

## Get superior non-turbulent grit dewatering, optimised for fine wastewater grit

The Grit Snail® is a quiescent dewatering belt escalator that captures and dewateres the fine grit output from a HeadCell®, SlurryCup™ or TeaCup® grit removal system. Providing solids output with low water content, the Grit Snail® reduces solids handling and landfill costs.

Designed to handle very fine grit, the slow-moving belt pulls solids from clarifier water without agitating the water, thereby retaining even very fine particles.



### Applications

- Grit dewatering for municipal WWTPs.
- Non-turbulent dewatering for clean, fine grit output from a HeadCell®, SlurryCup™ or TeaCup® system.
- Sludge dewatering or headworks dewatering applications.
- Agricultural and industrial applications.

### Performance

- Removes 95% of all grit 75 µm and larger at the design flow rate when used with a Hydro International washing system.
- Outputs 60% total solids and less than 15% volatile solids when used with a SlurryCup™ or TeaCup®.
- Dewatering capacity from 0.7-7.6 m<sup>3</sup>/hour of grit.

### Benefits

#### Retain more, finer grit

Many conventional grit removal systems will combine washing and dewatering into a single process. Washing is a turbulent process, however, and dewatering should be performed under still conditions; combining these processes is why many types of systems fail to retain fine grit. The Grit Snail® is a quiescent system with a slow-moving belt that eliminates this kind of turbulence, meaning that it retains more, finer particles.

#### Reduce operating costs

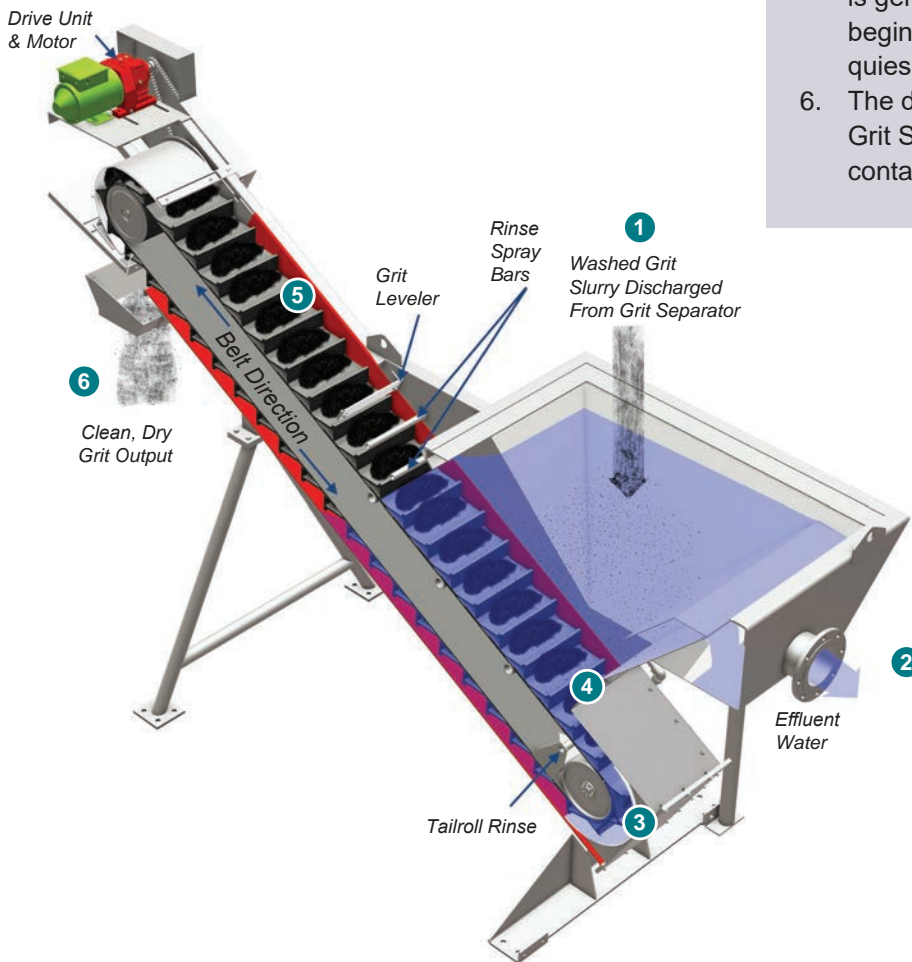
When matched with a Hydro International separation and/or washing system such as the HeadCell®, SlurryCup™ or TeaCup®, the Grit Snail® retains fine grit and outputs material with very low volatile solids or residual moisture, cutting odour and making the output easier to handle and dispose of. Your treatment plant is the best way to treat water and organics - avoid paying the expense of landfilling water and organic content.

## Product Information

- 304 stainless steel construction standard; 316 stainless steel available.
- NEMA 4X valves and stainless steel control panel.
- Variable frequency drive.
- Belt rinse system.
- Belt housing is lined with abrasion resistant urethane for long product life.
- Larger clarifier area allows even very fine grit to settle.
- Slow moving belt eliminates grit carry over.
- Multiple inlet and outlet arrangements are available to accommodate plant piping conditions.
- System can be provided with an optional maintenance access platform.

## How it works

1. A washed grit slurry is discharged into the Grit Snail® clarifier. The clarifier is sized to provide sufficient area for particles as small as 75 µm (micron) to settle.
2. Degritted effluent overflows a weir and goes on to the next process.
3. The captured grit settles to the bottom of the clarifier and onto the belt.
4. The slow moving belt gently lifts accumulated grit from the clarifier bottom without re-suspending it, eliminating the potential for carry-over. The belt typically moves at 1-2 feet/minute (30-60 cm / minute) which creates quiescent dewatering conditions.
5. The grit settles onto the stepped cleats and is gently lifted out of the clarifier. Dewatering begins as the grit and fine abrasives are quiescently raised from the clarifier pool.
6. The dewatered grit is carried to the top of the Grit Snail®, where they are discharged into a container for disposal.



## Learn more

To learn more about how Grit Snail® can help you to make better water management decisions, visit [hydro-int.com](https://hydro-int.com), search Grit Snail online or contact us:

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