



Sonic's VT Blower (patent pending) and Air Knife Solve a Sticky Situation

Sonic Sales Partner:

Meredith Air Controls
Nashville, TN

Application:

When a Tennessee based automation and controls company was contracted to provide a turnkey parts holder, it turned out that the parts they were actually designing for were disposable toothbrushes. Toothbrushes for the busy, on-the-go individuals, travelers & vacationers, as well as hospitals and elder care facilities. The design included two different types of brushes. One is a standard brush with bristles while the other is similar to a 1" x 1" blue square sponge.

Their intention was to spray the sponge with a paste solution requiring this paste to be dried in the next process of the production cycle. Traveling at 20 parts per minute, they utilized a new technology by inserting a Sonic Variable Temperature blower (patent pending) and Sonic air knife system. This new blower design provided a dry product after only 2 seconds of dwell time.



Background:

Meredith Air Controls, a Sonic Air manufacturer representative, contacted the automation company and discussed their expectations. The handles and brushes were situated in a vertical position and would have to go through two dipping stations. After each dip, the paste would have to be dried. Samples were forwarded onto Sonic Air for testing, where they received favorable results by using their Variable Temperature, or VT, design. This VT design allows the blower to raise the outlet temperature to 200°F without the use of an inline or external heating source.

The Sonic "Engineered" Solution:

Since the testing proved that the air velocity and heat generated from the blower adequately dried the paste within two seconds of the allotted six to eight seconds, Team Technologies ordered their first VT system. Sonic Air provided a Sonic 70 with a 10 Hp motor to power (2) 24" air knives. Not only was the blower a unique Sonic design, they also provided Sanitary knives which allows for fast and easy cleaning of the entire air knife.

The exit air velocity delivered from the blower to the air knives was able to impact the paste and distribute it from the bristle tip to base, as well as drying it. This eliminated the need for external heaters and kept the overall unit package within a 2ft square space, located below the conveyor. This has proved to be an easier and more cost effective solution.

