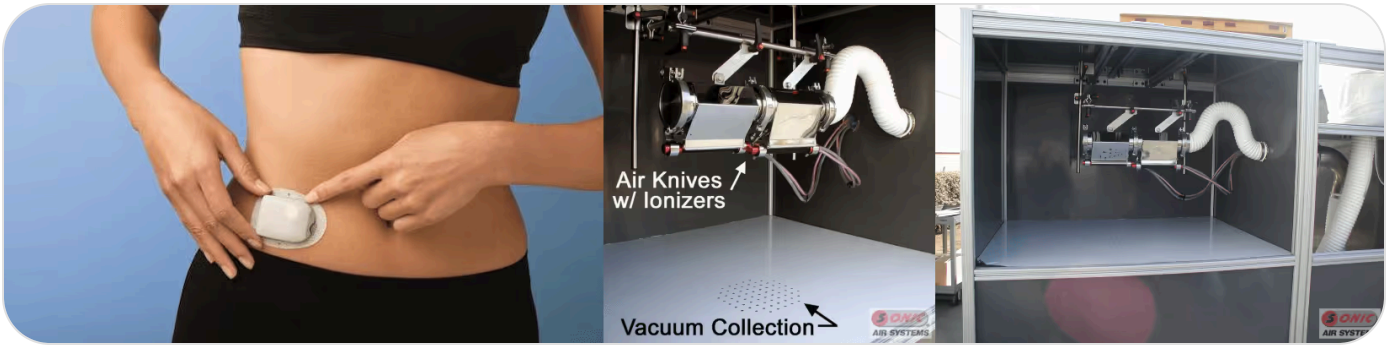
SONIC AIR SYSTEMS

← CASE STUDY ARCHIVE

Air Wash System Enhances Component Cleaning through the Push & Pull Approach





Overview

A major medical device maker was developing a wearable insulin pump and required a Class 100-rated air blow-off system to enhance the cleanliness of some intricate components prior to the pump assembly process. The requirement was to "air wash" their components of any dust or contaminants.

A debris mitigation system is needed to remove microscopic debris from precision screws before inspection. Any microscopic debris will be interpreted as thread damage and then scrapped.

Solution

Sonic designed and implemented a push/pull Air Wash System with an Ionized Air Knife powered by Sonic's Centrifugal Blower, mounted within a polycarbonate enclosure. The engineered Sonic Air Wash System delivers high-velocity anti-static air blow-off, which “pushes” the particles from the parts. The particle blow-off air knife creates airborne debris within the blow-off enclosures. A second high-velocity fan is simultaneously "pulling" air from the enclosure to exhaust the blow-off air and particles. All equipment is mounted inside a portable Sonic Stainless Steel Blower Enclosure.

Result

The intricate components of the wearable insulin pump are now cleaned of any dust or contamination prior to the pump assembly process, and the precision screws are now inspected with greater accuracy, preventing misinterpretation of microscopic debris as thread damage and scrapping.

KEY TAKEAWAYS

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1050 Beacon Street
Brea, CA 92821, USA

800-82-SONIC
714-255-0124

asksonic@sonicairsystems.com

Mon to Fri, 7:30 AM to 4:00 PM PST

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