

Industry: Sewage and Water Treatment

End User: City of Chicago, James W. Jardine Water Purification Plant, IL, U.S.A

Application: Chain Conveyor Wear Shoes

Thordon Grade: Thor-Flex

Date of Original Installation: November, 2001

Challenge:

Treating water from Lake Michigan, the Jardine Water Purification Plant pumps over 700 million gallons of water per day. Grit Chambers are large settling tanks where the removal of organic solids takes place. The large tanks have chains and sprocket systems with scrapers or flytes spaced at intervals between them. Scum is removed from the top and the grit and settled solids are scraped to one end of the bottom of the grit chamber for removal. The existing UHMWPE wear shoes are the wear surface for the slow moving scrapers and have been problematic for this application. There are over 14,000 wear shoes at this plant in 3 different sizes.

Solution:

Thordon recommended Thor-Flex Chain Conveyor Scraper Wear Shoes for the issue in the grit chambers.

Thor-Flex offers:

- Excellent wear resistance in low speed sliding wear pad applications
- Much greater cut and gouge resistance than UHMWPE
- Longer wear life as proven by other sewage and waste water plant references

Results:

The City of Chicago did not tender the contracts until October 2001. After reviewing Thordon references from other installations, the City of Chicago awarded the contract to Thordon for Thor-Flex chain conveyor scraper wear shoes.

Due to the impressive wear life, the City of Chicago re-ordered Thor-Flex wear shoes for replacement in 2014, providing a wear life of over 12 years.



Grit Chamber Scraper Apparatus

