



Peerless Pumps are involved in constructing the world's first office building to receive the US Green Building Council's LEED Platinum certificate for new buildings.

By Frank Bisgaard Winther

**A**t the beginning of 2005, the Durst organisation, a well-known development and engineering company in New York, Jaros Baum and Bolles (JB&B), contacted GA Fleet, a New York-based agent for Peerless, to determine whether Peerless would be interested in constructing a large number of high-pressure versions of our existing pump models.

GA Fleet has a long-standing history with both organisations and had been asked to convince Peerless that it should invest both time and resources in developing pump housing that can withstand a suction pressure of more than 400 psi (27.5 bar).

"Little did we know then that Peerless would be involved in one of the most important buildings in recent US history", says Tim Ballengee, General Manager of Peerless Pump.

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#### Facts about One Bryant Park

One Bryant Park won the platinum certificate thanks to its many unique and environmentally friendly functions, for example highly-insulated glass. An automatic dimmer system reduces artificial lighting if sunlight alone is bright enough to illuminate the rooms. The outer wall consists of a mixture of slag and cement, which reduced the CO<sub>2</sub> emissions in connection with the cement production. Rain-water and grey wastewater is reused leading to savings of up to 7.7 million gallons (approx. 30 million litres) of water per year. This system also prevents polluted water from entering the rivers in the city during a storm. The building has a power-based system which provides more than 67 per cent of the annual energy consumption. A unique cooling system produces and stores ice when energy consumption is low and the ice then melts and contributes to cooling when the consumption is high.

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# One Bryant Park

## sets the standard

### **Award-winning building**

One Bryant Park is also known as the Bank of America Tower, and today, the bank uses more than half of the 55 floors in the tower. The tower first opened its doors to the public at the beginning of 2009. In mid-2010, the project won the coveted LEED Platinum certificate from the US Green Building Council and was the first building in New York City and the first newly-constructed high-rise building to receive this accolade. With its 366 metres, the building is currently the second highest building in NYC after the Empire State Building.

### **Adapted to higher pressure**

The pumps that Peerless were asked to modify were to be used in the tower's HVAC systems for condensed and cooled water. A total of 20 split-case

pumps were modified, enabling them to withstand the increased suction pressure by means of extra thick pump housing and extra bolts.

"The pumps have a thicker axle and special sealing that allows an enclosure degree of 600 psi (41.3 bar). The high pressure and the hydraulics in the split-case pumps enabled the developers of the tower to save both space and energy, as they did not have to install small extra pumps and heat exchangers, which are otherwise typically used to provide extra pressure. Also, the new method makes the cooling plants run more efficiently", says Tim Ballengee.

### **Great success**

Peerless and GA Fleet also managed to ensure delivery of almost all pumps used in the tower. Booster plants for

wastewater, drinking water pumps, air conditioning pumps, filter pumps for grey wastewater – all are Peerless Pumps. And multi-stage fire-fighting pumps from Peerless allows for manual fire fighting throughout the building. Even the automatic sprinkler system uses Peerless pumps. More than 40 Peerless pumps are installed at One Bryant Park.

"Peerless Pumps has long-standing experience with pump installations in high-rise buildings all over the world, but everybody at Peerless Pumps is of course proud to be associated with this historic building", says Tim Ballengee. ♣

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### **Facts about Peerless Pump Company**

Established in 1923 mainly to serve the California agriculture market, Peerless Pump Company has roots in the pump business dating back to 1859, when the Taber Pump Company (a Peerless brand) was founded.

When acquired by Grundfos in December of 2007, Peerless had become a world leader in the design and manufacture of pumps for fire protection, vertical turbine pumps as well as many applications in the industrial, commercial, municipal and irrigation segments.

Peerless branded pumps can be found in many of the world's highest valued properties and provide fire protection for most of the world's tallest buildings.

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