



CUSTOMER STORY

NEPHRON PHARMACEUTICALS CORPORATION

Increasing Production in the COVID-19 Battle While Decreasing Utility Costs and Downtime



In the fight against COVID-19, Nephron Pharmaceuticals Corporation is providing an important weapon. Producing the majority of inhalation solutions used in the United States, many Americans depend on the West Columbia, SC-based pharmaceutical company – whether they realize it or not.

A global leader in pharmaceutical manufacturing, Nephron develops and manufactures safe, affordable inhalation solutions and suspension products using Blow/Fill/Seal (BFS) machines and a closed-loop process to ensure sterility and potency. Nephron is a leader in manufacturing individually wrapped and bar-coded inhalation therapies and is the only manufacturer of Racemic Epinephrine, 2.25%, 0.5mL. These products have been critical to patients battling COVID-19 and those with respiratory ailments, such as asthma, emphysema and chronic obstructive pulmonary disease.

In 2020, Nephron's products became more important – and in demand – than ever before. In a typical March, for instance, Nephron ships about 85 million doses of inhalation solutions. In March 2020, during the COVID-19 pandemic,



Nephron shipped 193 million doses. As COVID-19 cases spiked across the United States, demand for respiratory treatments did too.

"As much as we can make, we're selling," said Lou Kennedy, CEO of Nephron, in an interview with the *Columbia Business Report*.

Prior to the COVID-19 pandemic, Nephron ran eight product lines 24 hours a day year-round. With unprecedented demand, Nephron sought FDA approval to operate additional

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lines. The FDA quickly responded, and in late April 2020, Nephron received approval to add an additional production line to manufacture bronchodilator albuterol.

With the increase in production, it was important that Nephron's compressed air system was reliable and up to the task.

"Compressed air is vital to us," said Nephron's corporate affairs team. "Without it, most of our machines would not be able to operate."

With much of Nephron's existing compressed air equipment on its last legs, and knowing what was at stake, this was a risk Nephron was not willing to take. Nephron invested in new equipment.

"We chose Sullair and Airite because of the reliability of the technology and the ease of maintenance. The importance of compressed air in our operation cannot be understated. Reliability is crucial."

— Nephron's Corporate Affairs Team

After working closely with South Carolina-based Sullair distributor Airite, Inc., Nephron chose to add two new oil free compressors to its compressed air system. Their new Sullair DSP Series oil free rotary screw air compressors were installed in May 2020 and now serve as the primary source of compressed air in Nephron's operations. This will be followed by the installation of an additional three Sullair DSP Series oil free compressors and two DHL Series desiccant heatless dryers in late 2020 as it expands its operations.

Nephron's corporate affairs team added, "We chose Sullair and Airite because of the reliability of the technology and the ease of maintenance. The importance of compressed air in our operation cannot be understated. Reliability is crucial."

Compressed air is supplied to Nephron's primary packaging and secondary packaging machinery. Many operations utilize compressed air for valve actuation, including vial filling and sealing, lot number/expiration date stamping, vial separation, leak detection and WIPS processing. Compressed air is also utilized by Nephron's product tanks to send product to its BFS machinery; by its autoclaves for terminal sterilization of certain products; and by its secondary packaging equipment for processing, labelling, and boxing.

Nephron has already realized savings and the improved energy efficiency from its Sullair compressed air system, making them very happy with their decision.

"A single Sullair compressor doubled our air supply to primary packaging, allowing for low/partial load states in our other VFD compressors," said Nephron's corporate affairs team. "This led to savings in utility costs and, overall, improved our energy efficiency. The compressor/dryer combo has also decreased the amount of downtime in production by providing cleaner and dryer air to our valves."

With record demands for Nephron's inhalation products, downtime simply is not an option.

Nephron continues to work around-the-clock and has ramped up its production to accommodate the needs of America. Except now Nephron will do so with two new weapons: an additional production line and a new Sullair oil free compressed air system.

Facility photo(s) credit: Nephron