# Lync

# Complete Engineered System Solutions



Superior Safety
Maximum Efficiency
Improved Water Quality



# **Expertly Designed Hot Water Solutions**

Lync combines advanced technologies and innovative design with industry-leading manufacturing expertise to deliver complete, cost-effective commercial water technology system solutions from a single source.

Lync's complete, fully engineered system solutions address the growing concerns about degrading water quality conditions, the need to mitigate the risks of infection from waterborne pathogens, as well as the increasingly complex task of installing the best water system that provides maximum reliability, energy efficiency and low lifecycle costs while meeting rigorous building codes.

Our fully assembled, integrated solutions provide your building with maximum efficiency, superior safety and improved water quality while minimizing planning, design and installation time to reduce costs and increase your return on investment.

# **Our Full Range of Solutions:**



Aegis®
CO<sub>2</sub> Heat Pump Water Heaters



LC Series Water Heating Systems



**WQ Series**Water Quality Systems



Accessories & Tanks AquaSolve, DigiTemp Jr., Bolt



Engage<sup>™</sup>
Design Development and
Project Execution

# **Built to Provide Multiple Benefits**



# **Save Money**

#### • Reduced energy costs

Lync's high efficiency water heating solutions and state-of-the-art technologies help reduce energy and water flow for superior efficiency and savings

#### Lower cost of ownership

The fully engineered, pre-assembled systems provide increased equipment life expectancy, reduced maintenance needs and lower operational costs

#### · Compact footprints

The compact design of all the solutions can facilitate a smoother, less labor-intensive install process and free up more space to be used for other revenue and value-generating purposes



# Simplify Planning, Installation and Maintenance

#### • Easy, quick installation

Fully designed and assembled solutions with known specs and dimensions are less skill intensive to install and simplify retrofits

#### Faster troubleshooting and service

Single-source solutions wholly designed and assembled by the manufacturer offer one point of contact for support and troubleshooting

## • Reduced maintenance

Solutions are optimized for peak performance and feature low-maintenance components, and technologies that simplify operation and improve system efficiency



## **Increase Safety**

## • Mitigates risks of Legionella and waterborne pathogens

- AquaSolve and sediment filtration mitigate scale and sediment buildup, which can help reduce the development of and the associated risks of developing bacteria and biofilm
- Thermal sanitization to help reduce the growth of waterborne pathogens
- UV disinfection of Legionella bacteria (99.9999% reduction)

#### Mitigates scalding

Precise temperature control reduces risks of scalding



# Improve Efficiency and Sustainability

#### Superior efficiency

High thermal efficiency heaters; electric CO<sub>2</sub> heat pumps with a COP of 5.0 or higher

#### • Less chemical byproducts

Anti-scale media has no backwash cycle resulting in less water usage; UV disinfection creates no byproducts

#### Longer-lasting systems

Longer product lifespans with durable materials, expert design and construction, and scale prevention

# Aegis A and Aegis W

Aegis high-efficiency, commercial heat pump water heaters leverage the superior qualities of natural refrigerant-grade CO<sub>2</sub> (R744) to produce reliable, domestic hot water up to 170°F at a wider ambient temperature range than most alternatives.

- CO<sub>2</sub> (R744) refrigerant
- 100% electric operation
- · Air and water sources
- Highly energy efficient (COP of 5.0+)
- Environmentally friendly
- Wide ambient operating range





The use of R744 enables Aegis to operate at a wider temperature range than commonly used refrigerants, R134a and R410a. This makes Aegis a reliable source of year-round hot water production at temperatures down to -4°F (14°F if water sourced) reducing or eliminating the need for a backup water heating system in colder months, as is typically the case with heat pump water heaters.



# **Superior Energy Efficiency**

Powered by electricity and the superior qualities of R744, the Aegis heat pump water heaters are one of the most energy efficient ways available to heat domestic water with a Coefficient of Performance of 5.0 or higher. By absorbing the "free" ambient heat from either an air or water source, Aegis outperforms electric resistance and gas in terms of energy efficiency.



# Safe and Eco-Friendly Refrigerant

Aegis leverages the  $CO_2$  refrigerant R744, which is equally non-toxic and non-flammable with no negative impact on the ozone layer. This refrigerant-grade CO2 has a dramatically lower GWP (Global Warming Potential) with a value of 1 compared to 1,430 (R134a) and 2,088 (R410a).



#### Meets Strict Carbon Emission Codes

Aegis is a great solution in places with no-gas laws and meets ever stricter building codes regarding building decarbonization and electrification. The high COP can help reduce energy costs substantially and allow buildings to leverage 'load shifting' and 'load shaving' strategies to maximize their benefits.

# Eco-Friendly CO<sub>2</sub> Heat Pump Water Heaters

# **Aegis A (Air Source)**



# A Variety of Applications

- Air, water, or air with water source recovery
- 250, 350, or 500 MBH\*
- Ideal for new and retrofit applications
- Markets: multifamily, university, hospitality, office buildings, industrial, healthcare, and more

# **Energy Efficient and Eco-Friendly**

- Coefficient of Performance of 5.0 or higher
- Non-toxic and non-flammable CO<sub>2</sub> refrigerant
- No negative impact on the ozone layer
- Global Warming Potential (GWP) of just 1.0
- 100% electric operation

# **Aegis W (Water Source)**



#### **Year-Round Hot Water Production**

- Hot water production up to 170°F (77°C)
- Wide ambient operation from -4°F (-20°C) to 113°F (45°C) (from 14°F for Aegis W)
- Reduces or eliminates reliance on back-up heating
- Advanced defrost cycle with electric coil\*\*

## **Options**

- Electric storage tank increases system flexibility
- Corrosion-resistant outdoor tanks
- Cool recovery function\*\*
- Fan coil coating for coastal areas\*\*
- EC fan for additional energy savings\*\*

#### Aegis heat pumps are the ideal solution to:

- · Adapt to no-gas laws
- Reduce CO<sub>2</sub> emissions
- Cut energy costs
- Improve the benefits of 'load shifting' and 'load shaving'
- Support ESG Initiatives
- Implement a hybrid heating solution

<sup>\*</sup>Varies with unit size and source temperature.

<sup>\*\*</sup>Applicable to Aegis A only

# LC-N and LC-Q

The LC Series features complete, fully engineered domestic hot water systems combining high efficiency water heaters, precise digital tempering valves, and AquaSolve anti-scale technology in a redundant system for safe, reliable and energy efficient hot water.

- Pre-assembled and configurable systems
- Gas condensing heater, up to 97% efficiency
- Anti-scale technology
- · Highly accurate digital mixing valve
- · Compact footprint with optimized piping



# Configurable, Manufacturer-Built Systems

The LC Series offers several configurable options to meet a variety of site conditions. The systems are designed and built by the manufacturer and feature a seamless integration of sub-systems for greater performance and durability. The component uniformity simplifies a complex system design and makes it easy to drop into plans to minimize planning, design and installation time and costs.



# **High-Efficiency Water Heating**

LC Series incorporates gas condensing water heaters with fire tubes and a large surface area for maximum efficiency. Made of duplex stainless steel, heaters are less prone to scale formation, reducing maintenance time and replacement costs as well as preserving heating efficiency.



# **Built-In Redundancy and Corrosion-Resistant Tanks**

The systems feature built-in redundancy and internal buffer storage tanks that respond to regular short and high peak loads without oversizing the system. The corrosion-resistant tanks are made of duplex stainless steel to extend lifespan and eliminate the need for anode rods or tank lining.



# Safer Water and Longer-Lasting System

The LC Series integrates AquaSolve's Media Assisted Crystallization (MAC) technology effectively reduces scale formation and mitigates the accompanying risks of Legionella and other waterborne pathogens. It's virtually maintenance free and helps protect the water heating system against corrosion for a longer system life and sustained heating efficiency.

# Complete DHW Solutions with Redundancy

LC-N



Ideal for applications with occasional high load demands and in places tight on space.

- Gas condensing water heaters
- Configurable with 2 to 5 water heaters
- 398-995 MBH
- Up to 96% thermal efficiency
- 7:1 turndown
- 50-125-gallon internal buffer storage
- N+1 redundancy without oversizing
- Separate recirculation connection

LC-Q



Ideal for applications in larger commercial buildings with very short or high peak loads.

- Gas condensing water heaters
- Configurable with 2 or 3 water heaters
- 800-2,400 MBH
- Up to 97% thermal efficiency
- Seamless modulation prevents short cycling
- 260-390-gallon internal buffer storage
- Built-in redundancy
- Separate recirculation connection



## Simplify Planning

Easily drops into design plans and reduces project timelines



#### **Save Time**

Quickly and easily installs in any space reducing downtime and revenue losses



#### **Increase ROI**

Provides superior energy efficiency, longer equipment life, and reduced maintenance needs and operational costs

# WQ-AS, WQ-RS and WQ-SF

Lync's WQ Series consists of unique solutions engineered by our water quality experts to address a range of water quality issues that negatively impact water heaters, plumbing systems, building occupants and the environment.



- Pre-assembled, configurable systems
- Effective, low-maintenance technologies
- Anti-scale technology
- UV disinfection and sediment pre-filtration
- Water softener with sodium and potassium
- Reverse Osmosis systems





# **Configurable Systems to Match Site Conditions**

WQ Series are available in several configurations, and each system offers distinct features to meet specific site conditions, requirements, and water quality issues.



# Pathogen Mitigation with No Added Chemicals

WQ-AS effectively mitigate the risks of pathogen growth in water systems without adding chemicals that can change the taste, smell, and safety of the water. They utilize a highly effective UV light to inactivate bacteria\*. An integrated sediment pre-filtration ensures water clarity for greater effectiveness.



## Long-Lasting, Low-Maintenance System

The systems are designed to require minimal maintenance. The anti-scale technology in WQ-AS operates with no backwashing, salt or chemicals and its UV disinfection system features automatic self-cleaning wipers and built-in purging to prevent fouling of the quartz sleeve. The metered control valves in WQ-SF maximize the softener regeneration efficiency and minimize the salt consumption.



# **Environmentally Friendly, Non-Toxic Solutions**

Unlike chemicals-based disinfection processes, UV light disinfection, as utilized by WQ-AS is an entirely physical process. Highly effective yet non-toxic, it produces no harmful byproducts. The anti-scale media in WQ-AS requires no backwash cycle resulting in less water usage. WQ-SF can reduce soap and cleaning product consumption by up to 50% by softening the water.

<sup>\*6-</sup>log reduction of Legionella bacteria

# **Complete Systems for Optimal Water Quality**

#### **WQ-AS**

# Multi-Barrier Protection Against Pathogens and Scale

- · Scale mitigation with no backwashing or salt
- UV light disinfection for bacteria\*
- Sediment pre-filtration (5 microns)
- 40, 70, and 100 GPM configurations
- Low-maintenance components
- Fully assembled and fastened onto steel skid



## **WQ-SF**

# Effective, Low-Maintenance Water Softener

- Configurable tanks hold ion exchange resin
- Brine tank for regeneration solution
- Metered control valves for automatic operation
- Twin Alternating models (25 and 50 GPM)
- Progressive Flow models (75, 100, 200 and 300 GPM)
- Fully assembled and fastened onto steel skid
- High flow versions available



#### **WQ-RS**

# Efficient and Reliable Reverse Osmosis System

- Minimum 95% average ionic rejection of solids
- Digital controller for easy and exact operation
- Fiberglass-reinforced plastic membrane housings
- Membrane auto flush for scale prevention
- Fully assembled and fastened onto steel skid
- Configurable: 3,600 gallons per day to 120 gpm
- High flow versions available



<sup>\*</sup>Tested and validated for minimum of 6-log reduction of Legionella bacteria

# **Advanced UV Light Disinfection Solutions**

Lync's UV-H provides an advanced, effective, and virtually maintenance-free UV light disinfection solution to treat inlet water for a variety of application types. It mitigates the presence of many waterborne pathogens and the buildup of biofilm to protect building occupant health and improve the longevity of the water system.

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#### Hard Water? No Problem!

The advanced design of the UV-H enables treating low-quality waters with hardness levels as high as 50 grains per gallon and iron levels up to 3 mg/L without the need to use softeners or other scale control solutions.



# **Protect Occupants and Plumbing Equipment**

With a UV-H system in place, buildings can sustainably and effectively mitigate health concerns related to Legionella bacteria in the water coming into the building. Lync UV-H can effectively inactivate 99.9999% of Legionella bacteria (6-log). It can also help mitigate the risks of microbiologically induced corrosion and pitting corrosion (related to chlorine usage).



## **Trouble-free Maintenance**

UV-H is engineered for trouble-free maintenance and minimum downtime. Automatic self-cleaning wipers and built-in purging prevents fouling of the quartz sleeve by mineral scaling and biofilm, making it up to 10 times more effective than conventional UV systems in difficult water applications. The UV lamps are placed in the front cabinet to make replacing them a simple task and to eliminate the need for maintenance clearance at top and bottom of the system for instant space savings.



# Advanced, Proprietary Design

Through a state-of-the-art 360-degree UV light emission provided by Crossfire Technology<sup>™</sup> and a two-lamp design, the reactor leaves minimal opportunity for microorganisms to be blocked from the UV light by particles. UV-H remains effective at hardness levels as high as 50 grains per gallon and iron levels up to 3 mg/L.







# Engage<sup>™</sup> with Us

# Complete design development and project execution with one convenient point of contact.



Finding the right, cost-effective system for your building can be a long, confusing, overwhelming process. With so many moving parts, it is often difficult to zero in on what exactly your building needs are in terms of energy efficiency, water safety, regulatory compliance, and water technologies.

With Lync's Engage, you get a planner, a designer and a single point of sourcing and responsibility to develop and execute your project tailored to your needs and circumstances.

As experts in heating, hot water, and water quality products and systems, we leverage decades of industry knowledge, our vast network of connections and direct insider access to a broad product portfolio to give you the best plan of action specifically tailored to your site.



# **Project Capabilities**

Domestic Hot Water Systems • Hydronic Hot Water Systems • Water Quality Systems • More

For more info, visit lyncbywatts.com or email us at engage@lyncbywatts.com.

# **Complete Engineered System Solutions**

**Superior Safety. Maximum Efficiency. Improved Water Quality.** 



Lync combines advanced technologies and innovative design with industry-leading manufacturing expertise to deliver complete, cost-effective commercial water technology system solutions from a single source.

Our fully assembled, integrated solutions provide your building with maximum efficiency, superior safety and improved water quality while minimizing planning, design and installation time to reduce costs and increase your return on investment.

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