

Summer Heat Can Stop Your Machines

It happens when you least expect it. Hot weather can cook the electronics that control your machines, resulting in erroneous readings, trip outs or fried circuit boards. Cooling the electrical cabinet can eliminate these problems but how will you do it?



Heat Exchangers and Heat Pipes

These have serious limitations when it comes to summer time heat. In many cases, the temperature of the hot plant on a summer day is close to that inside the enclosure. There is not enough difference in temperature for a decent heat exchange.



Refrigerant Panel Air Conditioners

These coolers are expensive, take almost a day to install, and are prone to failure when dust and dirt clogs the filter. Vibration from machinery contributes to component failures and loss of freon. Life expectancy for most compressors is rated at 2.5 years of continuous operation. Average replacement cost for a bad compressor is \$750 plus installation. Often, a floor drain is not readily available for the condensation tube.



EXAIR Cabinet Coolers™

Our compressed air operated Cabinet Coolers are the low cost solution. NEMA 12, 4 and 4X models are available that are very compact and mount in just minutes through an ordinary electrical knockout. Thermostat control limits compressed air use by operating the Cabinet Cooler only when the temperature inside the enclosure reaches critical levels.

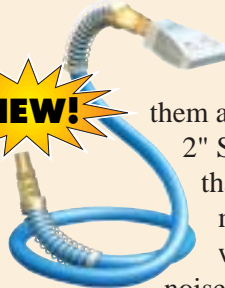
Heat exchangers, heat pipes and refrigerant coolers all have filters that can clog. Left unattended, mechanical failure of the cooler is likely. And, the expensive equipment in the electrical enclosure can malfunction, overheat and shut down the entire machine or process. EXAIR Cabinet Coolers have no moving parts to wear out and do not require constant monitoring. All models are UL Listed and available in a large number of styles and cooling capacities.



EXAIR's new Type 316SS Cabinet Coolers are suited to corrosive, food and pharmaceutical environments.

Do you have a cooling problem to discuss? Our Application Engineers would be glad to help you. Contact them at 1-800-903-9247 or by e-mail at techhelp@exair.com.

You Don't Have An Air Nozzle Like This!



You've seen one flat air nozzle, seen them all. Right? Not like this. EXAIR's new 2" Super Air Nozzle is a unique flat nozzle that uses EXAIR's patented technology to maximize entrained airflow and force while reducing compressed air use and noise. The flat 2" wide airstream is ideally suited for blowoff, cooling and drying applications.

The 2" Super Air Nozzle has a 0.15" air gap opening that is set with a stainless steel shim between the body and removeable cap. A precise amount of air is released through the thin slot, across the flat surface. The result is a wide, forceful stream of high velocity, laminar airflow. Best of all, you can vary the force and flow by installing different shim thicknesses.

Our Air Nozzles are easy to use. We make them available with Stay Set Hoses that hold their position (shown above) and magnetic bases. EXAIR also offers Safety Air Guns like the one shown below. All models use our engineered air nozzles on an air gun designed for comfort, efficiency and high performance.



This Soft Grip Safety Air Gun with Super Air Nozzle blows a part and vise clean following a machining process.

Our 16 page "Air Nozzles and Jets Blowoff Guide" includes full technical details on these new products and all other Air Nozzles, Jets and Safety Air Guns. You'll find helpful information regarding safe use of compressed air, how to calculate air savings, and OSHA requirements for noise and pressure. Simply drop the postage-paid card in the mail and we'll send your FREE copy.

Application Spotlight:

Noise Reduction On A Boring Operation



The Problem:

A manufacturer of engines had a problem with blowoff noise on a boring operation. The large bore for the crankshaft produced an abundance of chips that collected on the fixture, tool and ways. To reduce the downtime for cleaning and maintenance, a series of copper tubes blowing compressed air were used to clean the surfaces. Noise level for this operation was close to 100 dBA - well above the OSHA maximum acceptable level of 90 dBA. Operators were required to wear hearing protection. The air consumption was sizeable.

The Solution:

They installed a series of **Model 110003 3" Super Air Knives** positioned strategically to blow the chips off the fixture, tool and ways. **Noise level was reduced to 82 dBA. The air volume that it took for one of the old 1/4" copper tubes was enough to supply (5) 3" Super Air Knives** - a substantial compressed air savings.

Editor's Comment:

It's easy to put this into perspective. The noise level went from that of a loud tractor down to the level of a ringing telephone! Those who have never used EXAIR's Super Air Knife are genuinely surprised at the low noise level. It has been designed so there are no surfaces to generate wind shear, resulting in a quiet sheet of laminar airflow. Air amplification (ratio of surrounding room air moved per amount of compressed air used) is 40:1. The compact Super Air Knife is the best solution for blowoff, drying, cleaning and cooling applications.

The **EXAIR** Guarantee

EXAIR unconditionally guarantees its cataloged products for 30 days.

If you are not satisfied for any reason within that time, you may return the product for full credit with no restocking charge.

Of course, this is in addition to our "Built To Last" Warranty.






Frequently Asked Questions



The EXAIR web site has a long list of "Frequently Asked Questions" to help you better understand the EXAIR products and compressed air. Visit www.exair.com today and click "FAQ's" in the top tool bar.

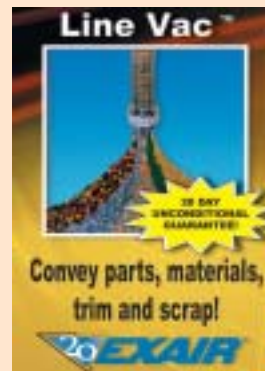
New Application Checklist

EXAIR products solve many common industrial problems. Below are several recent ones that might sound familiar. Please call our Application Engineers at **1-800-903-9247** or contact them at techhelp@exair.com for help with yours.

-  A manufacturer of aluminum extrusions uses the **Model 2454 4" (102mm) Super Air Wipe** to blow water from extruded shapes as they exit a salt bath. This replaced an ineffective blower that left water droplets on the part.
-  A company who builds special effects for haunted houses uses a **Model 3215 Vortex Tube** to blow cold air on patrons as they enter a coffin.
-  A paper products company eliminates wrinkling of a high speed web by floating it with the sheet of air from **(2) Model 110030 30" (762mm) Super Air Knives**.
-  A food products company cleans their 3000 liter mixer with a water solution, then dries it with **(2) Model 6031 1-1/4" Stainless Steel Air Amplifiers**.
-  A manufacturer of hose and tube couplings cut their rework labor time by 1/3, using a **Model 7193 Ion Air Gun** to blow particulate from plastic couplings that were missed by manual wiping.

Air Operated Conveyors

Ideal for long distance conveying!



Line Vac™ air operated conveyors are the low cost way to transport complex shapes, bulk solids and waste - with no moving parts or electricity. Units eject a small amount of compressed air to produce a vacuum on one end and high output flows on the other with instantaneous response. There are many sizes in aluminum and stainless steel to fit standard hose, tube and pipe.

For more information, see Catalog 19 or contact an Application Engineer at **1-800-903-9247**.