

# NAPIER REID

## Screw Grit Classifiers



## Process

Screw Grit Classifiers (SGC) from Napier Reid are designed to separate and dewater grit and sand from wastewater consisting of a mixture of water, organics, grit and other solids.

The mixture is fed directly into the grit classifier through the influent box and diverted into the classifier tank.

The influent enters the classifier tank horizontally, creating a hydraulic jump that allows water and light weight organics to skim over a weir plate and into the effluent trough.

Grit and other heavy material settle to the bottom of the detention trough and are transported up an inclined plane by a low speed conveying shaft-less screw.

As the grit and other heavy materials are transported up the inclined plane, the specially designed conveyor tumbles and washes the grit in order to remove the organics from it. The washed organics are returned to the effluent connection by an organic return connection.

Once the grit and heavier material is elevated above the classifier's water level, the solids are further dewatered by transferring them to a convenient discharge height. The grit falls through the grit discharge chute into a grit collection box or into a screw conveyor for disposal.



▲ **Wafra WWTP  
Kuwait**

▼ **Screw Grit Classifier c/w Hydro-cyclone  
Corbett Creek WWTP  
Ontario, Canada**



## Application of Napier-Reid's SGC



▲ **North Toronto WWTP,  
Ontario, Canada**

**Grimsby WWTP,  
Ontario, Canada** ▶

- ▶ Municipal Wastewater Treatment Plants
- ▶ Industrial Wastewater Treatment Plants



## About Napier - Reid

*Over 60 years of excellence in water & wastewater treatment*

Napier-Reid is located in the greater Toronto area in the Province of Ontario, Canada. We supply engineering services and process equipment for water and wastewater treatment.

We have the technology, resources and experience to design, manufacture and implement innovative water and wastewater treatment solutions worldwide. We have completed over 3000 projects since our inception in 1950. This stands as a testament of our ongoing commitment of providing the highest quality service, products and after sales support in the industry. Our capabilities include engineering, manufacturing, installation and field support. We have in-house personnel for complete mechanical, electrical and instrumentation process and control system design. As a manufacturer, our designs focus on cost-effective solutions, simplicity of installation and ease of maintenance.

Napier-Reid has developed an excellent team with many years of experience. We have a well-deserved reputation for innovation, service and integrity. A significant portion of Napier-Reid's revenue comes from export to countries such as the Caribbean, Central America, South America, Middle East, Eastern Europe, Africa, and Asia. As a Canadian manufacturer, we are eligible for Canadian governmental funding and EDC export credit. We have the capability to handle a large range of projects, from engineering, equipment supply, installation, start-up, to turnkey projects. Let Napier-Reid be your solution for water and wastewater purification.



10 Alden Road,  
Markham, Ontario L3R 2S1  
Canada  
Tel: (905) 475 1545  
Fax: (905) 475 2021  
E-mail: [info@napier-reid.com](mailto:info@napier-reid.com)

**[www.napier-reid.com](http://www.napier-reid.com)**