



# AIR SUPERIORITY NEWS



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## Vortron's AirPower™ Blowers in Action

**Customer:** Leading Battery Manufacturer

**Application:** Wash and rinse boil-over acid from new batteries, followed by complete drying of exterior surfaces prior to packaging.

**Background:** A recognized leading manufacturer of deep cycle batteries, specializing in golf cart, sweeper/scrubber, aerial lifts, marine and special application types. They also produce a complete line of low maintenance commercial, farm, marine, military and special purpose starting batteries. This customer is located in the greater Los Angeles, California area, and distributes their products domestically and internationally.

**Problem:** All batteries coming out of formation (charging) are covered in "boil-over" acid. The original battery wash and dry system provided unsatisfactory washing and drying performance. Up to four employees were required to adequately dry the batteries with compressed air guns and solvent soaked cloths. Furthermore, it was constructed of mild steel which led to corrosion problems, requiring considerable preventative maintenance.

The battery manufacturer sought a new flow-through battery cleaning system with the following attributes:

- Superior aqueous cleaning of batteries to remove all acid from exterior surfaces.
- Superior drying performance to remove all rinse water from exterior surfaces, saving the labor of four people and consumption of additional plant compressed air.

- The system was to operate without any adjustments in order to accommodate their diverse product size range: width of 4" to 12", height of 7" to 18", and length of 7" to 27".
- A process throughput capacity of 100,000 batteries per month or more, averaging 10 batteries per minute.
- Lastly, eliminate the use of solvents, or VOC's.



**Solution:** This customer contacted Hydro-Blast, Inc. in Clackamas, Oregon, whose battery processing machines are currently used in many other battery-processing plants.

The system that Hydro-Blast designed features a wash and dry section measuring only fifteen feet in length, and made entirely from Type 316 stainless steel. The wash section floods the batteries with heated, re-circulated water, removing the acid from all of the exterior surfaces. The wash water is heated with immersion elements, and the pH is controlled with a closed-loop pH controller and caustic injection system.



The batteries then proceed through a drying section featuring Vortron air knives, also Type 316 SS, supplied with heated air from a Vortron **AirPower™** Z40 blower. The high-performance **AirPower™** Z40 blower develops 100 in-Wc at 1,000 SCFM (and 75% efficiency!) to supply an array of five air knives. This extraordinary performance from the single Z40 blower produces an amazingly high air-knife exit velocity, sufficient to flash dry surfaces at considerable distances.

The air knife blow-off system has eliminated the four employees per shift that had been required at the drying station, allowing them to be assigned to other tasks.

This customer is highly satisfied with their Hydro-Blast cleaning system, equipped with the Vortron **AirPower™** blower and air knife system. They are now justifying a similar machine for their Georgia operation.

For more information on Hydro-Blast's cleaning systems, please call (800) 332-1590 or visit their website at [www.hydro-blast.com](http://www.hydro-blast.com)

## Vortron's Mobile-Aire™ Systems "Showcased" at Regional Trade Shows

**October 13-16, 2003** – Kerr Pump & Supply exhibited Vortron's 5 HP Mobile-Aire™ System at the Western Michigan Plant Engineering Show in Grand Rapids, MI at the Deltaplex. Last year they sold a Z40 blower as a result of the customer seeing the Mobile-Aire System in their booth.

**October 14-16, 2003** – Edwards Equipment exhibited Vortron's 7.5 HP Mobile-Aire™ System at the 16th Biennial Wichita Industrial Trade Show in Wichita, KS at the Century II Expo & Convention Hall. Terry Klein, Sales Engineer for the Wichita division of Edwards Equipment, had a customer waiting at the loading dock on the closing day of the show. They wanted to have the system for in-plant testing the next day.

Our 3 HP Mobile-Aire system is currently on a long-term test scheduled for completion in December.

Visit our "NEW" Home Page

Please visit [www.vortron.com](http://www.vortron.com), for more extensive information on **AirPower™** high-efficiency blowers and air blow-off systems.



**Happy New Year!**