



# 18 STV

**\*AUTOMATIC SINTERING MACHINE MOD. 18STV, WITH CONTROLLED ATMOSPHERE, ONE STATION, 120Kva THREE-PHASE, 95 TON.**

### Main features

- Sintering machine suitable for the production of average and large size segment series, continuous rim blades, grinding wheels for glass and other diamond tools.
- Mould heating system for direct passing of direct current (Joule effect).
- Sintering with steel and graphite moulds.
- Sintering under controlled atmosphere by means of vacuum/inert gas programmable wash.
- Type K thermo-couple for operating temperatures up to 1000°C.
- Plates cooling, transformer and vacuum chamber with flow visualisation and water temperature.
- 120kVA three-phase transformer, (max. power supply is limited electronically to 210A) by switch for 3 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.

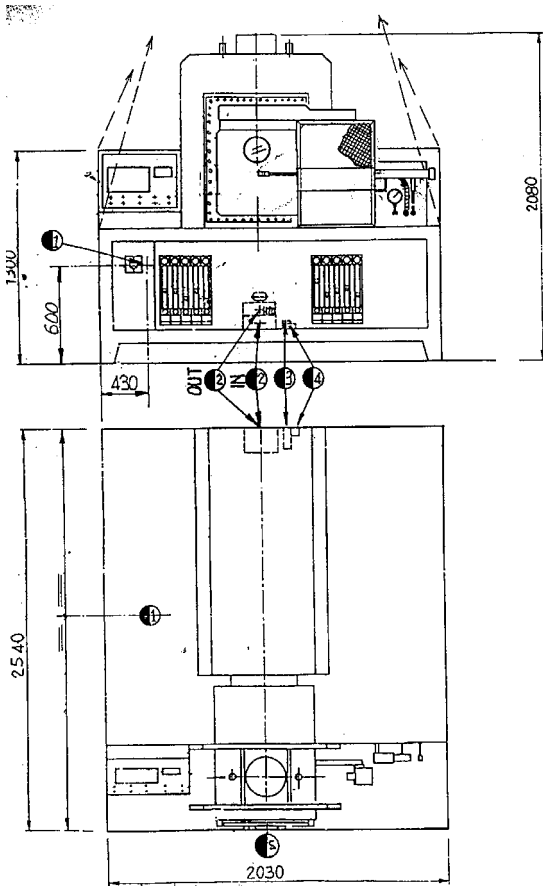
### Options

- Bar code for selecting sintering programs.
- Temperature control 350-1300°C by infra-red rays pyrometer
- Type R thermo-couple for operating temperatures up to 1200°C.
- Additional control thermo-couples.
- Segment height control while sintering takes place (linear transducer on cylinder, resolution of 0,01mm)
- Minimum compression force reduction system (from 4200 to 2400kg).
- Data acquisition system on external PC.
- Electrodes in graphite and amorphous carbon.
- Graphite plates.
- Graphite moulds.
- Aluminium frames.
- Prearrangement for modem installation for remote assistance.

**Technical data**

- Max. sintering area
- Power supply
- Max. power consumption
- Transformer
- Compression force (adjustable)
- Electrode dimensions
- Plate dimensions
- Aluminium frames dimensions
- Max. mould height
- Gas consumption
- Air consumption (filtered)
- Industrial water consumption (approx.)
- Colour
- Overall size (approx.)
- Weight (approx.)

180 cm<sup>2</sup> (850°C 350kg/cm<sup>2</sup>)  
 380 / 400V 3phs 50Hz  
 120 kVA (210 A)  
 120 kVA trifase  
 4200 - 95000 kg  
 225 x 225x60(h)mm  
 400 x 400x60(h)mm  
 238 x 188mm  
 175mm  
 15 - 25 l/min N<sub>2</sub>/Ar<sub>2</sub> (max. 5% H<sub>2</sub>)  
 2 l/min 6 bar  
 80 - 100 l/min 2-6 bar 10-20°C  
 Choice  
 2050x2600x2100(h) mm  
 3500 kg



Pos.	Descrizione	Description	Beschreibung
	Alimentazione 380 V Trifase 50Hz	ser. cavi 4 x 90mm <sup>2</sup>	
	120 KVA 230 A(max)		
①	Power supply 380 V Trifase 50Hz	secl.wire 4 x 90mm <sup>2</sup>	
	120 KVA 230 A(max)		
	Elektrische speisung 380V 3w 50Hz	schnitt Kabel 4 x 90mm <sup>2</sup>	
	120 KVA 230 A(max)		
	Ingresso/uscita acqua raff. 50 l/min press. 2-6 bar		
	entrata femmina 1" BSPP uscita femmina 1" BSPP		
②	Cooling water inlet/outlet 50 l/min press. 2-6 bar 5±25°C		
	Inlet female 1" BSPP Outlet female 1" BSPP		
	Kühlwasser eingang/ausgang 50 l/min press. 2-6 bar 5±25°C		
	ingang weiblich 1" BSPP ausgang weiblich 1" BSPP		
	Ingresso Gas 5±20 l/min press. MIN 0,5 bar Max 5 bar		
	entrata femmina 1/4" BSPP		
③	Gas inlet 5±20 l/min press. MIN 0,5 bar MAX 5 bar		
	inlet female 1/4" BSPP		
	Gas eingang 5±20 l/min press. MIN 0,5 bar Max 5 bar		
	ingang weiblich 1/4" BSPP		
	Ingresso aria 12 l/min press. 6 bar		
	entrata femmina 1/4" BSPP		
④	Air inlet 12 l/min press. 6 bar		
	inlet female 1/4" BSPP		
	Air eingang 12 l/min press. 6 bar		
	ingang weiblich 1/4" BSPP		
	Uscita fumi	∅ 100	
⑤	Fume extraction	∅ 100	

	TRAMOLI	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1	0.05	DATA	23.03.92	PENO GREZZO	
	MACCHINA	18 ST. - 14 ST									SCALA	1:20	MODIFICHE	
Cliente <i>Installation Diagram</i>											DATA		OSSEGNO	
											DATA		OSSEGNO	4514/A

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