Consumer Water Treatment Systems in China

Industry Study with Forecasts for 2017 & 2022

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Consumers in China are becoming more aware of the importance of purifying the water supplied into their homes to ensure that the water they consume meets basic health standards.

Demand in China to grow 17% yearly through 2017

Demand for consumer water treatment systems in China is projected to advance 17 percent per year to 26.2 billion yuan in 2017. Clean water is vital to human health, and consumers in China are becoming increasingly aware of the need for supplemental water treatment to ensure that even the municipally treated water they consume meets health standards. Rapid industrialization and economic growth coupled with an insufficient water treatment infrastructure will continue to prompt Chinese consumers’ concerns about water contamination and inferior tap water quality. Although continuing gains in elevated purchasing power is going to boost market penetration for consumer water treatment systems (especially in urban locales) for the foreseeable future, further gains will be limited by the habit of many consumers in China to boil water prior to consumption in the belief that boiled water is safe enough to drink.

Growth in new housing to benefit both POU, POE sales

A home’s water can be treated two ways: units operating at a single water outlet or in a single room (i.e., point-of-use [POU] water treatment systems) or units treating all of the water entering the entire house (i.e., point-of-entry [POE] water treatment systems). Point-of-use systems will continue to account for the larger share of value demand based on their greater operational flexibility and lower costs. Sales of POU water treatment systems in China are expected to rise 16.6 percent yearly through 2017 to 23.4 billion yuan, accounting for nearly 90 percent of the overall market. Even faster growth will be registered by countertop and under-sink systems, a large share of which are utilized with membranes and other non-conventional filtration systems, offering water treatment superior to flow-through and faucet-mounted systems. However, an increasing share of households are expected to install POE systems to achieve better water purification results. POE and POU systems are regularly being utilized in tandem for those who already have a POE system and then add a POU system for pre-treatment.

Gains in filters, membranes key to aftermarket growth

The aftermarket plays a very important role in the industry, with sales of consumables (i.e., filters and membranes) forecast to grow 18.9 percent annually to 12.2 billion yuan in 2017. Gains will be driven by heightened system penetration rates in Chinese households, as well as the increasing replacement frequency of consumables, partly a result of higher water consumption levels. Consumers upgrading to systems that use more advanced and often more expensive filters and membranes, such as carbon block cartridges, reverse osmosis, and other membranes, will also provide growth in value terms.

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PRODUCTS

Conventional Filtration

Sales of conventional water filtration systems in China are projected to increase from ¥48.4 billion in 2012 to ¥9.5 billion in 2017, slower than the overall average growth rate. This is largely due to a product mix change toward other technologies that remove a wider range of contaminants from water. Conventional water filtration systems will continue to dominate sales, accounting for 83% of the total market forecast in 2017. This market segment is appealing to consumers who are newly entering the water treatment system market.

These systems use adsorptive or mechanical filtration media, often in combination with a primary or only means of water treatment. These systems use adsorptive or mechanical filtration media, often in combination with a primary or only means of water treatment. These systems are generally inexpensive, although they are available in a range of prices, and are often found at mass merchandisers, businesses, and other sales outlets that are easily accessed by most segments of the population. Additionally, conventional filtration-based systems are able to treat the most common water quality issues. Their ability to remove chlorine, sediment, microorganisms, and contaminants that cause foul odors in water, combined with their relatively low prices and accessibility, has made them appealing to a broad range of consumers. Furthermore, competition from bottled water has lessened as consumers have become increasingly concerned about bottled water quality.

Although demand advances are primarily due to unit gains, price increases will also contribute to value gains. Average prices for conventional filtration systems in China are expected to increase by 4.5% per year through 2017. A product mix change toward more countertop and under-sink units instead of faucet-mount and flow-through units will boost price increases. However, highly competitive pricing environment for systems based on conventional filtration technology and particularly for entry-level pour-through and faucet based systems.

### Table IV-5

<table>
<thead>
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<th>Item</th>
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<th>2007</th>
<th>2012</th>
<th>2017</th>
<th>2022</th>
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<td>410.3</td>
<td>426.0</td>
<td>440.0</td>
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<td>4.0</td>
<td>14.7</td>
<td>30.2</td>
<td>53.4</td>
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<td>Under-Sink Water Treatment Systems</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>By Type:</td>
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<td>Multiple-Tube</td>
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<td>1750</td>
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<td>By Technology:</td>
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<tr>
<td>Conventional Filtration</td>
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<td>309</td>
<td>1050</td>
<td>2140</td>
<td>3710</td>
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<td>Membrane Separation</td>
<td>202</td>
<td>1166</td>
<td>4770</td>
<td>10140</td>
<td>18570</td>
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<tr>
<td>Other Technologies</td>
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<td>60</td>
<td>230</td>
<td>570</td>
<td>1220</td>
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<tr>
<td>% under-sink</td>
<td>41.7</td>
<td>50.7</td>
<td>55.8</td>
<td>54.9</td>
<td>54.8</td>
</tr>
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<td>POU Consumer Water Treat Systems</td>
<td>654</td>
<td>3030</td>
<td>10850</td>
<td>23400</td>
<td>42900</td>
</tr>
</tbody>
</table>
Haier Group Company
Haier Industrial Park
No. 1, Haier Road, Hi-tech Zone
Qingdao, Shandong 266101
China
86-532-8893-9999
http://www.haier.net

Revenues: ¥180.3 billion [US$29.1 billion] (2013, as reported by company), ¥162.8 billion [US$25.8 billion] (2012, as reported by company)
Employment: over 70,000 (as reported by company, 3/14)

Key Products: point-of-use water purification systems and replacement filters

Haier Group is a leading Chinese manufacturer of home appliances, electronics, and other products, serving Chinese markets, as well as exporting its products to more than 160 countries.

Haier entered the consumer water treatment system industry in China through Qingdao Haier Strauss Water Equipment Company Ltd. (China), a 50/50 joint venture with Strauss Water Limited (Israel), an 88 percent owned subsidiary of Strauss Group Limited (Israel). Qingdao Haier Strauss Water Equipment sells WATERMAKER point-of-use water purification systems and replacement filters, which are manufactured by Strauss Water Limited in Israel. WATERMAKER point-of-use water purification systems include countertop and under-sink types. Qingdao Haier Strauss Water Equipment’s WATERMAKER countertop water purification systems utilize Strauss Water Limited’s proprietary MAZE filters, which have maze-like structures that are designed to remove bacteria, viruses, heavy metals, and organic particles from water while retaining such minerals as calcium and magnesium.

TABLE V-7
CENTRAL-NORTH REGION OF CHINA:
CONSUMER WATER TREATMENT SYSTEM DEMAND
(million yuan)

<table>
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<tr>
<th>Item</th>
<th>2002</th>
<th>2007</th>
<th>2012</th>
<th>2017</th>
<th>2022</th>
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<td>¥ systems/household</td>
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<tr>
<td>¥ systems/000¥ res bldg construct</td>
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<tr>
<td>Central-North Water Treatment Systems</td>
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<tr>
<td>By Type:</td>
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<tr>
<td>POE</td>
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<tr>
<td>POU</td>
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<tr>
<td>By Technology:</td>
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<tr>
<td>Conventional Filtration</td>
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<tr>
<td>Membrane Separation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other Technologies</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% Central-North</td>
<td></td>
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</tbody>
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