



CHIEF ENGINEER™

SEPTEMBER 2023

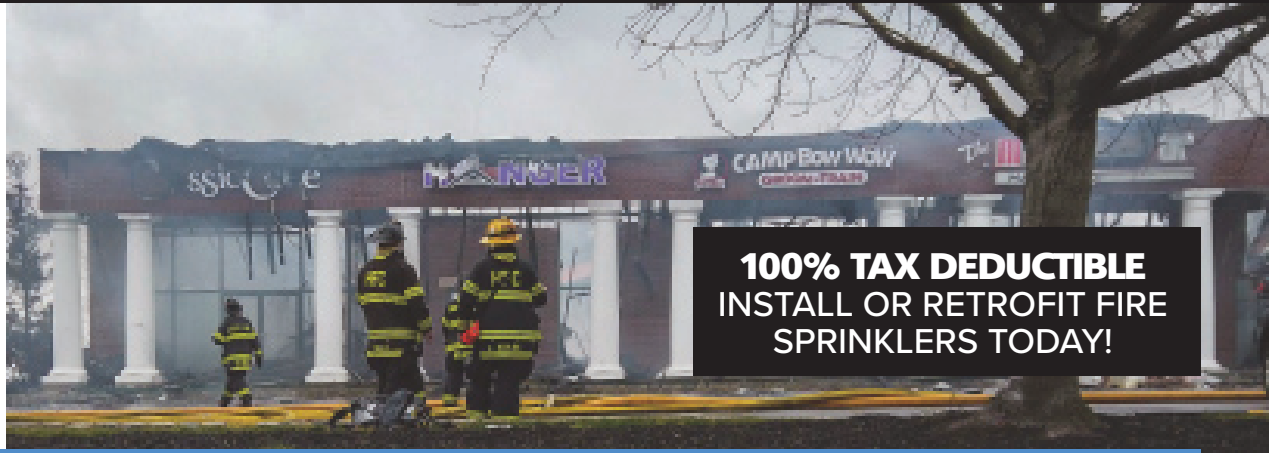
THIS MONTH'S ISSUE

Troubleshooting: Priming in Your Boilers • Pg 14

Boiler Room Modernization: Key Considerations When
Transitioning to Eco-Friendly Electric Boilers • Pg 16

Expectation for Identification Products Shifts to Lifetime Readability • Pg 18

DON'T LET YOUR BUSINESS GO UP IN FLAMES!



**100% TAX DEDUCTIBLE
INSTALL OR RETROFIT FIRE
SPRINKLERS TODAY!**

DEDUCT THE FULL COST OF QUALIFIED PROPERTY IMPROVEMENT!

CARES ACT

The Coronavirus Aid, Relief, and Economic Security (CARES) Act closed a loophole that was included in the TCJA by making QIP 15-year property. This change made businesses of all sizes, regardless of the amounts spent on equipment, eligible to deduct the full cost of commercial fire sprinkler systems using bonus depreciation.

The time is now to upgrade your building's fire safety with a fire sprinkler system or a sprinkler retrofit. Under the new Section 179 guidelines, the one year deduction period phases out after 2022. Any new sprinkler system or retrofit completed between September 27, 2017 and December 31, 2022 will be able to be fully expensed in one year. After 2022, the allowed deduction percentage is as follows:

2021: 100%	2023: 80%	2025: 40%
2022: 100%	2024: 60%	2026: 20%

2027 and after: The depreciation schedule becomes permanently set at 15 years.

WHAT IS QIP?

The Tax Cuts and Jobs Act (TCJA), passed in December, 2017, gave small businesses the ability to deduct the full cost of Qualified Improvement Property (QIP) up to \$1.04 million in the year of installation using Section 179.

QIP is defined as improvements to the interior of an existing building that is not residential property. Commercial fire sprinkler systems, including upgrades of existing systems or retrofitting in existing structures, are considered QIP.

The Section 179 deduction is not phased out over time. However, there is a phase out of the amount allowed as a deduction based on a maximum spending amount of \$2.59 million on equipment in a year. Businesses that spend over that amount will see a dollar for dollar reduction of their eligible deduction. So a business that spends \$3.63 million or more on equipment in a given year would not be allowed any Section 179 Deduction.

WHAT HAS CHANGED?

Prior to the TCJA allowing Section 179 on qualified improvement property, including sprinkler systems, property of this type was only allowed a deduction on a straight line basis over a period of 39 years. In other words, a company spending \$390,000 on a commercial sprinkler system prior to the TCJA would only deduct \$10,000 per year for 39 years.

While many believe that the intention of Congress was to make Qualified Improvement Property 15-year property, which would have made this property eligible for bonus depreciation, the TCJA left the life of this property at 39 years. So, a taxpayer who did not elect to use the Section 179 Deduction or who has that deduction phased out would have been left to depreciate the remaining balance of the assets over a 39-year period.

Neither of these deductions is currently available for fire sprinkler systems installed in residential high rises. The National Fire Sprinkler Association (NFSA) continues to fight to obtain incentives for residential structures.

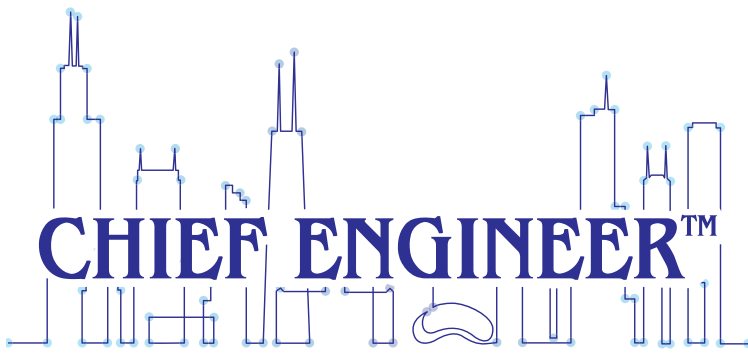
For more information on how these tax incentives might impact the business of your contractors, we would recommend that they contact their tax professionals, as situations differ based on the facts and circumstances for each business. As a general rule, we would not recommend that the Local provide tax advice to the contractors.



F.P.C.

FIRE PROTECTION CONTRACTORS

CALL OR CLICK 708-710-1448 • FireProtectionContractors.com



CHIEF ENGINEER™

VOLUME 88 • Number 9

Official Magazine of the



THE CHIEF ENGINEERS

ASSOCIATION OF CHICAGOLAND

Founded 1934

Dedicated to the precept that

“Anything Being Done Can Be Done Better”

Business and Editorial Office

22 W. Washington St., Suite 15112

Chicago, Illinois 60602

Phone: (708) 293-1705

E-mail: info@chiefengineer.org

www.chiefengineer.org

The Chief Engineers Association of Chicagoland magazine is published 12 times per year by the Chief Engineers Association of Chicagoland.

Publisher

Tom Phillips

Editor in Chief

Karl J. Paloucek

Graphic Designer

Kate Slocum

Printing

Mike Lewis, D & L Printing

Accounting/Billing

Leslie Johnson

Publishing Committee:

Mike Collins – Chair

Ralph White – Co-Chair

Pat Biesty

Dan Carey

Brock Sharapata

Patrick Wawrzyniak

Subscription rate is \$36.00 per year in the United States and Canada; \$110.00 per year in all other foreign countries. POSTMASTER: Send address changes to 22 W. Washington St., Suite 15112, Chicago, IL 60602

All statements, including product claims, are those of the person or organization making the statement or claim. The publisher does not adopt any such statements as its own, and any such statement or claim does not necessarily reflect the opinion of the publisher. © 2023 Chief Engineers Association of Chicagoland

14 Troubleshooting: Priming in Your Boilers

This month, as we anticipate the colder months ahead, we take a brief refresher on what to do about priming in your boilers

16 Boiler Room Modernization: Key Considerations When Transitioning to Eco-Friendly Electric Boilers Rise to a Higher Level of Training

In older commercial buildings, switching to electric boilers from natural-gas-fired boilers brings with it environmental and other advantages.

18 Expectation for Identification Products Shifts to Lifetime Readability

It's such a simple thing, but when identity tags for safety weather through time or the elements, not being able to read them can cause real problems.

President's Message	5
ASHRAE Update	6
Events	8
Member News	13
Troubleshooting	14
New Products	30
Tech Edge	31
Boiler Room Annex	32
Dependable Sources	34



DON'T LET YOUR BUSINESS GO UP IN FLAMES!

The **Fire Protection Contractors** work on all aspects of fire protection systems. Starting with the initial design of your system to the installation we are with you every step of the way. Almost as important as installing a fire sprinkler system is the routine maintenance. This includes inspection and testing to ensure the system is working and, in most areas, required by law.

24 Hour Emergency Service

Inspection, Testing and Maintenance

Fire Pump Testing

Design and Installation – Residential, Commercial, Industrial

Retrofit and Remodel

Fire Suppression Systems



CALL OR CLICK ANYTIME FOR
EMERGENCY OR ROUTINE SERVICE
708-710-1448 • FireProtectionContractors.com

PRESIDENT'S MESSAGE

 **The CHIEF ENGINEERS
Association of Chicagoland**

BOARD OF DIRECTORS OFFICERS

Ken Botta
President
312-446-3979

Douglas Kruczek
Vice President
312-468-8936

Brian Laurence McMahon
Vice President
708-535-7003

Ralph White
Recording Secretary
312-907-9994

Brian Staunton
Treasurer
312-533-1575

Brendan Winters
Financial Secretary
773-457-6403

Barbara Hickey
Sergeant-at-Arms
312-287-0558

Kevin Kenzinger
Corresponding Secretary
312-296-5603

DIRECTORS

Dan Carey
Trustee
312-446-1967

Pat Biesty
Warden
312-618-6864

Bryan McLaughlin
Doorkeeper
773-255-0096

Brock Sharapata
Warden
312-617-7115

Robert Jones
Warden
773-407-5111

Michael Collins
Warden
708-712-0126

Patrick Wawrzyniak
Warden
773-410-2326

Sean Casey
Warden
312-890-9282

Thomas Phillips
Past President
312-617-7563

Dear Members,

How quickly summer passes us by. It seems like only a few weeks since we were last together at Guaranteed Rate Field watching the White Sox play, and here we are on the cusp of our 83rd Annual Golf Outing at Cog Hill in Lemont. As usual, we have quite a massive turnout for this event, with nearly 800 golfers registered for the 9:00am shotgun start on Friday, Sept. 8. I personally would like to extend my thanks on behalf of all of the Chief Engineers to Kevin Kenzinger and Brendan Winters for taking the lead of our Golf Outing Committee, and to Alex Boerner for coming back to help us out once again. We're confident that the weather will behave for us as it so often has in years past. I personally look forward to seeing all of you out there on the course.



We would like to beg everyone's pardon for the erratic arrival of your monthly magazine of the Chief Engineer magazine. We appreciate your patience as we establish new routines and challenges. We hope to have everything ironed out by November. For now, we ask for your continued understanding for just a bit longer, as we strive to pull everything together as efficiently as we can.

On that note, please let me remind all of you Chief Engineers — Active and Associate Members alike — that if you're engaged in a particularly interesting project, be it a retrofit, new installation, structural maintenance or anything else that could be of interest to our readership, to please get in touch with our editor, Karl J. Paloucek, at kjpaloucek@gmail.com. He'll be glad to contact you about your story and to help spread the word about the work you're doing to the rest of the organization. Likewise, if you have someone on your staff who is not yet a chief engineer, but who is taking great strides in the field, we want to know — email our editor at the email address above, and we'll feature them as part of our Up & Coming section.

With the arrival of fall, many of us naturally start thinking about the fast-approaching holidays, but before then, we have our annual Oktoberfest meeting. This year's meeting will take place Wednesday, Oct. 18, at 5:00pm at Bridge 410, 410 N. Paulina St., Chicago. As usual, there will be dinner, beer, wine, and plenty of *Gemütlichkeit*, so don't forget to register soon. You won't want to miss this one!

As always, let's keep the members of our military and our first responders in our thoughts as we head into this new year of monthly Chief Engineer events. We appreciate the sacrifices they make daily to ensure our safety and way of life.

See you out at Cog Hill!

Sincerely,



Ken Botta

ASHRAE Awarded \$2.85 Million Grant for Energy Code Training Collaborative

ASHRAE's recent \$2.85 million government grant will be used to fund a new project aimed at enhancing training for building energy code officials.

ASHRAE, along with seven partnering organizations, announced that it has been awarded a \$2.85 million grant from the U.S. Department of Energy Building Technologies Office for Resilient and Efficient Codes Implementation (RECI). RECI is a product of the Infrastructure Investment and Jobs Act, which provides an opportunity to advance the efficiency and resilience of buildings through successfully implementing updated energy codes in states and local jurisdictions throughout the United States.

The program invests \$225 million over 5 years, encompassing fiscal years (FYs) 2022 through 2026, to “enable sustained cost-effective implementation of updated building energy codes.”

The award will fund the “Energy Code Official - Training & Education Collaborative” (ECO-TEC), a project led by national model code organizations ASHRAE and the International Code Council (ICC), with vital support from the National Association of State Energy Officials (NASEO) and agencies from the states of Oregon, Michigan, New Jersey and West Virginia.

The ECO-TEC will increase energy code enforcement activities through a multi-module training targeted to building energy code officials (ECOs). An important component of the project will include connecting with disadvantaged and rural communities through new communication channels to expand

the workforce and providing career opportunities to those populations through training stipends.

The impacts from the project are expected to save the four state partners approximately \$18.5 million over the course of the project. This impact reflects the difference between “Standard” and “Improved” compliance and assumes that the partner states adopt the latest model energy codes. The potential savings for 48 states — minus California and Washington — with “Improved” to “Aggressive Compliance” using their current codes range between \$12 to \$41 million in year one and \$149 to \$335 million by year five. “Improved” to “Aggressive Compliance” would also prevent between 0.06 MMT (million metric tons) to 0.20 MMT of CO₂ emissions in year one and 0.81 MMT to 1.77 MMT of CO₂ in year five. Program effectiveness will be evaluated to ensure sustained compliance and impacts.

“The ECO-TEC will significantly contribute to advancing energy efficiency and resilience in our buildings, ultimately leading to a more sustainable future,” Jeff Littleton, Executive Vice President, ASHRAE and Principal Investigator of the ECO-TEC, said. “By empowering code officials and professionals with the necessary knowledge and skills, we can effectively transform the built environment and promote sustainable practices nationwide. We are thrilled to partner on this important project.”

BULLOCK, LOGAN & ASSOCIATES

SERVING CHICAGOLAND SINCE 1990

TRUST YOUR EQUIPMENT WITH THE HEAT TRANSFER SPECIALISTS!

- Cooling Tower Repair
- Improve Efficiency & Performance
- Solutions for Ease of Maintenance
- Preventative Maintenance to Minimize Emergency Shutdowns



CALL FOR A FREE INSPECTION!
www.bullocklogan.com
 847-434-1200



KROESCHELL

Established 1879

Integrated Solutions for all of your Mechanical, Electrical and Plumbing Systems.

- Design-Build Turnkey Solutions
- 24/7 Emergency Mechanical Service
- Commercial and Industrial HVAC
- Building Automation Systems
- Boiler Installation and Retrofits
- Complete Facility Maintenance
- Industrial Support Services
- Computer Room HVAC
- Generators and UPS Systems



(312) 649-7980 | www.kroeschell.com

MEP Design-Build Engineering; 24/7 Mechanical Service; Industrial Services; Building Automation and Controls; General Contracting; and Complete Facility Maintenance for Commercial, Medical, Government and Archival Facilities



Union Bonded



Fully Insured

- Automatic Sliding Doors
- Dock Levelers
- Fire Doors
- Gates
- High Speed Doors
- Turnstiles
- Revolving Doors
- Sectional Doors
- Hollow Metal Doors & Frames



847 877 5580

If you can walk or drive through it, we can fix it!



POWER SYSTEMS SOLUTIONS

Altorfer is the only authorized Caterpillar Dealer in the Chicagoland area.

Altorfer Technicians

- Factory-trained and qualified to service all major brands of equipment
- Dispatched 24 hours a day, 7 days a week, 365 days a year
- Spread throughout: SE Iowa, NW Missouri, Northern Illinois and NW Indiana



Altorfer Power Rental

- Over 250 generators available to rent
- Is part of the largest rental network in the United States.
- Seasoned industry experts ready to help with your power emergencies.
- Carries a full line of power generation, electrical distribution, temperature control, and compressed air solutions.



Get Custom Preventative Maintenance Agreements for:

- Engines
- Generators
- ATS
- Switchgear
- UPS
- Battery Systems (Resistive & Reactive Load Bank Testing)



SAME DAY EMERGENCY SERVICE CALL 877-891-4181



FiltXPO 2023 offers abundant networking opportunities.

FiltXPO™ 2023

Oct. 10-12, 2023

Navy Pier, Chicago

FiltXPO is North America's only exhibition and conference dedicated exclusively to filtration and separation, and will be in Chicago Oct. 10-12, 2023, at Navy Pier. Offering direct engagement with the ever-evolving market of solutions for cleaner, healthier air, a brain trust of onsite expertise, and abundant networking opportunities, FiltXPO keeps you abreast of the warp-speed changes in the HVAC industry, making it indispensable for the future of your business.

At FiltXPO™: The Filtration Summit for Global Change

FiltXPO™ 2023 will feature the second edition of the Filtration Summit for Global Change, with five panels of industry leaders addressing today's critical societal challenges and sessions focused on market trends and technology reviews. The panels will include global leaders who will debate, collaborate, and bring new ideas to light.

The five panels will include:

- **Indoor Air Quality**
Join an insightful exchange for the right solutions to IAQ challenges.
- **Filtration Sustainability**

Gain market intelligence on components' recyclability and biodegradability.

- **Critical Air**
Hear how experts provide evidence of filtration claims.
- **Non-Optional Standards**
Discover the right filtration standards for your applications.
- **Technology Review**
Find up-to-the-minute technologies that track filtration quality.

Filter Media Training Course Available

Also available at FiltXPO 2023 will be a 1 ½-day ultimate overview of existing and emerging nonwoven technologies for filtration. The course will take place Monday, Oct. 9, from 9:00am-6:00pm, and Tuesday, Oct. 10, from 9:00am-12:00pm. It's an intensive course designed for professionals wanting to learn more about the development, testing and application of nonwovens in filtration. Only 40 participants are being accepted into this career-changing course. A comprehensive guide of instruction and reference material will be provided to each attendee.

For more information about FiltXPO 2023 or to register, visit www.filtxpo.com/registration.html



Equipped to Handle All your Piping and Mechanical Installation Needs

- » Boilers - High & Low Pressure
- » Deaerator Installations & Service
- » Feed Water Systems
- » Chillers
- » Steam, Gas, Oil & Process Piping
- » Steam Reheating & Sparge Systems
- » Vacuum Condensate Return Systems
- » And more...

24 HOUR EMERGENCY SERVICE

www.ACSgroup.com

773.737.9200



Chicago Build 2023 features a robust program of sessions aimed at facility managers and construction professionals.

Chicago Build 2023

Oct. 11-12

McCormick Center, Chicago

Chicago Build is set for a huge return to McCormick Place. The event features hundreds of exhibitors, 400+ speakers, AIA CES workshops, a Festival of Construction, exclusive free-to-attend networking events including Meet the Buyer, Women in Construction and Diversity in Construction, entertainment, live music and much, much more. Chicago Build is the ultimate platform for networking and connecting with thousands of senior-level decision-makers, buyers and influencers from across the Midwest's entire AEC industry.

Among the available tracks at Chicago Build 2023 will be the Facilities Management & Real Estate Track & Workshops, which attract thousands of realtors and FM professionals from across the Midwest to learn of the latest technology, innovation and developments from leading industry experts. Attendees will gain access to hundreds of high-level speakers across the two days, plus AIA CES-accredited training workshops and interactive panel discussions with leading architects, contractors, engineers, government and more.

For more information or to register, visit chicagobuildexpo.com



Downtown Chicago's Premier
ENERGY SUPPLY & MANAGEMENT RESOURCE
Electricity Natural Gas

Est. 2001

- Assist building managers in lowering electricity supply costs.
- Provide electricity proposals for Commercial buildings and Hotels.
- Partner with Chief Engineers in reducing tenant's electricity bills.

Contact Phil Howard at 312-343-8901
phoward@midwestenergyinc.com



Environmental
Consulting
Group

105 S. York Rd., Suite 250
Elmhurst, IL 60126
630-607-0060
www.ecgmidwest.com



**CHICAGO
COOLING TOWER
COMPANY, INC.**

7030 N. Austin Ave
Niles IL 60714
Phone: 847.647.7610
Contact: Tim Schaffer

Complete Cooling Tower Repair and Rebuild Services

<http://www.chicagocoolingtower.com/>

info@chicagocoolingtower.com

Water Research Team Completes Pioneering Nutrient Removal Study

A team consisting of WSSC Water, Brown and Caldwell, and Northwestern University has published research to revolutionize cost-effective, environment-safe nutrient removal at water resource recovery facilities (WRRFs). The \$300,000 research project, Demonstration of Progressive Carbon Efficient Nitrogen with Biological Phosphorus Removal in a Conventional BNR Facility, funded by The Water Research Foundation (WRF), sought to study lowering operating costs of biological nutrient removal (BNR) systems while fully utilizing existing infrastructure.

Introduced in the 1970s, BNR techniques have been subject to scrutiny due to high energy demand, reliance on external chemicals, and economic and environmental sustainability concerns. Given these challenges, many utilities worldwide operating conventional BNR facilities are in dire need of innovative alternatives to meet stringent nutrient limits.


To this end, full-scale research at WSSC Water's 26-million-gallons-per-day Seneca WRRF in Montgomery County, Md., addressed this need by demonstrating how efficient management of influent carbon, coupled with simultaneous nitrification and denitrification and post-anoxic denitrification, can reduce both energy and chemical usage while still meeting nutrient standards.

By utilizing ammonia-based aeration control to maximize influent carbon utilization rather than aerobic oxidation, the facility decreased its energy use by lowering the aeration demand and blower runtimes, and reduced the need to purchase additional carbon for denitrification, thus lowering its carbon footprint.

Furthermore, the research revealed that low-dissolved oxygen conditions can effectively facilitate combined biological nitrogen and phosphorus removal, thereby reducing the need for high-volume mixed liquor recycling, usually as high as four times the WRRF's flow.

Through this demonstration process and subsequent full-scale implementation, the Seneca WRRF is on track to save its annual energy and chemical costs by approximately \$575,000 as it continues to meet nutrient removal requirements.

WSSC Water is considering deploying the innovative cost-saving strategies throughout its other five WRRFs to maintain affordable and sustainable service for its 1.9 million customers.

"We congratulate WSSC Water for their unwavering commitment to providing safe and reliable water to its customers and returning clean water to local waterways," said Brown and Caldwell's Dr. Pusker Regmi, a principal research investigator. "This study is a game changer for the water industry as we collaborate with utilities and academia to find the most effective, sustainable, and economical ways to enhance nutrient removal practices while protecting the environment." 



BluSky's trained specialists are positioned to respond at any time, day or night.

WATER | FIRE | ENVIRONMENTAL | ROOFING

800.266.5677 | GoBluSky.com



Chicagoland's Single Source
for **LIFE SAFETY**
System Services



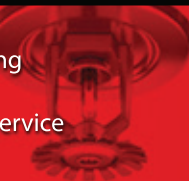
(847) 342-9932

www.contechco.com | info@contechco.com

We maintain ALL manufacturer's systems

Illinois License No. 127.001083 Illinois Sprinkler Contractor License No. FSC-0225

- Fire Alarm Testing & Maintenance
- Fire Pump Testing & Maintenance
- Sprinkler System Testing & Maintenance
- Monitoring
- Fire Extinguishers
- Emergency Lighting Maintenance
- 24/7 Emergency Service
- Fire Alarm Repair



**Call Today To Schedule
A No-Obligation Analysis
Of Your Service Needs**



WE'RE READY FOR COOLING SEASON
PULLEYS, BELTS,
CONDENSER FAN MOTORS,
& FAN BLADES



Alsip • Chicago • Crystal Lake
 Elk Grove • Glen Ellyn

1.800.922.1882 shop.dreisilker.com

Making Your Environment Cleaner and Safer



UVGI Products
Powered By UV-C

CALL FOR A FREE DEMO TODAY!



630.238.0011
 foxvalleyfilter.com
 sales@foxvalleyfilter.com

HVAC Filters - Hood Filters - Grease Containment - Water Filters - Belts



THE HOME DEPOT Pro Institutional
 formerly SupplyWorks

Redefining Facility Maintenance

Manage Inventory
 With a single source for more than a million products

Improve Efficiency
 With services, solutions and customized business tools

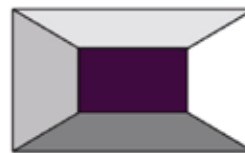
Control Cost
 Through unified billing, procurement, and commercial credit solutions

ONLY ONE SUPPLIER IS HOME DEPOT. AND WE'RE IT.

Melissa Cusack
 312-764-8843
 melissa_c_cusack@homedepot.com

Nick Bova
 708-446-9937
 nicholas_m_bova@homedepot.com

Learn More at HomeDepotPro.com/Institutional



Kleen Air Service Corp.

5354 Northwest Highway
 Chicago, IL 60630
 Office 773-631-0007 • Fax 773-631-4039

Professional Cleaning Service
For Over 80 Years

- Air Handling System Cleaning
- Kitchen Exhaust System Cleaning*
- General and Dedicated Exhaust Systems Cleaning
- Trash and Linen Chutes Cleaning
- Industrial Cleaning
- Coil and Coil Housings Cleaning
- Ceiling Tile Cleaning/ Restoration
- Power Washing
- Cooling Tower Cleaning
- Overhead Structural Cleaning
- Parking Structure Cleaning
- Gaylord Parts and Services*

Serving the Following Industries:
 Commercial • Manufacturing • Hospitality • Healthcare
 Executive Residential • Highrise Residential

Certified by NADCA and IKECA*

www.kleenair.com



BEAR Construction Hosts Busy Bear Time-Filler Drive

On average, patients have nothing to do for up to 60 percent of their time in a hospital. That is why BEAR Construction's BEAR Cares recently hosted a Busy BEAR Time-Filler Drive with its employees, collecting books, activity-based toys and self-contained arts and crafts to donate to Ascension Saint Alexis Child Life.

On Thursday, July 27, a team from BEAR's healthcare group delivered the donations to the Ascension Saint Alexis Women and Children's Hospital in Hoffman Estates, where they put their project management skills to use helping some younger patients work on various projects.

"We had a great time celebrating Christmas in July," BEAR Project Team Supervisor Michele Falk said. "The kids were so sweet, and we enjoyed passing out toys, creating holiday crafts, sharing some giggles and tasting some sweet treats. I don't know who had more fun, the kids or us."

Michele is a core member of BEAR Cares, an employee-driven initiative that organizes and participates in various outreach programs, fundraising events, donation activities and other forms of volunteerism.

Thanks go out to the many generous BEAR employees who donated so many wonderful items to the cause, as well as to all of the BEAR personnel who also donated their time. 📷



Abron

FILTER SUPPLY

Serving the Engineering Community

- **Air Filters**
- **V-Belts and Motors**
- **HVAC Controls**
- **Ice Melt Products**

sales@abronsupply.com

Phone: 773.757.4322 | 773.418.8374



Admiral

HEATING AND VENTILATING, INC.

EST. 1952

4150 Litt Drive
Hillside, IL 60162
Phone: 708.544.3100
Fax: 708.544.3606
24 Hour Emergency Service
www.admiralheating.com

Preventive Maintenance
Air Test and Balance
Energy Management
Full 3D BIM Coordination
For more information contact:
Tom Coonan



SERVPRO Convention Golf Tournament Raises More Than \$50,000 for First Responders Children's Foundation

This year, SERVPRO's Annual Convention Golf Tournament more than doubled its donation over last year's.

For the second year in a row, the SERVPRO Annual Convention Golf Tournament raised funds to benefit brand partner First Responder Children's Foundation (FRCF). This year's event more than doubled last year's donation, raising a total of \$53,970.

More than 150 golfers from across the SERVPRO franchise system participated in the sold-out event held at TPC Tampa Bay in Lutz, Fla. The tournament helped kick off SERVPRO's 54th Convention.

"Each year, the Convention Golf Tournament is a great way to kick off the week by reconnecting and sharing fellowship with members of the SERVPRO system," said SERVPRO CEO Rick Isaacson. "Add in the competition, the camaraderie, and the fact that it was all for a great cause, and this year's tournament was one of the best yet."

"First Responders Children's Foundation is profoundly grateful to SERVPRO and its dedicated franchisees for their unwavering commitment to supporting U.S. first responders and their families," said Jillian Crane, President & CEO of FRCF. "Throughout our journey together, SERVPRO has shown incredible support through scholarships, financial hardship grants, and National First Responder Day events. ... FRCF deeply values its partnership with SERVPRO and cherishes the opportunity to stand alongside them, both on the golf links and in our shared mission of serving those who serve us." 🏌️‍♂️



**MECHANICAL INSULATION
CONTRACTORS & ENGINEERS**

8905 W. 187th St., Suite 200
Mokena, IL 60448

(708) 799-3850
www.mocompany.com



8905 W. 187th St., Suite 200
Mokena, IL 60448

(708) 799-0028
www.mocompany.com

ABATEMENT
ASBESTOS | LEAD | MOLD
INDUSTRIAL CLEANING | INTERIOR DEMOLITION

Troubleshooting: Priming in Your Boilers

As summer comes to a close and we're busy preparing our boilers for their challenging months ahead, it's not a bad time to review some of what we look for and try to prevent some of the problems we encounter in their general maintenance — like priming. Priming, as you know, refers to the phenomenon in which droplets of water are carried along with the steam, forming wet steam. Left unattended, a boiler suffering from priming can lead to all sorts of problems, from a reduction in steam quality to damaged valves or other equipment, corrosion or scaling, and even elevated risk of explosion.

The reasons priming occurs can be highly varied, from having too high a water level in the boiler, to faulty construction of the boiler itself. Sometimes, impurities in the water itself are to blame, or wildly fluctuations in the demand for steam. Whatever is causing the priming to occur, it's typically going to fall under one of two categories — a mechanical problem or a chemical one. Identifying the nature of the problem and what to do about it depends on what you're seeing. Some mechanical issues, like improper boiler construction, will require more drastic measures, like replacement of the unit, but in many cases, the fix will be much more manageable — but no less important.

You might be seeing: The presence of mineral deposits on the valves, which can lead to overheating and corrosion. This is more of a chemical problem, stemming from the presence of organic matter in the boiler water.

Solution: Ensuring the maintenance of low levels of salts in the water will prevent deposits that can lead to harmful corrosion and greater system damage. Efficient filtration of the boiler water will help reduce the amount of impurities in the system in general, as will periodically blowing off any sludge found in the system to prevent further accretion and contamination.

You might be seeing: A sudden fluctuation in steam

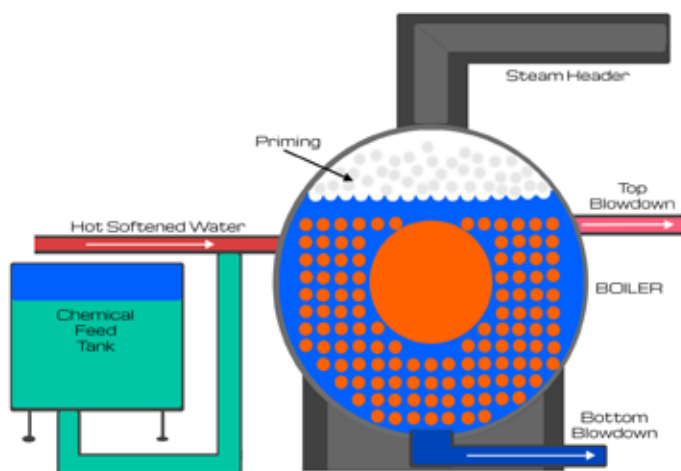
demanded from your boiler. This is an issue that can arise from having too high a level of water in your boiler. While it's normal to see some fluctuation of the water visible in the gauge glass, if you're seeing the water line bounce more than an inch or so, that's a good indication of surge that needs to be addressed. Unattended, the water agitation can cause the water feeder to open and close unnecessarily, leading to a flooded boiler. Surge can result in inefficient boiler operation, poor heating and increased heating bills — and unhappy tenants.

Solution: If you're seeing priming or foaming, your water either could have dirt or oil in it, or the pH level of the water might be too high. If you've checked your water and it seems to be OK, the next step would be to check the flame, and its size and proximity to the combustion chamber. If it's too big or too close, this could cause the excessive boiling that you're seeing. If it's neither of these issues, check to ensure that the pipes leading away from the boiler are properly sized according to the boiler manufacturer's instructions.

You might be seeing: Soap-like structures in your boiler water. If your boiler water is contaminated with alkalis and oils, such as those used for boiler lubrication, these can emulsify and produce a chemical reaction that will form what is essentially soap, which inherently decreases the surface tension, which in turn creates a cycle that produces more foam — a direct result of lowering surface tension in your boiler water.

Solution: Anti-foaming agents, like castor oil, can be added to neutralize the effects of the lowering surface tension. Filtering and treating water prior to its introduction into the boiler system is another method that can remove oils and alkalis before they have a chance to commingle in your boiler. You can also try adding sodium aluminates to the water, as they have proved effective at trapping oil drops and keeping them from emulsifying with any alkalis in the system.

Whenever you encounter priming in your boiler system, it's important to address the problem as soon as possible. If you can't tackle the problem on your own, don't wait — call a boiler service professional. Whatever reluctance you have in terms of your budget, it's not going to be nearly as expensive as it will down the road if you decide to defer your boiler repairs.



If you encounter priming in your boiler system, don't wait — fixing the problem now will save plenty of time, money and aggravation in repairs later on.



**GENERAL CONTRACTING
BUILDING MAINTENANCE
CONSTRUCTION MANAGEMENT**

www.lcigc.com

CHIEF ENGINEER™

YOU ARE INVITED



★ OCTOBER ★

FESTIVAL


SAVE THE DATE

★ 10.18.2023 ★

4:00PM - 7:00PM

WHERE: BRIDGE 410 | 410 N. PAULINA ST, CHICAGO, IL 60622

CONTACT EVENTS@CHIEFENGINEER.ORG FOR SPONSORSHIP INFORMATION!



Boiler Room Modernization: Key Considerations When Transitioning to Eco-Friendly Electric Boilers

Consulting with an expert can streamline the conversion to electric boilers while reducing total project cost and maximizing system reliability.

To address climate change, states and cities are increasingly phasing out fossil fuel use in commercial buildings in favor of clean, green electric options. Today, a common goal is the conversion of aging buildings to accommodate eco-friendly electric boilers that provide hot water to tenants.

Switching to electric boilers promotes better health as well. Besides the notorious greenhouse gases, carbon dioxide (CO₂) and methane (CH₄), natural gas-fired boilers and furnaces emit dangerous nitrogen oxides (NO_x), carbon monoxide (CO), and nitrous oxide (N₂O), as well as volatile organic compounds (VOCs), sulfur dioxide (SO₂), and particulate matter (PM).

When upgrading to commercial electric boilers in space-constrained urban areas, however, there are several important issues to consider before commercial property managers and the buildings' boards of directors can decide on the simplest, most cost-effective option for any retrofit project.

"Among the challenges are the facts that every building to be retrofitted is different, managers often lack mechanical or heating system experience, and engineers can be unfamiliar with electric boiler design. Because of this, many need expert guidance on how to proceed with the conversion from gas-fired to electric, including the basic requirements and other factors to consider," says Robert Presser, Vice President of Acme Engineering, a Canada-based manufacturer of commercial and industrial electric boilers with over 60 years of experience.

In Presser's view, the key issues to evaluate include power availability and access, fitting the boiler(s) in the building, reducing

the total cost of installation, and maximizing system reliability and longevity. Consulting with a professional with deep expertise in electric boiler technology, infrastructure and conversion will streamline the process, and facilitate optimal results.

Power Availability and Access

"In any conversion to electric boilers, the first step for property managers or boards of directors is to call their power company and ask, 'Are you able to give us the power we need?' You will need access to hundreds, if not thousands, of amps. Without it, the project cannot proceed," says Presser, adding that most buildings only have access to 480V, three-phase electrical power.

Building managers also need to consider the added cost for the utility to upgrade their power to the building. Additional electrical infrastructure enhancements may be required as well, such as wiring and upgraded circuit breakers.

Reducing the Cost of Conversion and Installation

In the conversion, physically moving and manipulating a large electric boiler through doors and narrow corridors during installation can be extremely difficult — even impossible — particularly in older, space-constrained buildings.

"Getting the boiler through doors into the building can be a challenge when a typical doorway in an older building is only 30 inches wide or less," Presser says. "You'll need to manipulate the boiler into the building and probably fit it into a small elevator to move it to the basement or a service room."

Another problem is the difficulty of removing the existing boiler,

which usually is quite large. Because of this, it is common to leave the existing boiler in place, which places further space constraints on the size of the new electric boiler system to be installed.

"If the building is older, you may have a very large, cast iron, gas- or oil-fired unit that is cost-prohibitive to break down and remove," Presser says.

He adds, "Many property managers also decline to install a larger boiler because they do not want to break a wall or dig a hole and lower the unit to the basement," Presser says. "Try getting a permit for that."

Presser advises an easier, more cost-effective solution. "Instead of trying to get one big boiler into the building, it is often much easier to move in several smaller boilers and then install and interconnect them where there is space available," he says.

In this regard, property managers are finding a more effective solution in high-capacity electric boilers that are specifically designed to fit through doors and other space-constrained areas. As an example, Acme's Slim Series units are designed to produce ample hot water while easing conversion and installation with an ability to "squeeze through" narrow passageways and fit into smaller spaces without costly demolition.

The Slim Series electric boiler technology draws on the company's 40 years of experience in electric heating, temperature control, and manufacture of large integrated units to maximize hot water output in a compact form. Boilers with one pressure vessel tube can deliver 45-180 kW and those with two pressure vessel tubes can provide 225-360 kW.

"With 24" widths, the systems are specifically built narrowly so they can pass through existing 26" doors or corridors and require minimal floor space," Presser says. "The compact units can fit into service elevators for easy access to the building's basement."

He notes that the systems' piping and panels are configured to integrate with existing equipment rooms, to reduce installation costs. In addition, advanced controls are designed to extract the maximum energy from the available electric power.

Optimizing Reliability and Lifespan

Since building tenants rely on the electric boilers for hot water daily, investing a little more in the initial purchase can pay off dramatically in increased long-term reliability and longevity.

While there are some smaller, commercial boilers in the market that will typically last from 5 to 10 years before replacement is required, Acme's electric boilers are designed to an industrial standard that will last decades. In fact, some of the company's electric boilers were used continuously for over 35 years before refurbishment was needed.



The platform in place, ready for the new system to be installed.

Before selecting an electric boiler, it is essential for building managers to factor in longevity, reliability, required maintenance, and installation options. In this vein, for managers who use a hot water loop with their electric boiler, Presser recommends adding a heat exchanger to reduce exposure to pipe scale and to significantly extend longevity.

In this arrangement, the electric boiler would run in a closed loop system. The boiler water is treated before entering one side of the heat exchanger, and hot water for the building exits the exchanger's other side.

"Since the pipe scale and lime never touch the boiler, its elements will remain pristine," Presser says. "You essentially eliminate the issue of scale and lime accumulating in the bottom of the boiler. This extends the unit's lifespan and minimizes maintenance. It is much easier to clean out a plate and heat exchanger than to dismantle a boiler and replace a heating element."

Presser advises another strategy that can substantially improve long-term system reliability, which a typical contractor choosing the minimum boiler spec would not consider.

"If you have a hot water loop in the building, you can increase reliability and decrease downtime by having an extra circulation pump on a skid ready to use in the event the first pump fails," he says.

As commercial building managers increasingly convert from fossil fuel burning to eco-friendly electric boilers to combat climate change and promote health, consulting with an expert can simplify the process, reduce total cost, and increase reliability and longevity.

For more info, contact Robert Presser at Acme Engineering via email at rpresser@acmeprod.com, call (888) 880-5323 or (514) 342-5656, or visit the website at www.acmeprod.com/acme-slim



Expectation for Identification Products Shifts to Lifetime Readability

Whether at substations or in the field, electric utility transmission and distribution identification products such as safety signs, tags and markers are critical to safe, efficient operation, maintenance and repair. These brief warnings or instructions, comprised of letters, numbers, and symbols, must effectively convey key information to personnel. This is crucial not only to identify the location and type of equipment but also to protect utilities from the risk of personnel injury and litigation.

Unfortunately, traditional painted and laminated identification products frequently fade or delaminate when continually exposed to outdoor weather or punishing conditions. Solar UV, rain, snow, ice and windblown debris as well as humidity and seasonal temperature fluctuations inevitably degrade these identification products in a matter of years.

Over time, outdoor exposure can cause painted and laminated numbers and symbols to peel or fade. Even supposedly durable products designed for this purpose can become unreadable over 10 years or more. Consequently, when safety warnings, asset location or identifiers are needed most, technicians may make mistakes or waste time.

Given what is at stake, utilities are now increasingly shifting away from identification products that are marketed as long-lasting and durable but that have the potential to fade or peel, to those designed to withstand decades of abuse without becoming unreadable.

The Importance of Safety Signage

In the electrical utility industry, identification products are utilized just about everywhere.

In substations, signs often warn of arc flash and shock hazard, which OSHA states can result in “serious injury and even death.” Markers and tags typically specify when Lock Out Tag Out (LOTO) is necessary before the set-up, maintenance, service, or repair of energized equipment. Substation structure numbers are also necessary for rapid identification and servicing.

On large, high-voltage transmission towers crossing and

direction signs signal trouble areas. Phase tags are also commonly used to indicate phase polarity on the towers, which is important because connecting the wrong phases can lead to dangerous explosions, serious injury, and extended downtime. Transmission towers also utilize aerial observation pole tags for rapid identification and better visibility to aircraft.

Smaller, lower-voltage distribution lines deliver power to homes and businesses on smaller poles. Pole identification products, such as tags and markers, are used to track and identify assets, data, and other vital information. Pole tags can also be used to identify the pole’s owner, maintenance history, and other valuable data.

Transformers, whether in the substation or on poles also indicate phase with tags. Similarly, markers and signage are used to indicate LOTO situations.

Not Good Enough

Too many in the industry believe that their current identification products are “good enough” even as legibility becomes compromised over the years. However, the paint will fade and the laminate will peel on these products usually within five to ten years, requiring replacement.

Yet inspecting and replacing illegible products seldom — if ever — occurs on a comprehensive and timely basis because it can be a time consuming, laborious process that is shortchanged in deference to higher priorities. Neglecting to do so, however, can lead to dangerous safety lapses as well as inefficient operation.

Designed for Lasting Safety

So, how can safety signage be designed and constructed to ensure readability after decades? The answer requires a shift in thinking. For applications with the longest lasting

requirements, impermanent paints and laminates should be avoided in favor of much more durable solutions. The signage should also be constructed using robust substrate or embossed characters that can take a beating from Mother Nature.

As an example, one type of sturdy signage system developed for the industry, called EVERLAST by Tech Products, Inc., a leader in the manufacture of industrial identification products for 75 years, is made of thick, high impact polyolefin plastic with copy and pictograms that are permanently embedded through the entire thickness of the substrate.

Tech Products, Inc., which serves electric and gas utilities, telecom and cable companies, oil and gas pipelines, and OEMs, offers five legacy brands and approximately 10,000 diverse products for these industries.

The polyolefin plastic is impervious to sun, wind, rain, humidity, salt water, and temperature variations as well as fumes and acid or alkali solutions. The characters can be seen from a distance and have sharp contrast. The signage can be cut, scratched, even shot through with little or no effect to the embedded characters, which helps to ensure readability decades later.

Third-party certification validates the durability of this approach. UL performed numerous durability tests on the signs in compliance with UL and ASTM standards. When the signs were subjected to the equivalent of 43 years of UV exposure, salt spray, vibration, abrasion, and temperature variation, the test results showed no change in color or legibility.

Another effective method of creating permanent signage is to utilize embossing. Embossing creates raised characters in metal materials to improve legibility even when covered in dust, dirt, or even paint. When lasting transmission and distribution markers are required, for example, deep embossed pole badge, pole inspection, and pole markers can be constructed of unpainted, embossed aluminum, brass, or stainless steel. The highly defined characters remain legible for the life of the pole.

Alternatively, on metal reflective pole tags, black characters can be screen printed on construction-grade yellow or silver reflective sheeting so that it is durable, and UV stabilized. These tags can be used anywhere in areas that need to be seen with a flashlight.

For tight, confined spaces where close up reading is required, miniature markers with raised, 3D characters, called FastTags by Tech Products, Inc., can also be designed to remain legible even in low light, oily, or dusty environments. The raised, 3D characters are hot stamped with high quality UV stable foil and are nonconductive and non-corroding, which is ideal for environments exposed to water such as utilities, offshore rigs, and sewer systems.

No Replacing Physical Signage

Another reason these identification products need to last decades is they are sure to remain as valuable tools for utilities even as new technologies for asset management and maintenance are employed throughout the industry. Even

with state-of-the-art technology like geographic information systems (GIS) and global positioning systems (GPS), electrical utilities will continue to require traditional physical identification products such as pole markers, for example.

Although pole tags are not mandated by regulations, many utilities choose to use them to assist with recovery efforts after a regional outage by still posting serialized GIS or GPS pole marking and numbering correspond to a pole's geographic location using GIS/GPS coordinates. During emergencies like hurricanes, mutual aid situations often arise where utility trucks from different regions are called on for assistance. These trucks may not have access to GIS or GPS location information, making pole tags essential for proper identification and location guidance.

Although electric utilities have long utilized identification products in the field or in substations, the potential that critical information could become obscured or unreadable in a matter of years is no longer acceptable as a standard. Even when not strictly mandated, utilities that opt to use innovative products designed to last for many decades can significantly improve safety and uptime, while reducing potential liability and litigation risk. ☐☐

For more information, call 1-800-221-1311, email info@techproducts.com, or visit www.techproducts.com.



4234 West 124th Place
Alsip, IL 60803
Phone: 708-385-0225
Fax: 708-385-1107
www.GroveMasonry.com



325 EISENHOWER LANE NORTH LOMBARD, IL 60148
TELEPHONE (630) 261-1166 FAX (630) 261-1818
info@htareps.com www.htareps.com

Representing

Zoeller Pump Company
Mansfield Plumbing Products
Sioux Chief
Lenox Tools
Irwin Tools
Prier Products

Blanco
AK Industries
Magic Plastics
IPEX/Canplas



Department of Labor Seeks to Clarify Regulations on Authorized Employee Representation During Workplace Inspections

OSHA is seeking public and stakeholder comments regarding its proposed changes to regulations regarding the authorization of authorized employee representation during workplace inspections.

The U.S. Department of Labor recently announced a notice of proposed rulemaking to revise regulations regarding who can be authorized by employees to act as their representative to accompany the department's Occupational Safety and Health Administration (OSHA) compliance officers during physical workplace inspections.

Specifically, the proposed rule clarifies that employees may authorize an employee, or they may authorize a non-employee third party if the compliance officer determines the third party is reasonably necessary to conduct an effective and thorough inspection.


The proposed changes also clarify that third-party representatives are not limited to industrial hygienists or safety engineers, two examples included in the existing regulation. Third-party representatives may be reasonably necessary because they have skills, knowledge or experience that may help inform the compliance officer's inspection. This information may include experience with particular hazards, workplace conditions or language skills that can improve communications between OSHA representatives and workers.

"Congress considered worker participation a key element of workplace safety and health inspections when it passed the Occupational Safety and Health Act," explained Assistant Secretary for Occupational Safety and Health Doug Parker. "This proposal aims to make inspections more effective and ultimately make workplaces safer by increasing opportunities for employees to be represented in the inspection process."

In addition to the NPRM's proposed revisions, OSHA is also seeking public comment on the criteria and degree of deference OSHA should give to employees' choice of representative in determining whether a third party can participate in an inspection.

The Occupational Safety and Health Act gives the employer and employees the right to have a representative authorized by them accompany OSHA officials during a workplace inspection to aid the investigation. Employee participation and representation is critical to an inspector's ability to complete a thorough and effective workplace investigation and helps OSHA gather information about the job site's conditions and hazards.

The proposed revisions do not change existing regulations that give OSHA compliance officers the authority to determine if an individual is authorized by employees and to prevent someone from participating in the walkaround inspection if their conduct interferes with a fair and orderly inspection, or to limit participation to protect employer trade secrets.

Submit comments at [Regulations.gov](https://www.regulations.gov), the federal eRulemaking portal by Oct. 30, 2023. Include Docket Number OSHA-2023-0008 on all submissions. For more information, read the Federal Register notice at [tinyurl.com/ycknrfd](https://www.federalregister.gov). 

Plumbers... Stop gambling with your referrals!



Is Your Current Company...

- Not Doing Quality Work?
- Slow to Pay You?
- Slow Getting to Your Customers?

Get Free Cleanup & Cash Rewards
With Our Plumber Referral Program!



A+ Online Rating

Money-Back Guarantee

Turn-Key Service

Cleanup & Repairs

1-800-597-6911

www.cwafr.com



CWF RESTORATION

24 Hour Response

Water • Fire • Biohazard • Reconstruction

Same Day Payment On Referrals!

Win A Starbucks Gift Card!



Got a Referral? Let Us Know!

Did You Know?

- John Wayne made more than 200 movies
- Tuna can swim as fast as 28 miles per hour
- Typical CDs can hold only 78 minutes of audio

The First 50 Correct Responders Answering
This Question Win a Starbucks Gift Card!

*One winner per office



To Win - Email Your Response to Referrals@Cwafr.com



CWF RESTORATION

24 Hour Response

Water • Fire • Biohazard • Reconstruction

1-800-597-6911

www.cwafr.com

Which supercomputer beat Garry
Kasparov in Chess in 1996?

- A: Titan
- B: Stockfish
- C: Deep Blue
- D: Watson

We're Open 24/7

Free Estimates

A+ Online Rating

Cleanup & Repairs

CUSTOM ENGINEERED BOOSTER SOLUTIONS

We provide single-source solutions built to your specifications. In our manufacturing facility, we follow every project through from conception to implementation. Once installed, our dedicated sales and service teams provide on-site startup, system training, and are readily available to answer any questions you might have.



- Engineered in-house at Metropolitan by our expert team of sales engineers and programmers
- Integrated with custom programmed controls, and interactive touch screen operator interface
- Energy-saving variable speed control
- Optional BACnet card integration for building automation (BAS)



MetroTech Pro III

MetroTech III Pro delivers precise pressure control, sophisticated communications and an intuitive touch screen operator interface for water pressure booster pump applications.

Available communications: BACnet BMS, Ethernet IP, and Cloud based SCADA solutions.

Features Include: User adjustable set points and tuning constants. Automatic operation and alternation of one to four pumps. Inputs for both local and remote pressure transducers. Sleep mode capability for zero flow shut down when combined with an accumulator tank. Optional elevated tank level control strategies.

METROPOLITANIND.COM
(815) 886-9200





Your building's fire sprinkler system must be inspected, tested, and maintained to ensure it will operate properly during a fire.

INSPECT TO PROTECT

Fire sprinklers provide the greatest fire protection for your building. They control a fire while it's still small and allow occupants to safely escape.

However, just like other systems in your building, it's essential that a fire sprinkler system is inspected, tested, and maintained (ITM), especially since lives and your investment are dependent on it.

Don't let a devastating fire happen in your building. Comply with state requirements by incorporating a regular fire sprinkler system ITM program in your building.

Illinois state code, NFPA 101: Life Safety Code (2015 edition), requires all automatic fire sprinkler systems, standpipe systems, and fire pumps to follow ITM procedures according to the NFPA 25 standard.

And in accordance with state law (225 ILCS 317/17), **building owners must utilize an inspector who is employed by a state-licensed fire sprinkler contractor and has appropriate credentials** through completion of a certified sprinkler fitter apprenticeship program approved by the U.S. Department of Labor and/or certification through NICET III, ASSE 15010, or NFPA Water-Based ITM (WBITM).



**Northern Illinois Fire
Sprinkler Advisory Board**
Save Lives. Protect Property.

For more information:

[FireSprinklerAssoc.org/itm](https://www FiresprinklerAssoc.org/itm)

(708) 403-4468

Quality Dependable Service Every. Single. Time.

- ✓ HVAC/R Service & Maintenance
- ✓ Ammonia Refrigeration Service & Maintenance
- ✓ Plumbing Installation, Service & Maintenance
- ✓ Systems Integration/BAS Installation
- ✓ Central Plant Services
- ✓ Electrical Installation, Service & Maintenance
- ✓ Fabrication Services
- ✓ MEP+ Systems Evaluation
- ✓ Fire Protection & Fire Alarm
- ✓ Access Control & Surveillance

ONE VISION. PROVEN SOLUTIONS.SM



9341 Adam Don Parkway
Woodridge, IL 60517
Phone: 630.887.7700

2646 Highway Avenue, Unit 202
Highland, IN 46322
Phone: 219.392.3000

24/7 Emergency: 800.794.5033
www.amsindustries.com



Chicago Filter

**SERVING CHICAGOLAND
SINCE 1988**

**Kevin O'Brien
Sales**

41 N. Lively Blvd.
Elk Grove Village
Illinois 60007

Phone: (847) 718-1037

Cell: (312) 209-0108

Fax: (847) 718-1066

kobrien@chicagofiltersupply.com

info@chicagofiltersupply.com

CHICAGOFILTERSUPPLY.COM



**CALL FOR A QUOTE!
(847) 718-1033**

**YOUR BEST SOURCE
FOR FILTRATION PRODUCTS**

Chicagoland's Most Trusted Name in Duct Cleaning Since 1942



A Better World Through Clean Air

"When Service, Experience & Air Quality Matter"

Our Services Include

- HVAC System Cleaning
- Fans & Coil Cleaning
- Exhaust System Cleaning
- Kitchen Grease Hood Cleaning
- Trash & Laundry Chute Cleaning
- Garage Floor Cleaning
- Silo Cleaning
- Cooling/Tower Cleaning
- Overhead Cleaning
- Ceiling Tile Cleaning
- Vertical Riser Cleaning
- Filter Change Out
- HVAC Air Filters, V-Belts
- 24 Hour Emergency Service

Commercial, Industrial, & Institutional Cleaning

Members of the CEAC, NADCA, IKECA, IAQA, and 399

Air Systems Cleaning Specialist (ASCS) and
Certified Exhaust Cleaning Specialists (CECS) on Staff

www.airwaysystems.com

630.595.4242



MVB Services

is committed to helping you run your building more efficiently with less down time.

- Vibration Analysis
- Laser Coupling Alignment
- Shop & Field Dynamic Balancing
- Vibration Condition Monitoring Programs
- Wheel, Shaft, Bearings & Motor Replacements
- Fan Engineering, Rebuild & Replacements
- Industrial & Commercial Start Up Service
- Vibration Monitoring Systems/Installation
- 24 Hour Emergency Service

For more information contact jorseno@mvb-inc.com

Experience • Expertise • Reliability

630-530-0353

650 W. Grand Ave. #303 • Elmhurst, IL 60126

ADDISON ELECTRIC

Motor and VFD Specialists

- 24/7 access to our EXTENSIVE inventory of Electric Motors and VFD's
- Complete motor repair shop and motor warranty center
- Expert engineers available 24/7 who specialize in servicing every VFD on the market.
- VFD service center
- ABB VFD Designated Service Station.

Contact Us At
1.630.628.8080



Please contact us for our complete extensive product line!



Addison Electric, Inc.
502 W. Factory Road
Addison, IL 60101

www.addisonelectric.com



When variable speed is what you need.

Our qualified team assembles, installs, and repairs a wide variety of programmable controllers and drives.

- Retrofitting Pumping Systems to Variable Frequency Drives
- Extended warranties up to ten years
- Base Mounted or In-Line Pumps
- Sensor-less or with sensors
- Energy savings analysis



Call us today for a complimentary, intelligent estimate for retrofitting your pumping system to VFD.

(630) 455-1034

novatronicsinc@bornquist.com | www.novatronicsinc.com

SOURCE YOUR DANFOSS REFRIGERATION & AIR CONDITIONING PARTS FROM NEUCO

Compressors • Condensing Units • Expansion Valves
Filter Driers • Pressure and Temperature Controls
Solenoid Valves • Electronic Controls

ENGINEERING
TOMORROW



Always get the right HVAC/R products with outstanding service, competitive pricing and quick turnaround times.

Danfoss Scroll Compressors In-Stock at Neuco!



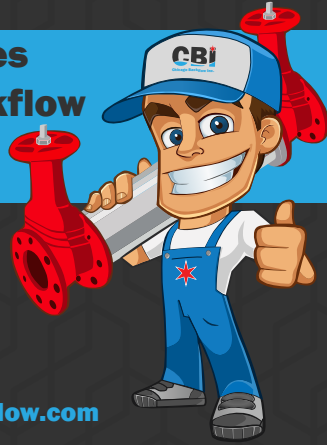
Call us at 866-638-2646 (Press 2) or register for an online ordering account at www.neuco.com/register

CHICAGO BACKFLOW INC.

Protecting businesses
and homes, one backflow
at a time



708.389.5600 | chicagobackflow.com



24 Hr. Emergency Service • 219-558-8494



Professional On-Site Field Service

Certified Combustion
Engineers, MACT/GACT
Inspections

- Boilers
- Burners
- Combustion Control
- Burner Management
- Turnkey Installations
- HMI Development
- Site-Specific Training
- Field Service

Authorized Representative
Rentech Boiler Systems



WWW.BOILER-CONTROLS.COM

Complex Concrete Project?

We're Here To Help



888-773-ROSE

RosePaving.com/chiefeng

ATOMATIC

MECHANICAL SERVICES, INC.

DESIGN
FABRICATION
INSTALLATION
SERVICE

COMPLETE HVAC SERVICES
Commercial • Industrial • Residential

847.818.4300

FAX: 847.818.4302

3733 N. Ventura Drive • Arlington Heights, Illinois 60004-7952

HAYES MECHANICAL

ESTABLISHED 1918

773-784-0000

Chicagoland's top HVAC, Boiler & Plumbing
Contractor

- Chiller Teardowns
- Boiler Re-Tubes
- Combustion Tuning
- HVAC Maintenance
- Plumbing Services
- 24 Hour Service
- Piping Repairs
- HVAC Projects



SCAN ME

www.HayesMechanical.com

BEAR

CONSTRUCTION

PROUD UNION CONTRACTOR SUPPORTING LOCAL 399

- Base Building/MEP
- Capital Improvements
- Corporate Office
- General Construction
- Construction Management

Paul W. Larkin, Vice President
(312) 245-0383
plarkin@bearcc.com

HUDSON BOILER & TANK CO.

BOILER & PRESSURE VESSEL REPAIRS -- REFRACTORY REPAIR
STACKS -- BREECHINGS -- DUCTS -- STEEL PLATE FABRICATORS & ERECTORS
TANKS -- SHOP BUILT AND/OR FIELD ERECTED
ASME OR NON-CODE, STATE & CITY LICENSED AND INSURED

3101 S. State St. ---- Lockport, IL 60441

(312)666-4780 -- FAX (312)666-5145 -- Website: www.hudsonboiler.com

Info@Hudsonboiler.com

QUALITY SOLUTIONS ARE ON THE WAY!

There's a reason why so many prefer us.



NOW OFFERING 24/7 Plumbing Services

- ❄️ 24/7 Emergency Service
- ❄️ HVAC Installation
- ❄️ Service & Preventative Maintenance Agreements
- ❄️ Boiler Services
- ❄️ Chiller Services
- ❄️ **NEW!** Plumbing Services
- ❄️ Data Center Services
- ❄️ Building Automation, Installation & Integration
- ❄️ Piping
- ❄️ Sheet Metal
- ❄️ Design/Build Solutions
- ❄️ Retrofit Solutions



Ready to schedule your service?

Give us a call or scan the code for an appointment.

AirComfort.com

708-345-1900 (24/7)

**24-HR
EMERGENCY
SERVICE**
BROKEN SPRINGS
HIT DOORS
SNAPPED CABLES
LEAKY DOOR CLOSERS
SAGGING HINGES
WEATHERSTRIPPING

**Entrance Frustrations?
Inspection Failures?
Safety Concerns?**

Call the right company,
the first time. Rely on our
expertise to eliminate
your door problems

Industrial Door Company

High Speed



Rolling Steel



Glass & Aluminum



Docks and Levelers



Sectional



Swing Doors



THE IDC SOLUTION

- 2 to 4 hours response time
- Company owned crane trucks, boom trucks, lift trucks, scissor lifts delivered to job site on company-owned vehicles
- 30+ years of experience in a variety of doors and gates. We have seen it all – poor installations, old buildings overdue for renovation, doors not up for the task, and wrecked doors from careless owners and guests!
- Pre-qualified and accredited with major screening services:
PICS, ISNET, ARRIBA, BROWZ, BBB



WWW.INDUSTRIALDOOR.COM
idc@industrialdoor.com
(847) 258 - 5620

*"We take care of doors
so you can take care of
business"*

Beverly Companies

Your Outdoor Property Maintenance Professionals



Landscape | Snow & Ice | Paving | Earth Solutions
708-331-4911
www.beverlycompanies.com



BUILDING PROBLEMS?
OUR EXPERTS CAN HELP!

EXPERT EVALUATIONS
INNOVATIVE SOLUTIONS
BETTER BUILDINGS

BTC assists clients in resolving distress, failure, and performance problems related to building enclosure components, structural systems, building science, and architectural engineering systems.

Building Technology Consultants, Inc.
1845 East Rand Road, Suite L-100
Arlington Heights, IL 60004
(847) 454-8800
info@btc.expert
www.btc.expert

It is our mission to provide our clients with an expert evaluation of building problems and to develop and implement cost-effective and innovative solutions



CITY WIDE POOL & SPA, INC.

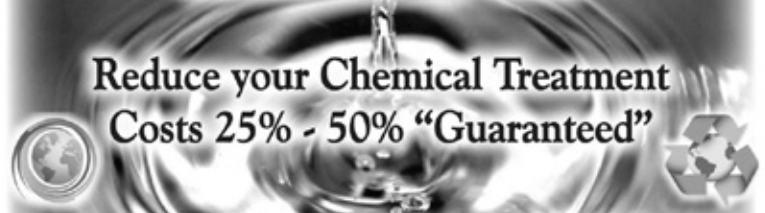
- ALL EQUIPMENT REPAIR
- AQUATIC FILTRATION PIPING
- LEAK DETECTION
- PVC LINER INSTALLATION
- STAINLESS STEEL/TIG WELDING
- FREE POOL MECHANICAL INSPECTION
- PREVENTATIVE MAINTENANCE & REPAIR
- VFD AND AUTOMATION

Modernize and rehabilitate high-rise swimming pools and hot tubs with innovative pool and spa solutions. Economical alternative solutions available to help high-rises with existing budgets.

Phone: 773-631-7946
Located Downtown Chicago

CLEAR WATER ASSOCIATES, LTD.

Commercial / Industrial Water Treatment



Reduce your Chemical Treatment
Costs 25% - 50% "Guaranteed"

Let us show you how - Call Today! (847) 854-3775
www.clearwaterassociatesltd.com

EmeraldSafe™ / ClearClean™ Technologies "environmentally friendlier escience"

PRESERVATION ROOFING SERVICES



Preservation Services, Inc. is one of Chicago's most unique and capable commercial roofing contracting companies, providing complete solutions since 1992. We are members in good standing with Local 11 United Union of Roofers, Waterproofers, and Allied Workers.

815-407-1950
preservationservices.com

in Preservation Services, Inc.

f Preservation Services, Inc.

psiroofing_inc

Reliable Fire & Security

"One Call Does It All!"

- Over 60 years in the Business
- State of the Art Equipment
- 24 Hour Emergency Service



WHO IS PROTECTING YOUR INVESTMENT?

Fire Alarm

- Fire Alarm Systems
- High Rise Systems
- Voice Evacuation
- Bi-directional Annunciation (BDA)
- Elevator Recall
- Door Unlocking
- Annunciators
- Pre-action Sprinkler Systems
- Air Sampling Systems
- System Integration

Emergency Lights

- Emergency lights
- Exit Signs

Portables

- Fire Extinguishers
- Fire Training Program

Special Hazard Protection

- Pre-Engineered Systems
- Engineered Systems
- FM-200 Systems
- Novoc 1230 Systems
- Inert Gas Systems
- Foam Systems
- Restaurant Hood & Duct Systems
- Halon Replacement Systems
- Vehicle Suppression Systems

UL Central Station/ Monitoring

- Sprinkler Alarm/Service
- Security Systems
- Fire Alarm Systems

Security

- New Systems
- System Upgrades
- Managed Security Service Provider (MSSP)
- IP/Analog Video Surveillance
- Access Control Systems
- Intrusion Detection Systems
- Cloud Based Solutions
- Fully Hosted Solutions
- Bio metrics



INSTALLATION. INSPECTION. SERVICE

- Illinois Fire Equipment Distributor License #0037 ABC
- UL Authorized To Issue Certificate For Alarm Systems (84056)
- Illinois Fire Sprinkler Contractor License #FC-0264
- NICET Certified Technicians

Visit Our Website: WWW.RELIABLEFIRE.COM
Email Us: FIRE@RELIABLEFIRE.COM
Call Us: (708) 697-4800

f in





Watts Introduces LF iDROSET™ CSD

With tool-free ease of use and ease of reading through its large gauge, Watts' LF iDROSET CSD offers a perfect balancing valve solution for potable hot water and recirculation loop systems.

Watts recently introduced its LF iDROSET CSD, a lead-free static, efficient, balancing valve solution for use in potable hot water systems and recirculation loops. The LF iDROSET's dial makes balancing simple and easy by providing a way to view flow rate directly on the valve and make tool-free adjustments as needed.

Attributes of this new valve solution include:

- No external measuring device needed
- A large, easy-to-read gauge
- Rotating hand wheel that sets flow rate
- Certified to NSF/ANSI Standard 61 - Drinking Water System Components
- Available in sizes 1/2", 3/4" and 1"
- Tool-free flow adjustments with live flow-rate metering
- Valve calibrated by factory to +/- 10-percent accuracy
- Perfect complement for systems with mixing valves that require minimum flow rates for proper temperature control
- 1/4" NPT port for adding accessories such as the Watts Series LFDPTG-1 combination pressure/temp gauge (EDP 0121665)

For more information, including model numbers, ordering codes and installation sheets, visit watts.com/LFiDROSET

STANTON
MECHANICAL INC.

A/C • PLUMBING • SEWERS • BURNERS • PIPING • PUMPS
REFRIGERATION • CONTROLS • BOILER REPAIR • SHEET METAL

NOW OFFERING ELECTRIC SERVICES

We are pleased to announce our recent acquisition of Omega Electric Company! By adding this new electrical division, our customers now benefit from a wide array of commercial and industrial electric services. This is just another way Temperature Service Company leads the industry through **INTEGRITY, INNOVATION, AND CUSTOMER SATISFACTION**

FOR YOUR NEXT HVAC-R OR ELECTRIC PROJECT:

Contact TSC direct at **847.640.0505** or tschvac.com

Contact Omega direct at **847.228.5559** or oetsc.com

LIONHEART
CRITICAL POWER SPECIALISTS

GENERATORS
TRANSFER SWITCHES
FIRE PUMP ENGINES

SERVICING ILLINOIS, INDIANA, WISCONSIN & BEYOND

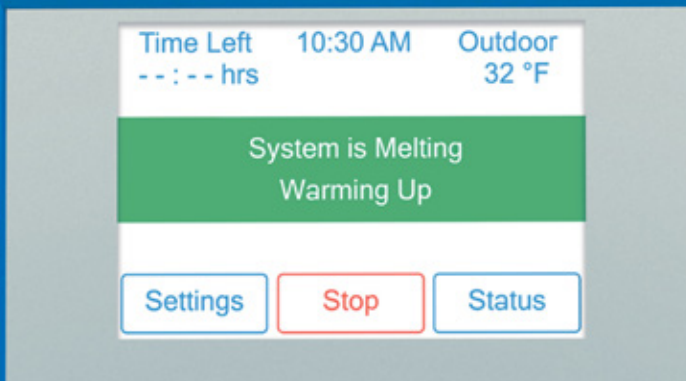
844.LHPOWER | 844.547.6937 | PowerAssured.com
24 / 7 / 365 EMERGENCY SERVICE

WESTERN™
SPECIALTY CONTRACTORS
COMMERCIAL • INDUSTRIAL • HISTORIC • FACADES
MASONRY RESTORATION • CONCRETE RESTORATION
ROOFING • WATERPROOFING

<ul style="list-style-type: none"> • Masonry Restoration • Tuckpointing • Building Cleaning & Sealer • Exterior Wall Coating • Façade Concrete Repairs • Caulking & Sealant Repairs 	<ul style="list-style-type: none"> • Parking Structure/Concrete Restoration • Plaza Restoration • Structural Repairs • Deck Coating Systems • Epoxy & Grout Injection
---	--

Masonry/Façade Specialist (773) 722-2800 Concrete Specialists (773)638-5206

676 E. Fullerton Ave. • Glendale Heights, IL 60139
www.westernspecialtycontractors.com



SunTouch
A WATTS Brand
ProMelt® Smart Controller

WiFi-Enabled Control at Heart of New SunStat® Technologies

Snow-melt systems can be managed with ease and convenience through the ProMelt Smart Panel.

As the Internet of Things expands into our world, so does the need for flexibility and control of the technology that we use to govern our lives. To that end, SunTouch continues to offer system controls that connect to Wi-Fi, enabling management from anywhere.

Most recently added to its Smart & Connected line of thermostats, the SunStat CommandPlus thermostat allows users remotely access and control their floor-warming systems via the Watts home app.

The SunStat CommandPlus thermostat's Wi-Fi connection enables features such as automatic clock setting, and warm-weather compensation and shut down. With a glass front and touch screen, the thermostat's look and feel mirrors the technology we're most accustomed to using every day, and its remote accessibility via the Watts Home mobile app allows for a fully programmable 7-day schedule.

Flexibility extends to SunTouch's outdoor technologies with its ProMelt® Smart Panel, designed to manage any size snow-melting system. The ProMelt Smart Panel currently is available in 100 AMP or 200 AMP capacity, for ideal operation of 120-, 208-, 240-, or 277-VAC snow-melting systems. And, like the SunStat CommandPlus, the ProMelt Smart Panel is Wi-Fi enabled for control of your snow-melting system from wherever you happen to be through the Watts Home app. And its all-in-one design makes for quick-and-easy install.

For more information, visit SunTouch.com/thermostats or SunTouch.com/ProMelt.



(formerly Electronic Dynamic Balancing Co.)
421 W. Wrightwood Ave. Elmhurst, IL 60126-1011

For the most comprehensive service from the most experienced Technicians on call 24 hours a day:

630/758-0424

ISO 9001 and AS 9100 Certified

- Vibration and Sound Analysis
- Shop and Field Balancing
 - Laser Alignment
- Predictive Maintenance Programs
- On-Line Motor Rotor Bar Evaluation
- Fan Engineering, Rebuild & Repair

WE MAKE THE WORLD RUN SMOOTHER™

Proudly serving our customers for over 60 years.

service@rotatingequip.com
www.rotatingequip.com

**Emergencies don't keep 9 to 5 hours.
And neither do we.**
24/7 Service & Maintenance
from an industry leader you can rely on.



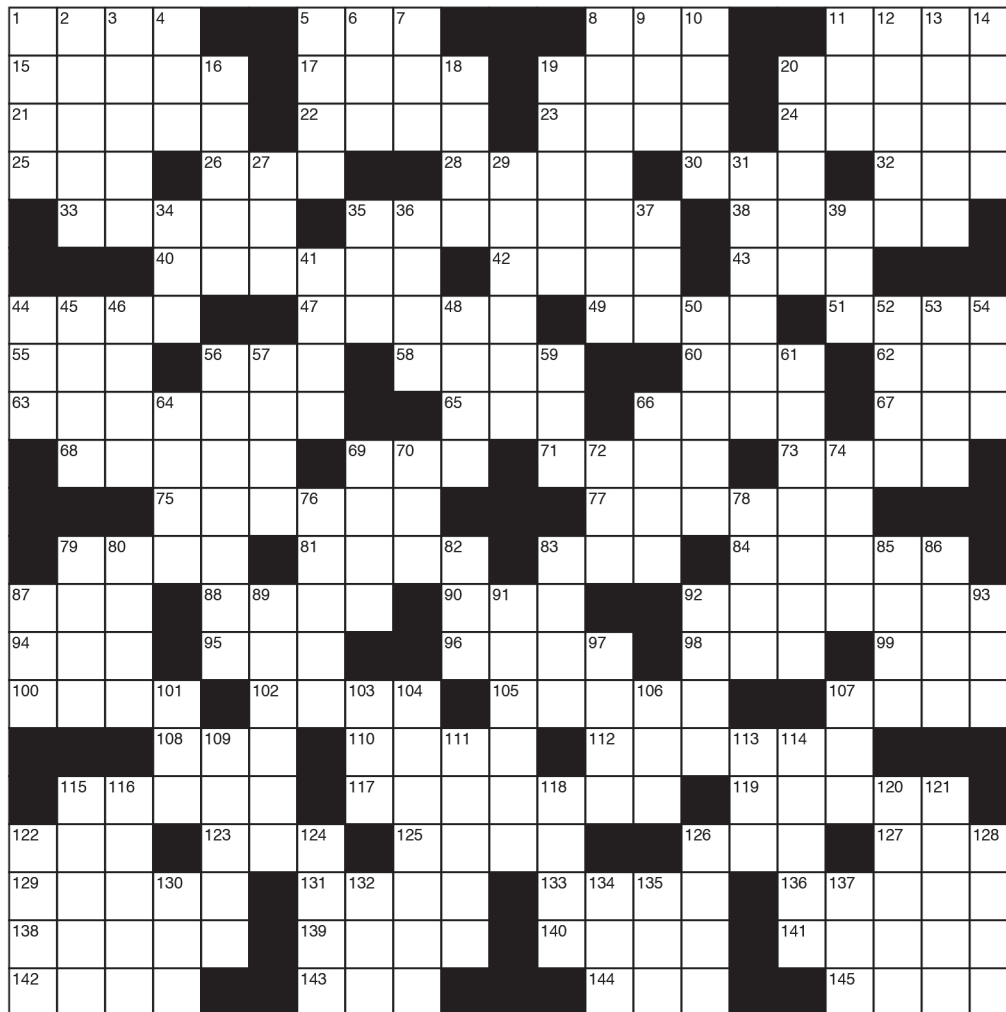
We're here for you when you need us most.

WAUKEGAN ROOFING
Co., Inc.

847-623-1625

WWW.WAUKEGANROOFING.COM

Refrigerant Basics



www.CrosswordWeaver.com

ACROSS

- 1 Captain (abbr.)
- 5 Drink slowly
- 8 California (abbr.)
- 11 Association (abbr.)
- 15 Decoys
- 17 Organization concerned with civil liberties (abbr.)
- 19 Segoe lily's bulb
- 20 Authored
- 21 Adios
- 22 Lock partners
- 23 Brews
- 24 Reference
- 25 Darken
- 26 Espy
- 28 Fetid
- 30 ___ Lanka
- 32 Possessive pronoun
- 33 Curses
- 35 Vacation day
- 38 Side note
- 40 **Fluid**
- 42 Italian money
- 43 Short-term memory
- 44 Baby powder
- 47 Rage
- 49 ___ and span

- 51 Clean
- 55 Lager
- 56 Cycles per second
- 58 Range
- 60 **Vapor**
- 62 Legume
- 63 Foolish, clumsy person
- 65 Genetic code
- 66 Unite in alliance
- 67 Compass point
- 68 Cow
- 69 Shade
- 71 Mexican sandwich
- 73 Not any
- 75 **Measuring devices**
- 77 **Solidified**
- 79 Economics abbr.
- 81 Fastener
- 83 Dined
- 84 Clothes pressers
- 87 Not amateur
- 88 Scotsman
- 90 That man
- 92 Related by family
- 94 River (Spanish)
- 95 Goddess
- 96 Gentlewoman
- 98 Some
- 99 Tire
- 100 Speak loudly

- 102 Job
- 105 Forms
- 107 Tropical bird
- 108 Pounds per square inch
- 110 Babble
- 112 **Inactive quiescent**
- 115 Mr. O'Brien
- 117 Rebutted
- 119 Birthmark
- 122 Fortify
- 123 Congressional vote
- 125 Prying
- 126 Those who make the food laws (abbr.)
- 127 Bad (prefix)
- 129 State capital
- 131 Extinct bird
- 133 Mr. Donahue
- 136 Kind of kitty
- 138 Infix
- 139 To incite
- 140 European monetary unit
- 141 Boss
- 142 For fear that
- 143 Free of
- 144 Kitten's cry
- 145 Underdone

DOWN

- 1 Clothed
- 2 Sound
- 3 First
- 4 Ball holder
- 5 Reason
- 6 Sorbet
- 7 Layer
- 8 Basements
- 9 Ripen
- 10 **Defeat**
- 11 Artist's creation
- 12 **Congealed**
- 13 **Country**
- 14 Loch ___ monster
- 16 Japanese dish
- 18 Defunct football league
- 19 Saudi Arabian citizen
- 20 Middle
- 27 Lawyer's title
- 29 Petroleum retailer
- 31 Brat
- 34 What a nurse gives
- 35 Belted
- 36 Smell
- 37 Talk incessantly
- 39 Elf
- 41 Union of Soviet

- Socialist Republics
- 44 Check
- 45 Short for aluminum
- 46 Comedian Jay
- 48 Traveled by horse
- 50 Ice house
- 52 Drug doer
- 53 Good outlook
- 54 Look
- 56 Wash
- 57 South American nation
- 59 Tangle
- 61 Combined effort of two
- 64 ___ girl
- 66 Land unit
- 69 **Get hot**
- 70 Ship initials
- 72 Furthest back
- 74 Soon
- 76 What Casper is
- 78 Paradise
- 79 Canal
- 80 **Rad!**
- 82 Doctoral degree
- 83 Bullets
- 85 Space ship builders
- 86 Wait
- 87 Be nosy
- 89 Trigonometric

- function
- 91 Verse meter
- 92 Hurlid
- 93 **Government agency**
- 97 Women's magazine
- 101 Licensed practical nurse
- 103 Reduced (abbr.)
- 104 **Mixed**
- 106 Papa
- 107 I want my ___
- 109 Speaker
- 111 In progress
- 113 Last
- 114 Under, poetically
- 115 Old woman
- 116 Leaves out
- 118 Kind
- 120 Shade
- 121 Blade
- 122 Cain killed him
- 124 Jewish calendar month
- 126 **Course**
- 128 Harp
- 130 Put
- 132 Kimono sash
- 134 Sing
- 135 Anger
- 137 **Atmosphere**

AUGUST 2023 SOLUTION
Facility Cooling Season

Solution:

O	R	B		S	H	I	F	T		A	R	E	N	A		B	R	A				
F	U	E	L		C	E	L	L	O		L	Y	S	O	L		L	O	O	N		
T	I	M	E		A	L	L	O	W		G	E	E	S	E		A	T	T	Y		
				N	A	P	A	L	M		W	E	R	E		E	P	O	C	H	S	
				E	R	E				R	A	B	B	I		H	A	T				
P	A	D	R	E		T	A	T		P	R	U	N	E		F	I	N	C	H		
A	I	R	S		F	U	T	O	N		A	N	D	R	E		C	O	L	A		
P	S	I		S	I	B	E	R	I	A			U	R	N		N	E	T			
E	L	F		L	E	E		T	A	I		A	C	E	D		T	O	R	E		
R	E	T	A	I	L	S				C	L	O	S	E	D		M	A	S	K	S	
				L	T	D		F	R	I		P	H	D		V	E	X				
P	U	M	P	S		B	R	U	N	E	T			V	A	L	I	A	N	T		
O	L	E	O		E	R	I	E		Y	I	N		O	L	E		L	O	O		
L	T	M		L	O	T				E	M	O	T	I	V	E		I	O	U		
I	R	O	N		L	A	T	C	H		A	S	I	D	E		U	S	S	R		
O	A	S	I	S		D	E	P	O	T		Y	E	S		E	S	T	E	S		
				N	E	W		R	A	T	E	R				V	A	N				
				G	O	E	T	H	E			P	A	U	L		D	I	R	E	C	T
M	I	S	T		E	D	E	M	A			D	U	M	A	S		W	O	R	N	
A	B	L	Y		E	D	G	E	D			D	R	A	F	T		S	P	U	N	
L	E	O			L	Y	O	N	S			Y	E	N	T	A		S	E	W		

J.C. ANDERSON



**DRIVEN BY
WHAT'S INSIDE.**

**COMMERCIAL
INTERIORS
GENERAL
CONTRACTOR**



Scan the QR code for more info or visit:
jcandersoninc.com

- CORPORATE INTERIORS
- LOBBY & AMENITIES
- INDUSTRIAL
- HIGHER EDUCATION
- LIFE SCIENCES
- RETAIL

 834 N. Church Road
Elmhurst, IL

 630.834.1669



COMPETITIVE PIPING SYSTEMS, INC.
MECHANICAL SERVICES

FOR ALL OF YOUR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS

Heating And Air Conditioning Piping Division
 Heating And Air Conditioning Service Division
 Fire Protection Division
 Sheet Metal Division

141 West Jackson - Suite A-30 Chicago, 60604

(312) 322-1900



Doors and Door Hardware • Key Systems
 Access Control Systems • ADA Compliance
 Automatic Door Operators • Fire Door Inspections
 Compliance for Building Codes

Glavin Security Specialists

And now offering...

"Real World Key Systems"
 A complete online course/webinar specifically designed for Maintenance, Engineers & Locksmith Technicians.

Find out more at:
glavinaccess.com/training

SERVING CHIEF ENGINEERS FOR OVER 60 YEARS
 PROUD MEMBERS OF LOCAL 399

312.850.6700 www.glavinaccess.com

License # 0192-00000

Wrench

by Jim McGreal



©2023 Jim McGreal

Abron Industrial Supply.....	12	Langehaumer Construction.....	14
Addison Electric Motors & Drives.....	25	LionHeart Critical Power Specialists.....	30
Admiral Heating & Ventilating, Inc.....	12	Metropolitan Industries.....	22
Advanced Boiler Control Services, Inc.....	27	Midwest Energy.....	9
Air Comfort Corporation.....	28	M&O Insulation Company.....	13
Air Filter Engineers.....	Back Cover	MVB Services, Inc.....	25
Airways Systems.....	25	Neuco.....	26
Altorfer Power Systems.....	7	NIFSAB.....	23
American Combustion Service.....	8	Preservation Services.....	29
AMS Industries.....	24	Reliable Fire Equipment.....	29
Atomatic Mechanical.....	27	Rose Paving.....	27
BEAR Construction.....	27	Rotating Equipment Specialists.....	31
Bell Fuels.....	Inside Back Cover	Sprinkler Fitters Local 281.....	Inside Front Cover, 4
Beverly Companies.....	29	Stanton Mechanical.....	30
BluSky Restoration.....	10	Syserco.....	34
Bornquist, Inc.....	26	Temperature Service Company.....	30
Building Technology Consultants, Inc.....	29	Waukegan Roofing Co.....	31
Bullock, Logan & Associates, Inc.....	7	Western Specialty Contractors.....	30
Chicago Backflow, Inc.....	27		
Chicago Cooling Tower.....	9		
Chicago Filter Supply.....	24		
City Wide Pool & Spa.....	29		
ClearWater Associates, Ltd.....	29		
Competitive Piping Systems.....	33		
Contech.....	10		
CWF Restoration.....	21		
Door Service, Inc.....	7		
Dreisilker Electric Motors.....	11		
Eastland Industries, Inc.....	34		
Environmental Consulting Group.....	9		
Fox Valley Filter.....	11		
Glavin Security Specialists.....	33		
Grove Masonry Maintenance.....	19		
Hart, Travers & Associates, Inc.....	19		
Hayes Mechanical.....	27		
Home Depot PRO.....	11		
Hudson Boiler & Tank Co.....	27		
Industrial Door.....	28		
J.C. Anderson.....	33		
Kleen Air Service.....	11		
Kroeschell, Inc.....	7		




**CHICAGO'S MASTER
ALERTON DEALER**

*Providing Best In Class
Building Automation Service & Solutions*

Contact Us Today
(331) 903-3300

Eastland

Sales & Service of Motors

- Full Service Motor Repair Facility
- Installation of Motors, Drives & Controls
- Start-up/Programming of VFD's & Controls
- Repair of Motors, Pumps & Gear Reducers
- Same day delivery for new motors/vfd's





www.eimotors.com

sales@eimotors.com

1-708-547-6500

Chicago's Premier Fueling Solution

FOR STAND BY GENERATORS



When your building loses power, don't rely on the mythical luck of crossed fingers and hope that the power turns back on... Bell Fuel's "Fuel Assurance Program" gives operators of emergency generators the benefit of guaranteed timely deliveries. If your facility were to lose power, you have certainty of supply throughout the outage.

OUR PROMISE TO YOU

Our FUEL ASSURANCE PROGRAM sets us apart as the industry leader in this time-sensitive business.

A 6 hour guaranteed delivery in an emergency and the additional benefit of Bell's Premium D-2[®] generator diesel fuel. As a proven and documented "Premium" fuel, Bell's Premium D-2[®] is the most qualified fuel to use in occasional use engines such as those powering stand-by generators.

PREMIUM D-2 GENERATOR FUEL | FUEL TESTING

We've put a century into our experience to help solve your fueling needs.



Call **800.244.0148** to schedule a no cost fuel analysis!
Bellfuels.com





Have you upgraded your fan with a VFD but still have your old BAG Filters installed?

When the VFD dials down at night, the bag filter's pockets deflate and sag. Like a sock with sand in it. They then try to inflate when the VFD dials back up in the morning but the pockets become tangled and don't fully inflate. That restricts the airflow!

The answer? Our 4" mini pleated filter.

It fits in the same track as your bag filter and is way easier to install.

It never deflates and always remains open, never restricting airflow.

A lower pressure drop = energy money in your pocket.

Contact us to learn why AFE has been the industry leader for the last 70 years!