

Eutek HeadCell™

High performance grit removal in a small footprint.

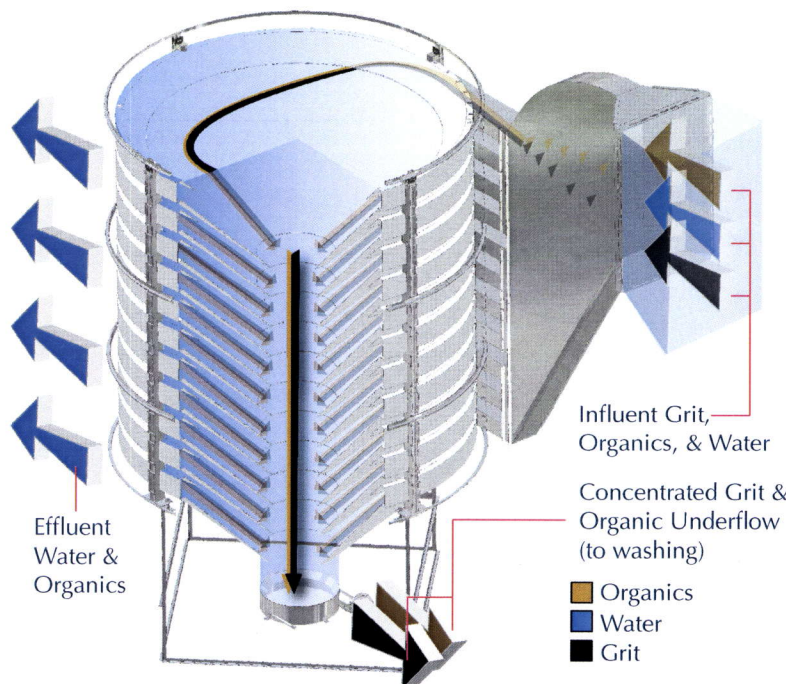
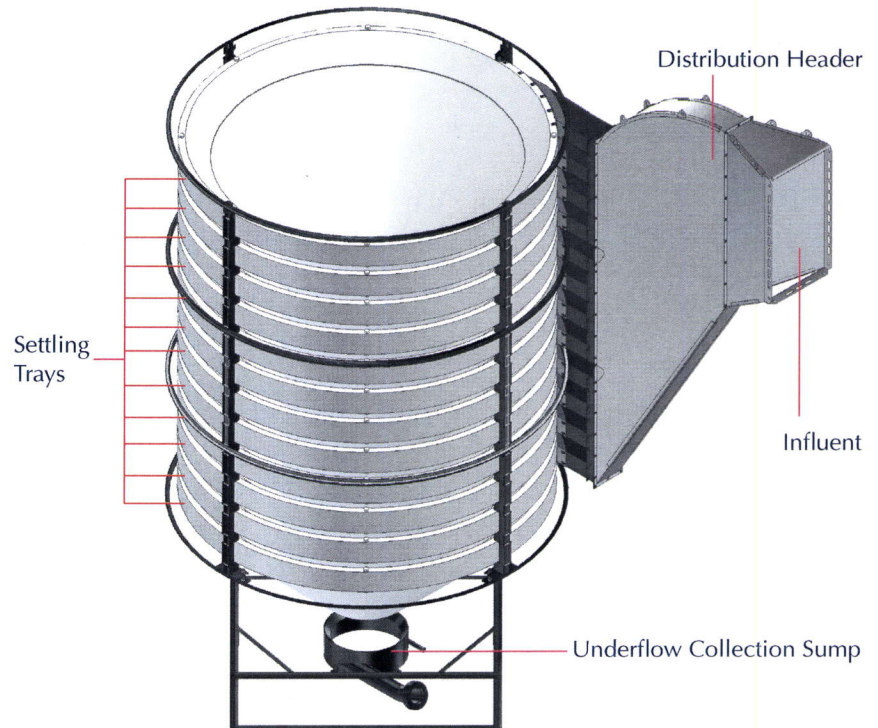
APPLICATIONS

- Grit removal for new, expanding, and upgrading WWTPs
- Retrofits into existing grit chambers
- Pre-treatment for MBR and many other process upgrades

ADVANTAGES

- Large surface area in a small footprint
- No moving parts or external power source
- Less than a foot of headloss to operate
- Double treatment capacity in the same footprint as existing equipment
- Economical to own and operate
- Accommodates high turndown ratios

The **HeadCell** is the ideal grit separator for both new and retrofit applications. The **HeadCell** is a multiple tray concentrator that can be sized to remove fine grit over a wide range of flows with less than a foot of headloss.



HOW IT WORKS

The stack of hydraulically independent polyethylene trays are submerged in a concrete chamber. Screened sewage enters the influent duct and passes into the grit chamber. The channel directs the flow into the high efficiency distribution header to evenly distribute the influent tangentially into the modular multiple-tray system.

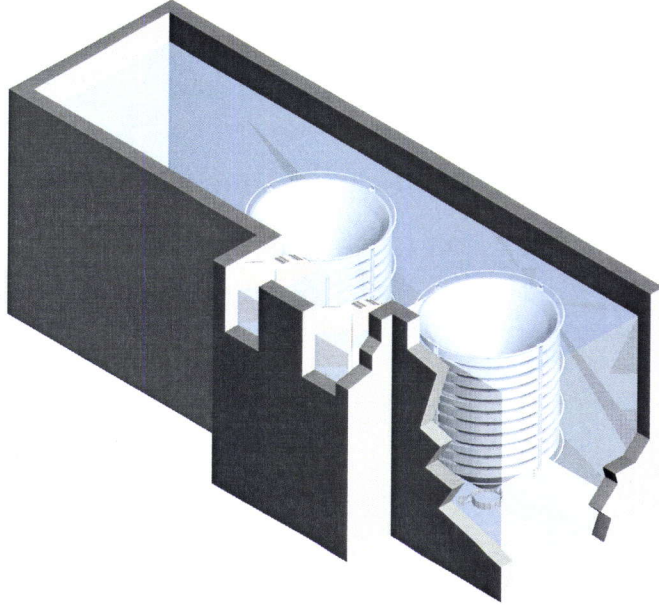
Tangential feed establishes a vortex flow pattern causing solids to settle into a boundary layer on each tray. Gravity then sweeps solids to the center opening which allows them to fall to a common collection sump.

Flow spirals between the stacked trays, grit settles out by gravity along the sloped surface of each tray and into the center opening. Degritt effluent flows out of the trays, over a weir and into an effluent trough. The **HeadCell** typically requires less than 12 inches of headloss.

Typically, the settled solids are continuously pumped from the grit sump to a SlurryCup™ or TeaCup™ grit washing system and then dewatered by a Grit Snail™ dewatering escalator.

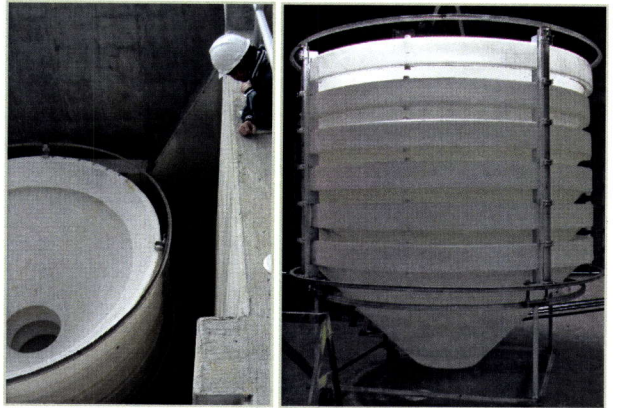
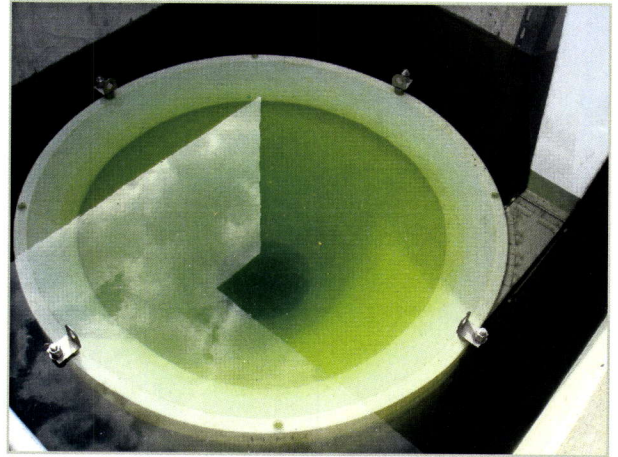
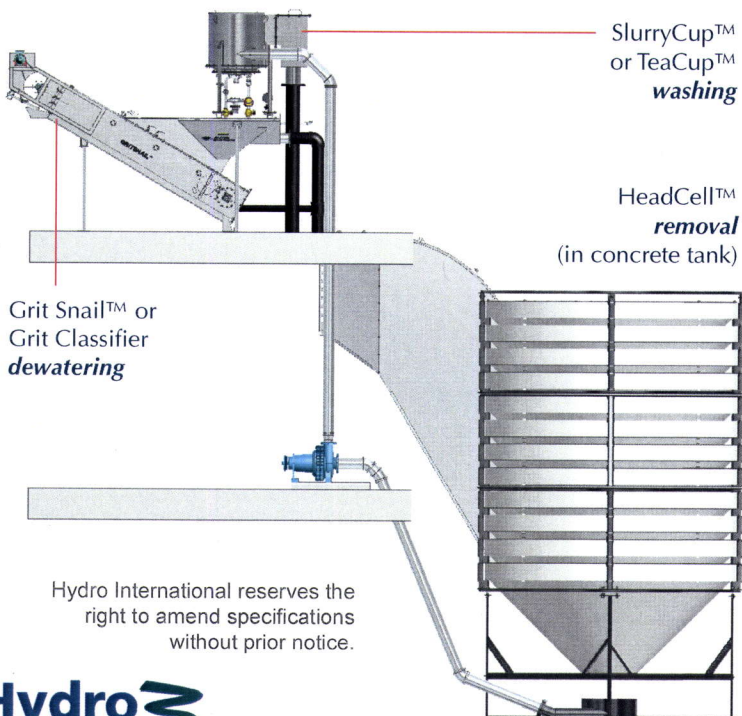
The Ideal Retrofit Solution

The stacked tray design, and small footprint of the **HeadCell** make it the ideal solution for plants to retrofit to improve grit removal performance. The **HeadCell** fits into existing structures and uses existing channels, which significantly reduces concrete costs during installation. A retrofitted **HeadCell** system can increase flow capacity and still capture finer grit in the same footprint.



Two HeadCell Units Retrofitted Into An Existing Grit Basin

The Ideal Grit Removal System



HeadCell Capacity

- Handles 1-50 MGD in a single stack of trays
- Sized for peak flow at peak grit loads
- Virtually no turndown ratio limits
- Modular and expandable

HeadCell Design Notes

- Short settling distances eliminate inefficiency and increase grit capture
- Large surface area effectively uses plant space
- Evenly split flows eliminate short circuiting
- Continuous boundary layer flows over hydrophobic surfaces, minimizes grease buildup and keeps trays clean
- All-hydraulic design with no moving parts ensures a long product life

For more information please call our office at 503.615.8130 or inquire at www.hydro-international.biz.



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