Hotels, resorts, shopping centers, schools, hospitals, residential communities, construction sites, and industrial concerns are frequently best served by on-site, decentralized wastewater treatment. Connecting to a distant central treatment facility is either prohibitively expensive, or the option doesn’t exist. End-users can customize their on-site wastewater treatment system to generate effluent quality suitable for re-use. Recycling water in this manner reduces their water demand and environmental impact and lowers overall operating costs.

Golf courses and other heavy water-use facilities can tap into nearby sewer mains as a water source, employing an on-site treatment package designed to treat the wastewater for irrigation use and other purposes.

The challenge remains to find an affordable on-site treatment system that is reliable, simple to operate and maintain, and robust enough to produce consistent effluent quality despite wide swings in flow and influent quality commonly experienced in these applications.

Headworks Integrated Treatment (HIT) System™ offers a modularized, skid-mounted and fully integrated high-rate wastewater treatment process employing both Moving Bed Biofilm Reactor (MBBR) single-pass and optional Integrated Fixed Film Activated Sludge (IFAS) return sludge technologies. For water re-use applications, treatment can be easily enhanced with tertiary filtration and disinfection.
THE HIT SYSTEM™ OFFERS:

Concentrated Treatment
Thousands of proprietary ActiveCell® biofilm carriers (media) support massive biofilm growth enabling high-rate BOD removal and protecting the biofilm from shock loads, fluctuations in flows and temperatures, and toxic chemicals

Small Footprint
Enhanced treatment capacity requiring minimal volume and footprint

Easy Expansion
Modular treatment system allows for multi-step plant expansion by adding more media and installing more treatment modules

Resilient Process
Treatment can handle wide swings in flow and influent quality and offers easy recovery from washout situations as attached growth provides an inventory of biomass

Nutrient Control
The system can be designed to provide high-rate nitrification, denitrification, and phosphorus removal for nutrient control applications

Durability
The heart of the process, the ActiveCell® media, will last for 20 years before replacement is required

Low Maintenance, Simple Operation
Self-regulating process automatically responds to fluctuations in organic loads without the need for operational adjustments

Flexibility
Multiple sizes and configurations for the process are available

Odor-Free Operation
Treatment odors can be contained and easily mitigated

Polishing
Non-potable and potable water quality is attainable with minimal solids-handling requirements

Quick Installation
Containerized and skid-mounted configurations are designed for easy transport and installation and are operation-ready with minimal on-site fuss

Great Value
High-rate, high-quality on-site treatment at a fraction of the cost of centralized treatment when factoring in design, initial capital costs, and ongoing operation and maintenance expenses

THE HIT SYSTEM™ SPECIFICATIONS

<table>
<thead>
<tr>
<th>FLOW</th>
<th>TYPICAL FOOTPRINT</th>
<th>POWER REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IRRIGATION *</td>
<td>RE-USE **</td>
</tr>
<tr>
<td>100 m³/day 26,500 GPD</td>
<td>20 m²</td>
<td>22 m²</td>
</tr>
<tr>
<td>250 m³/day 66,000 GPD</td>
<td>24 m²</td>
<td>34 m²</td>
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<tr>
<td>500 m³/day 132,000 GPD</td>
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<tr>
<td>750 m³/day 198,000 GPD</td>
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<td>88 m²</td>
</tr>
</tbody>
</table>

* Effluent for irrigation BOD < 30 mg/l, TSS < 20 mg/l
** Effluent for re-use BOD < 5 mg/l, TSS < 2 mg/l, NH3-N < 1 mg/l

WANT TO KNOW MORE?
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