

HIT Systems

Headworks Integrated Treatment systems

The world's MBBR/IFAS technology experts at Headworks Bio have developed a smarter way to treat wastewater for reuse. The result is the Headworks Integrated Treatment (HIT™) System: a modular, compact wastewater treatment plant that uses proven moving bed biofilm technology to generate reuse quality water.

The HIT System (package plant) provides a complete solution – screening, grit removal, MBBR or IFAS treatment, clarification, tertiary filtration, and disinfection – all with low capital investment and operational costs.

MOBILE SOLUTIONS

Advantages

- Highly mobile treatment system
- Rapidly deployed, reducing haulage costs
- Sustainable green solutions
- · Efficient and reliable treatment
- Proven applications in the resource sector

Features

- MBBR Technology for BOD and COD reduction, nitrification/denitrification
- MBBR is easy to operate with minimal maintenance and operator attention
- Skid mounted systems available
- On-site treatment of wastewater for reuse or land application

HIT-CS



- Capacity: 30 100 m3/d (8,000 30,000 gpd)
- Influent 500 mg/l TSS and BOD, effluent 10mg/l TSS and BOD. NH3 < 5mg/l.
- Fits inside a 40ft container for transportation

HIT-SM



- Capacity: 30 200 m3/d (8,000 60,000 gpd)
- Influent 500 mg/l TSS and BOD, effluent 10mg/l TSS and BOD. NH3 < 5mg/l
- Skid mounted for easy transport on trailers



Applications

- Decentralized System
- Residential Communities
- Office Buildings
- Hotels / Resorts
- Labor & Military Camp
- Sewer Mining / Water Reuse
- Construction Sites

Equalization

Controlled filling from collection to mixing balances pH and ensures consistent influent characteristics; this optimizes performance and reduces costs and consumables.



ActiveCell MBBR process employs self-regulating biofilm carrier technology; the ActiveCell system operates in a multi-stage configuration with two reactors for BOD removal and nitrification.



Suspended particulates are removed following the ActiveCell biofilm carrier process via ActiveFloat dissolved air flotation (DAF) technology.

Tertiary Filtration Low maintenance, self-cleaning filters achieve total suspended solids removal < 10 mg/L

UV Disinfection

High intensity ultra-violet lamps achieve disinfection providing extended coliform destruction without chemical use.

A "self-digesting" sludge management process combined with a sludge Solids Handling concentration system limits the production of secondary solids, which have a high solids concentration of ~8% dwt.

HIT-XL



- Capacity: 250 2000 m3/d (65,000 800 000 gpd
- Influent 500 mg/l TSS and BOD, effluent 10mg/l TSS and BOD. NH3 < 1mg/l

HIT-FT



- Capacity: <1000 m3/d (<250,000 gpd)
- Uses readily available Frac Tanks





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To learn more about ActiveCell MBBR technology, contact: Headworks BIO Inc.