

## Standard ROTORDISK® Treatment Plants

From large municipal facilities to the smallest development project, Seprotech has a ROTORDISK® to meet every need. Each ROTORDISK® can be delivered as a complete system or integrated into existing civil works. Where greater capacity or future growth is anticipated, individual ROTORDISK® systems can be combined to form larger modules.

Model	Max Flow (USGPD)	Max Flow (m³/day)
B15	3963	15
B30	7925	30
B50	13209	50
B70	18492	70
B100	26417	100
B130	34342	130
B160	42268	160
B190	50193	190
B220	58118	220
B270	71327	270
B570	150579	570



This ROTORDISK® assembly is easily lifted into either a concrete or steel primary settling tank. All our systems are easy to install.

ROTORDISK® is capable of accepting a variety of flows without compromising effluent quality – no minimum inflow of sewage is required. The system is also able to handle overloading for short periods of time.

## Advanced Treatment Options

The ROTORDISK® system can be adapted to handle various wastewater types and to meet almost any wastewater treatment standard for both surface and subsurface discharge. The following treatment options can be added to your ROTORDISK® plant:

- Advanced Phosphorus Removal. Using one of the most effective filtration processes to remove phosphorus from effluent.
- Nitrification. Using specialized bacteria to convert ammonia into nitrate in an aerobic environment.
- Denitrification. Using specialized bacteria to convert nitrates into nitrogen gas in an anaerobic environment.
- Disinfection. Using Ultra Violet (UV) technology to kill any residual bacteria that may be present in the final effluent.

## Seprotech After Care

ROTORDISK® systems are supported by a detailed technical data package. ROTORDISK® plants are so easy to start-up that many customers commission ROTORDISK® systems without the need for factory assistance. Seprotech's process designers, engineers, project managers, and field service technicians are always available to assist our customers. The Seprotech network of highly knowledgeable sales representatives and distributors provides additional services to ensure your purchase is a satisfying experience. Please contact us to find a representative near you.



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### Your Authorized Dealer:



# ROTORDISK®

## The Simple Sewage Solution

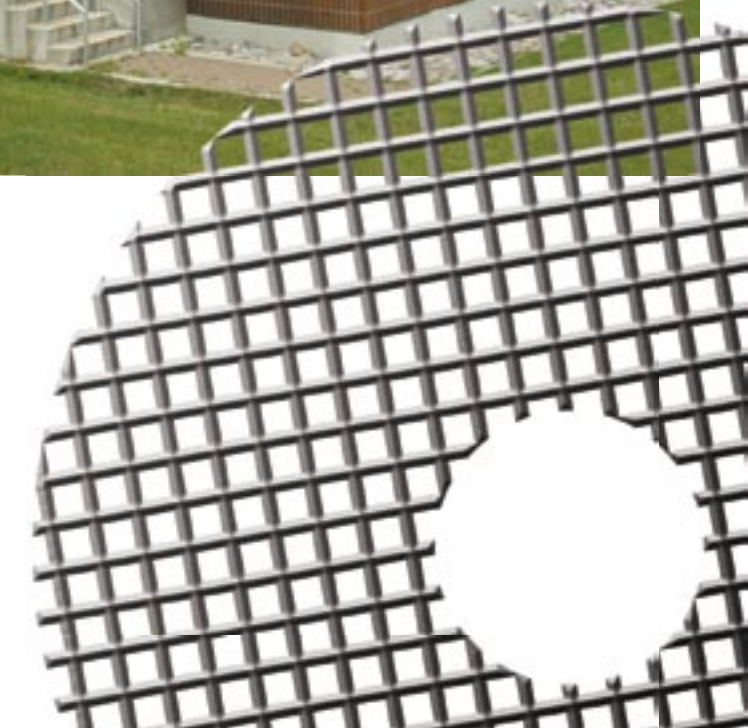


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# ROTORDISK®

## The simple sewage solution

At Seprotech, we are proud of our work in developing solutions for complex water and wastewater treatment problems. For thirty years, our solutions have been benefiting communities, governments, industry, and most importantly, our environment. Developers, landowners, engineers, and governments trust Seprotech to deliver efficient, cost effective, and reliable products for their water and wastewater treatment needs.

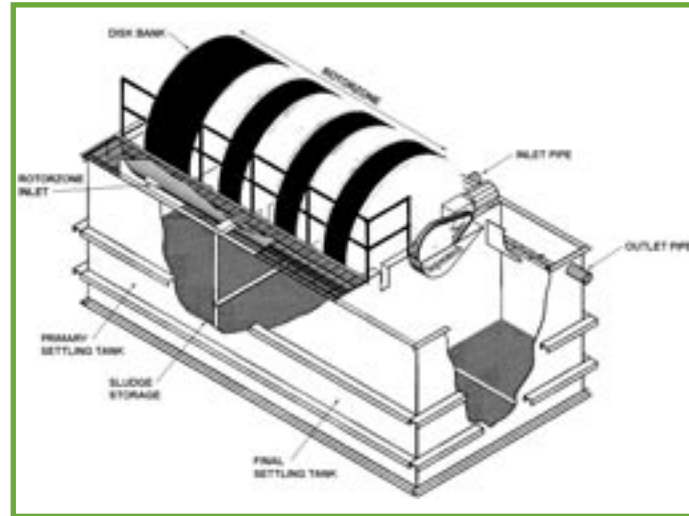
The ROTORDISK® system is our core wastewater treatment solution. Our proven technology has been used in hundreds of installations across Canada and worldwide. We have extensive experience designing systems to meet almost any treatment need – from large urban developments to remote mining sites. Seprotech's full range of services also means we take the worry out of the certification and engineering evaluation processes.

ROTORDISK®'s simplicity eliminates many of the environmental, cost, and technical issues associated with other treatment systems. Our ROTORDISK® system is extremely compact and does not require lagoons, outside holding tanks, security fences or other features that disturb the landscape. The plant is quiet and odourless. The ROTORDISK® system is safe, reliable and can be delivered in any number of configurations. Because ROTORDISK® package treatment plants are designed to blend into any surrounding, most people won't even notice it's there.

ROTORDISK® can be delivered as a complete wastewater treatment facility serving a wide range of influent characteristics and effluent discharge criteria. ROTORDISK® has also proven to be easily integrated into larger, more complex, fully engineered municipal wastewater treatment projects. Either way, the ROTORDISK® solution is an ideal choice, especially if you need to meet the most stringent standards for wastewater treatment.



A community of 100 homes is serviced by this ROTORDISK® plant. It provides effluent treatment and advanced nitrate removal under one roof.



## What is ROTORDISK®?

The ROTORDISK® system is a complete wastewater treatment plant that uses a Rotating Biological Contactor or RBC to harness natural biological processes to produce effluent that meets secondary and tertiary discharge standards. The RBC works by rotating sheets of high-density polyethylene, known as media, continuously in and out of the wastewater. Naturally occurring bacteria grow on the media and convert organics and ammonia into water, carbon dioxide and nitrogen. The ROTORDISK® is unique because the media is arranged in separate stages to create a ROTORZONE® where a wide range of different bacteria flourish. This extensive biodiversity, coupled with optimum oxygen transfer from RBC rotation results in excellent effluent quality and low sludge generation.

The ROTORDISK® is much more than a RBC – it is a complete plug and play wastewater treatment plant. Seprotech's all in one approach can incorporate all tertiary treatment steps from influent to effluent to meet a wide range of discharge standards:

- Primary settling and digestion of solids.
- Removal of organic matter (BOD<sub>5</sub>), reduction of total suspended solids (TSS), removal of ammonia, and reduction of phosphorous (P).
- Biosolid recycling from the final settling tank (FST).
- Advanced tertiary treatment including nitrate removal, state of the art phosphorous treatment and ultraviolet (UV) disinfection. Tertiary treatment systems are customized for each customer's special requirements.

The ROTORDISK® approach is radically different from conventional sewage treatment systems, where a few bacteria dominate and float freely in a tank of sewage. This lower biodiversity means less effective solids digestion and more sludge production, resulting in the need for much larger plants than similar capacity ROTORDISK® systems. The ROTORDISK® is designed to provide optimum aeration using its innovative RBC design and does not require complex, energy consuming aerators to prevent anaerobic conditions and plant upset. The result is a simple, compact and efficient wastewater treatment plant.

## Why ROTORDISK®?

**Low Installation Costs.** A ROTORDISK® system can be purchased with only a modest capital outlay. Its internals are easy to integrate and retrofit into new or existing wastewater treatment projects. ROTORDISK® full steel systems have the added advantage of being easy to relocate, re-sell, or re-apply to different applications depending on future needs.

**Easy & Immediate Start-up.** ROTORDISK® start-up can be handled with minimal technical experience. Wastewater processing can begin immediately regardless of influent strength or volume. ROTORDISK® systems do not use complex mechanical components nor do they require complicated control processes. Therefore, they do not need continuous monitoring or supervision.



The ROTORDISK® is easy to install, start-up and operate at remote sites. Ideal for Canada's arctic as well as this mining camp in Chile.

**Environmentally Friendly.** ROTORDISK® treatment is naturally occurring and energy efficient. It produces clean, safe water that can discharge directly to surface or subsurface watercourses. Its efficiency results in low sludge production reducing the need for expensive and harmful disposal.

**Low Operating & Maintenance Costs.** The ROTORDISK® shaft rotates using a low horsepower electric motor. There are no aerators or other mechanical components to maintain. Under normal operating conditions, ROTORDISK® systems require only a few hours of maintenance per week over their lifetime. Because of its low sludge generation, sludge storage and retention is designed into the system, eliminating the need for sludge digesters or costly sludge handling equipment.

**Inoffensive and Unobtrusive.** ROTORDISK® treatment does not produce unpleasant odours and its simple operation is very quiet. Proximity to homes, offices, or environmentally sensitive areas is therefore not an issue.

**Flexibility and Sustainability.** ROTORDISK® modules can be combined to expand the capacity of any treatment system. This sustainability is essential for municipalities and developments that are expecting to grow over time.



ROTORDISK® is fully integrated into this community. Only the air vents distinguish the plant from the homes it services.

**Community Acceptance.** ROTORDISK® is a fully enclosed system that can be installed above or below grade. It can be housed within any structure of the client's choosing, leading to unlimited possibilities for aesthetically pleasing plant designs. There are no unsightly open tanks or ponds. The system therefore does not look like a sewage treatment plant and is safe for residents, children, and employees.

**Proven Process.** ROTORDISK® is adaptable and incorporates the latest advances in wastewater treatment technology. The ROTORDISK® treatment process is extremely stable and resistant to upsets. Most importantly, ROTORDISK® handles the real world scenario of varying flows and loading without compromising effluent quality.

## Typical ROTORDISK® Applications

- Cities, Towns and Subdivisions
- Hotels and Motels
- Apartments and Condominiums
- Shopping Malls and Plazas
- Mining and Construction Camps
- Remote Communities
- Nursing Homes
- Retirement Communities
- Campgrounds and Trailer Parks
- Marinas, Restaurants, and Golf Courses
- Government and Military Facilities
- Residential Homes and Cottages



The CLEMENTINE® is a mobile wastewater treatment plant in a standard ISO container. It can be transported and used almost anywhere.