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| Application: Cleaning Refurbished Turbo Housings | | Date: 3/16/23 |
| Serial number: 1042-1221 | Machine model: CB-3000E | |
| Machine type: Conveyorized Belt | | Industry: Electronics/Electrical |

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| Customer summary: | Manufacturer of electronics for multiple industries |
| Item to clean: | Refurbished steel turbo housings, various sizes |
| Contamination: | Carbon buildup, oils, and dirt |
| Cleanliness requirement: | Visually clean |
| Dryness requirement: | Dry as possible with ambient blow-off |
| Production rate: | 1 ft. per minute conveyor speed |
| Process parameters: | Wash, rinse, ambient blow-off |

Customer background:

The customer specializes in electric vehicles, infrastructure projects, robotics, and automation. They have locations in 100+ countries, including over 20,000 employees in the U.S. alone.

Challenge:

The customer needed a washing system to clean refurbished steel turbo housings of various sizes, with diameters ranging from 8"-16" and a maximum height of 18". The housings needed to exit the washer visually clean and free of carbon buildup, oils, and dirt. These parts had a low production rate requirement.

Solution:

Alliance provided a conveyor belt washer with wash, rinse, and ambient blow-off zones. A mist collector was added for returning condensation back into the tank to conserve water. An oil coalescer was also added to remove large quantities of oil from the solution tank, and micro-filtration system was added to both the wash and rinse zones to clear the solution of small contaminants. Extended spray nozzles were used to reach the low-profile parts and are removable for future applications cleaning taller parts.



Aquamaster CB-3000E



Wash zone with extended spray nozzles



Canopies removed to show interior