

# HEX DRUM FILTERS

HEX Drum Filters, exclusively distributed in North America by Integrated Aqua Systems, incorporate the latest innovations in microscreen drum filtration technology. Advanced engineering features and construction included in the HEX drum filter are a culmination of 30 years of aquaculture experience and development by industry leading engineers and biologists. As a result of these refinements, the HEX drum filter is built to last even in the harshest conditions and designed to operate more efficiently with energy, water usage, lower operational maintenance cost and significantly improved filtration capacity compared to other traditional drum filters on the market today.

## HEX DESIGN HIGHLIGHTS

**X Series Drum Filters** offer superior corrosion resistance than any other drum filter on the market, with it's heavy-duty reinforced construction manufactured entirely of HDPE and engineered plastics, the filters are perfect for even the harshest saltwater and salt air environments. Models available up to X5-10 with 50 HEX panels.

**Superior Filtration Capacity** results from the combination of our patented HEX microscreen panels with advanced drum filter technology. The unique BeeCell panel utilizes nature's own design to provide the strongest and most efficient microscreen filter on the market.

**Intelligent Controls Maximize Filter Efficiency** utilizing less energy to rotate the drum and optimizing backwash water usage with most optimal panel area utilization.

**Scalable & Customizable** with a complete range of commercial filter capacities, configurations and features available, HEX product line can meet the most demanding requirements in any drum filter application.

**Drum Filter Controls Integration, Spare Parts Inventory and full customer support in our Vista, CA USA Facility.**



HEX Drum Filters are available in a complete product range, manufactured as model X1-1 with a single panel up to F5-18 with 90 panels. X Series is available in sizes up to X5-10 with 50 panels (total screen area 0.46 - 23.0m<sup>2</sup>). Largest HEX drum filter models are FXL series from model F5-12 (60 panels) with 27.6m<sup>2</sup> screen area up to model F5-18 (90 panels) with 41.4m<sup>2</sup> total screen surface area. HEX microscreen panels are available from 10 micron to 1000 micron, with a flow range capacity from 44 – 38,000 gpm (10 – 8732 m<sup>3</sup>/hr) of water in a single unit. Largest capacity range of any drum filter manufacturer on the market.

## STANDARD TYPES OF MODELS AVAILABLE



CHANNEL VERSION



HALF TANK VERSION



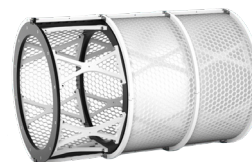
TANK VERSION



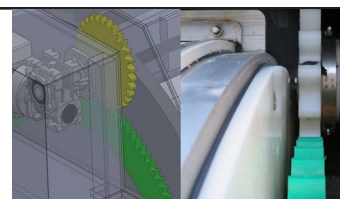
XLT VERSION

## HEX STANDARD FEATURES

**X Series filters** featuring no metal panel straps and reinforced POM/PE plastic drum structure for better stability and corrosion resistance. Virtually non-metallic design with more open area for filtration. Water lubricated support wheels reduce maintenance requirement and HDPE lid reduces noise and corrosion.



**No Maintenance Gear Wheel Drive System (DDGW)** uses plastic gear wheels which require zero lubrication maintenance to provide reliable, smooth, energy efficient operation. No more oil baths, rusty chains, or chains that can break !



**Patented HEX Panels:** Provide up to 20% more filtration capacity in the same footprint compared to traditional filters. More open area and stronger cell construction than traditional filters.



**HEX3 Support Wheels:** Solid plastic construction, supporting drum assembly from underneath. Support wheels rotate on a fully captured axle, with water lubricated ceramic bushings. No more over-hung bearings or lubrication needed on all X series drum filters!



**Ceramic Rinse Nozzles:** Non-corrosive ceramic material lasts many years, even harsh saltwater conditions.

## HEX OPTIONS

- **Internal High Flow Bypass:** Standard tank-type (T) units have a full-flow internal bypass with outlet control weir included. Larger tank versions are available with high capacity internal bypass (LT, XLT). Available with tank models to minimize plumbing installation.
- **Comb & Auger System** option available for heavy solids removal in the toughest applications
- **Upgraded Hardware Package** for improved corrosion resistance in warm saltwater applications. 316 stainless steel hardware is standard. Titanium hardware upgrade is available for improved corrosion resistance in warm saltwater applications.
- **Inlet & Outlet:** Standard is piped or open inlet. Upgrade to ANSI flanged connections up to 36" or docking station.



# INTEGRATED™ DRUM FILTER CONTROL SYSTEMS

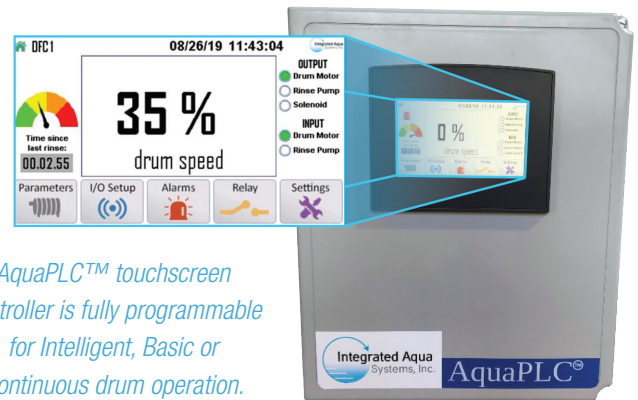


## AquaPLC™ Intelligent Controller:

AquaPLC™ exclusively available from IAS, is the most advanced drum filter controller on the market designed to operate drum filters at their maximum efficiency. With AquaPLC™ drum filters are able to respond dynamically to changes in TSS levels resulting in backwash water savings up to 50%, finer particle capture, significant energy savings and less wear and tear on equipment.

### AquaPLC™ Features:

- NEMA 4X Enclosure with 4.3" touchscreen
- Multi-parameter display, digital HOA switches, datalogger, analog and digital inputs
- Includes ethernet adapter for remote communications
- Built-in handshake protocols with alarm notifications to notify operators in case of equipment failure.



*AquaPLC™ touchscreen controller is fully programmable for Intelligent, Basic or Continuous drum operation.*

## Basic Drum Filter Controller (BDFC):

For less sensitive applications, IAS offers the BDFC. Pre-wired in a NEMA4X panel with built-in manual timers and motor controls, the BDFC is a great economical option for drum filter control.

## INTEGRATED™ Drum Filter Control Systems (DFC):

DFC Systems from IAS are completely integrated modular systems with all equipment required to operate a drum filter. DFC Systems are pre-wired, pre-plumbed and skid mounted on non-corrosive FRP bases. Systems include properly sized rinse pump, drum controller, motor controls, plumbing and single point of electrical connection box (EPOC).



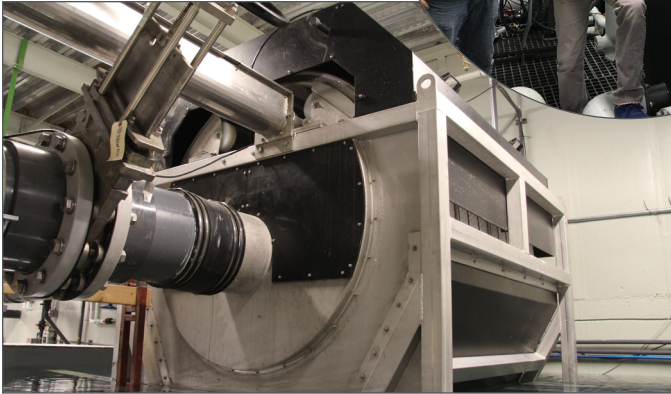
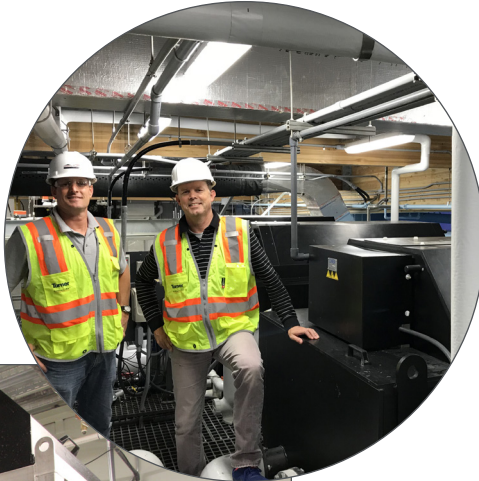
## DRUM FILTER CONTROL WITH MONITORING & CONTROL OPTIONS

For drum filter applications where water quality monitoring and/or control is also required, IAS offers the powerful combination of a basic drum filter controller with the Aegis II water quality monitoring and control system. The Aegis II is a flexible industrial water quality monitoring and control platform fully configurable to include sensors for pH, dissolved oxygen, temperature, conductivity, ORP and more. All systems include built-in WiFi adapter designed to view and change system parameters from your smart phone.



*DFC Systems are manufactured, tested and documented at IAS' facility.*

# DRUM FILTER APPLICATIONS



Well over 1000 drum filters sold worldwide and over 200 HEX drum filters sold by IAS across North America, HEX is a leader in the manufacture of drum filters for a wide range of applications including:

**Aquaculture** - Recirculating systems (RAS), supply water filtration, effluent filtration, prefiltration, well boats, lice treatment barges and more.

**Aquaponics** - Fish effluent, RAS, supply water and effluent filtration

**Public Aquariums & Zoos** - Primary mechanical filtration for exhibits, backwash recovery, holding & quarantine systems, hippo exhibit filtration

**Commercial & Industrial** - Wetlands, wastewater



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