

Hydronic News

of Southern California



DAWSON CO.
YOUR FLUID TECHNOLOGY RESOURCE

Vol. 22 January 2022

Bell & Gossett
a xylem brand

Lochinvar
HIGH EFFICIENCY BOILERS & WATER HEATERS

GOULDS
WATER TECHNOLOGY
a xylem brand

Metraflex
for pipes in motion

CEMLINE
CORPORATION

FLOWTHERM
systems

BoilerMag
Ultimate Heating System Protection

wessels
company

MILJOCO
CORPORATION

UCSD North Torrey Pines Living & Learning

In 2017 A.O. Reed & Co was awarded the UCSD North Torrey Pines Living & Learning Neighborhood project. Together, A.O. Reed and McParlane & Associates consulting engineers worked together to finalize the design and complete the project. The project was complex and challenging as it consisted of six buildings including 2,048 undergraduate beds, a two-story dining hall with six restaurants and market, academic buildings including faculty and administrative offices, retail space and Craft Center for students and community members. The project's goal was to weave living and learning into one central place, hence its name "Living & Learning Neighborhood".

Dawson Company was involved with McParlane early on in the equipment selection process for both the plumbing and mechanical systems as UCSD has had great success with both Bell & Gossett and Cemline products. Doug Isaaks (Plumbing) & Chris Jackson (Mechanical) from McParlane laid out and designed the systems utilizing UCSD's high temperature hot water system to provide the needed comfort heating and domestic hot water. Four Bell & Gossett QHTWU shell & tube heat exchangers were used to convert the 325F high temperature water to 180F medium temperature water that was then distributed to the individual buildings.



UCSD North Torrey Pine



Living - Learning - Neighborhood

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Inside Dawson

Goodbye for now old friend.....you will be missed but never forgotten

By David Hernandez, Executive Vice President

Losing an old friend is never easy, especially if they influenced your life in a manner that few could. We all have a very select few of individuals in our lives that have shared their wisdom and life experiences unselfishly and willingly for our personal gain and benefit. Mentors and life teachers come in various forms, often a parent or close family member. If you are lucky, you may have a high school teacher or coach or college professor you may consider a mentor because of the interest they took in you at the time, and the influence they had formulating your life trajectory. While the influence they had on your life is significant, the interaction was short lived, only lasting a few years. If you are even luckier, you are blessed to work for a great company for many years and can consider your boss a mentor.

Jack Dawson became the president of Dawson Company in 1969 after taking over for his father Richard S. Dawson. He worked for Dawson

Company 48 years, 34 of them as president. He was a brilliant engineer and a savvy business man. He walked with a certain confidence, always at a brisk pace as he scurried to solve the next engineering conundrum he was challenged with. Jack was very well respected in the engineering community; he understood the long-term value of sharing his knowledge with consulting engineers and contractors. His understanding of hydronic systems during his tenure was matched by few.

Working for Jack was special, he was stern and at times intimidating but practical, humble and humorous too. He never hesitated to pick up a paperclip from the floor or fill the copy machine with paper. He was full of endless facts about history and the geography of California and the USA. He had an uncanny ability of

putting things in perspective, we call them "Jackisms". Phrases like "facts are stubborn things" left you thinking about the conversation that just ensued and the perspective he brought. He very much appreciated his Almer matter Cal Poly San Luis Obispo, he never forgot them making several very generous donations to the Mechanical Engineering Department over his life time. He always gave back to his community being intimately involved with various organizations, too many to list. He served as a trustee in his local Methodist church and sang in the choir.



Yes, Jack has left us and while he has been away from the everyday management of Dawson Company for quite some time, his legacy remains at the very core. For those of us that were lucky enough to work at his side, we are left with the memories. Our gratitude and appreciation for the opportunities he gave us lives long in our hearts. We will always be enriched by the golden nuggets he shared during his time at Dawson Company.

Thank you, Jack, for all of the wisdom and life lessons you shared with us. For giving us the ability to build the wealth and financial stability needed to care for our families. For the generous benefits offered as an employer such as covering 100%

health insurance for employees and dependents and a profit-sharing retirement plan that has allowed many to retire with a value that included two commas in the amount. We are all better for the time we spent with you. Good bye for now old friend

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Inside Dawson

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By David Hernandez, Executive Vice President



Jack Dawson at Altadena office - 1989



Dawson Co. Dinner Party - 2007

Jack Dawson at
Altadena office -
1995



Jack Dawson at
Pomona office -
2009



Jack Dawson with David Hernandez - 1999



Dawson Co. Dinner Party with Ric Serafin -2011

Partner Highlights

In partnership with Xylem Watermark, Dawson Company holds a Beach Clean Up

As featured in Sun Newspapers



By Karen Ferretti

Save Our Beach, a non-profit located in Seal Beach, conducts monthly beach cleanups in the First Street parking lot on the third Saturday of every month. At the July 17 event, Dawson Co., a fluid technology resource company located in Pomona, California, brought a large contingent of employees and family members to help cleanup the beach. They had a banner and T-shirts made for the day. But that's not all they brought: they also brought a \$2,000 donation to our organization.

Save Our Beach wanted to let the Dawson Co. know that they not only appreciated the time that everyone put in to help clean the

Save Our Beach wanted to let the Dawson Co. know that they not only appreciated the time that everyone put in to help clean the beach, but that Save Our Beach also appreciated that the company took their employees to Nick's Deli for breakfast burritos before the cleanup and then purchased sandwiches to serve to their crew for lunch.

Save Our Beach group cleans up, gets a \$2,000 donation



San Bernardino County Central Detention Center

Project Location: San Bernardino, CA

Mechanical Contractor: D. Burke Mechanical

Engineering Firm: EMCOR Mesa Energy Systems

by Steve McCool, Facilities Support Group Manager

The San Bernardino County Central Detention facility was in need of a new Central Domestic Hot Water heating system for the jail and the sheriff's department. The aging geothermal system was all but dead in the water, and the high efficiency instantaneous water heaters installed in 2013 were destroyed by the aggressive ground water conditions we suffer from all over Southern California. The premium long-term solution for an efficient replacement was an indirect fired system with double-wall plate heat exchangers and high efficiency Crest condensing boilers. Steve McCool with Dawson Company worked directly with Roy Goodman and his design team at Salas O'Brien in the design process and equipment selections for the system. The project was administered and installed by EMCOR Mesa Energy Systems and D. Burke Mechanical.

Equipment:

- (3) Lochinvar Crest FBN1251 with variable speed pumps
- (2) Bell & Gossett Double-Wall Plate Heat Exchangers & Hydronic Specialties
- (2) Heat-Timer ETS Pre-Piped Thermostatic Mixing Stations
- (3) 6" Security Chimney SSD Double-Wall Insulated Exhaust Systems



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UCSD North Torrey Pines Living & Learning - (cont)

Project Location: San Diego, CA

Mechanical Contractor: A.O. Reed & Co.

Engineering Firm: McParlane & Associates

by Joe Wells, Sales Representative

Cemline SEH stainless steel instantaneous packaged water heaters accompanied by Lochinvar storage tanks were utilized to meet the massive domestic hot water demand required by the students and restaurants. There was a total of fourteen Cemline units on this project between the six buildings. Cemline demonstrated its custom manufacturing ability by stacking two heaters on a common skid to save as much floor space as possible.

The chilled and heating hot water coming out of the Bell & Gossett QHTWU heat exchangers was pumped by Bell & Gossett e-1510 pumps ranging in various sizes. Between both the chilled and hot water there were a total of (30) e-1510 pumps on this project.

Ben Tepper (SENIOR PROJECT MANAGER) from A.O. Reed ensured the project was completed without delay as Brian Jennings (Pipefitter General Foreman) and his crew completed the installation. Mike Schorzman (Startup/Commissioning) lead the startup and commissioning effort.

The project consisted of the following equipment between the 6 buildings: (14) Cemline SEH units, (30) Bell & Gossett e-1510 pumps, (6) Lochinvar RGA storage tanks, (4) Bell & Gossett QHTWU heat exchangers and (14) Bell & Gossett Model RL air separators.

The project was turned over to UCSD in early 2021 and students moved in shortly thereafter. This project was a great example of how Dawson Company can leverage its technical systems expertise to support both contractors and consulting engineers. We are "Your Fluid Technology Resource"!



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Product Highlights



No Salt Conditioner & Systems

By Kendal Smith, Business Development Group

EasyWater is an exceptional water conditioner that works with most hydronic and plumbing systems. EasyWater is recommended as a chemical-free solution to reduce Legionella risk, biofilm deposits and scale buildup in your equipment and piping systems.

Hard water comes from naturally occurring minerals (such as Calcium, Magnesium, Etc.) in the water. The hard water build-up sticks to your pipes and hydronic/ plumbing equipment, which shortens their life, increases energy usage, clogs pipes, and reduces flow rates.

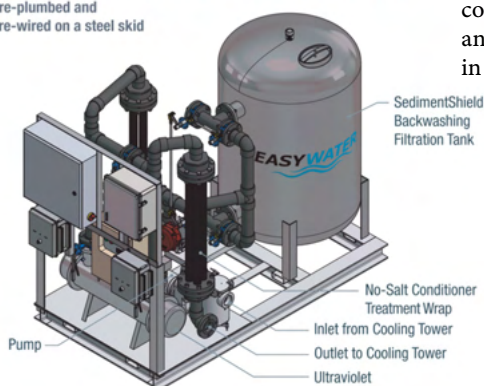
The traditional treatment for hard water is a salt-type water softener, which requires on-going maintenance such as heavy salt bags each month and water waste from their regeneration cycle.

EasyWater's Innovative No-Salt Conditioner instead uses electronic scale control technology to not only reduce the hard water scale build-up throughout your project, but it will also remove existing scale from your piping and hydronic/plumbing equipment.

EasyWater has developed many water conditioning units to serve your specific system. From domestic water systems to a cooling tower systems, each of the different units below are designed specifically for their respective systems. Each of the different units are shown below as skid mounted units, but you can get the individual components and mount them yourself.

CTF System Cooling Tower Treatment System

Pre-plumbed and pre-wired on a steel skid



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

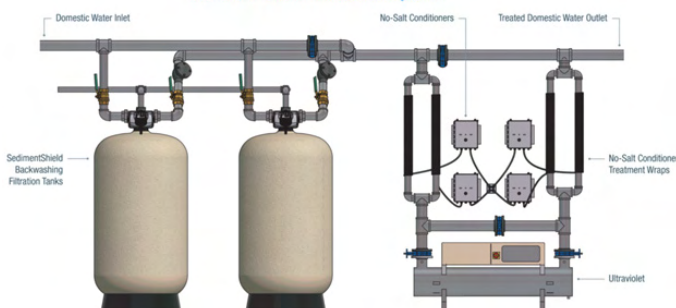
Smart Guard RO Reverse Osmosis



An intelligent and dependable RO system that doesn't require softener or chemical pretreatment.

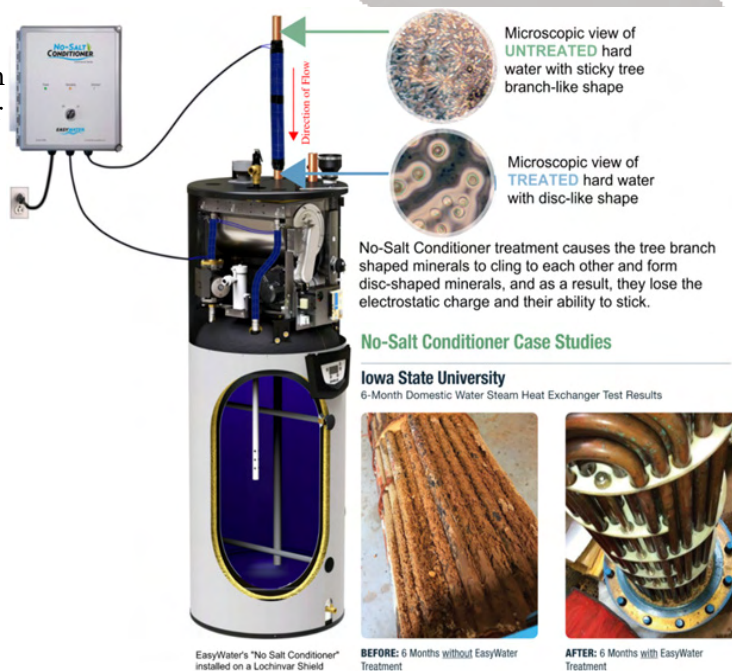
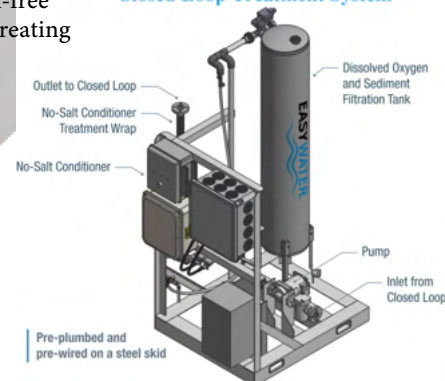
A chemical-free solution to reduce Legionella risk without additional domestic water system corrosion.

DWP System Domestic Water Protection System



Finally, an effective and chemical-free solution for treating closed loops.

Series C Closed Loop Treatment System



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Product Highlights



ecocirc 20-18/ecocirc+ 20-18 Variable Speed

By Kendal Smith, Business Development Group

Dawson is proud to announce the newest generation variable speed ECM smart circulator, ecocirc 20-18 from Bell & Gossett. This ECM smart circulator provides a superior product for both heating and cooling as well as potable water.

Taking it further than ever before is the new ecocirc+ 20-18 model that allows for wireless connectivity directly to your phone for full control. Combine this pump with our incredible service network, and you have a winner. The ecocirc 20-18 circulators are designed with a highly efficient electronically commutated permanent magnet motor (ECM Technology). Cast iron flanged models are designed for closed loop hydronic heating and cooling systems, and stainless steel flanged and union body pumps for plumbing systems or open loop heating and cooling systems.

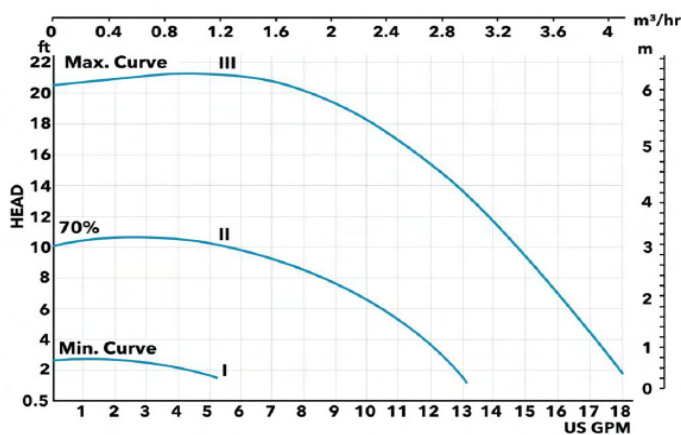
CONSULTING - SPECIFYING

engineer

2021
**PRODUCT
OF THE YEAR**

Winners

Fixed Speed Curve



TEMPERATURE DEPENDENT OPERATING MODES (ecocirc+ 20-18 only)

SET POINT TEMPERATURE ($\Delta p-T$) (ecocirc+ 20-18 only)

SET POINT TEMPERATURE (T) (ecocirc+ 20-18 only)

eAdapt (ecocirc+ 20-18 only)

← Air Purge

ecocirc 20-18 Features

- Maximum of 20 feet of head or 18 GPM
- 70W maximum power
- 3 modes – proportional pressure, constant pressure, or adjustable speed control
- Fluid temperature: 14-230°F
- CircGuard™ – complete integrated system protection
- Automatic air purge to remove any air trapped in the pump
- One turn knob and multicolor LED display for easy reading and setting of the pump
- Check valve included in box
- Insulation shell included



The ecocirc 20-18 is to replace the ecocirc 19-16.



ecocirc+ 20-18 Features

The ecocirc+ 20-18 comes with all of the standard features found on the ecocirc 20-18 plus the following premium features:

- Bluetooth communication+
- 0-10V input+
- Temperature control+
- eAdapt autolearn and Night Mode+
- Digital display+



STANDARD OPERATING MODES



CONSTANT SPEED



CONSTANT PRESSURE ($\Delta p-c$)



PROPORTIONAL PRESSURE ($\Delta p-v$)



NIGHT MODE (ecocirc+ 20-18 only)

INPUT SIGNALS (ecocirc+ 20-18 only) One 0-10V (Analog):

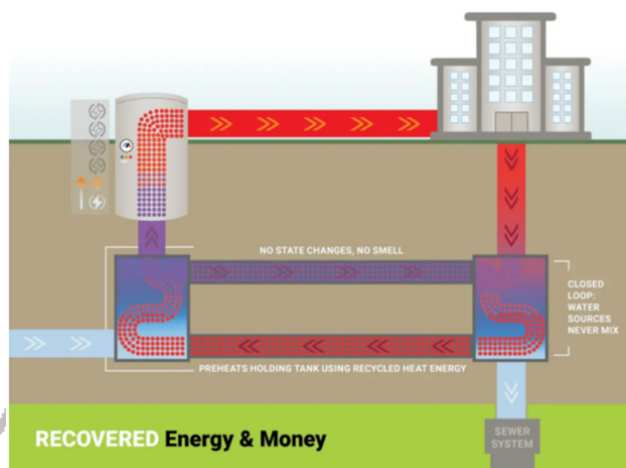
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Product Highlights



SHARC & PIRANHA: Wastewater Heat Recovery System

By Kendal Smith, Business Development Group



Tired of BTUs going down the drain? SHARC Energy has developed a system to capture wastewater's heat and put it back into your building, and thus saving you money. Everyday, we spend money to heat water that gets wastefully dumped down the drain. Worse yet, we then spend more energy heating cold water - we need to stop this senseless cycle of waste! Most people don't even think about this waste, and are often surprised to hear there is a solution.

SHARC SERIES



SHARC's patented filtration allows it to easily meet the large capacity requirements of energy districts, large multifamily residential, and industrial applications. It can seamlessly fit into just about any condenser water system and provides a more optimal temperature range for increased system efficiency.

★ KEY FEATURES

- Expected lifespan of 25 years
- Pressure sensors and flow meters included
- Sizes range from 6 to 12 inch piping (100 to 4500 GPM)
- Automated reversing valves control back flush, keeping the heat exchanger operating at design parameters
- DDC control system with touch screen control, remote monitoring, data trending, and email alerts (Modbus standard and BACnet integration available)

PIRANHA SERIES

The PIRANHA is a specialized water-to-water heat pump that recovers energy directly from wastewater and uses this source energy to produce hot water. The hot water produced through the unit is typically used for potable domestic hot water (DHW) purposes, however it can also be used for hydronic heating or alternate hot water demand purposes.

★ KEY FEATURES

- All-in-one unit, includes custom heat exchanger inside
- Odor-free
- Simple maintenance & service

- Simultaneous Heating and Cooling (HC model)
- Long life span
- Remotely monitored and managed
- Quiet operation

- Multiple units can be installed in parallel
- Optimized for multi-family residential & light commercial applications
- Does not require macerator or pre-filtration

- Designed to utilize black and grey water
- Programmable to use energy off peak hours
- Fits through double doors to support retrofitting

The PIRANHA features a specially designed evaporator to recover and transfer energy directly from wastewater into a refrigeration circuit, paired with an NSF-372 rated double-wall vented brazed plate heat exchanger (condenser) to transfer the energy directly into potable water.



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Honesty
"No legacy is so rich as
Honesty"
- William Shakespeare

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