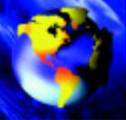




System Application



SMITH & LOVELESS INC.

www.smithandloveless.com

City Replaces Aerated Grit Chambers With PISTA® Grit Removal System



Application Profile: Alton, Ill.
S&L Equipment: PISTA® Grit Removal System
Installed: 1996

For a number of years the City of Alton, Ill., experienced operating problems resulting from grit accumulation in the bottom of the primary clarifier and aeration tanks. Two primary factors contributing to the accumulation were the inefficient removal by the existing aerated grit chambers and the steady rise of flow from the gradual population increase over the years. When a major plant upgrade was undertaken in 1996, the City solved its grit removal problems by switching to the premier vortex centrifugal grit chamber on the market today, the complete **PISTA®** Grit Removal System.

Wastewater flow to the Alton Sewage Treatment Plant is from two sources. One source is the combined sewer system that was constructed during the City's early history. The second source is the sanitary sewer system that commenced in 1913 in the "Upper Alton" area, and was expanded as the City grew and incorporated additional areas to the north and east of the original town.

In November 1994, peak flows at the sewage treatment plant during wet weather periods increased by 5.0 mgd because of the increased interception and conveyance of combine sewer flows. As peak flows increased and detention time in the aerated grit chamber decreased, grit began to carry over into the clarifiers and aeration tanks.

The existing grit chamber was more than 30 years old and had outlived its usefulness. The City's consulting firm, Sheppard, Morgan & Schwabb, recommended to the city to install **PISTA** Grit Chambers, which use forced vortex action to remove more than 95% of inorganics from the influent waste stream. The City's plant superintendent initially had reservations about vortex units because of the familiarity aerated grit chambers, but now is 100 percent satisfied.

In fact, the superintendent reports that the overall project from design to installation was best the had ever been involved with. The **PISTA** Grit Removal System has been successfully applied in more than 1,700 installations around the United States and the world. For more information, contact Smith & Loveless Inc.



*The comprehensive **PISTA** Grit Removal System provides the Alton Sewage Treatment Plant complete system responsibility, including grit removal, pumping, washing and dewatering.*

Smith & Loveless Equipment Supply Profile

- (2) **PISTA** Model 12.0A Grit Chambers
 - (2) **PISTA** Turbo 10 Hp Grit Pumps
 - (2) **PISTA** Ni-Hard Grit Concentrators
 - (2) **PISTA** Model 15 Grit Screw Conveyors
- Peak Flow Capacity 24 MGD • Installed 1996

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Smith & Loveless Inc. System Innovators for global pumping, water and wastewater treatment