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Water Treatment Equipment

US Industry Study with Forecasts for **2019 & 2024**

Study #3288 | May 2015 | \$5300 | 308 pages

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Gains will be supported by sustained efforts to decrease water consumption through the treatment and reuse of wastewater and by rising water treatment standards in industrial markets.

US demand to rise 5.2% annually through 2019

Demand for water treatment equipment in the US is expected to rise 5.2 percent annually to \$15.0 billion in 2019. Gains will be supported by sustained efforts to decrease water consumption through the treatment and reuse of wastewater and by rising water treatment standards in industrial markets such as manufacturing, resource extraction, and power generation. Technologies such as membrane systems, disinfection equipment, and distillation equipment will post the best growth as these products can address a wide variety of water quality problems and can also allow users to decrease reliance on potentially hazardous solutions such as water treatment chemicals. Because many types of membrane systems and disinfection equipment are most effective when water is pretreated, demand for more established products such as conventional filtration systems will also benefit.

Municipal market to remain dominant

The municipal market accounts for the largest share of water treatment equipment demand. Although growth will be below the overall average, gains for water treatment equipment in the municipal market will outpace overall growth in municipal water use. While users in the municipal market are often slower to adopt new water treatment technologies than are users in industrial markets, tightening restrictions on

US Water Treatment Equipment Demand, 2019 (\$15 billion)



chemical use and higher standards for drinking water and wastewater quality will support greater reliance on water treatment equipment. Additionally, limited freshwater availability in Arizona, California, Florida, and Texas in recent years has prompted many municipal water suppliers to turn to unconventional water sources, including seawater and brackish water, which require more aggressive treatment, often with more expensive equipment such as membrane systems or distillation equipment.

Resource extraction to be fastest growing market

Resource extraction is forecast to be the fastest growing market for water treat-

ment equipment, as water consumption and wastewater treatment continue to be issues of concern to both oil and gas field operators and environmental agencies. The US EPA is also in the process of updating its standards for the treatment of wastewater from oil and gas shale and coalbed formations, which could further boost the market for water treatment equipment in resource extraction. Despite this, gains will be slower than the double-digit increases seen during the 2009-2014 period, when hydraulic fracturing activities and oil and gas field production were expanding at a particularly strong rate, driven by a period of higher oil prices.

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Sample Text, Table & Chart

APPLICATIONS

Wastewater

Demand for wastewater treatment equipment is forecast to reach \$1.5 billion in 2019. As the costs associated with wastewater treatment increase, a greater number of industries are expected to turn to wastewater recycling and reuse. This will result in less wastewater treatment than would otherwise occur and less wastewater discharge back into the environment. Even though demand for reuse will be subjected to increased regulatory standards continue to rise out of concern for the environment. Industrial markets, such as manufacturing, extraction, and power generation, will offer the best opportunity for growth; gains in total demand for wastewater treatment equipment will be somewhat hindered by slower growth in the municipal wastewater treatment market, which alone accounted for almost two-thirds of wastewater treatment equipment demand in 2014.

Conventional filtration is expected to remain the largest category of equipment used in wastewater applications for the foreseeable future, both as primary treatment and pretreatment; however, it is expected to be the slowest growing category by far. Disinfection equipment is forecast to show the fastest gains, particularly in those industries where chemical use is undesirable. The larger membrane systems category is also expected to exhibit strong gains, as membrane systems can be used effectively to remove both chemical and biological constituents from wastewater. Among other types of equipment, distillation equipment will see expanded use in several industries that require highly pure water, particularly when the greater energy needs for distillation are not a significant barrier. Niche products, such as oil-water separation equipment, also see increased demand in industries such as the resource recovery industry, which is expanding its water recycling and reuse efforts. Supplies of water are often expensive and scarce.

180

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TABLE III-5

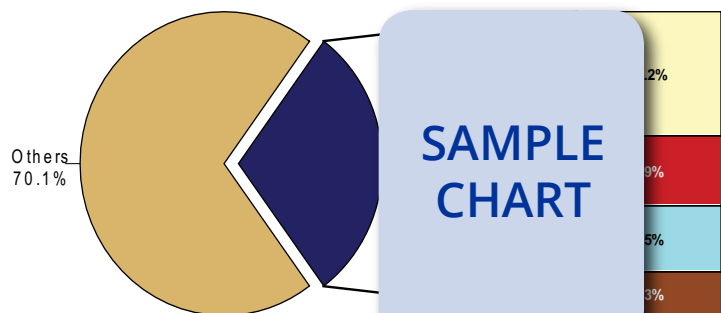
SAND FILTRATION EQUIPMENT DEMAND BY MARKET & TYPE
(million dollars)

Item	2004	2009	2014	2019	2024
Conventional Filtration Demand % sand					
Sand Filtration Equipment Demand By Market:					
Municipal					
Manufacturing					
Residential & Commercial					
Resource Extraction					
Power Generation					
Other Markets					
By Type:					
Systems					
Replacement Filtration Media					

SAMPLE
TABLE

CHART VI-1

US WATER TREATMENT EQUIPMENT MARKET SHARE, 2014
(\$11.6 billion)



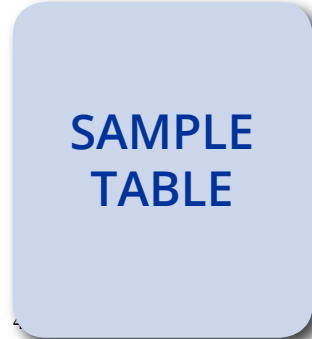
SAMPLE
CHART

Sample Profile & Table, & Study Coverage

TABLE IV-3
MUNICIPAL SUPPLY WATER TREATMENT EQUIPMENT DEMAND BY PRODUCT (million dollars)

Item	2004	2009	2014	2019	2024
Municipal Water Use (trillion gallons) \$ water treatment equip/mil gal					
Supply Water Treatment Equipment					
Conventional Filtration					
Membrane Systems					
Disinfection Equipment					
Other Equipment					
% supply water Municipal Water Treatment Equipment					

Source: The Freedonia Group, Inc.



COMPANY PROFILES

Hyflux Limited

Hyflux Innovation Centre
 80 Bendemeer Road
 Singapore 339949
 Singapore
 65-6214-0777
<http://www.hyflux.com>

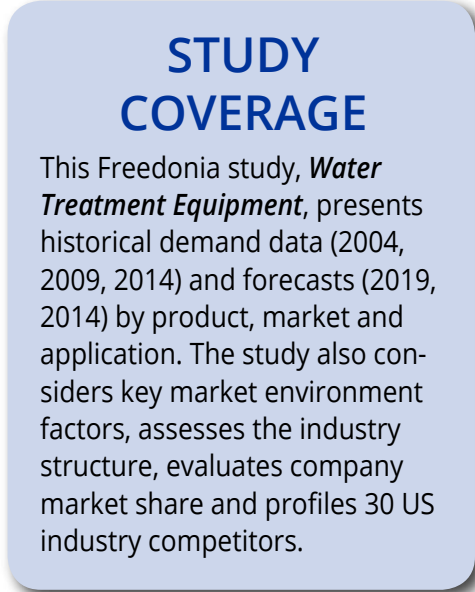
Revenues: US\$ 1.1 billion
 Employment: 1,500

Key Products: ceramic
 hollow fiber membranes



Hyflux is a water treatment and environmental company that specializes in membrane technologies for the water, industrial manufacturing, specialty materials, and energy sectors. The Company operates through three segments: Municipal, Industrial, and All Other.

The Company competes in the US water treatment industry via the Municipal, Industrial, and All Other segments. In 2014, the Company generated 2014 revenues of US\$ 1.1 billion. Among the operations, the Company manufactures KRISTAL polymeric hollow fiber membranes and INOCEP ceramic hollow fiber membranes. In general, membranes from Hyflux are suitable for a range of municipal, government, food processing, pharmaceutical, and petrochemical applications. KRISTAL membranes, which are manufactured from hydrophilic polyethersulfone or polyvinylidene difluoride material, are designed to provide high permeate flux, increased system recovery, and high throughput. The Company's INOCEP membranes are designed to have long service lives for highly demanding applications, such as extreme processes requiring the use of high temperatures,



This Freedonia study, *Water Treatment Equipment*, presents historical demand data (2004, 2009, 2014) and forecasts (2019, 2024) by product, market and application. The study also considers key market environment factors, assesses the industry structure, evaluates company market share and profiles 30 US industry competitors.

Related Studies

Consumer Water & Air Treatment Systems

This study analyzes the US consumer market for water and air treatment systems. It presents historical demand data (2004, 2009 and 2014) and forecasts (2019 and 2024) by technology (e.g., filtration, reverse osmosis, distillation, ion exchange salts, electrostatic, ionization, UV treatment, ozone treatment), product (e.g., whole-house systems, point-of-use water treatment, portable air treatment, consumables), and US region. The study also considers market environment factors, evaluates company market share, and profiles industry players. **#3281.....July 2015.....\$5500**

Membrane Separation Technologies

US membrane demand will rise 7.9 percent per year through 2018 to \$6.2 billion. Microfiltration will remain the largest category, while the second largest type, reverse osmosis membranes, will post faster gains. The municipal water treatment market will be driven by replacement demand and desalination plants. The drug/medical and chemical markets will grow the fastest. This study analyzes the \$4.2 billion US membrane industry, with forecasts for 2018 and 2023 by material, type and market. The study also evaluates company market share and profiles industry players. **#3219.....November 2014.....\$5300**

World Filters

Global demand for filters is projected to increase a healthy 6.2 percent annually to \$80.0 billion in 2018. Most gains will come from large, developing industrial areas with nascent regulatory schemes, such as China and Indonesia. Manufacturing will be the fastest growing market, with rising production benefiting aftermarket filter demand. This study analyzes the \$59.1 billion world filter industry, with forecasts for 2018 and 2023 by product, market, world region, and for 22 countries. The study also evaluates company market shares and profiles industry players. **#3152.....July 2014.....\$6500**

World Consumer Water Treatment Systems

World demand for consumer water treatment systems will jump 12.4% annually through 2017, led by the BRIC (Brazil, Russia, India, China) and other countries with poor public treatment infrastructure. Gains will be driven by rising incomes and increasing awareness of water contamination. This study analyzes the \$7.5 billion world consumer water treatment system industry, with forecasts for 2017 and 2022 by type, aftermarket component, technology, world region, and for 21 countries. The study also evaluates company market share and profiles industry players. **#3110.....January 2014.....\$6100**

World Water Treatment Equipment

World demand for water treatment equipment is expected to grow 6.9 percent per year to \$53.4 billion in 2017. Developing areas will show strong growth based on improved access to treated drinking water and sanitation facilities, particularly through greater use of filtration and membrane systems. This study analyzes the \$38.3 billion world water treatment equipment industry, with forecasts for 2017 and 2022 by product, market, world region and major country. The study also evaluates company market share and profiles industry players. **#3103.....December 2013.....\$6100**

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States and other world markets. Industries analyzed by Freedonia include:

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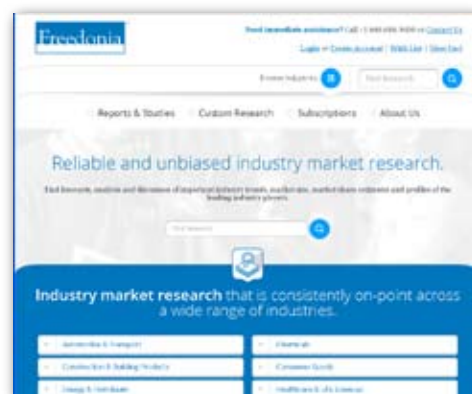
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