Hydronic News

of the Hawaiian Islands

DAWSON CO.
YOUR FLUID TECHNOLOGY RESOURCE

Delivering Superior Soultions, Performance, and Value for Over 74 Years!

1948 DAWSON COMPANY 74th ANNIVERSARY POMONA, CA 2022

Volume:1 March 2022

Dawson Company gives back by holding a Beach Clean Up Event Sponsored by: Xylem Watermark

Pictured from left to right: David Hernandez (Executive V.P of Dawson Co.), Greg Fellers, Ellen Brannigan, Karen Ferretti (Save Our Beach members), Ric Serafin (President & C.E.O. of Dawson Co.). Featured in Sun Newspapers. Pg. 4

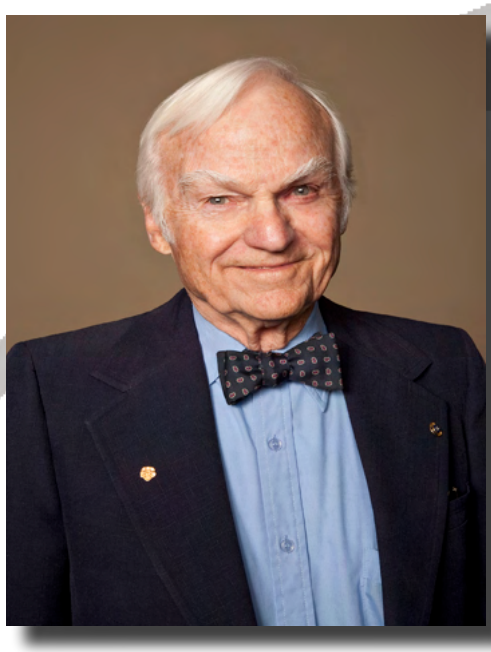
Dawson Company is excited to return to Hawaii to support it's plumbing & HVAC product needs.

- Over 74 Years of Industry Experience
- Superior & Friendly Customer Service
- Extensive Inventory at Los Angeles & San Diego Warehouses
- Remote Online Product & Systems Training
- 24/7 Accessible E-Commerce Site
- Engineering Support & Solutions
- Energy Efficient & Green Product Offerings
- Cutting-Edge Technical Support

Inside Dawson Company

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

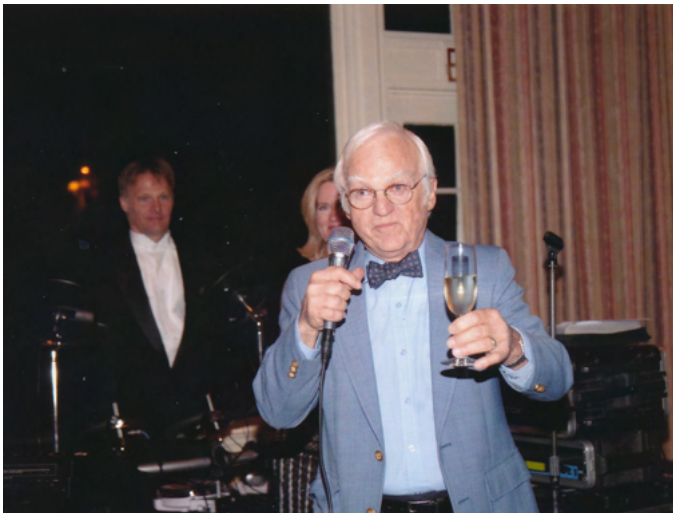
David Hernandez can be reached at dhernandez@dawsonco.com

Inside Dawson Company

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

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

Inside Dawson

Manuel Masso- V.P. Key Accounts Hawaii

Manny has relocated to Oahu to help Dawson Company serve the HVAC and Plumbing community. He brings 30 plus years of experience in the industry to Hawaii. Responsibilities will include calling on contractors, wholesalers, mechanical engineers and end users. Some of the range of projects involved include providing all the hydronic pumps, heat exchangers and air control for the new central plant and terminal buildings at LAX along with the 73 story Wilshire Grand tower in downtown Los Angeles. Both done on a design build basis which required working closely with contractor and owner to ensure proper equipment selections and commissioning of the systems. Replacement of obsolete HVAC or PLBG equipment is easy when working with someone that not only knows and understand how the systems work but also has vast experience trouble shooting system issues. Promoting energy conservation, new green technologies such as chemical free water treatment to help solve water issues are priorities of his.

BRANDS REPRESENTED

Bell & Gossett a xylem brand
CEMLINE CORPORATION
GOULDS WATER TECHNOLOGY a xylem brand
FLOWTHERM systems
Metraflex for pipes in motion
Domestic Pump
Hoffman SPECIALTY
REFRIGERATION RESEARCH
I-CON
BoilerMag
SHARC ENERGY
wessels company
EASYWATER
McDonnell & Miller

Partner Highlights

Sun newspapers

By Karen Ferretti

Save Our Beach, a non-profit located in Seal Beach, conducts monthly beach clean-ups 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

Partner Highlights

E-Learning Available from Bell & Gossett 24/7

By John Sieger, Vice President/San Diego Branch Manager

Bell & Gossett
a xylem brand

As our time is always in short supply; please remember that Bell & Gossett offers premium on-line education courses. Log on from anywhere and receive exclusive training without the travel.

The Bell & Gossett e-Learning program is an extension of the industry leading training offered at Bell & Gossett's Little Red Schoolhouse facility and allows you access to training whenever and wherever you are. All of the courses are eligible for IACET CEU's.

The following courses are available to you right now. What are you waiting for!

BELL & GOSSETT CENTRIFUGAL PUMP FUNDAMENTALS

Introductory course provides foundational learning across a range of centrifugal pump fundamentals. The course is divided into convenient individual modules covering: pump construction, mechanical seals, elements of a pump curve, motors, utilizing pump curves, curves for open and closed systems, net positive suction head available, net positive suction head required, lifecycle costing, pump selection criteria, pump types, parallel and series pumping.

BELL & GOSSETT MODERN PUMP SELECTIONS

This five module course will introduce the learner to Bell & Gossett's new modern pump selection process and PLEV or Part Load Efficiency Value. For an in-depth understanding, the learner will review how to effectively read pump curves. Understand what an Efficiency Island is and how they aid in maximizing overall system performance. Learn how PLEV uses a standardized load profile to help minimize system operating costs. Review system control areas, as well as the Department of Energy's standards for pump efficiency.

BELL & GOSSETT PIPING SYSTEMS

This course focuses on the most common piping systems in utilized in HVAC systems. The course is made up of four individual modules addressing single pipe systems, two pipe systems, primary/secondary systems and variable primary flow systems.

BELL & GOSSETT PRESSURE BOOSTER SYSTEMS

In this course, you will learn how to ensure your system can provide the required flow rate and minimum pressure to all plumbing fixtures during peak demand. This seven module course covers topics ranging from Water Pressure Booster System Design, Plumbing Codes & Standards, Sizing a Pressure Booster, Pressure & Pressure Reducing Valves in High Rise Buildings and Hydropneumatic Tanks.

BELL & GOSSETT WATERSIDE ECONOMIZATION

This four module course will introduce the learner to the concept or waterside economization, often referred to as free cooling because it utilizes a cooling tower and heat exchanger to indirectly cool the chilled water loop, which is used to reject heat from the building via the hydronic coils. In the course you will learn what the ASHRAE 90.1 Energy Standard is and how it is applied to waterside economization systems, learn about the typical design alternatives for waterside economizer systems, the fundamentals of the waterside economizer and the consideration to take into account when using a cooling tower design and finally how plate and frame heat exchangers work and how they are applied in waterside economization systems

To move forward with this industry leading education, and earn CEU's, please visit www.Bellgossett.com and go to E-LEARNING under the Training and Education tab.

John Sieger can be reached at
jsieger@dawsonco.com

Product Highlights

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

By Kendal Smith, Business Development Group

Bell & Gossett
a xylem brand

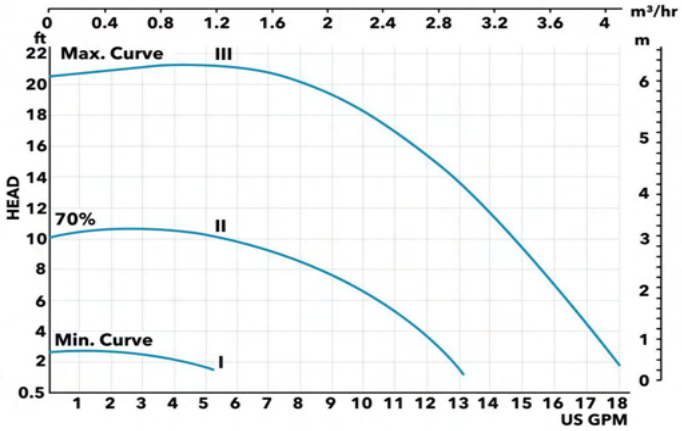
Dawson is proud to announce the newest generation variable speed ECM smart circulator, ecocirc 20-18 from Bell & Gossett. This ECM smart circulator provides a superior product for both heating and cooling as well as potable water.

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



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

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

SET POINT TEMPERATURE (Δp-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

STANDARD OPERATING MODES

CONSTANT SPEED
CONSTANT PRESSURE (Δp-c)
PROPORTIONAL PRESSURE (Δp-v)
NIGHT MODE (ecocirc+ 20-18 only)
INPUT SIGNALS (ecocirc+ 20-18 only)

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:

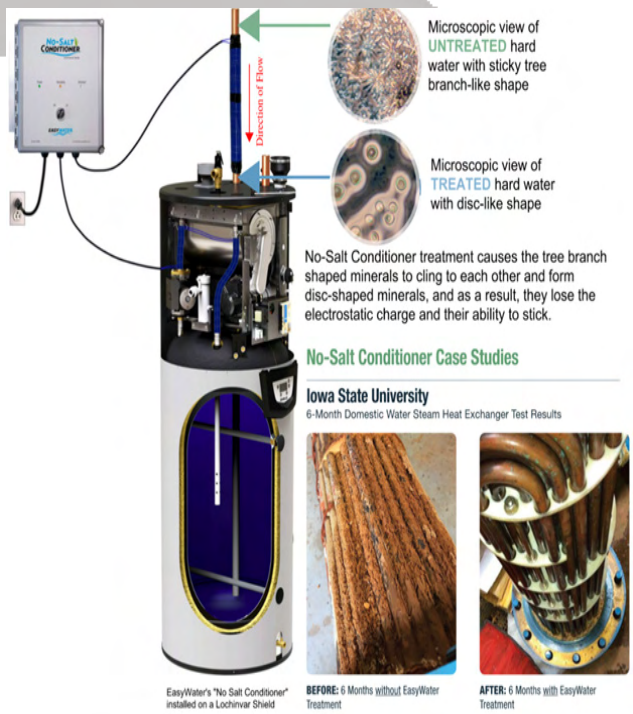
- Bluetooth communication+
- 0-10V input+
- Temperature control+
- eAdapt autolearn and Night Mode+
- Digital display+

Kendal Smith can be reached at ksmith@dawsonco.com

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.

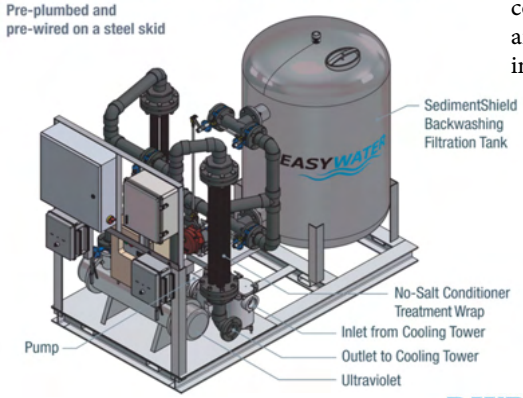
EasyWater's Innovative No-Salt Conditioner instead uses electronic scale control technology to not only reduce the hard water scale build-up throughout your project, but it will also remove existing scale from your piping and hydronic/ plumbing equipment.

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

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



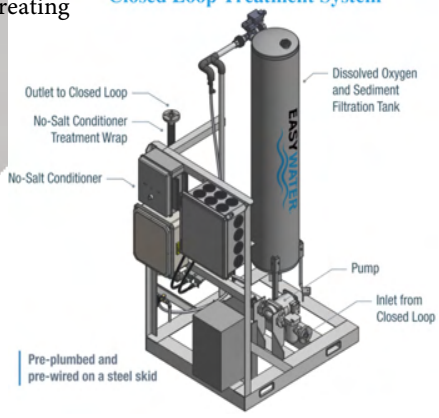
Smart Guard RO

Reverse Osmosis

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

Series C

Closed Loop Treatment System



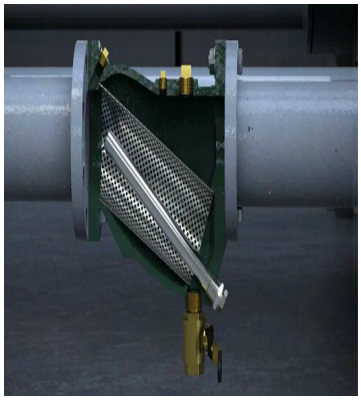
DWP System

Domestic Water Protection System

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

Product Highlights

Style LPD-Mag Y Strainer



- 30% larger screen size
- Hundreds of dollars in energy-savings yearly
- Streamlined design means straight, smooth flow
- Maximizes NPSH
- 2 thru 16 inch, 125#
- More efficient pump performance
- Protect pump systems from iron oxide build-up
- Remove oxides with blow-down, while in use
- Easily adapted to existing LPD Y Strainer
- 2 thru 12 inch, 125#
- More efficient pump performance

Introducing the LPD-Mag from The Metraflex Company, the lowest pressure drop Y-Strainer on the market, upgraded with a Neodymium magnet to catch iron oxides. The LPD-Mag is the industry's first strainer solution to pump seal failures caused by iron oxide build-up within the water system.
This large accumulation of iron oxides is known as "sludge". Overtime, sludge can work its way into even the smallest openings in your system, clogging and slowing down system performance and efficiency. This leads to seal failures in pumps, damaged boilers, chillers and heat exchangers. The Neodymium rare-earth magnet installed within the strainer assists in the removal of iron oxide buildup, helping to assure your system runs smoothly. The magnet is installed into the collection vortex of the LPD, maximizing the magnet's ability to catch iron oxide.

WATER HEATERS

Instantaneous, Semi-Instantaneous, Storage Type Water Heaters – Cemline Water Heaters provide a high quality, high capacity, packaged waterheater for use with steam, boiler water, or high temperature hot water as the heating medium. Factory packaging keeps contractor installation time to minimum; the only connections required are cold and hot water lines and connections of steam and condensate or boiler water, or high temperature hot water, and electric.

Storage Type Water Heater - SWH Series

Semi-Instantaneous Water Heater - SSH Series –

Instantaneous Water Heater - SEH Series

Technical Matters

Sysytem Curve, Control Curve, and Minimum Control Head

By Eric Decker, Business Development Group Manager

System Curve – defines the system head required to produce a given flow rate for a liquid in a piping system. The general shape of this curve is parabolic because the head loss is proportional to the square of the flow (affinity laws).

Pump Curve – sometimes called the head-capacity curve for the pump. This is the performance curve developed from testing an individual pump. Typically, the discharge head of the centrifugal pump, sometimes called the total dynamic head (TDH), is measured in feet of water flowing at standard temperature and pressure. TDH represents the difference in total head between the suction side and discharge side of the pump. A useful characteristic of the pump curve is that as TDH decreases, flow increases.

The pump curve and system curve can be plotted on the same graph. The intersection of the two curves (**Figure 1**) is the *system operating point*, where the pump's developed head matches the system's head loss.

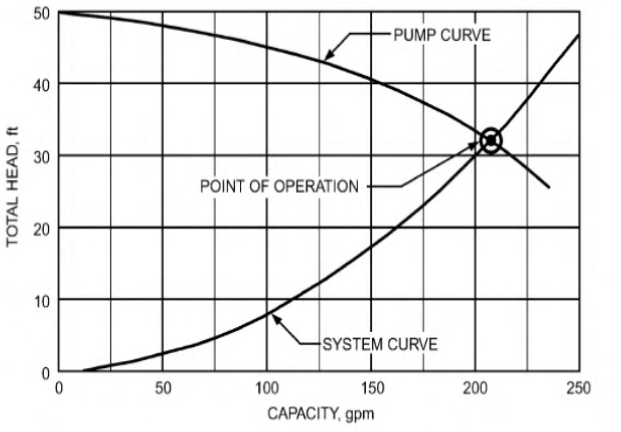


FIGURE 1 – 2008 ASHRAE Handbook – HVAC Systems and Equipment

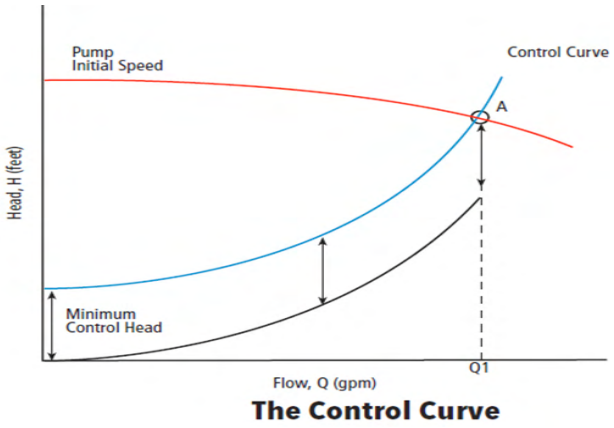


FIGURE 2 – Bell & Gossett Technical Manual, Variable Primary Flow Systems, TEH-910A

Figure 2 is an example of the system curve showing both a static head loss component *("Minimum Control Head")* and a variable head loss component. This is typically referred to as the *"Control*

The minimum control head could be an elevation difference in the cooling tower (between the water level in the tower pan and the spray distribution piping), or perhaps a minimum differential pressure setpoint at a critical coil in a closed-loop hydronic system.

This minimum control head is independent of system flow. Regardless of the total system flow, the pump must always meet the minimum control head requirement in order to satisfy the system's minimum flow.

Note that there's also a variable head loss component in addition to the control head (static head loss). The variable head loss is very much dependent on flowrate, with the head loss increasing (squared relationship – affinity laws) with increased flow.

It's important to keep in mind this distinction between the control head and the variable head loss requirement which combine to form the total head loss of the system. Depending on how much of the total head loss requirement is composed of the control head, it will affect the system characteristics - most notably the minimum flowrate available and the possibility of single pump operation (in parallel pump applications). We will discuss this in our next newsletter…

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Honesty

This Quarter's Corporate Value

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

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