



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.

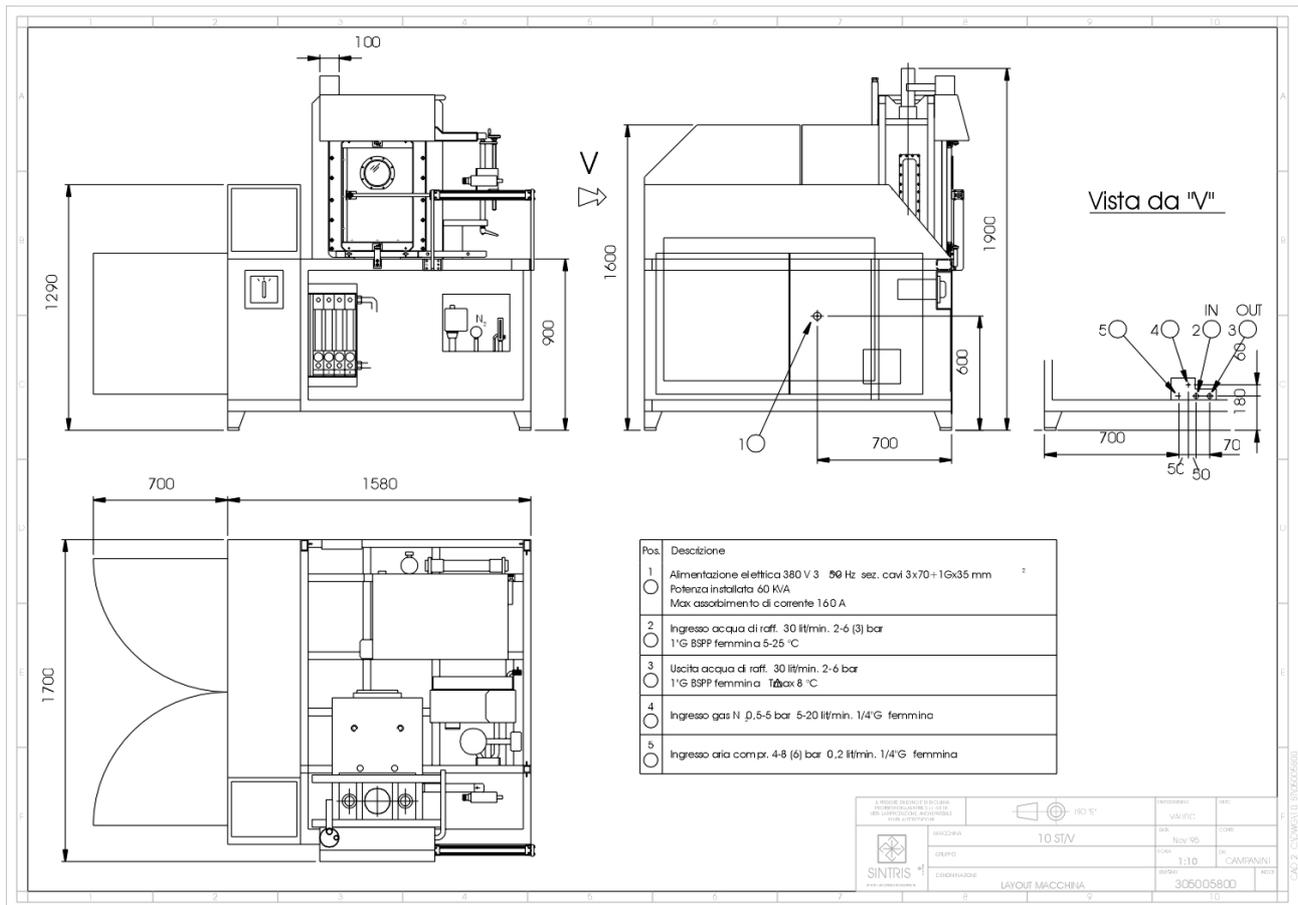
Options

- 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 modem installation for remote assistance.

Technical data

- Max. sintering area 60 cm² (850°C; 350kg/cm²)
- Power supply 380 / 400V 3phs 50Hz

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|--------------------------|--------------------------------|--|
| <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 ₂ /Ar ₂ (max. 5% H ₂) |
| <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.