

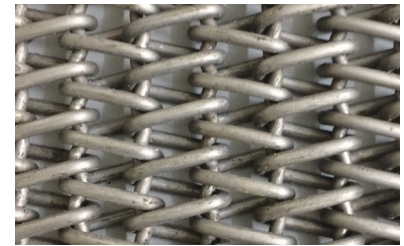
WHY US?

Abbott Furnace Company has been designing, building, and installing industrial furnace systems for over 40 years. In that time, we've led the industry with innovative technologies that increase performance, improve efficiency, and allow reliable data tracking. Choosing one of our continuous belt furnaces is an investment that will enhance your operation, and choosing the S.M.A.R.T. system ensures compliance and efficiency.

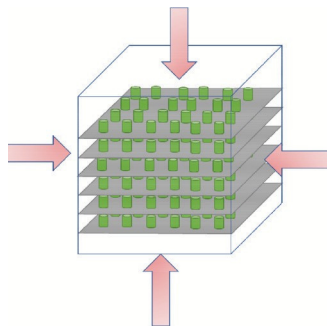


BINDER JET SINTERING

Choosing the best sintering technology is key to controlling quality, repeatability, and cost of ownership. The materials being printed will typically determine the design of the equipment. Materials that sinter below 11500C, such as carbon steel and aluminum, use a wire mesh belt furnace. Other materials, such as stainless steel, are sintered on a pusher furnace because the life of the wire mesh belt will be very short at these elevated temperatures.



Likewise, the atmosphere in the sintering furnace must match the needs of the process. An easily reduce oxide, such as iron oxide, does not require the same amount of hydrogen that is needed to reduce the oxides of chromium.

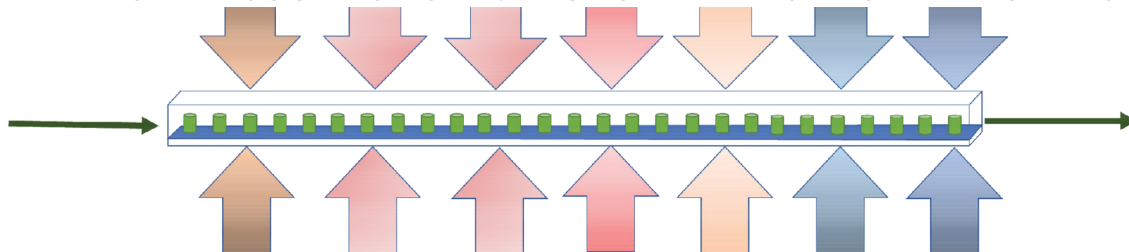


Decades of research and experience have provided the basis for this innovative approach to the debinding and sintering of binder jetted products. Temperature uniformity, atmosphere composition, and atmosphere flow characteristic are key variables that are critical to the development of the final density and distortion of printed components.

In a batch system, the center of the load sees a different heating and cooling cycle than the surface of the load because the heating and cooling are only presented to the load on the outer surfaces and must diffuse into the center of the load.

A continuous process has many independently controlled heating and cooling zones along the part's path of travel. This provides each part with the same heating and cooling profile. The result is a more uniform part to part.

HEATING AND COOLING ZONES ALONG THE LENGTH OF THE FURNACE



The simplicity of the continuous furnace provides a lower cost of ownership. Likewise, as the need for higher volume production grows, only a continuous furnace will provide the cost-effective quality at the high production rates.