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FOR IMMEDIATE RELEASE

Harper Enhances Commercial Scale Thermal Processing Capabilities for Carbon Fiber Production

Buffalo, NY - As a world leader in Carbon Fiber Equipment and Full Line Systems, Harper International continues to lead the pack with new innovations. Our High-Temperature (HT) furnace systems for fiber manufacturing incorporate numerous enhancements to the entrance throat section, including on-line cleaning capabilities.

Left untended, debris and filament buildup impedes and disrupts smooth gas flow in a Carbon Fiber HT Furnace, resulting in non-uniform properties across the tow band. The debris needs to be removed periodically during the operation of a fiber production line. Traditional cleaning techniques require reduction of HT furnace temperatures in order to gain access for cleaning, resulting in reduced furnace run times. Harper's new on-line cleaning system, located in the entrance section, enables cleaning while the furnace is hot, resulting in increased HT Furnace run-time.



In order to prevent exposure of the HT Furnace to an air atmosphere, the on-line cleaning feature is self-contained and sealed with an incorporated nitrogen purge. Additionally, Harper's on-line cleaning system includes sight-ports that permit the operator to see into the process chamber in order to assess the level and location of the debris. Utilizing the on-line cleaning feature offers Harper HT furnace users improved fiber thermal uniformity and increased furnace utilization.

"Continuous uniformity across the tow band throughout the entire campaign has never been more achievable than with Harper's innovative HT online cleaning system" according to Rebecca Stephenson, Applications Engineer. "Increased fiber quality throughout the whole production campaign is now possible with this solution for removing debris that negatively impacts the velocity uniformity within the HT furnace throat."

About Harper International

Harper International is a global leader in complete thermal processing solutions and technical services for the production of advanced materials. From concept to commercialization, from research scale to full production line operations, Harper delivers the most innovative furnace and oven designs in the world. For decades, they have pioneered thermal processing technology innovations with a focus on systems operating from 500 to 3000°C and in non-ambient atmospheres. For additional information, please visit www.harperintl.com or email info@harperintl.com.

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