

The Cold Facts

Summer 2001



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Welcome!

Mike Young joined the RSC team on April 16 as vice president of the Cleveland branch office. Mike is a mechanical engineering graduate of Purdue University. His previous experience includes work as Refrigeration Manager for Danfoss Valve and as a District Sales Manager for Frick Company. Mike has also worked with a contracting firm as project manager and sales engineer.

Mike will be moving his wife, Teri, and family from the Baltimore area to Cleveland, where he will take charge of the RSC Cleveland branch office located in Hudson, Ohio. We anticipate that Mike will continue the legacy of years of quality support that our customers in that area have come to expect. His background and experience, as well as his professional approach to business, uniquely prepare him to assist you. Over the coming months, Mike will try to visit our customers in the Cleveland area to get acquainted, but should you need him before then, please don't hesitate to contact him at (330) 528-3933.



Mike Young

Are You Needlessly Paying Extra For Your Plant Operation?

If you have storage or processing spaces that operate below 32°F you may be spending more to operate your plant than is necessary. Ice and frost that end up on the coil surfaces, walls, ceilings, floors and/or product increase your costs and may be a safety issue. It takes 144 BTUs to convert one pound of water to ice.

In the case of coil defrosting, you pay to put the ice and frost there in refrigeration costs and then you have to pay to remove it. The costs to remove it vary, depending on whether you use free available heat or another source. But even if you use available heat, such as compressor discharge gas, you still lose plant capacity during the defrost cycle. Then you must remove the additional heat that has been put into the room via the defrost cycles.

In addition to the obvious safety issues of ice build-up on the walls, ceilings, floors and product, there is the negative impact on plant operation and the refrigeration cost to freeze the water. The ice and frost problem comes from moisture that enters the cold storage space through door openings, conveyer openings and leaks in the enclosure envelope. We can not eliminate the major points of entry of moisture, the doors. We can, however, reduce the flow of moisture-laden air coming into the space. A method increasingly common today is to introduce outside air into the space so that the space is slightly positive (in air pressure) in comparison to the surrounding spaces. In addition, if the air that is introduced into the space is dry, it is possible to virtually reduce or eliminate the costly ice and/or frost problem.

There are various ways of accomplishing this. In a new system, we have the option of designing to minimize the problem, finding a balance between practice and economics. In a retrofit situation, we may need to evaluate using an auxiliary piece of equipment, like a dehumidification system. There are two common dehumidification system designs—the desiccant design and the chemical design. Each functions differently, but result in a supply of air from a source outside the space when positive pressure must be addressed, and provide dry air to address the ice/frost (moisture) issue. A side benefit of the specialized equipment is that high tech filtration can be added to the inlet air stream, reducing air born bacteria, a necessary concern for today's food plants.

If you are faced with this problem, contact your RSC sales engineer. We can help you identify the source of the problem and help you decide the best course of action.

—Ron Odom, Director of Engineering

Canada Plans To Ban The Use Of CFCs

We just became aware that Canada has taken a very aggressive approach to eliminating CFC usage. What does this mean to you? Will the U.S. follow suit? Our guess is not immediately, but the handwriting is on the wall. If your plant is fortunate enough to have selected ammonia or another non-ozone depleting refrigerant, this may not affect you. However, if you do have CFC-based systems, you will need to prepare to make the necessary modifications in the foreseeable future. RSC has the expertise to help you determine the best solution for your plant.

What's On The Energy Front?

How do we make a system more efficient in order to save energy? Due to the increase in fuel prices, this question is being asked every day. We all know that necessity is the mother of invention, and due to the deregulating of the energy industry we are faced with new options.

In all industries, including oil, gas, petrochemical and food, we want to know how we can we make operations more efficient. Our best design today may not incorporate an electric motor as the main compressor drive. With the changing energy deregulation, we may find that a gas turbine, steam turbine, gas engine or even diesel engine may be the answer to lower operating costs.

In the past few weeks, we have had an increase in inquiries requesting different options for compressor drivers instead of the standard electric motor. Attitudes are changing regarding the use of other methods. With rising fuel prices starting to have an impact on companies' bottom lines, it's becoming ever more important to research and investigate what will be the best priced fuel to operate our plants.

There are always pluses and minuses on the selection of alternative energy sources. We at RSC have the numbers and options available today. If you feel you are spinning your wheels at a higher cost than you should, give us a call. We're available to help you analyze your requirements.

—Vince Orlando, President
RSC International

Our Wonderful World Of Electronics!

RSC continues to upgrade our systems to help better serve you. By the time you receive this newsletter, we will have installed the latest software to track our Service Department's activities. Dispatching will be streamlined and the upgraded system includes a historical database that will provide long-term data on all work we do on your equipment.

Also, if you have a regular preventative or scheduled maintenance program with RSC, it will track and schedule those programs. We know that you need assurance of the longevity and continued operation of your plant. We believe this step is just another tool to help us continue to provide the best technical services available. Quality service is important to your operation and we want to be the best we can be.

In addition, just a reminder that our engineering drawings are prepared using AutoCAD 2000. Therefore, we can provide electronic drawings in any of the AutoCAD formats or using the latest DXF format for Internet distribution. We can also submit drawings to you via CD, which makes your long term storage much easier.

The RSC Family Tree...

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