

Hydronic News



of Southern California



Vol. 26 March 2024

Dawson Company Hawai'i Open House



Dawson employees left to right: Manny Masso, VP of Key Accounts, Ric Serafin, CEO, Joe Wells, Outside Sales & Brandon Piriyakarnjanakul, Outside Sales

On December 1, 2023, Dawson Company Hawai'i opened its doors to the local community for an unforgettable open house event. The occasion marked a significant moment for the company, as they welcomed customers to their new facility at: **46-174 Kahuhipa St. Unit D1, Kaneohe, HI 96744.** The opening day event was a delightful blend of delicious food, exciting giveaways, and the opportunity for attendees to connect in person with key members of the Dawson Company team on the island of Oahu.

Dawson's notable figures who attended included President & CEO, Ric Serafin, VP of Key Accounts in Hawai'i, Manny Masso, Hawai'i Outside Salesman, Brandon Piriyakarnjanakul, and Outside Salesman, Joe Wells who were all present to meet and greet customers and personally show their gratitude for their business.

The Open House served as a platform for Dawson Company to strengthen its ties with the local community, fostering a sense of connection and partnership, providing an opportunity for customers to learn more about Dawson's services, products, and meet the team behind the company's success.



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Product Highlights

Announcing Xylem's Hydrovar® X

By: R.J. Santiago, CPD, GPD, Business Development Group

hydrovar® X

hydrovar® X - The pinnacle of integrated motor and drive technology, offering unparalleled performance, energy efficiency, connectivity and simplicity.

Inside Dawson

Partner Highlights

Project Highlights

Product Highlights

Technical Matters



Sustainable -

hydrovar® X is a green technology solution, providing best-in-class efficiency. No rare earth metals are used, minimizing its environmental footprint. Xylem accepted the challenge to fight availability and environmental concerns with a smarter technology that provides superior performance with a green heart.

Easy -

The built-in application software makes it the easiest drive to commission, program and operate, enabling virtually any configuration of pumps.

Enhanced Protection and Energy Efficiency -

Integrated functions provide protection for the pump and motor, and improve the quality of energy from the grid. All of this means excellent energy saving from a compact, easy-to-use solution suited to nearly any application.

Longevity -

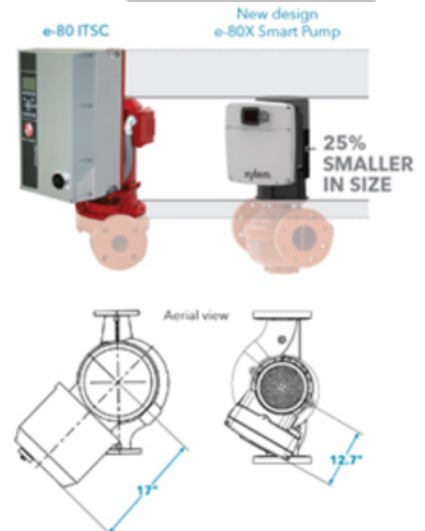
Leveraging a commercially available range of modules, extending the communication capability to any of the existing protocols as well as any future protocols.

Serviceability -

The modular design of the hydrovar® X motor and drive offers the most serviceable pump package. Separate quick-connect components allow for independent replacement of the drive or motor, eliminating the need for wiring. This provides a true plug-and-play solution compared to purchasing a new motor and drive combination.

Slim -

hydrovar® X-enabled pumps save space by integrating the drive into a compact, easily serviceable pump package. Additionally, they can be mounted directly on the motor, creating a compact, complete packaged system.



Extend the lifecycle of your pumps with hydrovar® X – the innovative integrated solution featuring the new IE5 PM assisted synchronous reluctance motor and variable speed drive. Developed by Xylem, a leader in pumping solutions, hydrovar® X simplifies connectivity, maximizes sustainability, and optimizes performance. With its cutting-edge technology, hydrovar® X offers superior energy efficiency, combining a frequency converter with the ultimate synchronous motor. This integrated solution leverages decades of Xylem's expertise to deliver unmatched performance, significant savings, and a rapid return on investment. Experience the perfect synergy of motors, variable speed drives, and pumps with hydrovar® X for unparalleled performance and efficiency.

Product Highlights

EasyWater : Cooling Tower Treatment System

Inside Dawson

Partner Highlights

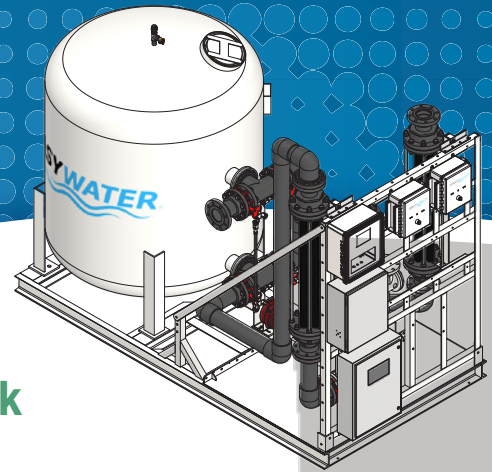
Project Highlights

Product Highlights

Technical Matters

EASYWATER.

CTF System COOLING TOWER TREATMENT SYSTEM



An innovative way to reduce scale, corrosion, bacteria and Legionella risk in cooling towers

The 3 Major Problems in Cooling Tower Systems:

- 1 Limescale deposits in condenser tubes, piping and cooling tower fill
- 2 High corrosion rates
- 3 High bacteria counts, biofilm and the presence of Legionella

How CTF Solves the 3 Major Problems in Cooling Tower Systems:

SEDIMENTSHIELD SUB-MICRON FILTRATION

- ▶ Utilizes EasyWater's sub-micron SedimentShield media, which is a proprietary blend of media that backwashes clean and does not harbor bacteria
- ▶ SedimentShield media has an expected life of 20+ years
- ▶ Removes over 99% of bacteria in the water
- ▶ Significantly reduces turbidity or cloudiness in the water, which increases the effectiveness of the UV system
- ▶ Sub-micron filtration results in cleaner sump basins (particles are not heavy enough to settle) and reduced Legionella risk
- ▶ Removal of bacteria through sub-micron filtration and UV, results in extremely low bacteria counts, minimal biocide and less corrosion

ULTRAVIOLET (UV) SYSTEM

- ▶ Kills bacteria on contact
- ▶ Minimizes the use of biocides, which lowers corrosion rates and saves money
- ▶ UV provides highly effective sanitization and is protected from deposits and performance loss by the SedimentShield filtration and No-Salt Conditioner

NO-SALT CONDITIONERS

- ▶ Dramatically reduces or eliminates anti-scalant chemicals
- ▶ Helps remove scale and biofilm in the system, as well as in the UV, which helps maintain the rated effectiveness of the UV
- ▶ Minimizes system biofilm, which reduces Legionella risk
- ▶ Breaks down the cell wall of bacteria
- ▶ Causes flocculation of particles in the water, increasing filtration effectiveness
- ▶ Removes insulating limescale and biofilm from chiller condenser tubes, which saves 5% to 45%+ energy

“ In less than 3 weeks of CTF treatment, the bacteria levels went from 10^5 to 10^0 , and Legionella from 1,790 to None. ”

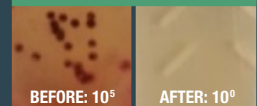
— Boca Raton Regional Hospital



Legionella Test Results

BEFORE	4/30/19	1,110 CFU/mL
BEFORE	5/10/19	1,790 CFU/mL
AFTER	6/24/19	NONE

Bacteria Dip Slide Results



Heat Pump Water Heater Class

Taught By: Eric Decker, PE, CPD, Business Development Manager at Dawson Co.

In a knowledge-packed session last November and this February, Eric Decker, PE, CPD took the lead in enlightening enthusiastic participants in both Pomona and San Diego with an in-depth Heat Pump Water Heater class. Covering a broad spectrum of subjects, Eric provided a comprehensive overview of heat pump refrigerant cycles, Delta T, testing standards, and general design and selection considerations. The class explored the intricacies of sizing methods, offering practical examples that enriched participants' understanding of this vital aspect of heat pump systems.



For future classes, please visit our website at: www.dawsonco.com and click on Training.

For more information on Heat Pumps please email: edecker@dawsonco.com



Classes on Large Chilled Water & Steam Design

Taught By: Michael Licastro, Manager of Training & Education at B&G



In December, Michael Licastro, the Manager of Training and Education at Bell & Gossett's Little Red School House, brought his expertise to San Diego and Pomona to conduct 2 classes on "Large Chilled Water Design & Application." The sessions focused on crucial aspects such as flow control and balance for heat transfer coils, basic air management, and primary-secondary or constant and variable primary systems.



Licastro's third class in Pomona covered "Steam Systems Design & Application," which included the basics of steam systems and tables, steam traps, valves, and condensate management. Attendees were highly impressed with Michael Licastro's knowledge and teaching skills, making all of the classes such a valuable learning experience for all.

For future classes please scan:



Partner Highlights

Dawson Company partners with Winston Water Cooler

By: John Sieger, Senior Vice President - Sales

Inside Dawson

Dawson Company is excited to announce a new partner and distributor for Lochinvar residential and light commercial Water Heaters in San Diego.



WINSTON WATER COOLER
OF SAN DIEGO
PLUMBING SUPPLIES

- **Winston Water Cooler of San Diego**

General Manager & Partner, Jose De La Cruz, a well-known, local San Diego wholesale professional, opened Winston Water Cooler of San Diego on Monday, February 12th, 2024.

Jose and his team will be stocking Lochinvar Water Heaters and many other top-line plumbing products at their new location.



Please join us in welcoming the opening of San Diego's newest plumbing supply house:

Winston Water Cooler of San Diego
7717 Ostrow Steet, San Diego Ca. 92111

858-333-6283

jdelacruz@winstonwatercooler.com

Partner Highlights

Project Highlights

AHR Show in Chicago January 2024

Product Highlights

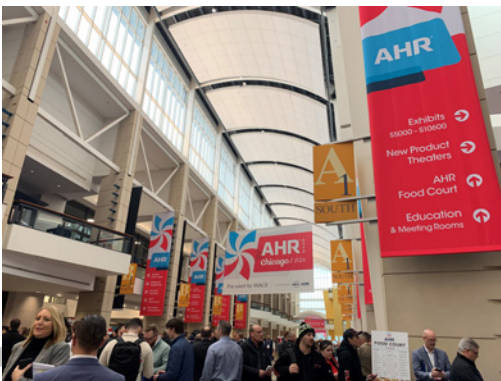
The AHR Expo brings together manufacturers & suppliers to share ideas and showcase the future of HVACR technology. It's the industry's best place to experience everything new in HVACR and build the vital relationships that grow businesses and careers. The AHR Expo is co-sponsored by ASHRAE and AHRI.

This year, executives from Dawson Company had the pleasure of attending in order to visit partners such as Xylem Bell & Gossett, Lochinvar, Metraflex, Cemline, Wessels, BoilerMag, EasyWater, RDT FloodMaster and Heat-Timer. Such an incredible event to attend to stay at the forefront of the industry.



Isabel Rochow, Vice President, North America Building Services and Industrial presenting at the Xylem booth

Technical Matters



For more information about future AHR Expos please visit:
www.AHRexpo.com

Project Highlights

North O.C. Community College District Anaheim Boiler Replacement

By: B. Allen Schneider, Outside Sales Representative

Mechanical Contractor: Allison Mechanical Inc. /Engineer of Record: P2S Engineering

Inside Dawson

Partner Highlights

Project Highlights

Product Highlights

Technical Matters



CREST

CONDENSING BOILER

Starting in January of 2024, portions of the NOCCCD Anaheim Campus will be under construction, but back in mid-summer of 2021, Allison Mechanical Inc. in Redlands, CA owned by Don Allison, approached B. Allen Schneider of Dawson Company to assist in providing equipment for the NOCCCD Project. Dawson Company's R.J. Santiago, CPD/GPD worked with Michael Nguyen at P2S Engineers to properly select and layout the equipment.

The scope was to replace (2) existing boilers with Loch-invar Crest model FBN2001 high efficiency condensing boilers. Bell & Gossett ECM Ecocirc 3HP model XL110-180 pumps were used to improve the system efficiency and variable flow capabilities. All the necessary pump accessories including Metraflex vane flex connectors and low pressure drop y-strainers were provided along with the pumps to complete the pump installation.

Additionally, Dawson Company supplied a B&G CRS-4G coalescing removal air separator and 107A air vent along with a 53 gallon bladder tank.

Once the equipment was ordered and delivered, Allison Mechanical completed the installation of all the equipment per the manufacturer's recommendations. Towards the end of the project, Dawson Company was called out by Jared Griswold, field superintendent for Allison Mechanical to perform the start-up on the boilers and inspect all the equipment that was supplied to verify everything was installed correctly and operating as intended. The project was completed on schedule and was another successful partnership between Allison Mechanical and Dawson Company of this Mission Critical project.

Allison Mechanical had successfully satisfied the customer's needs and project requirements.



NORTH ORANGE COUNTY
COMMUNITY COLLEGE DISTRICT



B. Allen Schneider
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baschneider@dawsonco.com



Project Highlights

Long Beach Groundwater Treatment Plant

By: Steve McCool, Facilities Support Manager

Contractor: Precision Plumbing Mechanical (PPM)

Inside Dawson

Long Beach Water's administration building was recently renovated, and updated with a new HVAC system. Dawson Company provided a packaged FlowTherm heating hot water system, which was located on the roof of the building. Consulting services were provided by Gannett & Fleming, and the installation was completed by Precision Plumbing & Mechanical.

Partner Highlights

Equipment:

FlowTherm Packaged Pumping & Heat Transfer System which included:

- (1) Lochinvar Powerfin PBN1701
- (1) Cemline V60SEB Buffer Tank
- (2) Bell & Gossett e-1510 2BD Pumps
- (1) Bell & Gossett RL-3F Air Separator
- (1) Wessels NLA-85 Expansion Tank



Project Highlights



Product Highlights

Technical Matters

Steve McCool
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Inside Dawson

Dawson Company Hawai'i Open House (Continued...)

Inside Dawson

The open house offered a sneak peek into Dawson Company's new facility in Hawai'i. Attendees had the chance to explore the premises, gaining insights into the company's commitment to innovation and excellence. The new location reflects Dawson's dedication to providing top-notch services to its customers on the islands.



Partner Highlights

Congratulations to Joshua McDonough of WSP and Jackson Cheng of Dorvin D. Leis for winning the raffle drawing and both taking home Hawaiian Airlines gift cards!

Project Highlights

For those who missed the event or have inquiries about Dawson Company Hawaii, feel free to reach out to Manny Masso at 626-429-9305 for questions, collaborations, or more information.



Product Highlights



Technical Matters



Manny Masso can be reached at:
mmasso@dawsonco.com

&

Brandon Piriya-karnjanakul can be reached at:
bpriya-karnjanakul@dawsonco.com

Inside Dawson

Dawson Company's Annual Food Drive: A Season of Giving Back to the Pomona Valley Food Bank

Inside Dawson

At Dawson Company, the spirit of giving is at the heart of our holiday traditions. Each year, we rally together to collect canned foods and dry goods for the Pomona Valley Food Bank, extending a helping hand to those in our community who may be facing tough times. This year has been no exception, and we are grateful to share the success of our ongoing initiatives by making these worth-while donations.



Jose Ruizesparza, Operations Manager, Larry, Pomona Valley Food Bank, & David Hernandez, Executive VP

Partner Highlights

In the true spirit of community and compassion, we filled up our first giant box with essential supplies, a tangible testament to the generosity of the Dawson family. This initial delivery, was a moment of joy and reflection as we played a small part in bringing relief to those who need it most.

Project Highlights



However, our commitment doesn't end there. As we embrace the slogan "Hunger has no Holidays" Dawson Company is dedicated to continuing our efforts and we will persist in collecting food donations to create yet another delivery for those experiencing hunger.

Thank you to everyone at Dawson Company who has made this initiative a success. Your kindness and generosity is the reason we can make a difference in the lives of others.

For more information please visit : www.pomonafoodbank.org

Product Highlights

Dawson Company Celebrates the Holidays

Dawson Company proves once again that our work family knows how to celebrate with style, whimsy, and a dash of good-natured humor. In December, our office transformed into a kaleidoscope of festive knits and holiday spirit as we hosted an "Ugly Sweater" contest and potluck lunch that brought joy to every corner.



Technical Matters

Congratulations are in order for our "Ugly Sweater" contest winners: Nick Ekdahl, Betty Bauer, and Virna Alcantara! These three stellar individuals not only brought the holiday cheer but also impressed the judge with their imaginative ensembles. To show our appreciation for their dedication to spreading joy, each winner received a well-deserved \$50 VISA Gift Card.

Beyond the festivities, events like these remind us of the strength of our Dawson Company community. Coming together for an afternoon of food, fun, and holiday traditions which foster the bonds that make our workplace more than just an office - it's a home away from home!

Technical Matters

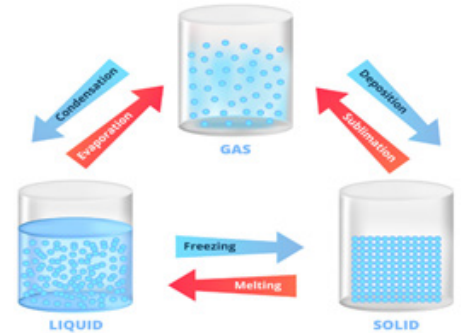
Ekdahl Explains : Sensible & Latent Heat and What it Means to Us

By: Nick Ekdahl, CPD, GPD, Director of Training & Education at Dawson Co.

Inside Dawson

Ice, Water and Steam. These are the names we give to the three phases (states of existence) of the compound H₂O. So prevalent is water in our environment that we have words to describe its solid, liquid and gas forms. We can easily experience all three in our daily lives. Try to think of another substance where this is true... Difficult, isn't it? Water is special, it even makes up 70% of our bodies!

CHANGING STATES OF MATTER



Partner Highlights

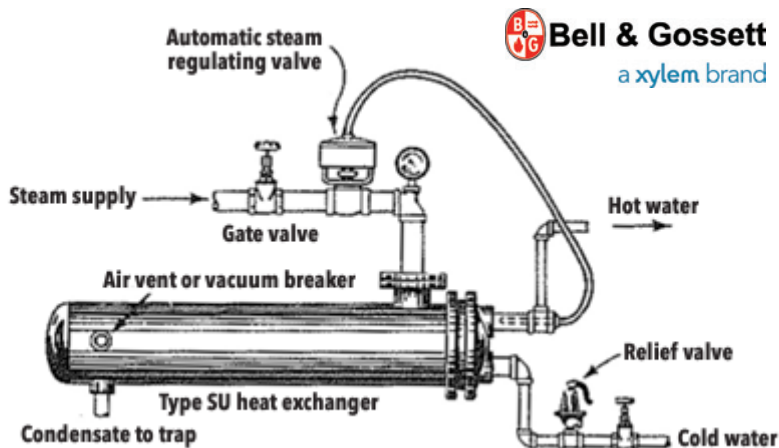
This phenomenon of phase change, that is, to go from a solid phase to liquid phase to gaseous phase is what the refrigeration cycle in heat pumps and chillers, steam to water heat exchangers and high efficiency modulating condensing gas appliances depend upon to work properly.

Crucial to this phenomenon are the concepts of sensible and latent heat. A simple definition of sensible heat is a temperature change with no change in phase and a simple definition of latent heat is a phase change with no temperature change.

Project Highlights

Dawson Company represents Bell & Gossett steam to water heat exchangers, Lochinvar fire tube and water tube modulating condensing boilers and water heaters, air and water source heat pump hot water heaters and Cemline packaged steam to water hot water heaters, all of which exploit either water or refrigerant phase changes.

Product Highlights



Bell & Gossett model SU steam to water U-Tube heat exchangers convert gas to liquid by condensing steam on a copper tube bundle inside a steel shell. Every lb. of condensing steam releases 970 BTU's/lb. of heat energy which is transferred to the water flowing through the tubes. The condensate flowing out of the shell is the same temperature and pressure as the steam that entered the shell since this is latent heat transfer. A steam trap mounted in the condensate drain pipe keeps the steam in the shell and allows the condensate to pass.

Technical Matters

Cemline model SEH, SSH and SWH packaged water heaters use the latent heat transfer power of steam to satisfy diverse or periodic domestic hot water system loads. These are instantaneous, semi-instantaneous and storage type packages and they utilize double walled tube bundles in compliance with our local plumbing codes.



Technical Matters

Ekdahl Explains (continued...)

By: Nick Ekdahl, CPD, GPD, Director of Training & Education at Dawson Co.

Inside Dawson

Lochinvar models Crest, Hellcat Crest, FTXL, Knight, Noble boilers and Armor water heaters use sensible heat transfer from the combustion process to reach the efficiencies of non-condensing products (typically 85%) and then use the low system return water temperature in the heat exchangers to capture the latent heat of condensing water vapor in the exhaust gases to achieve high efficiencies of up to 96.2% These products use all stainless steel materials to prevent corrosion from low pH carbonic acid in the condensate. This condensate is collected and passed through a pH neutralizer before flowing to a floor drain.

Partner Highlights

Lochinvar also manufactures air and water source heat pump water heaters which rely on the refrigeration cycle to produce potable hot water for domestic use. The refrigeration cycle is a closed loop of latent and sensible heat transfer depending on what part of the cycle you are examining. The four main components of all refrigeration cycles are the compressor, condenser, thermal expansion valve and the evaporator. The evaporator side of the cycle is the gas phase of the refrigerant and the condenser side



is the liquid phase. The compressor and the expansion valve handle the sensible heat transfer and the evaporator and condenser handle the latent heat transfer. Because refrigerants change phase from a liquid to a gas at very low temperatures, the higher temperature of ambient air, a body of water or even the earth itself, can provide the heat needed to start the cycle and allow refrigeration to be used to inject or reject BTU's in or out of a space. Lochinvar's heat pump equipment takes the heat from an outside air or water source and injects it into storage tanks for use as domestic hot water.

Project Highlights

Product Highlights



Our Business Development Group, Outside Sales team and Customer Service team are all familiar with these products and the concepts and physics of how they work. Dawson Company is here to support your pre, during and post sales needs. We look forward to working with you and supporting you with your future projects.

Technical Matters



Nick Ekdahl, CPD, GPD
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