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Data sheet „inductive hot pressing”

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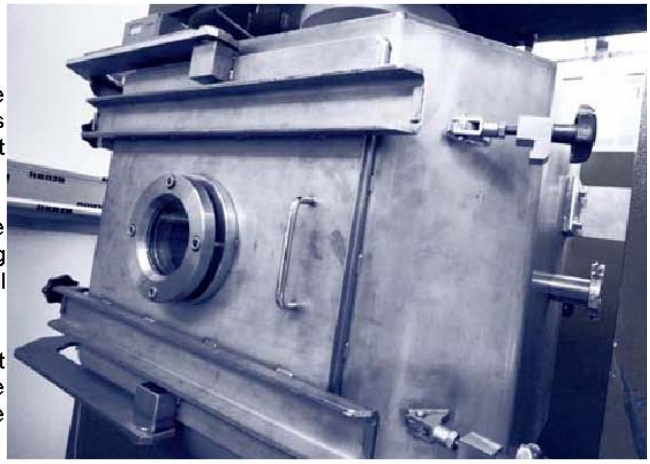
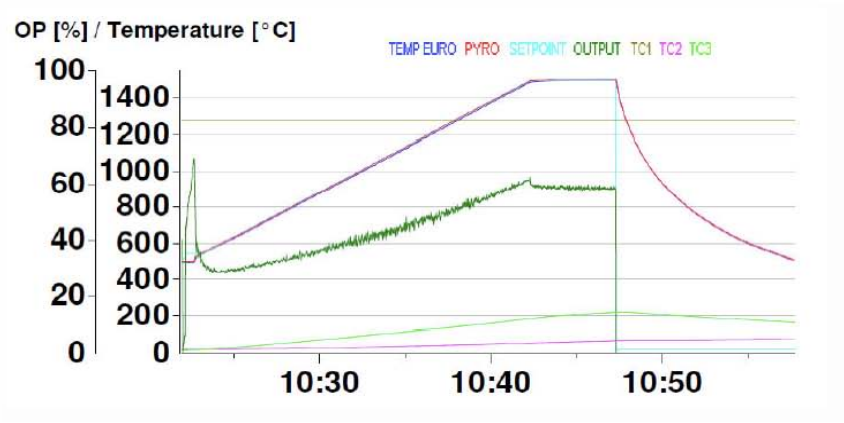
Inductive hot pressing

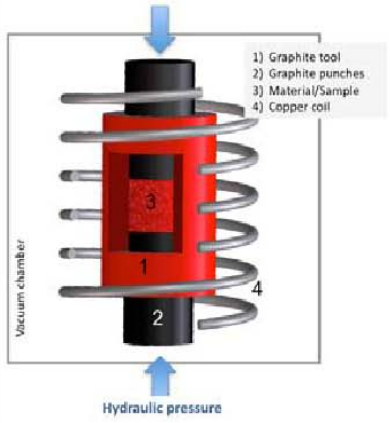


Inductive hot pressing is a consolidation method which can be seen as an alternative approach to direct hot pressing. With this process also high heating rates – compared to direct hot pressing – can be realized.

Besides using this technology for hot pressing, it can also be used for rapid sintering experiments (without applying mechanical pressure) as well as for first screening tests (small samples) if expensive raw materials are used.

One of the main limitations of this process is the limit of the part size which can be hot pressed. Within increasing diameter of the consolidated parts problems with temperature inhomogenties are the consequence.





Typical process parameters for inductive heated hot pressing are:

Heating rate:	100-200K/min
Cooling rate:	100K/min
max Temperature:	2000°C
mech. Pressure:	60 kN
Atmospheres:	Vac, Ar, N2, N2/H2
Typical cycle:	< 2 hrs