



COMMERCIAL PRODUCTS GROUP

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of Hart & Cooley, Inc.
Install confidence

Vision

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From The Vice President

... Sean Steimle

We're Growing Again!

This month is an exciting time for us as we move into our new facility in Carol Stream, Illinois. This new facility is only 25 minutes west of our previous two locations in Bensenville and is easily reached via Interstate 355 or the Elgin-O'Hare Expressway. One of the benefits of this move is that it allowed the consolidation of our two Bensenville locations into one larger building. This consolidation means that orders for all of the products we manufacture in Carol Stream can be handled in one quick shipment to customers rather than separate carriers for each. For example, Roof Products & Systems custom roof curbs and supports, *plus* Milcor roof access hatches and heat & smoke vents, *plus* Portals Plus stock rooftop accessories can all be combined for one convenient shipment. This will greatly help contractors to expedite construction and save valuable time in rooftop completion allowing the building to be roofed-in quickly so interior work can proceed without delays created by waiting for products from multiple sources.

For several years now, we have been evaluating our manufacturing processes and procedures. In each of our two old plants, we routinely conducted Lean manufacturing initiatives to become as efficient as possible. Everything that we learned over those years has been incorporated into this new plant. This means that we can turn orders around more quickly and at competitive prices. Our Lean initiatives will continue so we can continue to offer our customers the value they expect in our quality products. In the next issue, I will go into some of those Lean initiatives more fully.



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New Commercial Series Flexible Duct

... Jeff Elsinga, Product Manager- Hart & Cooley

Flexible ductwork has become a main stream product for both residential and commercial building. There is a myriad of requirements, specifications, and product capabilities to consider when specifying flex duct.



The most important consideration in the choice of flex duct is its testing to all applicable industry standards.

Commercial Series by Hart & Cooley is rigorously tested in accordance with ADC thermal

performance and R value standards, and carries the ADC logo, proving its certification.

Commercial Series is also tested to the rigorous UL 181 standards for Safety in Factory-Made Air Ducts and Air Connectors. Only an authentic UL listing will ensure that the flex duct you specify will perform in critical areas such as puncture resistance, mold and mildew resistance, surface burning resistance, and damage from extreme pressures, both positive and negative.

Commercial Series flexible duct features the following benefits that make it a great choice for most residential and commercial applications:

- Authentic UL 181 listing
- ADC certified thermal performance and R values
- Many leading code approvals: IMC, UMC, NFPA 90A and 90B, HUD, and the Florida Energy code, City of Los Angeles code, CA Bureau of Home Furnishings, to name just a few
- Multi-ply metalized polyester core is UL rated at 16" W.C. positive and 1" W.C. negative for diameters 4" through 12"
- Metalized polyester cores provide puncture resistance without the use of PVC, which makes it a much more "green" product for use in LEED applications
- Formaldehyde-Free™ fiberglass insulation by Johns Manville ensures that the product exhibits minimal off-gassing, and promotes the health and safety of everyone involved in the manufacture, installation, and end use of the product. Available in R4.2, R6.0, and R8.0
- Metalized vapor barrier jacket featuring fiberglass scrim sandwiched between the layers of polyester earns an ASTM perm rating of 0.04. (E96 Method A)
- A full 10 year Hart & Cooley warranty ensures peace of mind

Hart & Cooley is committed to the flexible duct industry and supports it through direct involvement in many industry-related associations, committees, and organizations, such as the Air Diffusion Council and the UL 181 Advisory Council. For a top quality, top performing commercial grade flex duct installation, specify Commercial Series by Hart & Cooley and *Install with Confidence!*

Take A Look- To Be Certain

... Justin Johnston, Product Specialist- Ward Industries

Ward Industries recommends that each Fire Damper installed should be inspected every six months to help minimize the chance of the Fire Damper malfunctioning in the case of an actual emergency. That need for routine inspection is why Ward Industries recommends the installation of one of our many varieties of access doors at each Fire Damper.



Our overriding goal should be the prevention of such horrific tragedies as the deadly fires at the MGM Grand Hotel and Casino in Las Vegas in 1980, and the Las Vegas Hilton Hotel and Casino in 1981, where nearly 800 people were injured, and 85 were killed. The National Fire Protection Association (NFPA) stated in it's report on the fire at the MGM Hotel that fire dampers "...did not completely close" and that as a result, "...products of combustion were distributed throughout the HVAC equipment ... providing a method for the spread of smoke that may also have contributed to several fatalities".

Another more recent tragedy is that of the World Trade Center in New York City where nearly 3,000 civilians and firefighters lost their lives when both towers became engulfed in smoke and flames. The United States Department of Commerce's National Institute of Standards and Technology investigated the World Trade Center disaster and found that had there been operable fire and smoke dampers in the two towers, they "would have acted to slow the development of hazardous conditions on the uppermost floors of the building" in towers one and two, and as a result provided occupants more time to flee the building.

These are just a few examples of how tragic and devastating a large scale fire can be. Fires occur every day in the United States – fires that in some cases could be prevented, or at the very least lessened by properly working dampers. The only way to be sure your fire damper will work is to physically see it stroke while being tested.

Less frequent inspections of dampers (or in some cases never at all) will most certainly lead to higher failure rates, putting buildings in greater risk of extensive damage and potential loss of life should a fire occur. That is why Ward Industries offers such a wide variety of access doors to be installed with Fire Dampers. Please call your local Ward Industries dealer for a full list of access doors.





AL29-4C - The "Super Metal"

... Joe Poremba, Product Manager- C-I Venting

AL29-4C alloy is a superferritic stainless steel designed by Allegheny Ludlum for extreme resistance to chloride ion pitting, crevice corrosion and stress corrosion cracking (SCC), as well as general corrosion in oxidizing and moderately reducing environments. The alloy was developed in the early 1980's for welded condenser tubing to be used in seawater and brackish water by the power generation industry. It is this extreme resistance to pitting and crevice corrosion that has led to the installation of over 2000 miles of AL29-4C tubing in power plant condensers and heat exchangers.

Since 1983, furnace and vent manufactures have specified AL29-4C alloy for gas heating appliance parts where condensing occurs. High Temperature concerns coupled with corrosive condensate make AL29-4C alloy the ideal choice. The Canadian Gas Research Institute found that "Test results have shown AL29-4C and AL-6XN (a super corrosion resistant austenitic stainless steel) alloys were the most corrosion resistant alloys of twenty candidate stainless steels evaluated for resistance to chloride-induced corrosion in condensing and partially condensing gas-fired appliances". Field studies have also concluded that the only material with a prolonged history of safe, reliable performance is AL29-4C alloy.

In mid-efficiency gas furnace designs and some hydronic systems (typically 80% efficiency), the flue gas is not cooled to the dew points, but heat losses can cause condensation to occur in the vent system. In addition to this corrosion concern, the vent system design must accommodate the thermal cyclic stresses in an environment that typically ranges from ambient temperature to 150 Degrees Celsius (300 Degrees Fahrenheit) and back. AL29-4C vent systems have the low thermal expansion properties inherent with stainless steels, where high temperature plastic pipes have high expansion coefficients that exert high stress radially and at joints. Also, thinner walls and better thermal conductivity of AL29-4C alloy versus plastics causes faster heat up which reduces the potential for continuously wet sections of vent, thereby reducing acid levels in the vent. AL29-4C alloy vent systems are UL, and ULC and eUL listed in flexible and rigid wall for Category II, III and IV gas burning appliances side wall or through chimney.

Typical Composition (Element)	(Wt. Percent)
Carbon	0.02
Manganese	0.50
Phosphorus	0.03
Sulfur	<0.01
Silicon	0.35
Chromium	29
Nickel	0.30
Molybdenum	4
Nitrogen	0.02
Titanium+Columbium (Niobium)	0.6
Iron	Balance

Premier Seal ReRoof Drain

... Matt Meyer, Product Manager- Portals Plus

Portals Plus announces the release of its new ReRoof drain offering, the Premier Seal. The Premier Seal is a mechanically expandable rubber seal that provides a water tight seal into existing plumbing. The seal is activated with the use of a screwdriver. The screws compress the seal in turn expands the EPDM rubber into the PVC or cast iron piping. The seal is removable to allow for field cutting of the tube for short drop and rapid reinstallation.

The Premier Seal is an addition to the already most comprehensive Retrofit Drain offering in the industry. The seal is comprised of EPDM Rubber and White ABS Plastic. The utilization of the White ABS allows for increased visibility during installation.

The Premier Seal was tested in accordance with ANSI and SPRI Retrofit Drain recommendations which state the seal must remain water tight with a 12 foot head pressure for 24 hours of continuous water pressure.

The Premier Seal will be made available for both the Stainless Steel and the Aluminum Retrofit drain offerings. Available sizes include 3, 4, 5, and 6 inch sizes. The new offering is an addition to the Expandable foam tape and Patented Rubber Seal options that are currently available.





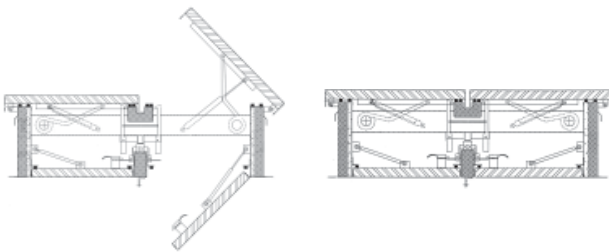
Block Outside Noise

... Don Fessenden, Product Manager- Milcor

When enjoying a play, lecture or other musical venue in an auditorium, noise from air or highway traffic, storms, and other exterior sources can be a major distraction. Heat & Smoke Vents are most always mandated by code when auditoriums and stages are a part of the building construction. High occupancy safety measures are required due complex electrical, audio and stage lighting units. Traditional Heat and Smoke Vents offer limited sound insulation packages. Milcor Acoustical Heat & Smoke Vents were developed to block sound while providing for the safe and effective removal of noxious smoke and other deadly fumes in the event of a fire.

Acoustical units are rated by their Sound Transmission Class, commonly referred to as the STC rating. The Sound Transmission Class (STC) is a single-number rating of a material's or an assembly's ability to resist airborne sound transfer at the frequencies of 125-4000 Hz. In general, a higher STC rating blocks more noise transmission through the vent walls. Ratings are typically established by independent testing labs under controlled conditions. However, the STC rating under a lab test does not take into consideration weak points or other nearby sound paths.

Milcor offers 2 styles of Acoustical Heat & Smoke Vents, the lower rated STC-40 two-door unit (upper doors only) and the STC-45 four-door unit with upper and lower doors. Recently the market has seen the introduction of two-door STC-45 and STC-46 units. While independent lab testing may verify the ratings of these units, the two-door units create an open sound chamber above the roof deck which may not block all noise. The unsightly interior workings of the two-door units can also be observed by the audience below. With a four-door STC-45 unit the lower doors enclose the unit at the deck line blocking out any above-roof level noise, enhancing acoustics in the auditorium and creating a cleaner appearance. Milcor units are tested and approved by Factory Mutual and have been tested and approved for use in the State of Florida. Heat & Smoke Vent sizes range from 4' x 4' to larger units that are up to 6' x 12'.



Blocking outside noise, an aesthetic under-roof appearance, plus offering life safety benefits and minimizing property damage during a fire are big reasons to use Milcor Acoustical Heat & Smoke Vents for auditorium and stage applications.

Using All Available Space

... Tom Sauer, Product Manager- Roof Products & Systems

When space is an issue for your HVAC needs, engineers are more often specifying "custom modular rooftop units". These are generally used on semi high-rise structures such as hospitals and certain office buildings where the ductwork must enter and leave the building in a common chase and then service the floors or wings once inside the building. This option gives the engineer and architect the ability to provide all the cooling needed while utilizing the roof in the most efficient way possible.

Modular RTU's are physically very large and as such, extremely heavy. They also frequently required a "plenum" style curb. Enter Roof Products and Systems div. of Commercial Products Group. RPS offers some 50 years of engineering expertise when it comes to designing modular curbs. We offer the required supports at the unit splits, the proper wall strength to support imposed loads (even to seismic or wind load criteria), lateral bracing to insure ease of installation of the RTU's. More importantly, our structural curb bases for modular applications will be designed with roof integrity in mind. After all, what good is a structural mechanical application if the roof leaks around it?

We also offer options such as roof slope compensation, various insulations, inner liners including perforated metal, stairs and walkway platforms for tall curbs, and many others.

We are prepared to assist engineers in the specification and design of the modular curb, the rooftop manufacturer or his rep in the design and budget pricing of the curb, and the contractor with prompt final bids, drawings, and our normal 3-5 day fabrication lead times.

