

As you read the GrunauGram, you'll notice the new format we're rolling out with this issue. We are very excited about updating the look and feel of our principal customer communication vehicle. We hope you like it as much as we do!

I want to share a recent experience. It's an excellent example of situations we frequently find ourselves in, and the kind of company Grunau strives to be.

There is a large, complicated research facility in Milwaukee currently in the planning stages. Like many projects, it's being built on a compressed schedule, with a tight budget.

We approached the project stakeholders (the owner, construction manager and design professionals) to discuss partnering with Grunau during the planning and construction phases. We expressed how we would utilize our technical and practical experience to help manage the project budget and schedule, and, most importantly, eliminate financial and execution risks. In other words, ***we promised to provide the stakeholders a highly predictable outcome.***

We explained that the partnership would require a high degree of trust and open, honest communication. At the conclusion of our presentation, they agreed that projects characterized by high trust and collaborative relationships always produce more positive results for all parties.

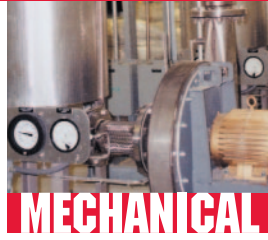
Unfortunately, business relationships are too often focused on shifting risk rather than working together to manage risk. While we unequivocally believe that collaborative relationships lead to more fulfilling results, our industry continues to be plagued by master/servant relationships. Full acceptance of "a better way" will require a significant paradigm shift.

I share this so that you know we are working very hard to demonstrate the benefits of "the better way" that we embrace at the heart of our business philosophy. We are making progress, slowly but surely.

In the following pages, you will read about some terrific projects and the great teams we have had the opportunity to be part of. They represent the very best of our team and our business.



Paul Grunau  
President, Grunau Company



## MECHANICAL GRUNAU COMPANY TURNS HVAC UPSIDE DOWN WITH UNDERFLOOR SYSTEM AT NORTHWESTERN MUTUAL

The Grunau Company recently completed the HVAC, plumbing and specialty metal work on the two-year, \$125 million first phase project of Northwestern Mutual's Franklin, Wis., campus.

The Grunau mechanical team installed an underfloor heating, ventilation and air conditioning (HVAC) system in the half-million square foot facility, making it one of only a handful of buildings in southeastern Wisconsin to have such a system.

"We worked closely with Northwestern Mutual, the engineer and the general construction manager to ensure the highest quality of work and to maintain the sophistication and integrity of this building," said Paul Grunau, Grunau Company president.

Early during the project planning, Northwestern Mutual identified the underfloor HVAC system as one part of its larger strategy to create a highly efficient, cost-effective facility.

The unique nature of the underfloor system prompted Grunau to research the system extensively to learn as much as possible prior to installation. "The underfloor system was one of the things for which Grunau felt particularly responsible," said Jeff Kuhnke, Grunau Company project manager. "We spent a lot of time learning how to best do our job. We took it upon ourselves to help coordinate the other trades' work with the system."

An underfloor system places the heating and cooling vents under a raised floor instead of above the ceiling. Most notably, this system uses personal vents that allow individuals to control the climate at their work stations. In addition, building layouts are more easily configured.

An underfloor system also helps eliminate dust and draft problems, improving indoor air quality because the clean air is supplied closer to occupants. It reduces the amount of duct work required, potentially reducing floor-to-floor height, creating a shorter building and reducing hard construction material costs such as steel and glass. The system also has the potential to save energy costs in its mechanical systems. These potential savings can include warmer chilled water temperature, reduced fan energy and reduced reheat energy.

CONTINUED IN METALS, PAGE 3



Photo Courtesy of Northwestern Mutual. ©2004.

▲ Air from the underfloor HVAC system at Northwestern Mutual's Franklin campus is chilled through high-efficiency, chlorine-free centrifugal chillers.

◀ The first building of Northwestern Mutual's Franklin campus was completed in April 2003.



## Grunau Getting Lean

For the past 16 months, Grunau Company has been evolving its business practices by adopting the theories of lean production – philosophies that seek to minimize waste and maximize value by creating better work flow and increasing productivity. The philosophies are used in the manufacturing and construction industries, and when used consistently, save companies time, materials and ultimately, money.

One of the foundations of the lean manufacturing theory is known as the Five S's, or five key organizational steps that build on each other. They include **sorting, simplifying, sweeping, standardizing and self-discipline.**

Grunau started using the Five S's in its tool room and has since used it in other areas, including the main yard. "It was like night and day to see the difference," said Ted Angelo, executive vice president. "It didn't look like a construction yard because it was well organized and had extra space for future use."

In the initial step, **sorting**, companies separate necessary items from the unnecessary ones based on frequency of use. If the item isn't used at least once per year, it gets thrown away or returned to a supplier.

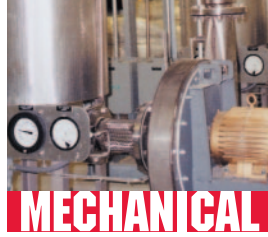
Next, the company must **simplify** its inventory by designating an assigned, marked location for each item. The more an item is used, the more easily accessible it should be. This step eliminates wasted time looking for items.

During the **sweeping** stage, work areas are cleaned and everything is put back into its place as designated during the simplifying stage.

**Standardizing** involves creating a standard for the organization of items. Essentially, the first three steps are repeated for continuous improvement.

Finally, **self-discipline** requires that there is follow through on each step. This step helps companies completely integrate the lean philosophy into their business practices.

Grunau's Lean Team continues to explore the lean principles and ways to expand their application to other areas of the company. Look for future GrunauGram articles explaining how Grunau is applying this philosophy.



**MECHANICAL**

## GRUNAU READIES SURGICAL SUITES AT ADVANCED HEALTHCARE

This spring, Grunau Company finished a year-long project for Advanced Healthcare in Mequon, Wis., installing HVAC, fire protection and plumbing systems to a five-operating room addition.

Although Grunau has extensive experience in healthcare and hospital work, the Advanced Healthcare project marked the first time we completed the design/build of a surgical suite. We consulted the Wisconsin Department of Health and Family Services to learn more about hospital codes and the appropriate procedures for completing healthcare renovation work.

The project required us to work closely with a long-time client, general contractor C.G. Schmidt, and other trades on the job. This allowed Grunau the opportunity to continue developing the working relationship it has built with Advanced Healthcare and C.G. Schmidt.

The surgical suite addition was built using the existing structure as its core. Working around and above the old facility, we coordinated work areas to maintain hospital operation and minimize costs. Grunau HVAC technicians installed a 33,000 cfm air-handling unit, a boiler unit and two condensing units, humidifiers, 70 variable air volume (VAV) boxes and 14 fans. The team met the challenge of connecting both buildings with the HVAC system.

Grunau fire protection tied into the existing sprinkler system and installed 425 sprinkler heads throughout the building. Grunau's site plumbing crew made modifications to the existing site drainage system, including piping to two detention ponds. The team installed an ADS Water Quality Unit to remove suspended solids and oils from storm water. We also installed several unique plumbing systems that are required in a surgical suite, including an ultra-violet light in the hot water system to control bacteria. A water softener and reverse osmosis system were installed to treat the water for the washers and sterilizers needed to clean surgical equipment. In addition, the new operating suites called for medical gas piping, which required a medical vacuum pump, laboratory air compressor and oxygen and nitrogen oxide manifolds.

The project involved close coordination among various trades during both the design and installation processes. However, the preparation by Grunau and C.G. Schmidt allowed for timely completion while minimizing disruptions to the hospital's traffic flow and keeping the environment safe for patients and employees. In addition, the project provided Grunau with valuable experience that will help us in future endeavors.



*The Grunau team worked above and around the existing Advance Healthcare facility in Mequon to complete the design/build of a surgical suite addition.*

## GRUNAU RECOGNIZES EMPLOYEE LONGEVITY

Grunau Company honored 28 employees for their outstanding service and commitment at its annual picnic.



**First row L-R:** Mike Stefaniak (15 years), Chris Miller (30 years), Chuck Neumeyer (30 years), Sue Wegner (15 years), Karen Dix (20 years).

**Second row L-R:** Ted Duecker (10 years), Jeff Kuhnke (15 years), Brian Wang (15 years), Ray Braun (20 years), Ingo Luther (15 years).

**Third row L-R:** Dennis Laney (35 years), Gerry Gelhaar (25 years), Joe Piskur (20 years), Brad Shepherd (10 years), Dave Beres (20 years), Dave Machajewski (20 years), Paul Grunau, president.

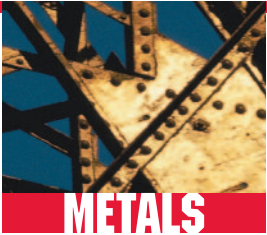
**Not Pictured:** Dennis Bart (30 years), Leon Cox (Ohio-10 years), Jack Davis (Ohio-10 years), Bob Elliott (Ohio-10 years), Kevin Fredrick (15 years), Howie Laumer (30 years), Rick Lipka (15 years), Don Mateicka Jr. (25 years), Don Resch (30 years), Randy Rubesa (Pa.-10 years), Rob Schmitz (Pa.-20 years), Lisa VanHoose (Ohio-15 years), Vinnie Viglione (Pa.-15 years).

## The Doctor's In: A Fall Check-up from Grunau Service

Grunau Service offers some advice on how to prepare your equipment for winter.

1. Central heating plants should undergo a combustion flue gas analysis to ensure optimum efficiency, especially with today's high fuel oil prices. Some energy companies are even offering incentives to their customers to have this service performed. Contact your provider for more information.
2. Check your flue gas combustion venting system for structural integrity. Corrosion, perforations, cracks and rust can increase the likelihood that carbon monoxide is entering occupied space.
3. During winter, buildings are sealed up, so be sure that all air handling devices are providing sufficient outdoor air ventilation to help provide high-quality indoor air.
4. Verify that all operating and safety devices are functional. This will help avoid untimely breakdowns during winter.
5. Ensure your equipment is well-tuned so it performs at optimum efficiency and maximizes mechanical system investment.

Grunau Service performs all of the above checks as part of its fall maintenance plan and recommends having your equipment serviced between August and November to ensure your equipment is up to par before winter. Call Chuck Neumeyer at (414) 216-6900 for more information or to schedule service.



CONTINUED FROM *MECHANICAL*, PAGE 1

## GRUNAU METALS' INGENUITY ENHANCES QUALITY OF BUILDING

Grunau Metals, a division of Grunau Company, installed the stainless steel ornamental railings and galvanized grilles in the parking structure for the first building of the new Northwestern Mutual Franklin, Wis., campus. The metals team fabricated the ornamental railings using an innovative fastening system with little or no visible welds. We contributed to the architectural quality of the building with details such as the distinct linear polish on the stainless steel components, giving the metal a high-end look, instead of the traditional polish around the metal's circumference. Grunau Metals also managed the contractors who installed the wood cap and glass

infill for the railings.

"We looked to add the details that are important to Northwestern Mutual and their overall image in this architecturally noteworthy building," said Mark Gall, vice president, Grunau Metals division manager. "We strive to be innovative in our work to meet the needs of our clients."

The low-rise office building is located on West Drexel Avenue and 27th Street in Franklin, Wis., a suburb of Milwaukee. The new campus was developed to accommodate Northwestern Mutual's expanding needs over the next 10 to 20 years.



*Grunau Metals used a distinct linear polish on all stainless steel railings at Northwestern Mutual's Franklin campus, adding to the architectural quality of the building.*

# GRUNAU METALS



## FIRE PROTECTION

# GRUNAU PROTECTS WESTMINSTER COLLEGE AND PITTSBURGH CHILDREN'S MUSEUM FROM FIRE

Grunau Company's Youngstown, Ohio, fire protection office recently completed work at Westminster College located in New Wilmington, Pa., in the center of an Amish community. We retrofitted wet and dry sprinkler systems for Shaw Hall, Browne Hall and Galbreath Hall dormitories. Covering approximately 114,500 square feet of space between the three facilities, the project included the installation of 1,100 sprinklers and new underground fire service to each building. We also worked tirelessly to ensure that life safety systems remained compliant with state codes. The aging facilities and their infrastructure challenged us to meet the demands of an intense work schedule. Our team approach and extensive knowledge produced timely results and lasting work.

Grunau's Pittsburgh fire protection office also has been busy, helping to keep kids safe as they experience the sights and wonders of the Pittsburgh Children's Museum. We recently furnished and installed a wet sprinkler system for the museum's renovated three-floor Buhl Building and



newly added Lantern Building. Also, the team installed a sprinkler system for the museum's new Attic Exhibit, which covers approximately 65,438 square feet. We again met the challenges of working with older infrastructure. What we lacked in time, we made up in experience, completing work on schedule for the exhibit's September 2004 opening.

Grunau's fire protection teams understand the importance of proper fire protection and systems maintenance. We combine our knowledge in fire protection with a unique understanding of each facility to address potential concerns before they escalate into more serious problems. A building is meant to be worked in, lived in and enjoyed. Grunau gives building occupants and owners the comfort they need to get the most out of their facilities.



*The Youngstown fire protection office retrofitted wet and dry sprinkler systems for three Westminster College dormitories, including Browne Hall. Built in 1957, the hall houses 108 female students.*

*The Pittsburgh fire protection office assisted in a massive expansion and renovation project for the Pittsburgh Children's Museum, which was originally located in an historic post office.*

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PUBLISHED BY:  
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