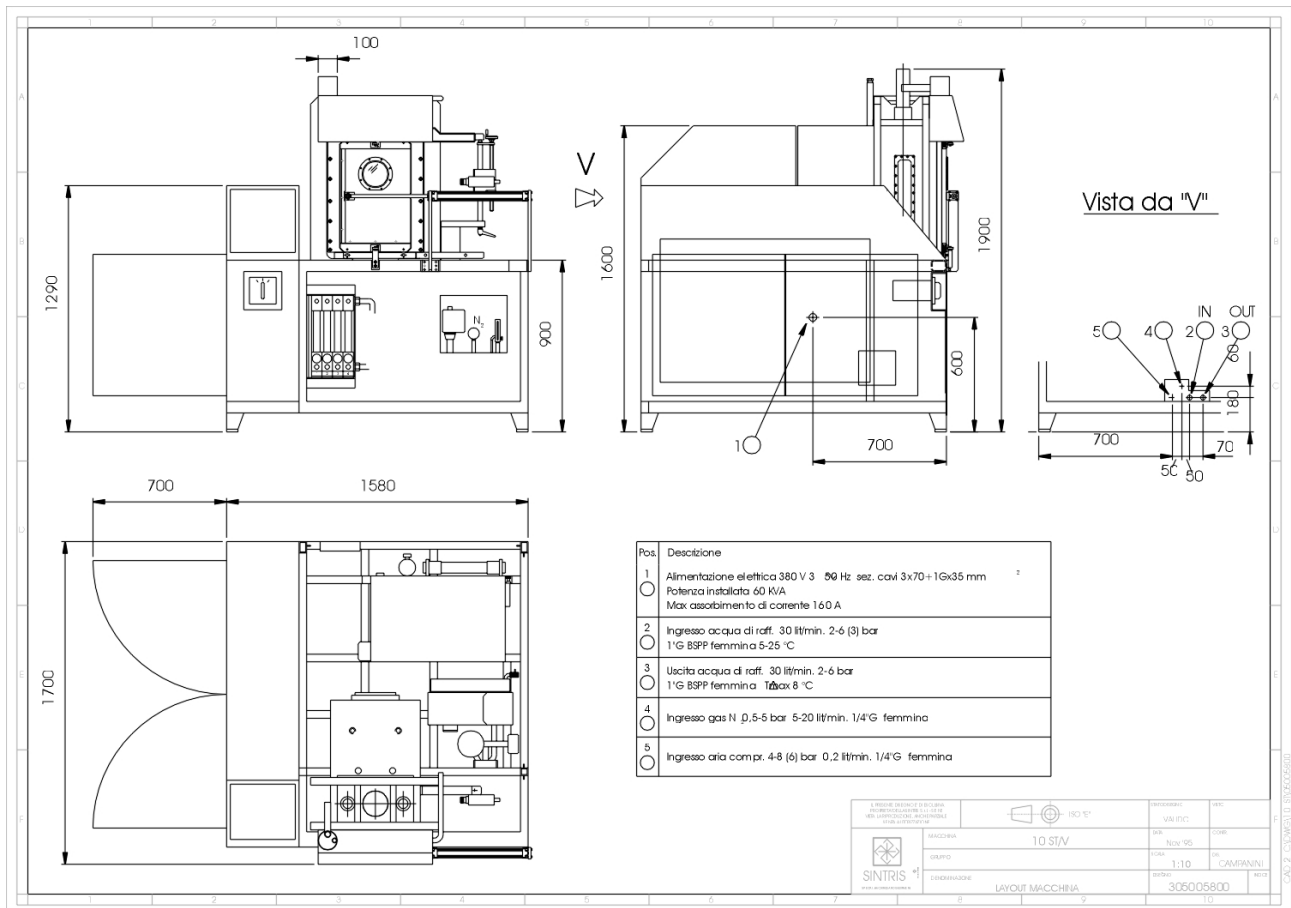
**Options**

- Temperature control by means of optical pyrometer 350 – 1300°C.
- Segment height control while sintering takes place (linear transducer on cylinder, resolution of 0,01mm)
- Data acquisition system on external PC.
- Regenerative system for the reduction of minimum compression force (from 1700 to 700kg).
- Electrodes in graphite and amorphous carbon.
- Aluminium frames.
- Graphite plates.
- Graphite moulds.
- Prearrangement for modern installation for remote assistance.

**Technical data**

- Max. sintering area 60 cm<sup>2</sup> (850°C; 350kg/cm<sup>2</sup>)
- Power supply 380 / 400V 3phs 50Hz

<input type="checkbox"/>	Max. power consumption	60 kVA (165 A)
<input type="checkbox"/>	Transformer	60 kVA
<input type="checkbox"/>	Compression force (adjustable)	1700 - 26000 kg
<input type="checkbox"/>	Electrode dimensions	140 x 140x60(h)mm
<input type="checkbox"/>	Plate dimensions	250 x 250x60(h)mm
<input type="checkbox"/>	Aluminium frames dimensions	168 x 148mm
<input type="checkbox"/>	Max. mould height	135mm
<input type="checkbox"/>	Controller	PLC Siemens S5
<input type="checkbox"/>	Gas consumption	5 - 20 l/min N <sub>2</sub> /Ar <sub>2</sub> (max. 5% H <sub>2</sub> )
<input type="checkbox"/>	Air consumption (filtered)	2 l/min 6 bar
<input type="checkbox"/>	Industrial water consumption	40 - 50 l/min 2-6 bar
<input type="checkbox"/>	Colour	Choice
<input type="checkbox"/>	Overall size (approx.)	1700x1700x2100(h) mm
<input type="checkbox"/>	Weight (approx.)	2000 kg



\* MGM reserve itself the right to change the characteristics described in this document without previous notice.