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.

**HIT-CS**
- Capacity: 30 – 100 m³/d (8,000 – 30,000 gpd)
- Influent 500 mg/l TSS and BOD, effluent 10 mg/l TSS and BOD. NH₃ < 5 mg/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 10 mg/l TSS and BOD. NH₃ < 5 mg/l.
- Skid mounted for easy transport on trailers

**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
**Applications**

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

**HIT-XL**

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

**HIT-FT**

- Capacity: Up to 500 m³/d (130,000 gpd or 3,150 bpd)
- Uses readily available Frac Tanks (Volume = 20,000 gal)

**Equalization**

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

**Headworks BIO**

**ACTIVECELL**

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

**ACTIVEFLOAT**

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

**Tertiary Filtration**

Low maintenance, self-cleaning filters achieve total suspended solids removal < 16 mg/L.

**UV Disinfection**

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

**Solids Handling**

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

To learn more about ActiveCell MBBR technology, contact:

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