



Progress Supply Inc.

The

Progress Report

Helpful Information for HVAC/R & Controls Contractors from Progress Supply Inc.

A MESSAGE FROM MARK

I would like to tell you about a new publication Progress Supply Inc. is starting. As you can see by the masthead above, it is called, "**The Progress Report**," and contains various articles relating to our industry, technical tips, as well as information and suggestions to make our jobs easier. We plan to send it to you several times a year. If you don't receive it in the mail, copies will be available at our stores in Cincinnati, Columbus and Dayton. Or, if you want to be added to our mailing list just let one of our counter staff know and we'll be happy to mail you a copy.

This is the first issue, and I trust you will find it beneficial. Without you, the publications like "**The Progress Report**" and "**The Inside Story**" wouldn't be possible. We thank you for your business and your relationships. They are appreciated and valued.

We have built our business on service and loyal customers. We've staffed our branches with top-notch people who pride themselves on waiting on you quickly and accurately. I personally feel we have the best staff of any wholesaler in our region.

Bar none!

As a result, several of our largest suppliers have honored us this past year for outstanding sales growth. We are grateful for those awards, but we realize that without the loyalty established between our customers and our staff, we could not have achieved this success.

Our goal has always been to get the product or information you have requested into your hands when you need it. Whether you are an HVAC, Refrigeration or Mechanical Contractor, or a Maintenance Manager responsible for keeping a school, hospital, supermarket or municipality running smoothly, we'll answer your questions and get you the parts you need to repair your project now. We will go out of our way to meet your needs.

This is my promise to you!

Mark J. Faessler

Mark Faessler, President
Progress Supply Inc.

P.S. Every day we all deal with problems and situations relating to our businesses. In today's troubled times we must put all of that into perspective. Whether or not you agree with the policies regarding the war in Iraq, please take a moment to think about what many of our fellow Americans are doing there. I was listening to the radio recently and heard a reporter ask a general if the anti-war demonstrations would affect what he was doing in Iraq. The general responded, "They are expressing what they believe in. If the Iraqi people did this they would be shot!" We need to say, "thanks," for the freedoms we sometimes take for granted. Please keep supporting our troops.



Progress Supply is happy to have the Johnson Controls **Metasys** product line on board. We stock a wide variety of replacement parts for **Metasys**, as well as offering help in finding solutions for retrofit and replacement of older building operating systems. In Cincinnati, Columbus and Dayton we are Johnson Controls **Authorized Business Controls Specialists (ABCS)** wholesalers. The vast majority of the commercial buildings in our market are not presently operated and controlled by an automated system. The following ideas offer ways to make old buildings more efficient and more easily controlled.

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Compressor Tech Tips

By Steve Schlewinsky

Compressor Overheating

A major cause of compressor failure is an overheated compressor, that cooks the oil. At 300° Fahrenheit oil begins to break down and at 350° it will vaporize. Resulting loss of lubrication can ruin rings, pistons, cylinders and bearings that will then cause the stator to ground from a spot burn.

Correcting for Overheat

- ✓ Correct abnormally low load conditions
- ✓ Correct high discharge and low suction pressure conditions
- ✓ Insulate suction lines, clean dirty condensers
- ✓ Provide proper compressor cooling
- ✓ Check low pressure control settings

Pressure controls can help to identify or remedy system problems.

R-12 and Polyol Ester Oil—don't mix.

There seems to be some confusion about using R-12 with POE oil. Using them together is a dangerous practice. If moisture is introduced into the system, acid will be produced which may plug the cap tubes and orifices. If you replace a compressor in an R-12 system, and the compressor has POE oil in it, it is recommended you either replace the POE oil with mineral oil, or change refrigerants away from the expensive R-12.

NEW ALKALINE COIL CLEANER DOES THE JOB. . .AND SAFER

When selling and servicing air conditioning and refrigeration products in today's environment of tight energy supplies and rising costs, it only makes sense to help your customers maximize the efficiency of their equipment.

Dirty condenser coils increase power costs. When the coil becomes fouled with dirt and grime, it cannot provide adequate or designed heat transfer.

Clinical Background

Hydrofluoric Acid (HF) is one of the strongest inorganic acids and is used in coil cleaning. Exposure is usually accidental, often due to inadequate use of protective measures, but burns can be severe.

HF burns are unique. Even diluted solutions penetrate deeply before you realize it, causing delayed injury and symptoms. Tissue damage is caused by two mechanisms. A corrosive burn from the free hydrogen ions and a chemical burn from tissue penetration of the fluoride ions that can eventually begin to deteriorate the bone. So, be very careful when using HF.

Since 1981, many chemical suppliers have marketed HF based cleaners to HVAC/R service technicians as a foaming-brightening coil cleaner. Typically, these cleaners are pink in color and composed of 9-15% Hydrofluoric Acid.

These cleaners are popular because they produce abundant amounts of foam and the coil is bright and shiny once the aluminum oxide coating is removed. However, the risks of using HF far outweigh the benefits, particularly when safer alkaline alternatives are available.

New Acid Alternatives

Alkaline products are better suited to handle the types of soils

encountered when cleaning coils. These products chemically react with dust, dirt, grease, etc., breaking the soil down and allowing them to be rinsed from the surface.

Conversely, HF acids do not react with the soil, but with the aluminum coil, thus creating the foaming action. This removes the aluminum oxide coating, but in cases of heavy soil build-up the acid does not penetrate the soil. It is unable to contact the aluminum and unable to clean.

There are many non-acid alternatives — **Nu-Brite, Foam-Brite, Cal-Brite, Foaminator** and **Alka-Brite** products are formulated to break down the heaviest soils, including grease. In addition,

these products create a foaming action and leave the coil bright and shiny, giving you the best of

both worlds — safety and clean coils.

Hazards Still Exist

These alkaline products, however, are still considered hazardous as they are aggressive and will cause irritation if exposed to skin. But, these products can be washed or rinsed away while exposure to HF can go unnoticed and cannot be washed off.

Maintenance Program Profitable

Adopting a safe coil maintenance program will enhance your revenues. Coil cleaning is one of the most profitable service procedures a contractor can offer.

Progress Supply can help determine which coil cleaning solution is best and safest for your application, and carries both HF and Alkaline cleaners in stock.

Alkaline products are better suited to handle the types of soils encountered when cleaning coils.

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RETROFIT

Metasys is a natural choice when a building is changing use, ownership or application. The open system technology of Metasys gives you the ability to integrate existing and new equipment from over one hundred other manufacturers. Metasys enables you to access all of your building's systems, HVAC equipment, boilers, chillers, fume hoods, rooftops, power monitoring and more. The N2 open protocol integrates well with many BACnet Systems already installed. If the budget doesn't allow for total retrofit right now — add unitary controllers to rooftops, boiler or zone control that will eventually tie total building together in one neat, integrated control package.

UPGRADE

While the Metasys system is made to integrate with a large array of compatible products, it should also be considered as a replacement/upgrade. The Operator Workstation uses standard PC platforms and runs a Windows environment. Supervisory Controllers provide central monitoring of alarms, and they collect and store data on historical trends, equipment runtime and energy consumptions. Plus, Metasys Web Access lets you monitor systems and equipment from anywhere in the world via the Internet. The Workstations are easy to use, an operator can point and click through dynamic, full-color graphics of floor plans, system schematics, live trend data, historical data, as well as reports and summaries. You also can interactively change set-points, status, schedules and strategies.

REPAIR

Progress Supply is a Johnson Controls **Metasys ABCS (Authorized Building Controls Specialist)**, meaning that we can provide all your N2 Metasys parts needs. Each of our three locations is stocked with a large parts list and has the knowledgeable people to help you with any problems you might have.

THE PROGRESS REPORT

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METASYS Tech Tips/UNT1100 Series

By Kelly Bloomfield

What is the output rating of the relays on the UNT1100 series?

The UNT1100 series uses relays instead of triacs for its binary outputs.

The rating of the relay is limited by the circuit board traces to 2 amps at 24 VAC. Each relay is an isolated SPDT contact. The common of the output contacts can be 'commoned' to the 24 VAC powering the UNT or isolated by removing a jumper on the circuit board.

What are the jumpers above the BOs on a UNT1100 series for?

The jumpers are for selecting the power source to be switched by the BOs relay.

Each Binary Output (BO) relay has both normally open and normally closed contacts available. The common contact of each relay may be independently jumpered to switch the power source connected to the SRC terminal, or to an external isolated supply wired to the COM terminal of the BO. This allows for field configuration of High or Low side switching, as well as multiple isolated power sources.

The SRC terminal, which is located near the power terminals for the UNT, comes from the factory with a jumper installed that connects the supply transformer for the UNT to the SRC terminal. If this jumper is removed, an external 24 volt AC power supply can be connected to the SRC terminal (for example, the control transformed of an RTU).

The power supply connected to the SRC terminal is available to each of the BO relays by using the jumper located above the BO. To switch the power source connected to the SRC terminal through the BO relay, place the jumper clip to the SRC position.

Each of the BO relays can also be directly connected to an isolated external power supply using the COM terminal located between the NC and NO terminals for the BO relay. To switch the power source connected to the COM terminal of the BO relay, the jumper clip is placed in the open position.

Progress Supply Inc.

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Let's Go Fishing with Progress!

9th Annual Tournament Scheduled May 17th

It's not all work! Once again, we are holding our annual Progress Supply Fishing Tournament at Caesar's Creek State Lake in Waynesville, Ohio on May 17th.

This marks the 9th time Progress Supply has held a fishing tournament for customers and friends. The 'tournament' is strictly for fun, so don't look for the winners to appear on an upcoming "Bassmasters" TV show or on ESPN's Sports Center. Entrants can be customers and their fishing buddies or families, and we even have husband and wife teams fishing from the bank. Of the over 50 to 70 teams that enter, everyone goes home with a great lunch, a door prize and maybe even one of the eight trophies awarded.

This year's tournament is May 17th from 7:00 a.m. until 1:00 p.m.

The location is always the same, at the Wellman Meadows Boat Ramp on Caesar's Creek State Lake in Waynesville, Ohio, located on State Route 73.

Check at your Progress Supply counter for entry forms, or ask someone at the counter, they can fill you in on details.

Don't let this big one get away!

