

# A Successful Split Case Pump Application ... 10+ Years Later

*The water commissioners of a growing Illinois county looked South for these reliable, low-maintenance solutions.*

Jane Alexander

The DuPage Water Commission, a unit of local government existing and operating under the State of Illinois Water Commission Act of 1985, is responsible for the financing, construction, acquisition and operation of a water supply system to serve approximately 700,000 residents of DuPage County. Its main pumping station and administration building, the DuPage Pumping Station, supplies water to 25 municipalities, one Federal institution and one public utility, which recently added a seventh service area.

To supply all of these entities, the DuPage Pumping Station provides water at the current average daily demand of 86.8 MGD, yet maintains the capacity for a future average daily demand of 185 MGD in the 332-square-mile county.

"This allows us to serve our present-day customers efficiently, and gives us assurance that we will meet growth requirements well into the future," says Terry McGhee, DuPage Superintendent.

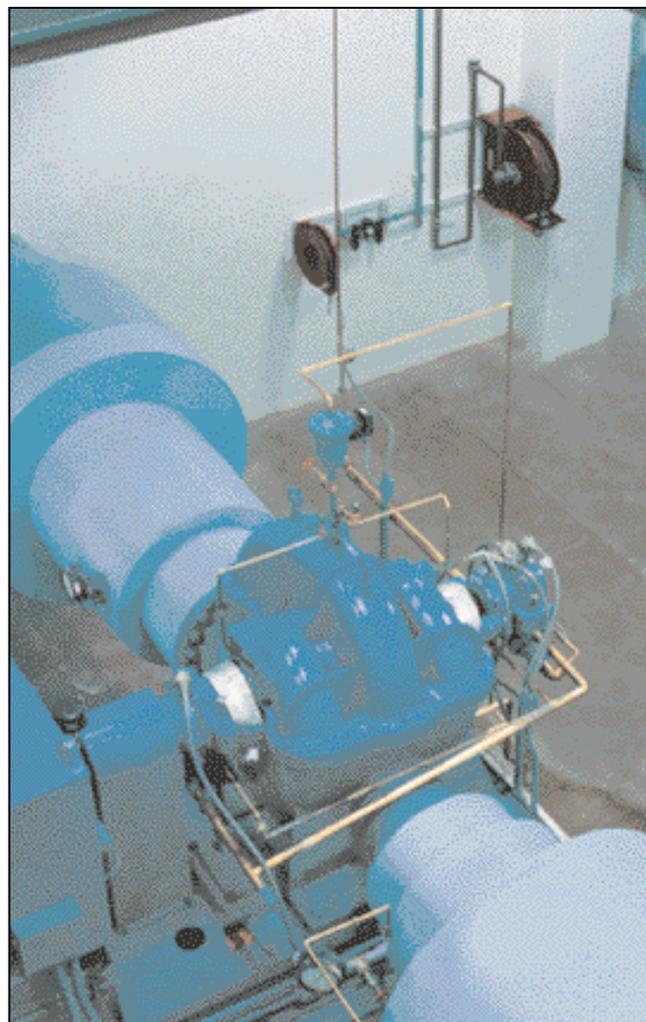
## A Station Designed Around Its Pumps

When the pumping station was designed, Patterson Pump Company of Toccoa, GA, met requirements of the specifications and submitted the winning bid for the 9-pump package. Four 30 x 24 MAA horizontal pumps (Figure 1) and three 30 x 24 MAA vertical pumps, each offering 20,835 GPM and 250' TDH at 900 RPM; and two 20 x 18 MABS horizontal pumps (Figure 2), each offering 19,417 GPM and 250' TDH at 1250 RPM, were selected for the project.

Because the new pumping station was designed around the pumps, their installation was not a concern for the contractor. Construction wrapped up in April, 1991, and the station went into partial service in November of that year. "Since that time," McGhee adds, "all nine split case pumps have continued to meet every aspect of the job they were designed to perform, and their efficiency has not decreased."

## More Reasons to Smile

Evidently, operating efficiency is not the only remarkable feature of the horizontal and vertical split case pumps



**Figure 1. One of four 30 MGD 30 x 24 MAA horizontal pumps operating in the facility.**

*(Editor's Note: This article is adapted and updated from one that was first published in WaterWorld, July/August, 2000)*

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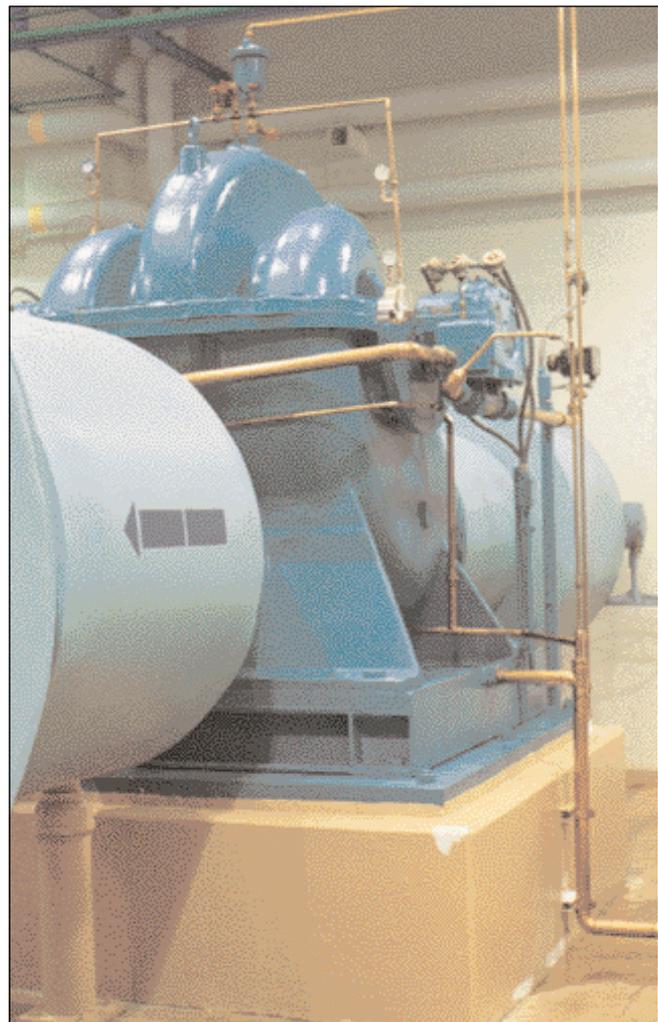
in service in DuPage County. Maintenance of these nine pumps—or *the need for so little of it, that is*—has been particularly gratifying for the Commission.

According to McGhee, there have been no maintenance problems at all since the pumps were installed over 10 years ago. “We took all the manufacturer’s recommendations for preventive maintenance, and have done monthly, semi-annual and annual inspections. We opened two pumps and fully inspected impellers and all other internal parts. We found no wear at all in either pump.”

In fact, in all that time, system operators have experienced only one minor problem—a locking nut that came loose last year and allowed the shaft to move enough to cause a bearing failure. But, McGhee says, “The local Patterson representative was very helpful in returning the pump to service with a minimal delay.”

Going forward, a tenth Patterson split case pump is in the Commission’s five-year capital improvement plan, McGhee says. It’s part of the assurance that future growth needs of DuPage County will be met. **P&S**

*For more information on the products and services referenced in this article, log onto [www.pattersonpumps.com](http://www.pattersonpumps.com) or call (706) 886-2101.*



**Figure 2.** This 20 x 18 MABS horizontal pump has a 15 MGD capacity.

## Engineered, Built and Tested for Performance

Patterson split case pumps, like those in service in DuPage County, are engineered, built and tested to move clear water or low viscosity clear liquids at moderate heads dependably, efficiently and economically. According to the manufacturer, the rugged, yet simple design of these pumps leads to extended service life, reduced maintenance costs and minimal power consumption.

Part of The Gorman-Rupp Company, Patterson Pump—which also has operations in Ireland—maintains U.S.

headquarters and state-of-the-art manufacturing facilities in Toccoa, GA, not far from Atlanta. There, it produces a full line of high-performance pumps for water and wastewater duties across the municipal, industrial, commercial, irrigation and flood control and power generating industries.

Patterson has achieved both Six Sigma and ISO 9000 certification. The company offers worldwide service and support through offices in the U.K., Greece and Thailand.