

# iQ.MBBR™ FOR COMMERCIAL WASTEWATER TREATMENT

In partnership with Bergmann North America, we are proud to introduce iQ.MBBR™ – the next generation of Moving Bed Biofilm Reactor technology (wsb® inside) which combines robust, efficient design with smart iQ.CONTROLS™ – intelligence + quality.



## 1. Sludge storage / 2. Primary Clarifier

This stage provides primary treatment like a septic tank, the difference being integration with the secondary process using sludge recirculation and combined concentration of primary and secondary sludge. For small plants, the Sludge Storage is inline with the process but can be designed offline for larger plants. The Primary Clarifier is designed to remove any settleable solids from the sludge supernatant.

## 3. / 4. Aerobic Bioreactors

The iQ.MBBR™ secondary treatment system uses a moving bed biofilm reactor (MBBR) process containing specially designed plastic carrier media. Microorganisms attach to the carrier media and consume the organic material in the wastewater, with Bioreactor 1 adapted primarily to carbon oxidation, and Bioreactor 2 to ammonia conversion (nitrification). Oxygen is supplied by air blowers and distributed

## 5. Secondary Clarifier

The Secondary Clarifier separates the biological solids (sludge) generated in the bioreactors by simple gravity settling into hoppers, and sludge is pumped to Sludge Storage (Stage 1).

## 6. Effluent Discharge

Most onsite systems discharge via effluent pump tank to subsurface infiltration but may also direct discharge to surface waters. As standards become more stringent, advanced wastewater treatment is becoming increasingly important, most commonly with respect to nitrogen and phosphorous removal, or disinfection of the effluent. The iQ.MBBR™ can be designed with a variety of modular treatment units to address higher



The iQ.MBBR™ systems offer a custom designed solution which can be installed in a small footprint with low energy and operating costs. Advantages include:

- Exceptional treatment of varying hydraulic, organic and nutrient loads
- Reliable pure biofilm process with minimal operational requirements
- Comprehensive remote monitoring and control = optimum system management



With the iQ.CONTROLS™ powered by the click+clean® platform, we provide a unique control unit for the power and automatic control of the wastewater treatment system

- Each control panel comes standard with GPRS remote monitoring and data logging
- Instantly receive alarm notifications and remotely adjust the settings



780-472-8265

53251 RR 232, SHERWOOD PARK, AB