

ROLLER HEARTH SINTERING FURNACE ONE SOLUTION

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PERFECTED FURNACE TECHNOLOGY

Since 20 years, our roller hearth furnaces have been a synonym for advanced high temperature sintering.

Double door systems allow for a perfect atmosphere separation between dewaxing, sintering and cooling.

Thanks to an active dewaxing atmosphere, fully monitored and regulated sintering atmospheres and our latest generation of rapid cooling our customers can produce complex parts with high dimensional accuracy and best metallurgical properties.

Designed for high sintering temperatures ($>1400^{\circ}\text{C}$), the energy consumption at 1190°C is among the lowest in the world. Combined with the lack of changing conveyor belts, low maintenance cost and high reliability it comes as no surprise that more and more customers decided to use the advanced furnaces for standard sintering as well.

Roller hearth furnaces provide the most economical solution for BOTH conventional AND high temperature sintering.

Advanced, reliable, flexible, best metallurgical properties –

ONE SOLUTION

① DIRECTLY FIRED DEWAXING

- Active dewaxing
- Efficient clean dewaxing
- Reduced heat-up time
- Compact design

② ADVANCED RAPID COOLING

- Cooling rates up to 6 K/s
- Homogeneous cooling
- Single fan design
- Low maintenance

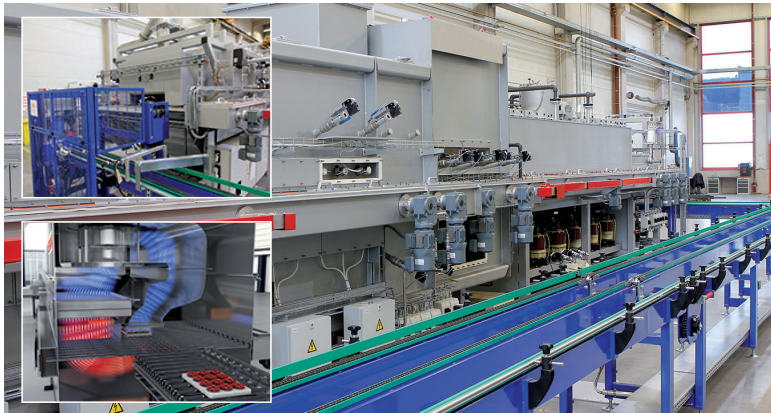
YOUR ADDITIONAL BENEFITS

- High quality
- Up to 680 kg/hr
- Reproducibility
- Perfect atmosphere control
- Best temperature control
- Easy automation
- High safety standards
- Extensive process know-how
- High technical support by young process specialists



German Patent
and Trade Mark Office

Method patented in 1997
under Patent number DE 197 19 203 A1



Roller hearth furnace for sintering process up to 2336°F

You wish for more information regarding "Roller Hearth Sintering Furnaces – One Solution"? Just watch out our YouTube Channel. Under the link

<https://tinyurl.com/sinteringfurnaces> you will find our latest video animation. It goes even quicker by scanning the QR-code using your smartphone or tablet.



Our sales team will be most pleased to consult you regarding all questions to our products.



Models	Standard Carrier Dimensions*		Max Operating Temp.	Max Throughput	Total Dimensions	
	Width	Length			Length	
PILOT PR-S®	300 mm	420 mm	1,400 °C	120 kg/hr	17.8 m	
PILOT PR-L®	300 mm	420 mm	1,400 °C	180 kg/hr	18.8 m	
SERIES R-CS®	700 mm	460 mm	1,190 °C	450 kg/hr	21.5 m	
SERIES R-CL®	700 mm	460 mm	1,190 °C	680 kg/hr	25.5 m	
SERIES R-HS®	700 mm	460 mm	1,300 °C	450 kg/hr	21.5 m	
SERIES R-HL®	700 mm	460 mm	1,300 °C	680 kg/hr	25.5 m	
SERIES R-EDITION2025®	30 % less energy 30 % less gas					

*other dimension upon request

**slow cooling (without fan) as option

CARBON CONTROL

SINTER HARDENING

LEAN ENDO

ONE SOLUTION

ACTIVE DEWAXING



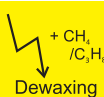

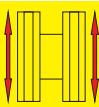
MINIMAL TOTAL COST OF OWNERSHIP

HIGH TEMPERATURE SINTERING

FORMING GAS

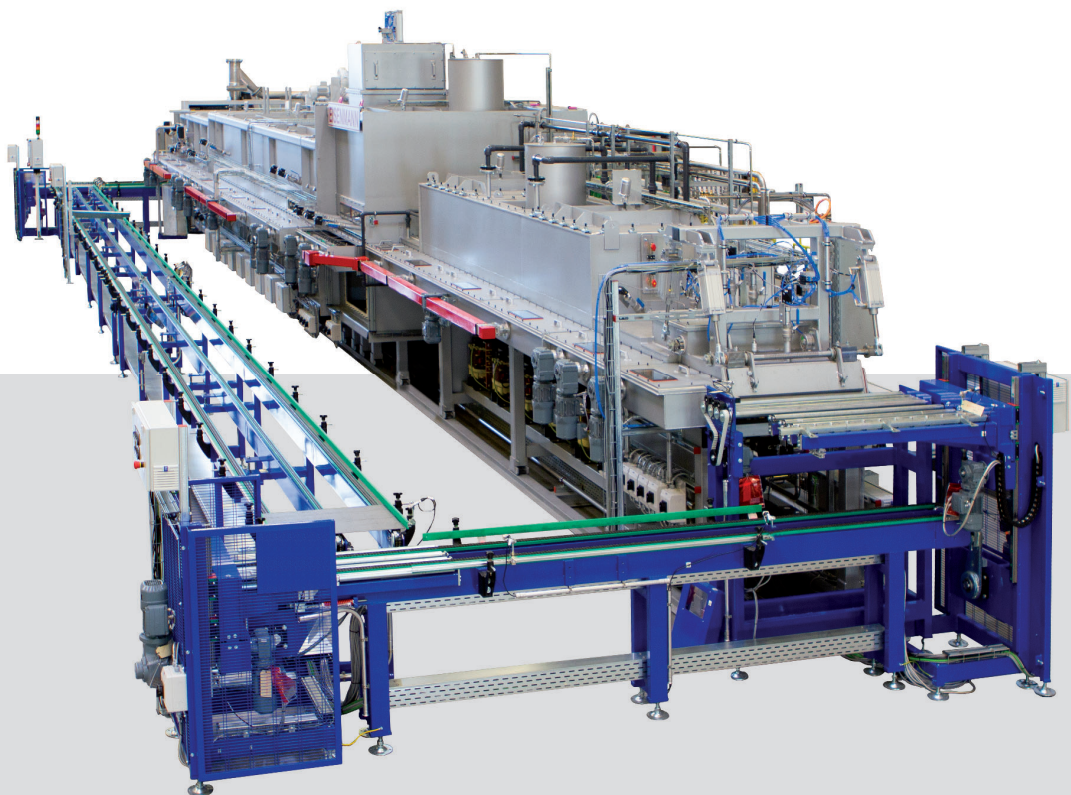
CONVENTIONAL SINTERING



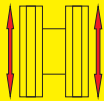
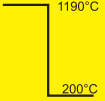

ons	Connected Load						
Width	DZ (KW)	SZ (KW)	Entrance Door Lock	Dewaxing Electrical/Electrical+Gas/Only Gas			Double Door
				 Dewaxing	 + CH ₄ /C ₃ H ₈ Dewaxing	 CH ₄ /C ₃ H ₈ Dewaxing	
3.1 m	40	75	●	●	/	/	/
3.1 m	60	115	●	●	/	/	/
3.7 m	90	200	○	/	●	○	○
3.7 m	110	270	○	/	●	○	○
3.7 m	90	200	○	/	●	○	○
3.7 m	110	270	○	/	●	○	○
			●	●	/	/	●

○ -> optional configuration

● -> standard configuration



Configuration

Sintering Heating Elements			Measure	Double Door	Rapid Cooling	Exit Door Lock
Metal	SiC	Ceramic/Mo	O ₂ T _{dew}			
/	/	●	○	●	●**	●
/	/	●	○	●	●**	●
●	/	/	○	●	●**	●
●	/	/	○	●	●**	●
/	●	○	○	●	●**	●
/	●	○	○	●	●**	●
/	●	○	○	●	●**	●

All data are approximate!



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