

Culligan®



REFERENCE BOOK

CRUISE SHIPS





*Culligan*®

# Culligan, the water treatment professionals



Culligan, was founded in 1936, and is a global leader in water treatment for homes, offices and industries. Culligan designs, engineers and manufactures water treatment equipment and formulates and blends water treatment chemicals to create pure, safe, healthy water for every need.



Whether it is for soft water for your shower, pure drinking water from your kitchen or office tap, carafes of purified water in your favourite restaurant, and, all the way through to ultra pure water for medical use or water used as part of the product in the food and beverage industry – Culligan has a solution.

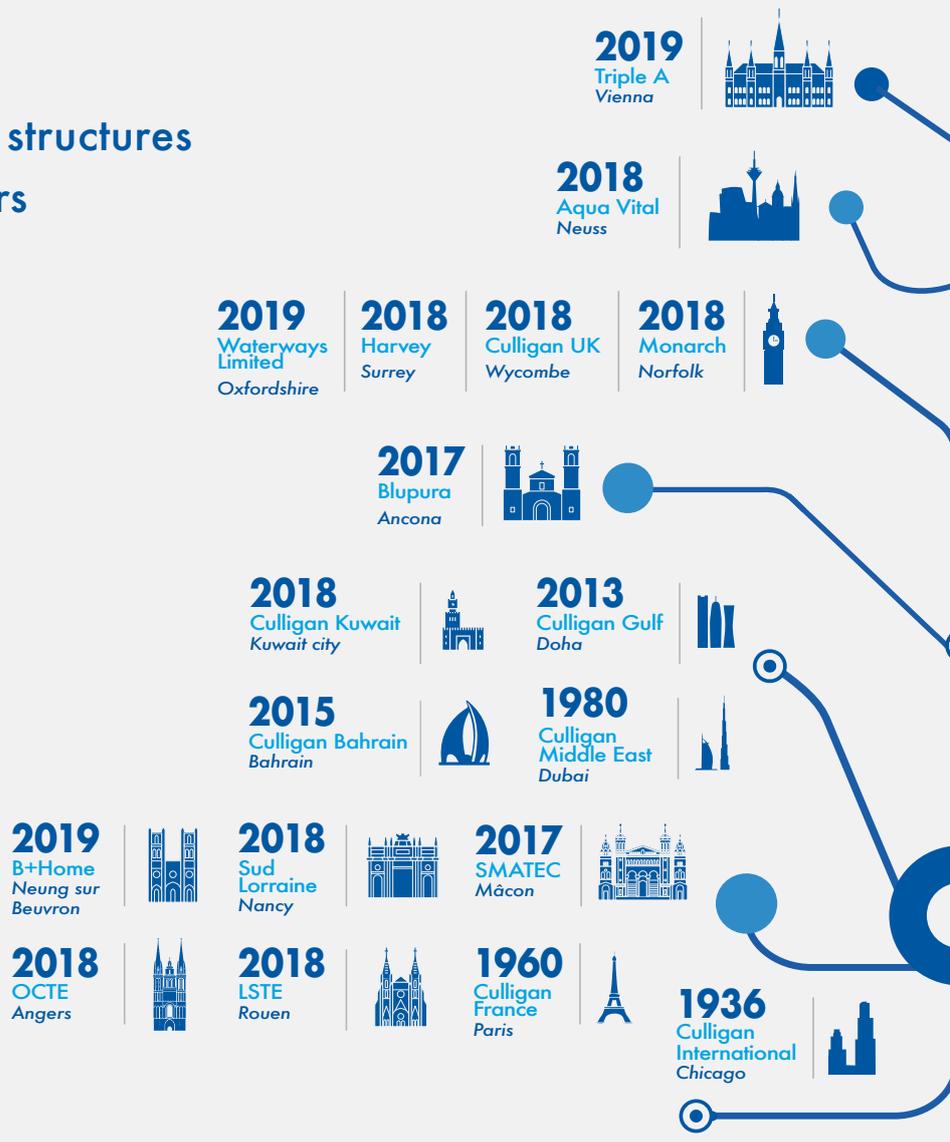
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In Culligan, we love water since 1936.

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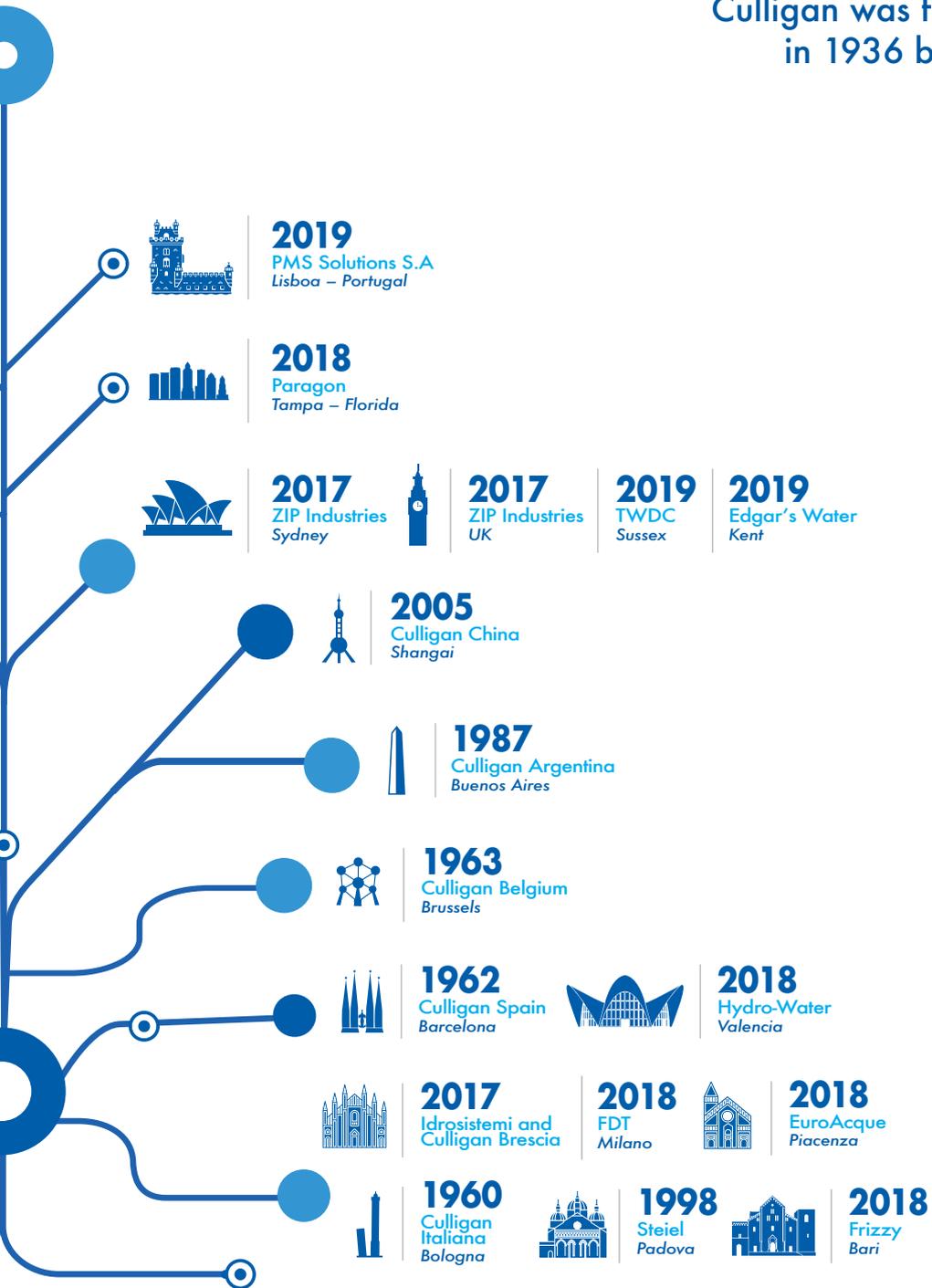
# Culligan international

**90** Countries  
**900** Dealerships  
**15** Direct company structures  
**3 Million** Customers



Culligan is a truly global company that prides itself on providing consistent high quality water across the world. Whether you are drinking tea made from a Zip instant boiling Hydrotap in Australia, pure office water from a

Culligan was founded in Illinois, USA  
in 1936 by Emmett Culligan



cooler in Argentina or drinking water through the municipal pipe network in Kigali, Rwanda, you are guaranteed the same high quality and renowned Culligan service. Culligan technicians serve over 3 million customers worldwide.

# Sectors We are Serving

## Culligan, the water treatment professionals

Culligan, was founded in 1936, and is a global leader in water treatment for homes, offices and industries. Culligan designs, engineers and manufactures water treatment equipment. Culligan formulates and blends water treatment chemicals to create pure, safe, healthy water for every need.



### WATER FOR THE HOME

Culligan supplies softened water and high purity drinking water to millions of homes worldwide. Culligan supplies under sink drinking water systems to give pure water from the tap. Chilled, sparkling and instant boiling water straight from your kitchen tap. Then, the china and glasses will sparkle and the hair and skin will feel amazing.



### WATER AT WORK

The employees can have access to high quality drinking water every day. Culligan has a full range of drinking water solutions all designed, engineered and manufactured in-house. Culligan manufactures high quality units to ensure the best quality of chilled, sparkling and boiled water constantly available. Backed up by Culligan's worldwide service network.



### WATER FOR RESTAURANTS

Culligan Water on tap in the restaurant is an ideal way to service the valued customers, save cost and protect the environment. Great tasting water, pure clear ice, reduced scale and iron build up, easier cleaning, less detergents usage and softer brighter linens— a total Culligan water solution.



### WATER FOR LEISURE

Culligan designs, engineers and produces systems for public pools, private pools, spas and resorts. Culligan invented the HCF filter that cleans the water 20/30x greater than a traditional sand filter with no backwashing, saving energy, water usage and chemicals.

# Sectors We are Serving

**90 Countries**  
**900 Dealerships**  
**15 Direct company structures**  
**3 Million Customers**



## WATER FOR CRUISE SHIPS

Culligan designs, engineers and produces custom water treatment solutions which are installed in over 160 cruise ships like the largest cruise ship in the world. Culligan provides the entire ship water system. Whatever the use, wherever in the world, the water quality on the cruise will be to Culligan standards. Cruises are more relaxing and enjoyable.



## WATER FOR HOTELS

Culligan customers in the hospitality industry can realize substantial benefits by using treated water in boilers, hot water heaters, cooling towers, food service, laundry, and services. Culligan's water treatment systems help uphold quality standards, while adding value to the business.



## WATER FOR INDUSTRY

Water impacts every part of the industrial value chain. In the beverage industry, water of different qualities is required for cooling water, boilers for steam generation, bottle washing, machine sanitization and water to be part of the product. From oil refineries, to breweries which use water for the product composition as well as washing and sanitisation, Culligan has the full range of equipment and speciality chemicals to cover every application.



## WATER FOR HEALTHCARE

Doctors, nurses and patients, get more than just great-tasting water from Culligan systems. Culligan supplies and services every water need of hospitals - cooling water, boiler water, water for hydrotherapy pools, full solutions for restaurant and canteen, drinking water, treatment and recycling for laundry and all the clinical needs.



## WATER FOR VILLAGES, TOWNS, CITIES

Hundreds of municipalities have chosen Culligan filtration systems. Culligan has unique high rate reactor filters called OFSY, which are able to reliably treat highly variable turbid river water, with a significantly reduced footprint and limited civil construction.

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# Some of Our References



Industrial



Municipal



Containerized  
Solutions



Healthcare



Hospitality



Marine





## WATER FOR CRUISE SHIPS

Culligan designs, engineers and produces custom water treatment solutions which are installed in over 160 cruise ships like Symphony of the Seas, the largest cruise ships in the world. Modern cruise ships are self contained "floating cities" that require water for drinking, cooking, showering and leisure. Culligan provides the entire ship water system. Whatever the use, wherever in the world, the water quality on your cruise will be to Culligan standards.

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So you can relax and enjoy your cruise.

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- 1** KIDS PLAYGROUND POOLS
- 2** SWIMMING POOLS
- 3** WHIRLPOOL SYSTEMS
- 4** WHIRLPOOL TUBS
- 5** SALT WATER REVERSE OSMOSIS
- 6** FRESH WATER DISINFECTION
- 7** REMINERALISATION SYSTEMS

## CULLIGAN ON BOARD

### THE HARMONY OF THE SEAS, THE LARGEST CRUISE SHIP IN THE WORLD...

The Harmony of the Seas made by Royal Caribbean is the **largest cruise ship in the world**. It set sail from Saint Nazaire, France, for first acceptance tests with 500 people on board, although it can carry up to 6.300 passengers with 2.200 crew members. On board of the Harmony of the Seas, Culligan has provided all facilities for the **treatment of the pools and whirlpools** for a total of **23 plants**, including 12 whirlpools whose shapes and patterns have been researched and produced by Culligan specifically for this ship. Harmony of the Seas joins three other ships of the Royal Caribbean fleet which are equipped with **water treatment systems supplied by Culligan**, the ships were built in the Meyer Werftshipyard in Germany and the third,

Ovation of the Seas, is going to be delivered to the Ship-owner. Even if smaller than Harmony of the Seas, with their 180,000 tons, they are still among the largest cruise ships ever built. Culligan has already won the contract for the Harmony II and the Culligan Marine Division department is in process of closing the contract even for Harmony III. Another record for Culligan's board. After the tallest building in the world Burj Kyhalifa and the deepest pool of the world Y-40, once again the **Culligan's technology and know-how** are a key of another world record, ensuring that passengers of the largest ship of the world can enjoy their holidays immersed in swimming pools and whirlpools not only pleasant but **totally safe**.



# SEA WATER RO SYSTEM



## Modernization and enlargement of cruise ships

The **Renaissance Project**, started from MSC in 2014, **involved 4 of the 12 ships that make up the MSC fleet**, ARMONIA, SINFONIA, OPERA and LIRICA. The ships renovated and expanded 24 meters long at Fincantieri shipyards in Palermo, thanks to the inclusion of a new section, now have new cabins and new spaces for relax and fun on board. The expansion increases the capacity of the cruises and the possibility to carry **500 more passengers**. The enlargement of the ships required an **increase in water production capacity** and, therefore, the replacement of the plants of competitors, previously installed.

The main difficulty in the Renaissance Project for the ARMONIA and SINFONIA, already equipped with Culligan's pools and water parks, was that the overall dimensions of the system did not allow to pass between the already existing spaces. After an analysis of the spaces on board, Culligan's Marine Division dept. proposed to the client to install the seawater equipment normally pre-assembled in the factory by reassembling it on board. The biggest benefit for the customers was that he could have innovative plants mounted without substantial cuts in the hull. The retrofit of an existing desalination plant is a new opportunity for the Marine Division sector as all the ships built in the past start a phase of modernization after 15-20 years of service.



# WATER PARK SP + WHIRLPOOL



## The largest cruise ship in the world

Symphony of the Seas took the sea on March 31st in Barcelona. This is the 26th ship of the Royal Caribbean fleet, now its flagship and the largest cruise ship in the world, with 230 thousand tons and a maximum **capacity of 6,680 passengers**, as well as a **2,200 person crew**, surpassing her sister Harmony of the Seas. Symphony of the Seas was built in the Chantier de l'Atlantiques shipyard in Saint Nazaire, France. It is the fourth ship in its Oasis-class series. For the first season, this summer, it will be cruising in the Mediterranean Sea, with home port Barcelona and then, from October, the ship will be based in Miami for cruises in the Caribbean. The largest cruise ship in the world is equipped with **11 whirlpools, 1 beach pool, 5 main pools, 1 children pool, 1 toddler pool, 2 water Slides, 1 Slide Bowl and 2 Surf pool**. We have won this customer in recent years, becoming the supplier of Pools and Whirlpools water treatments on board of the Quantum project, made up today by 4 Ships built at the Meyer Werft Ship Yards in Germany. Thanks to this project, we have been able to consolidate our relationship with Royal Caribbean and succeed in becoming the Supplier also for the Harmony and Symphony projects built in Saint Nazaire. Moreover, we just recently received a great piece of news: Culligan will be the supplier of the pools and whirlpools water treatments on board of the third sister of the Harmony project delivered in 2021 always in Saint Nazaire!



# DRINKING WATER POTABLE WATER TREATMENT



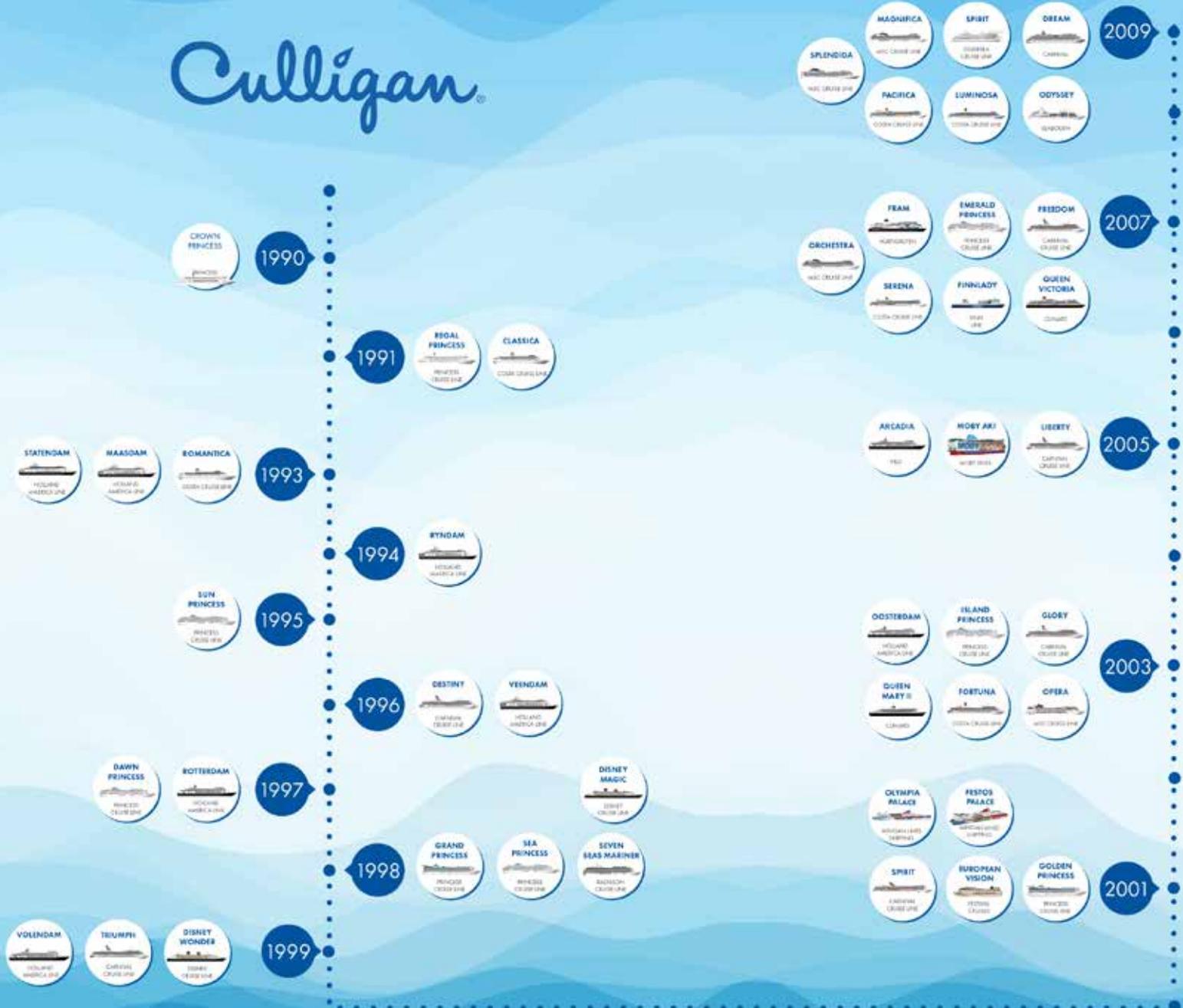
## Culligan builds it's largest ever seawater ROs for a cruise ship.

Culligan has built **two seawater ROs on a single skid** making it **the largest seawater plant** produced by the Italian factory for a cruise ship. This landmark project is part of an order including 4 previous ships for the MSC group. The MSC group plans to build one new cruise ship per year for the next ten years and Culligan's aim is to be on board all. The ships are built at the Fincantieri Group's yard in Italy where Culligan has been a **partner for over 30 years**.



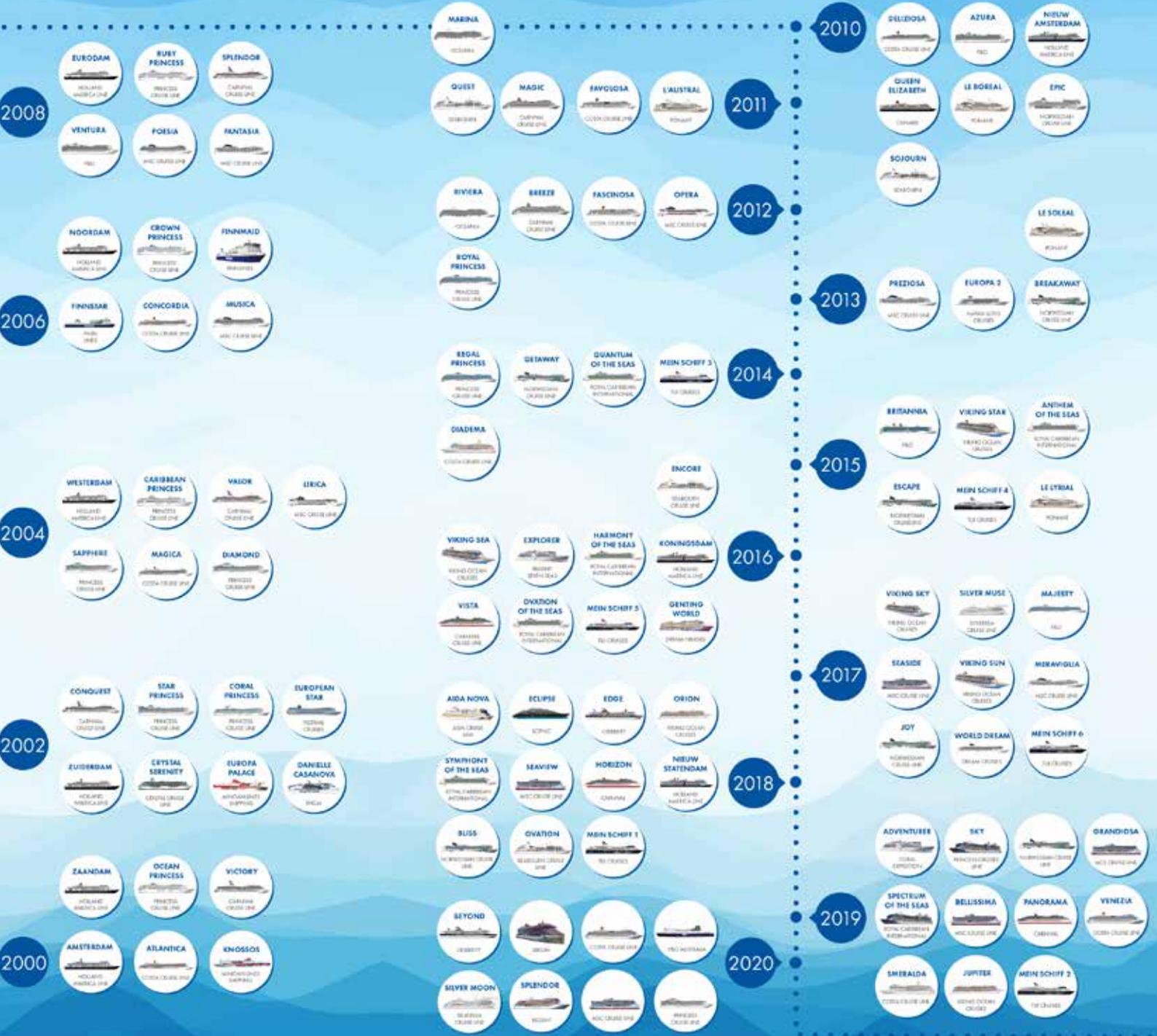
# OTHER PROJECTS

Culligan.



1990 • 1999

2000 •



2009

2010 • 2020



## SERVICE

Culligan will install, commission and maintain your water systems in the most efficient way possible, providing you innovative technology, water testing, consumables and virtually everything else that you need in order to manage your water system safely and effectively. Customer service is a key differentiator for Culligan. Providing customized technological and tailored service solutions is what Culligan do best.

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Culligan service above and beyond.

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## INSTALLATION, MAINTENANCE AND COMMISSIONING

Culligan's service specialists undergo in-depth training to ensure they are the water experts who can efficiently troubleshoot and fix any issue that arises on site.

With experience working in all industries and all areas of the world, Culligan service specialists will install, commission and then maintain your water treatment plant in the most efficient way possible.

## ORIGINAL CULLIGAN SPARE PARTS & CONSUMABLES

Designed and built to the highest possible quality standards, and incorporating the latest improvements in technology Culligan genuine spare parts will keep your plant running at peak performance without interruption.

All Culligan consumables – resin, membranes, media, filters – are designed to enhance the performance of Culligan water treatment equipment, allowing longer operation, and lower operational costs.

With a dedicated 10,000m<sup>2</sup> facility in Technopark Dubai, including warehouse and chemical production, spare parts and consumables are kept in stock, ready for immediate delivery to site.

## REPAIR FACILITIES BY SKILLED TECHNICIANS

Wherever possible repair of Culligan installations will be carried out on site by our highly qualified technicians, but in the case of more complex repairs these will be checked and repaired at one of our local service centres.

Our aim is to offer our customers a repair that is as economical and fast as possible, to ensure the best performance and efficiency of the plant when it will be put into operation again.

The Culligan service team of over 50 Culligan qualified water treatment technicians is one of the largest Service Teams in the Gulf region.

## CHEMICAL SOLUTIONS

Culligan offers a complete range of water treatment chemical solutions, designed specifically to enhance the operation of Culligan equipment, protect your equipment and ensure the safety of your employees and customers.

Our range of chemical treatment solutions are manufactured locally in our Technopark facility. As well as offering our range of standard chemical solutions, the chemical team in our Technopark facility can create bespoke treatment solutions specific to your needs.

All of our chemicals are manufactured to the highest quality standards and comply with all relevant local and international regulations.

## WATER ANALYSIS & HYGIENE SERVICES

Culligan can carry out routine monitoring and analysis using accredited laboratories as well as other Hygiene services such as Legionella Site surveys and Risk Assessments to help you ensure your water systems are safe and your management system is fully compliant with local regulations

## PRE-COMMISSION CLEANING SERVICES

Culligan are experts in the region for the pre-commission cleaning, flushing, disinfection and chemical treatment of building utility water systems.

With a dedicated Pre-commission Cleaning Services team of engineers, technicians and all the necessary pumps, and pipework necessary to address any systems need Culligan are uniquely placed in the Gulf region to quickly and efficiently carry out your pre-commission flushing.

Culligan®

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