World Water Infrastructure Equipment

Industry Study with Forecasts for 2016 & 2021

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World demand to increase 6.5% yearly through 2016

World demand for water infrastructure equipment is projected to increase 6.5 percent per year to $101.7 billion in 2016. Advances will result from two key factors: in developing nations, access to water supply and sanitation will be increased; in developed nations, aging water infrastructure will need repair and upgrade. For example, many current water systems across the world have pipelines over 50 years old, leading to increased main breaks. These trends will benefit water infrastructure demand for all major products such as pipe, pumps, valves, and meters.

Water supply expansion to drive gains in less developed areas

In less developed nations, gains in water infrastructure equipment demand will be prompted by expansion of water supply services, access to which in many countries remains considerably low. In the least developed parts of Asia and Africa, market gains will continue, but even a robust level of growth will leave several hundred million people without access to safe water or even minimal sanitation facilities. Water infrastructure construction in developing nations has been hampered by a lack of funding. However, government and nongovernmental organizations are increasing their focus on the issue of water management, which will provide opportunities for equipment suppliers.

Upgrades and repairs to define developed markets

In most developed markets -- particularly the US -- gains will result from efforts to upgrade and repair aging sewer and water pipe networks. In addition, rising regulatory standards will also boost water infrastructure spending. However, funding will continue to be the key issue facing the industry. Governments, faced with budgetary limits, have historically neglected water infrastructure in favor of higher profile projects. Water users in many nations are faced with rising fees, which will likely continue to rise.

Plastic pipe, meters to post solid gains

Among products, plastic pipe will post strong gains through 2016, continuing to steadily take market share from other pipe materials. Rising demand for plastic pipe will be driven by its low cost compared to metal or concrete. Meters -- particularly smart meters -- will post solid gains due to suppliers’ attempts to reduce operational costs and leakage. Replacement demand for pumps and valves will benefit from the wear experienced during the continual operation of water systems.
India: Outlook & Suppliers

Demand for water infrastructure equipment in India is projected to increase at a compound annual growth rate of 11% per year through 2016 to $5.6 billion, the fastest growing market in the world. Gains will benefit from continuing efforts to improve India’s water infrastructure, which is inefficient and incomplete. Demand is expected to benefit from a growing number of public/private partnerships, which will create funding opportunities. Advances will benefit from continued strains on India’s water supply as rising population levels and industrial output will increase demand for water. Climate change is becoming an increasing concern, as melting of the western Himalayas will make rainfall in parts of the subcontinent more variable. The country will seek to increase its amount of water storage, which will require the use of water delivery equipment such as pipe and valves.

India’s water infrastructure equipment industry consists of many domestic and foreign manufacturers. Most locally based pipe producers are small or mid-sized companies, with limited product offerings. A few large suppliers are also headquartered in India, including Finolex, Jain Irrigation Systems, Ori-Plast, and Supreme Industries. Finolex, for example, makes PVC pipe at four factories in Ratnagiri and Pune. Local participants in the pump segment include companies like Kaushal Industries and Kiwi Pumps. Often, these companies are also involved in the manufacture of other products. Nearly all of the leading foreign manufacturers operate production facilities in India, including Alfa Laval, Crane, Flowserve, Grundfos, KSB, Pentair, SPX, Sulzer, Weir, and Wilo.

Local producers of water infrastructure valves include Dembla Valves. A few foreign companies have valve manufacturing operations in India, including Alfa Laval and Flowserve. Leading suppliers of water meters to India are Anand Water Meter, Elster, and Itron.

<table>
<thead>
<tr>
<th>TABLE VI-8</th>
<th>INDIA: WATER INFRASTRUCTURE EQUIPMENT DEMAND BY TYPE (million dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>2001</td>
</tr>
<tr>
<td>Resident Population (mil)</td>
<td></td>
</tr>
<tr>
<td>$ equipment/capita</td>
<td>0.8</td>
</tr>
<tr>
<td>Water Infrastructure Equipment</td>
<td></td>
</tr>
<tr>
<td>Pipe:</td>
<td></td>
</tr>
<tr>
<td>Plastic</td>
<td>170</td>
</tr>
<tr>
<td>Other</td>
<td>420</td>
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<tr>
<td>Pumps</td>
<td>50</td>
</tr>
<tr>
<td>Valves</td>
<td>80</td>
</tr>
<tr>
<td>Meters &amp; Other</td>
<td>70</td>
</tr>
<tr>
<td>% India</td>
<td>7.5</td>
</tr>
<tr>
<td>Asia/Pacific Water Infrastructure Equipment</td>
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</tbody>
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Aristovolos G. Petzetakis (Petzetakis) is manufacturer of plastic pipes and hoses. The Company markets its products to customers worldwide.

The Company is active in the world water infrastructure equipment industry via the production of polyvinyl chloride (PVC), polyethylene and polypropylene pipes used in infrastructure, industrial and agricultural water systems. These products can also be used in mining, telecommunications, natural gas distribution, and other applications.

Infrastructure products include pipes for potable water, irrigation and sewage transmission end uses. For potable water transmission applications, Petzetakis makes HYDROTHEN polyethylene pipes. These pipes are blue in color and used for underground installation in pressurized water lines. Other waters supply pipes made by the Company include HELIDUR pressure lines, which are used primarily in irrigation systems. Among sewage pipes manufactured by Petzetakis are HELIDUR SUPER PIPE high density polyethylene (HDPE) types that feature corrugated exteriors and smooth interiors to provide high hydraulic flow properties. The Company also makes HELIDUR PVC pipes.

TABLE VI-7

<table>
<thead>
<tr>
<th>Item</th>
<th>2001</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
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<tr>
<td>Resident Population (mil)</td>
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<td>GDP/capita</td>
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<tr>
<td>Gross Domestic Product (bil 2010$)</td>
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<tr>
<td>Electricity Production (bil kWh)</td>
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<td></td>
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<tr>
<td>Water Use (cubic km)</td>
<td></td>
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<td></td>
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<tr>
<td>Gross Fixed Capital Formation (bil 2010$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Manufacturing Value Added (bil 2010$)</td>
<td></td>
<td>416</td>
<td>891</td>
<td>1270</td>
<td>2910</td>
</tr>
<tr>
<td>$ equipment/capita</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>$ equipment/000$ fixed investment</td>
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<tr>
<td>$ equipment/000$ MVA</td>
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<tr>
<td>Water Infrastructure Equipment (mil $)</td>
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<tr>
<td>Supply Water</td>
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<tr>
<td>Wastewater</td>
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