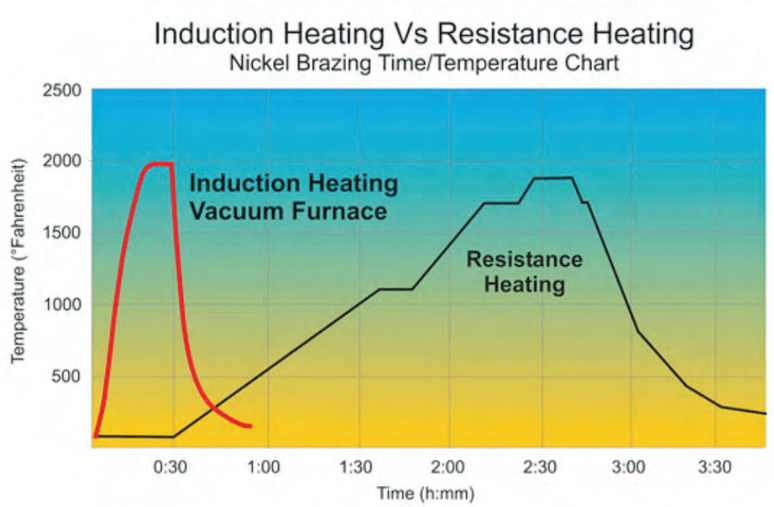
HIGH QUALITY SINTERING

COMPARATIVE TABLE

TECHNICAL DATA	HP 100	STANDARD
Sintering Surface	160 cm2 (850°C 35Mpa)	160 cm2 (850°C 35Mpa)
Power Supply	380 / 400V 3phs 50Hz	380 / 400V 3phs 50Hz
Total Electric Power	30 KVA	120 KVA
Nominal current	3x37 A	3x210 A
Pressure Force	00 - 1000 kN	40 - 950 kN
Max Opening	200 mm	200 mm
Inert gas	15 - 25 l/min N2/Ar2 (max. 5% H2)	15 - 25 l/min N2/Ar2 (max. 5% H2)
Compressed air	2 l/min 6 bar	2 l/min 6 bar
Cooling water	5 - 10 l/min - 2-3 bar 15-30 °C	80 - 100 l/min 2-6 bar 10-25°C
Electrodes	Advanced ceramics	Graphite
Controlled Atmosphere	Vacuum/inert gas	Vacuum/inert gas
Weight	2500 Kg	3500 Kg



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HOT SINTERING PRESS
Induction Heating System

HP100

HIGH QUALITY SINTERING

HSP - process

Usually in the sintering process a SCR system for proportional control of power of resistive or inductive three-phase loads is used.

This system for driving the transformer allows reaching currents of up to 50KA and it is still the most used.
This method has downsides; low yield with a substantial waste of electricity and line imbalance in the case of single-phase machines which is no longer accepted in existing distribution networks.

From our comparative tests with the new system on a mould of 100 cm^2 we obtain surprising results.
We have achieved the same result with approximately 40A of absorption while the traditional system absorbed more than 150A and the thermal difference between center mould and outside has never been more than 5°C.

The reliability, speed, and accuracy of these completely automated systems now makes the induction heating process irreplaceable in any industrial production process, operating at low cost and providing a cleaner working environment.

INDUCTION HEATING

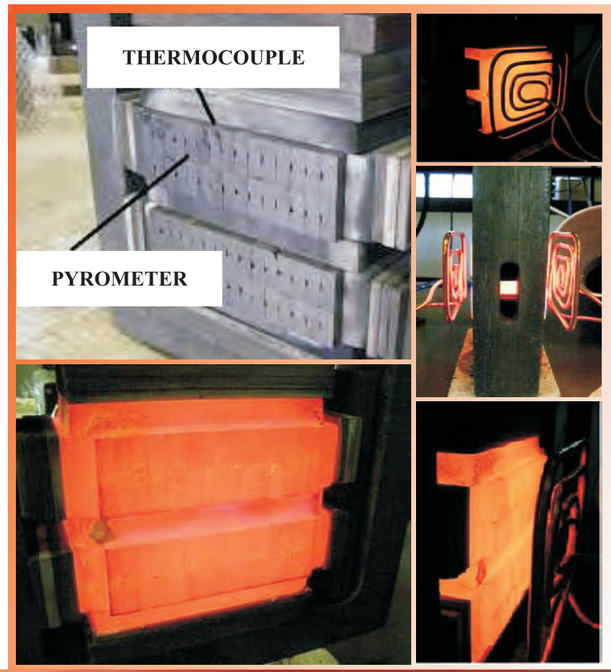
ECOLOGICAL
- Reduced surface oxidation.
- Reduced smoke and hazardous radiation emissions
- Environmental improvement of working conditions.

ACCURATE
- Temperature easily controlled, uniform and constant.
- Easy adjustment and constant results.
- Fast system response to temperature changes.
- Recording and reproduction of process conditions.

ECONOMICAL
- Low maintenance costs
- Economy of raw materials (longer life of molds).
- Reduced Installation costs.

EFFICIENT
- Minimum-load losses
- Less usage of water cooling
- Start and stop in a few seconds.
- Average system efficiency of 98%
- Modest size of the equipment
- Reliability of the equipment
- Optimum mixing of alloys due to the induced magnetic field.
- Accuracy of depth and location of the heating.
- Ability to operate in a controlled atmosphere where oxidation must be avoided.

APPLICATION
- Production of diamond cutting tools
- Production of sintered brake pads.



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