

Compact Grit Solutions



**Optimized for Smaller
Wastewater Plants**

Engineered by Hydro International®



Compact, High-Performance Grit Removal for Small Wastewater Plants

Across North America, smaller wastewater treatment plants play a critical role in safeguarding water quality and supporting their communities. These facilities often face unique considerations— from optimizing limited space to managing budgets — while still needing the same reliability and performance as larger operations.

Oldcastle Infrastructure offers Compact Grit Solutions, engineered by Hydro International from the ground up to meet the needs of smaller wastewater treatment plants. Designed for efficiency, these systems capture 95% of grit particles \geq 106 micron, fit within tight footprints, and require minimal maintenance — all while delivering long-term value. It's high-performance grit management, purpose-built for your plant.

Added Value Designed to Fit

Our goal is always to enhance value to our client's projects. This is particularly true with our Compact Line of grit removal solutions. We have re-engineered our products to align with smaller plant conditions. Specifically designed to match your flows, your space constraints, and your capital equipment budgets, our compact line is designed to fit your needs. The benefits of Advanced Grit Management® are now available for smaller wastewater treatment plants that are unwilling to sacrifice performance.

- **95% removal of all grit \geq 106 micron**
- **Flexible installation options to fit existing layouts**
- **Smaller footprint with lower cost**
- **Low-maintenance operation for long-term reliability**

Product Applications

Application	Product		
	Grit King® Compact	SpiraSnail® Compact	Decanter
High-performance grit separation	✓		
Grit washing	✓		
Grit dewatering		✓	✓
Small footprint installations	✓	✓	✓
Flexible layout options	✓	✓	✓
No washwater required		✓	✓
Low maintenance	✓	✓	✓



Grit King® Compact

Separation & Washing in One Efficient System

The Grit King® Compact is purpose-built for smaller wastewater treatment plants that require high-performance grit removal in a small footprint. This advanced hydrodynamic separator uses gravitational and rotational forces to separate grit from water with no moving internal components, reducing maintenance and extending equipment life. The system is specifically designed for smaller flows, allowing many of the internal components to be constructed with high density plastic rather than the stainless steel required in our larger systems. This significantly reduces overall product and shipping costs without compromising on Grit King® performance.

Features and Benefits

- Performs both grit separation and washing in a single unit
- All-hydraulic operation with a small footprint fits in tight spaces
- Inlet and outlet locations can be rotated to better match your existing site layout
- No moving internal parts – low wear and low maintenance
- High capture efficiency: 95% of all grit ≥ 106 micron
- Stainless steel and synthetic internal components for durability
- Typically provided with a dry pit or self-priming grit pump and control panel

How It Works

Flow enters tangentially, creating a spiral motion as solids settle into the grit sump. The center cone directs flow away from the base, and concentrated grit underflow is pumped to a Decanter or SpiraSnail® Compact unit for dewatering.



OUR PRODUCTS

SpiraSnail® Compact

Small Footprint Dewatering Screw

The SpiraSnail® Compact provides reliable grit dewatering in a size designed to fit smaller plant space constraints. It uses the same proven shafted screw design as the standard SpiraSnail®, but is shorter and space-efficient – ideal for facilities with limited installation area.

Features and Benefits

- Stainless steel construction with heavy-duty screw for long service life
- No washwater required
- Handles influent flows \leq 125 gpm (7.9 L/s) design flow capacity with 0.75 yd³/hr (0.6 m³/hr) conveying capacity
- Designed for 95% capture of all grit 106 μ m and larger



Decanter

Compact Dewatering Bin

The Decanter is a simple, non-mechanical grit dewatering solution that pairs seamlessly with the Grit King® Compact. Available in multiple configurations, the Decanter is a cost-effective and reliable dewatering solution for smaller treatment plants.

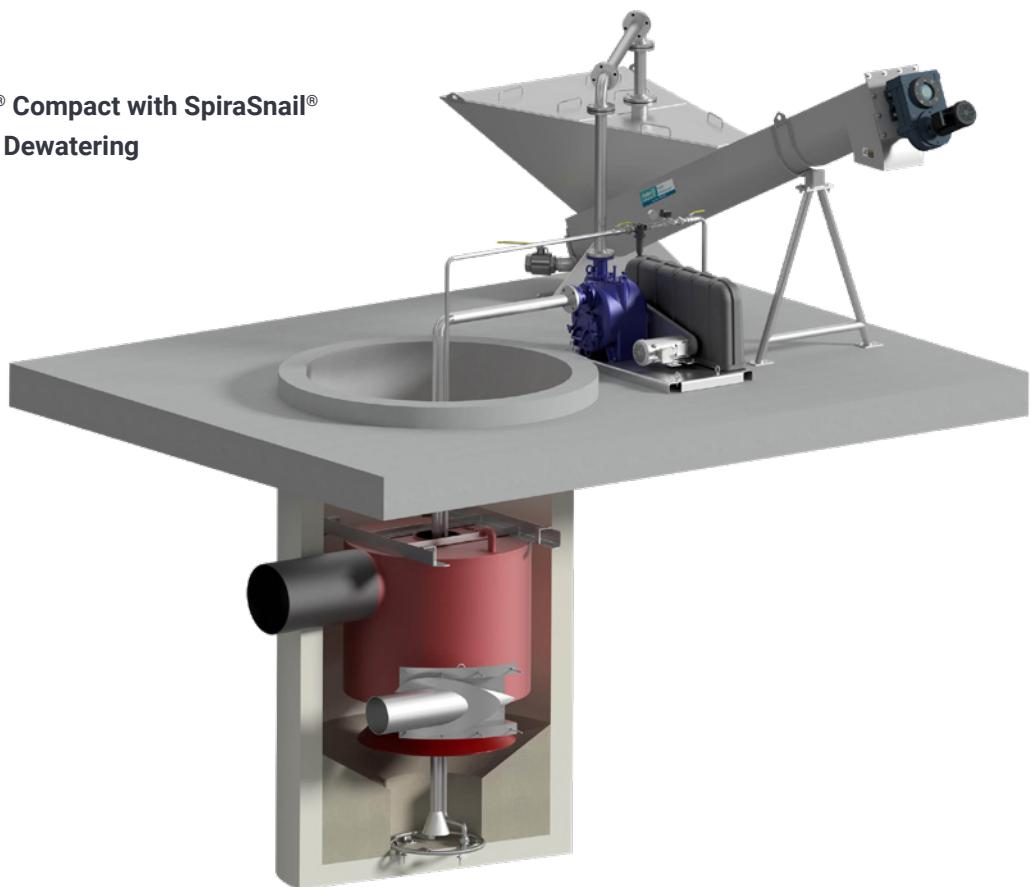
Features and Benefits

- Available in front- and rear-loading models
- Self-dumping option for quick, easy disposal
- Compact design to match local disposal truck requirements

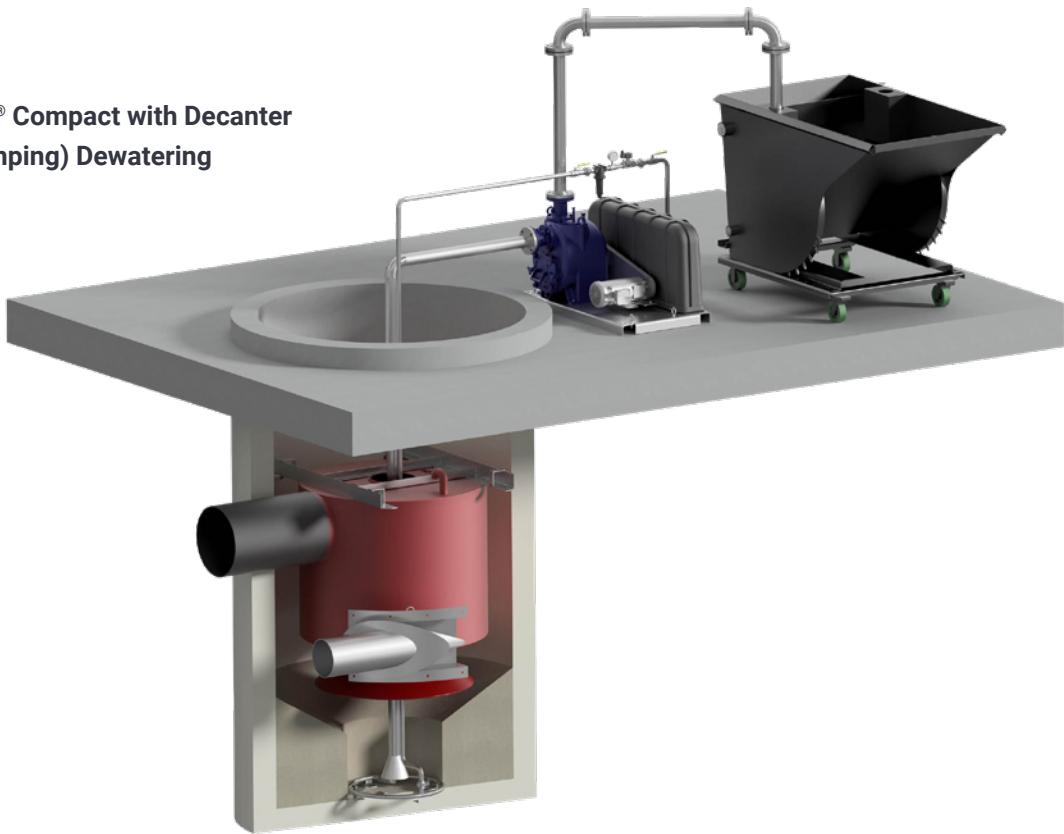


Product Configurations

**Grit King® Compact with SpiraSnail®
Compact Dewatering**



**Grit King® Compact with Decanter
(Self Dumping) Dewatering**



Nationwide Support and Commitment

At Oldcastle Infrastructure, we believe we're all stakeholders in the preservation of our planet, and it's our collective duty to contribute to environmental sustainability, which also encompasses financial sustainability.

We're committed to refining production methods such as utilizing low-carbon concrete and dedicated to protecting fresh water through AI-powered leak detection. As your total site solutions partner, we're dedicated to helping you overcome supply chain disruptions to minimize environmental impact.

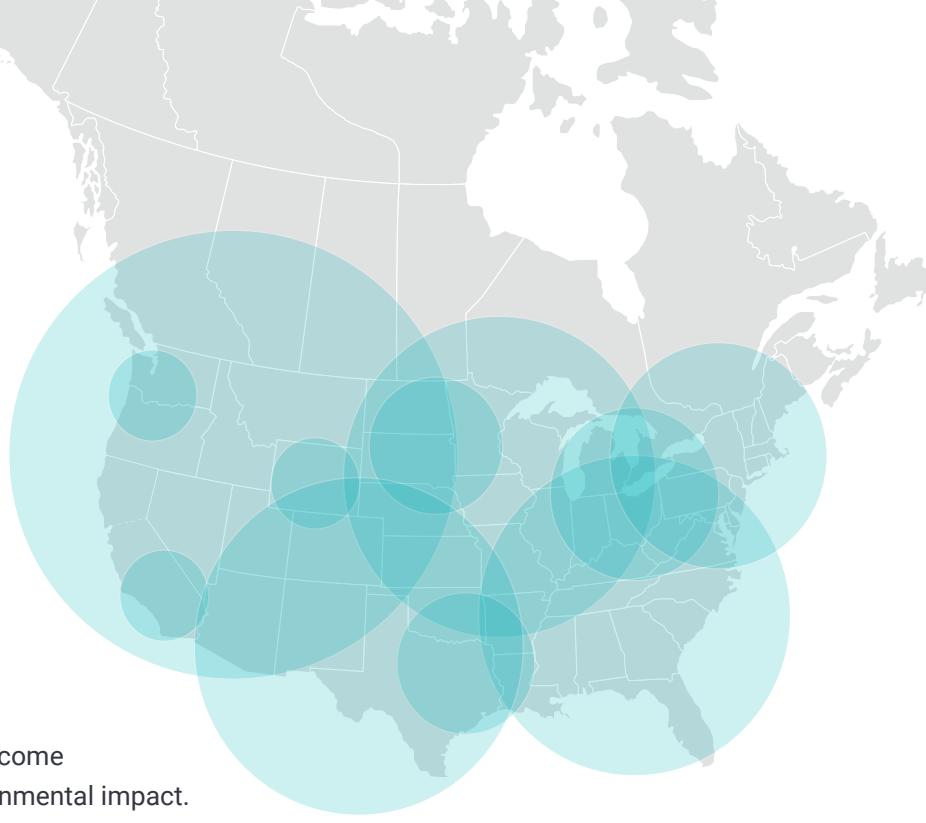
Our network of over 80 locations nationwide allows us to overcome complex supply chain and facility requirements with the utmost dedication to crafting customized solutions driven by customer-centric principles. Products are modified to meet specific needs and engineering designs are refined and shared across our network to improve building efficiency and minimize environmental impact.

It's all part of the Oldcastle Infrastructure consultative, value-engineering support that helps you get the most from your Compact Grit Solutions — keeping your operations efficient, reliable, and built for the long term.

Protect the Efficiency of Plant Processes and Reduce Your Energy Consumption

Water and wastewater treatment require vast amounts of electricity to operate. According to the US EPA they consume 2% of ALL the energy used in the US and can be as high as 40% of a municipality's total electrical bill. One of the biggest energy consumers inside a wastewater treatment plant is the blowers used for aeration. Left unchecked, grit will smother aeration diffusers forcing the blowers to work harder, use more energy, and fail sooner.

Additionally, grit will fill a wide array of treatment processes throughout a wastewater treatment plant reducing capacity, performance, and efficiency. This can significantly increase maintenance costs and downtime to manually remove it. Grit also ravages expensive equipment with moving parts, with pumps being particularly vulnerable and leading to early replacement. Oldcastle's Compact Line of Advanced Grit Management® solutions minimize the impacts of grit, reduce your maintenance and electrical costs and keeps your plant operating at peak efficiency.





www.oldcastleinfrastructure.com | (888) 965-3227

Trusted partnerships.
Full scale solutions.