Number 83

NEWS YOU CAN USE FROM EXAIR CORPORATION

Spring 2010

Super Air Knife Offers Best Performance

Would you leave your doors wide open when trying to heat or cool your home? Probably not. Unfortunately, companies experience a similar energy-wasting situation when they drill holes in a piece of pipe to blow, cool or dry parts. The homemade air knife wastes thousands of dollars per year by providing only minimal 3:1 air amplification (three parts room air to one part compressed air). It's also dangerous, with holes that can be dead ended and noise levels that can cause permanent hearing damage (both are OSHA violations).



The Super Air Knife is now available from stock in PVDF for superior corrosion resistance when stainless steel can't be used.

EXAIR's low cost Super Air Knife has been engineered to address all those problems. It provides 40:1 air amplification with the added benefit of laminar airflow so there are no dead spots in the airstream that is commonly experienced with drilled pipe. There is no dangerous dead ending and it's surprisingly quiet at only 69 dBA (at 80 PSIG).

It's important to consider the environment where the Super Air Knife will be mounted. EXAIR's Super Air Knives are available from stock in many lengths and your choice of four materials:

Aluminum is ideal for general purpose applications.

Type 303 Stainless Steel offers good strength and is suitable for mildy corrosive environments up to 800°F (427°C).

Type 316 Stainless Steel offers better strength, excellent corrosion resistance and minimal contamination which is ideal for food, pharmaceutical and surgical products. It can withstand temperatures up to 800°F (427°C).

PVDF (Polyvinylidene Fluoride) offers superior strength and is resistant to UV light, inorganic chemicals, solvents, ozone, weather, fungi, chlorinated hydrocarbons, highly corrosive acids, weak bases and salts. It can withstand temperatures up to 275°F (135°C).

Would you like some help with a Super Air Knife application? Please contact an Application Engineer at (800) 903-9247.

EFFICIENCYLAB A

OPENfor testing

Does your company currently use a blowoff product that you'd like us to evaluate? We'll test yours with our calibrated instruments, compare it to ours, and provide a comprehensive report for FREE! Visit www.exair.com/lab.htm for details!

Prevent Hot Weather Failures

The hot days of summer will be here soon. Don't take the risk of the summer heat shutting down your machines or production line. Install an EXAIR Cabinet Cooler® System.

EXAIR's Cabinet Coolers are a low cost fix to a high cost problem. These flashlight-sized air conditioners mount in minutes through an electrical knockout and keep the enclosure cool with 20°F (-7°C) cold air. They maintain the NEMA 12, 4 or 4X rating of your enclosure and have cooling capacities up to 5,600 Btu/hr. An electrical thermostat control accurately maintains the temperature in the enclosure and minimizes the

compressed air use by activating the cooler only when the temperature reaches critical levels.

Be sure to pass this newsletter along to the person who maintains your control panels.



Please contact an Application Engineer at (800) 903-9247 or by e-mail at **techelp@exair.com** if you'd like to know more.

EXAIR's Chip Trapper™ is "Product Of The Year"



This is the fifth year that EXAIR has won a "Product Of The Year" award from *Plant Engineering* magazine. Last fall, their panel of engineers selected 112 products as finalists including our Chip Trapper. Readers of the magazine from 30 countries voted and EXAIR received the award in the "fluid handling"

those who voted for Chip Trapper and continue to put their trust in our products!

category. Thank you to

Coolant that used to last only 6 weeks can last 6 months with use of the Chip Trapper.





Application Spotlight:

Holding Cereal Bags In Position On A Filling Machine



The Problem:

A packaging machinery manufacturer had a problem with a specialty filling machine for breakfast cereals. It was intended that the cereals be automatically dispensed into the plastic bags, then boxed. When the vacuum cup (top right of the photograph) attempted to open the bag, it instead lifted the entire bag off the bed of the machine. The cereal that was dispensed dropped onto the surface of the plastic bag, the machine and floor.

The Solution:

The machine builder drilled a series of holes into a channel on the bed of the machine where the plastic bag was automatically located for filling. A Model 120021 1-1/4" (31mm) Super Air Amplifier was installed at the far end of the channel to create a vacuum, by drawing mass airflow through the holes in the channel. Each time the photo eye detected that a plastic bag was in position over the holes, the Super Air Amplifier was turned on to draw a vacuum and hold the plastic bag in position. The vacuum cup then moved into position to open the bag and let the cereal drop into it. All of the cereal made it into the bag.

Editor's Comment:

A fan or blower was not an option due to its size, loud noise and likelihood for failure. By contrast, the low cost Super Air Amplifiers are compact and dependable since there are no moving parts to wear out. Our patented design moves the most airflow possible while using the smallest amount of compressed air.



Do You Have A Friend Or Colleague...

...that would be interested in the EXAIR products? If so, please pass along the enclosed, small postage-paid card.

We'll be glad to send a FREE copy of our 160 page Catalog 23. If you would like one, just drop the big card in the mail (nothing to fill out)!



New Application Checklist

For decades, EXAIR's products have solved many common industrial problems. Please call our Application Engineering Department at (800) 903-9247 for help with yours

- A Las Vegas stage show uses 2,000 pounds of cork to simulate sand for a beach scene and removes it from the floor using multiple **Model 6043 3" (76mm) Line Vacs** that convey the cork to a cleaning machine.
- After cutting the acrylic covers for fluorescent lights to length, the manufacturer blows the static charged shavings away with the Model 111136 36" (914mm) Super Ion Air Knife System.
- An injection molder uses a **Model 810002 In-Line E-Vac** vacuum generator to pull a vacuum on a small 2 cubic inch mold so the molten plastic fills all the cavities of the mold.
- A manufacturer of staples for industrial staple guns applies a hot adhesive to a row of staples to hold them together, then gets the adhesive to set quickly with the cold air of a **Model 3825 Adjustable Spot Cooler System.**



- » Large throat diameters for maximum throughput capacity
- » Aluminum, stainless steel or hardened alloy
- » Fits standard hose, tube and pipe
- » Many sizes available from stock

Line Vac converts ordinary hose, tube or pipe into a compressed air operated conveying system for complex shapes, bulk solids and waste. Units produce a vacuum on one end and high output flows on the other. Heavy Duty models resist wear and provide the highest conveying rates.

Call now (800) 903-9247

