Large Diameter Pipe in China

Industry Study with Forecasts for 2012 & 2017

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Demand in China to grow 9% yearly through 2012

Demand for large diameter pipe in China is expected to increase 9.0 percent annually to 87.7 million meters in 2012, valued at ¥87.8 billion. Gains will be fueled by continuing increases in spending on physical infrastructure construction, which will support demand for large diameter pipe in drainage, gas and petroleum distribution, and other uses. Construction of new residential and nonresidential buildings will provide opportunities for large diameter pipe in sewers, water distribution and district heating systems. Growth in manufacturing shipments, petroleum and gas extraction, and refining will generate demand in the process manufacturing and petroleum and natural gas industries. In addition, concerns about the quality of available water supplies, especially in rural areas, will boost demand in water treatment and discharge applications.

Plastic pipe to be fastest growing material

Concrete, which accounted for 44 percent of total large diameter pipe length in 2007, will continue to be the leading material going forward, profiting from sound growth in all four of its major applications -- storm sewers, drainage, sanitary sewers and water distribution -- as the government continues its efforts to improve the country’s physical infrastructure. Sales of plastic large diameter pipe are projected to increase at a rate of 11.2 percent annually through 2012, faster than growth for any other material. Large diameter plastic pipe will make inroads at the expense of steel, cast iron and other materials due to cost and installation advantages, as well as significant performance improvements, which will make large diameter plastic pipe more competitive in areas such as underground sewers, drainage, district heating and water distribution.

Sewer, drainage, natural gas markets to lead gains

Demand for large diameter pipe used in sanitary sewer, drainage, storm sewer, and natural gas transportation applications will see faster growth than the industry average. The most rapid gains will be in the sanitary sewer segment, boosted by strong residential construction and initiatives to improve living conditions in the countryside. Drainage pipe will retain the largest share of the market, with nearly one-third of total demand in meters in 2012. Growth will be spurred by increased spending on both building and nonbuilding construction and the need to deliver runoff to existing bodies of water. Advances will be further stimulated by rapid increases in urban infrastructure construction. Rural infrastructure construction will also drive gains as the government addresses a severe imbalance in living conditions between the urban and rural populations.
MARKETS

Drainage

Drainage pipe is widely used in applications such as agriculture and other markets. Large diameter pipe, connected to smaller diameter pipe networks, are laid as high flow trunk lines into rivers, lakes or other bodies of water. Drainage is vital on highways and roads to prevent accidents caused by freezing water during the winter or loss of control due to hydroplaning. Drainage is required in cropland and surrounding areas to prevent crops from rotting in the field and to allow for the operation of farm machinery. Airport runways and parking lots are other applications requiring large diameter drainage pipe.

Demand for large diameter pipe for use in drainage applications in China reached 17.8 million meters in 2007, accounting for 31 percent of total demand. Demand is expected to increase 9.5 percent annually through 2012 to 28 million meters, fueled by expanding road construction. The total length of paved roads is forecast to grow 7.9 percent annually to nearly 2.6 million kilometers over the forecast period. For example, the Chinese government is in the process of completing the construction of a highway network, known as the "7918 Network," which will extend the total length of highways in China to 85,000 kilometers when completed. In addition to providing additional length, this project is also constructing high-quality, high-traffic roadways that will increase the intensity of pipe use per kilometer of road.

The government’s efforts to expand roads and improve road quality in rural areas will also fuel gains in drainage applications. Many new road building and improvement projects will be started over the next few years, benefiting from the New Socialist Countryside initiative.
Sample Profile, Table & Forecast

COMPANY PROFILES

Haohua Zhongyi FRP Company Limited
Number 198 West Second Ring South Road
Shijiazhuang, Hebei  050091
China
86-311-8382-4540
http://www.haohuazhongyi.com

Annual Sales: ¥200 million [US$26 million] (verify by company, 4/08)
Employment:  1,100 (verified by company, 4/08)
Key Products:  fiberglass-reinforced plastic pipes
International Contact:  Mr. Long Chen, Sales Manager
Haohua Zhongyi FRP is a leading producer of fiberglass-reinforced plastic (FRP) in China. The Company’s FRP products include pipes, storage tanks, pressure vessels, grates and planters. The Company was formed when China Haohua Chemical Industrial Group Corporation acquired Shijiazhuang Zhongyi Pipe Company (China).

The Company is active in the Chinese large diameter pipe industry through the production and supply of FRP pipes, which are engineered to resist chemicals, withstand high temperatures and provide high strength, stiffness and pressure tolerance. These pipes are used principally in chemical processing applications, but because the pipes are nontoxic they are also suitable for use in water distribution, food processing, pharmaceutical and other related applications. Haohua Zhongyi FRP’s pipes are made with mechanical joints for easy installation. These pipes are produced in diameters of up to 4,000 millimeters (mm), including large diameter sizes from 400 to 4,000 mm.

TABLE III-2
LARGE DIAMETER CONCRETE PIPE DEMAND IN CHINA BY MARKET
(thousand meters)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonbldg Construction (bil 2006¥)</td>
<td>232</td>
<td>561</td>
<td>1522</td>
<td>2470</td>
<td>3670</td>
</tr>
<tr>
<td>meters pipe/mil ¥ construction</td>
<td>25</td>
<td>20</td>
<td>17</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Large Diameter Concrete Pipe</td>
<td>5725</td>
<td>11050</td>
<td>25400</td>
<td>38800</td>
<td>54650</td>
</tr>
<tr>
<td>Storm Sewer</td>
<td>2630</td>
<td>5220</td>
<td>11750</td>
<td>18000</td>
<td>25300</td>
</tr>
<tr>
<td>Drainage</td>
<td>1670</td>
<td>3625</td>
<td>9650</td>
<td>15300</td>
<td>22100</td>
</tr>
<tr>
<td>Water Distribution</td>
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<td>735</td>
<td>1585</td>
<td>2255</td>
<td>3025</td>
</tr>
<tr>
<td>Sanitary Sewer</td>
<td>360</td>
<td>715</td>
<td>1580</td>
<td>2355</td>
<td>3265</td>
</tr>
<tr>
<td>Irrigation</td>
<td>655</td>
<td>755</td>
<td>835</td>
<td>890</td>
<td>960</td>
</tr>
<tr>
<td>% concrete</td>
<td>42.4</td>
<td>43.6</td>
<td>44.5</td>
<td>44.2</td>
<td>43.9</td>
</tr>
<tr>
<td>Large Diameter Pipe Demand</td>
<td>13500</td>
<td>25350</td>
<td>57100</td>
<td>87700</td>
<td>124500</td>
</tr>
</tbody>
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