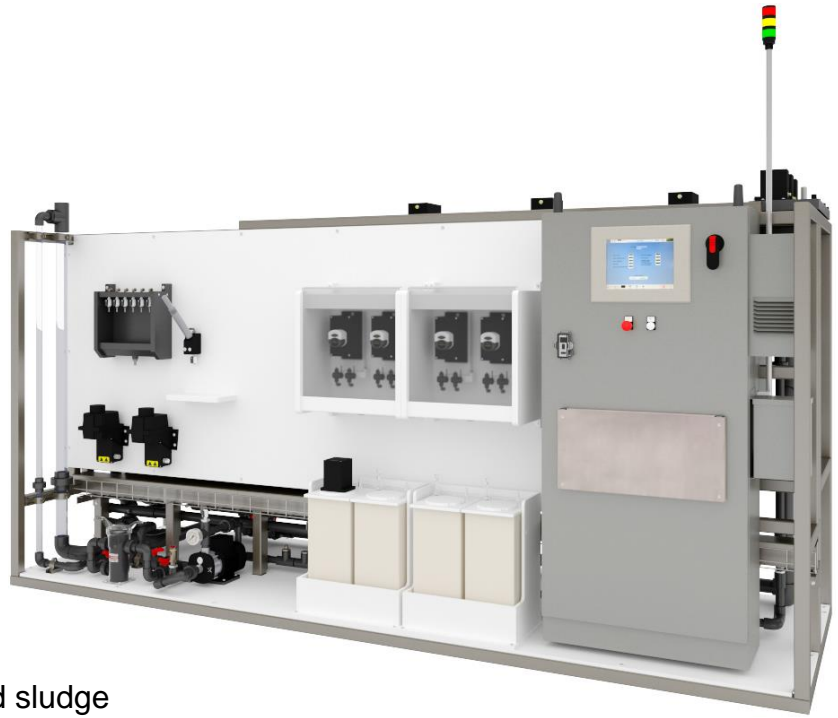
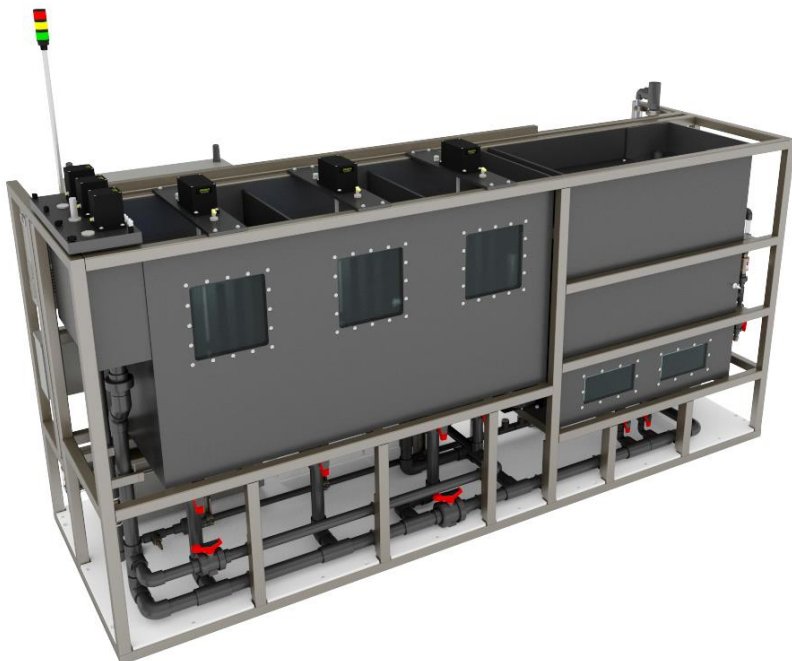


- ✓ Feed pump with automatic flow control
- ✓ Influent basket strainer for debris removal
- ✓ Chemical feed systems configurable for flow-pacing, closed-loop PID, or trim control
- ✓ Chemical feed pump configurable as a composite sampler
- ✓ Influent piping weir eliminates need for feed tank
- ✓ Multiple stage rapid mixing
- ✓ Multiple stage flocculation
- ✓ Variable speed mixers with direct entry of mixing gradient setpoint
- ✓ High intensity illumination of floc and sludge
- ✓ Inclined plate settler with removable plates for loading rate matching
- ✓ Automated sludge removal system
- ✓ Sample sink keeps equipment clean and dry



- ✓ All equipment integrated onto one skid for plug-and-play operation
- ✓ Designed for automatic un-manned operation
- ✓ Monitored and controlled remotely via wireless cellular connection
- ✓ Data logging to formatted text file for importing into spreadsheet and charting applications
- ✓ Historical and real-time trending visualization tool
- ✓ Alarm notification via email or text messaging
- ✓ IoT network of sensors provides exceptional diagnostic information



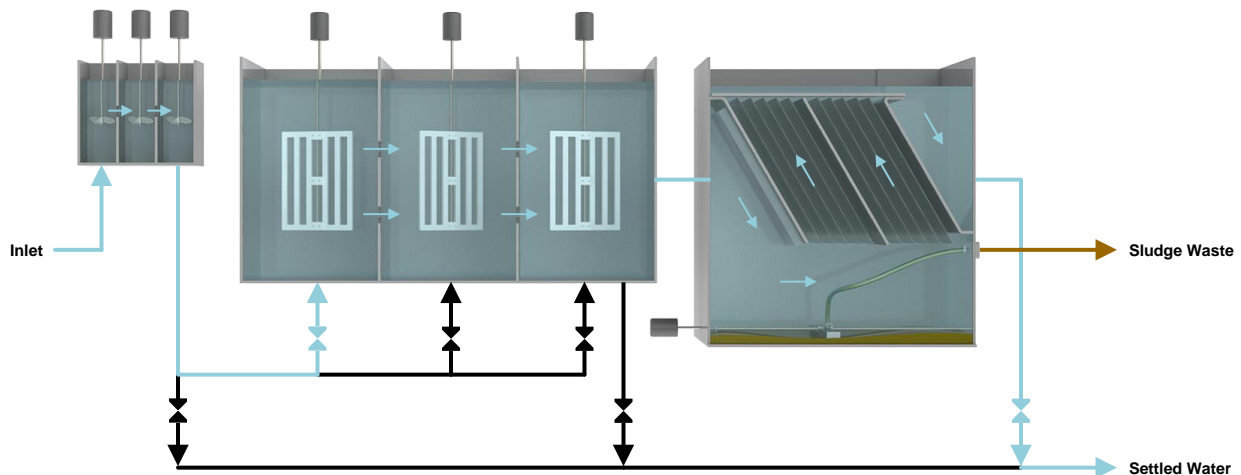
All information presented in this data sheet is for configuration code S09533224-10PC-2PH-4CF-1CM.  
See ordering section for other configurations.

## Specifications

|                                |                           |                           |
|--------------------------------|---------------------------|---------------------------|
| Flow Rate                      | 1...10 gpm                | 3.8...37.9 L/min          |
| Strainer Size                  | > 0.031 inch              | > 793 $\mu\text{m}$       |
| Rapid Mix Basins               | 3                         | 3                         |
| Rapid Mix Basin Volume         | 2.5 gallon                | 9.5 L                     |
| Rapid Mix Velocity Gradient    | 50...1000 $\text{s}^{-1}$ | 50...1000 $\text{s}^{-1}$ |
| Flocculation Basins            | 3                         | 3                         |
| Flocculation Basin Volume      | 95 gallon                 | 360 L                     |
| Flocculation Velocity Gradient | 5...130 $\text{s}^{-1}$   | 5...130 $\text{s}^{-1}$   |
| Sedimentation Basin Volume     | 210 gallon                | 795 L                     |
| Settling Plates                | 2...24                    | 2...24                    |
| Settling Plate Inclination     | 60°                       | 60°                       |
| Settling Plate Area (each)     | 4.62 $\text{ft}^2$        | 0.43 $\text{m}^2$         |
| Settling Plate Spacing         | 1...13.6 inch             | 25...345 mm               |
| Settled Water Basin Volume     | 22 gallon                 | 83 L                      |
| Chemical Feed Systems          | 4                         | 4                         |
| Chemical Feed Rate             | 0.02...16.5 mL/min        | 0.02...16.5 mL/min        |
| Chemical Tank Volume           | 4 gallon                  | 15.1 L                    |
| Operating Dimensions           | 144 X 48 X 81.8 inch      | 3658 X 1219 X 2077 mm     |
| Operating Weight               | 7150 lbs                  | 3243 kg                   |
| Electrical Supply              | Single Phase              | Single Phase              |
| Voltage                        | 120 / 240 V               | 230 V                     |
| Frequency                      | 60 Hz                     | 50 Hz                     |
| Maximum Current                | 9.6 / 4.8 A               | 6.0 A                     |

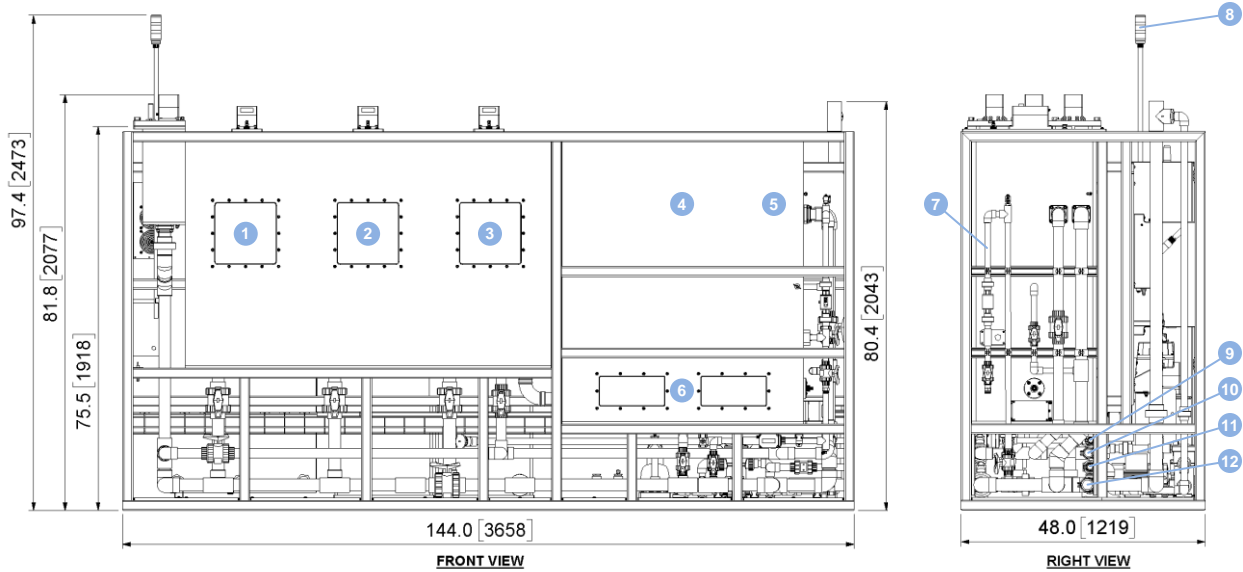
## Operation

The standard Flocculation and Sedimentation Pilot module has three basic flow configurations. These include rapid mix only, rapid mix followed by flocculation for direct filtration applications, and rapid mix followed flocculation and sedimentation for conventional applications. The module includes three rapid mix basins for staged injection of chemicals for reaction optimization. It also includes three flocculation basins for staged flocculation. One, two, or three stage flocculation can be configured using manually-operated valves. The sedimentation basin uses inclined plates for rapid settling. The plates can be installed or removed easily to adjust the loading rate and spacing. Settled sludge is removed automatically by a motor-driven rake. Cycle time and flow rate are adjustable for optimal sludge removal.



The diagram above shows valve position for three stage rapid mix followed by three stage flocculation and sedimentation.

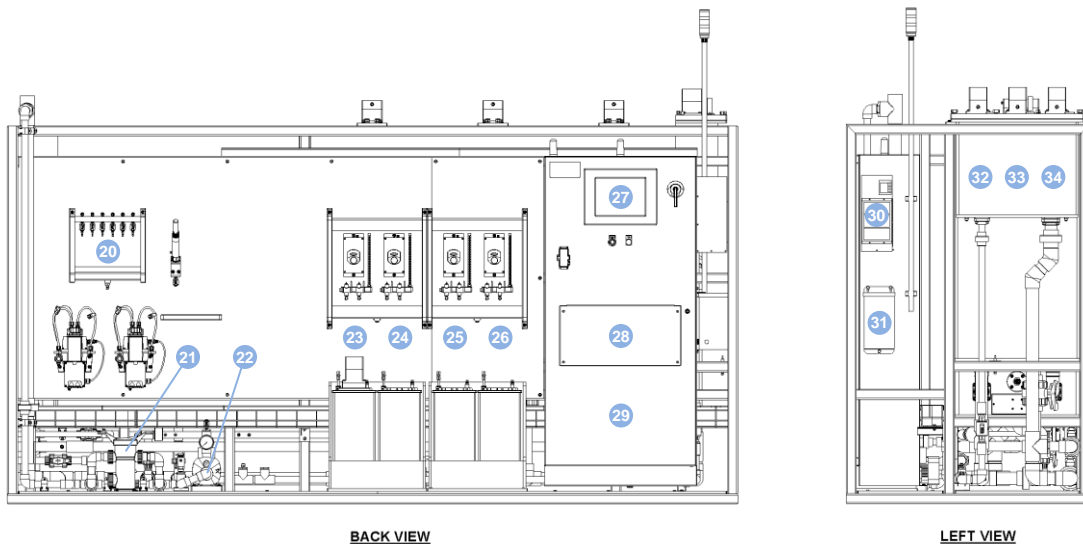
## General Arrangement Drawings



|   |                      |
|---|----------------------|
| 1 | Flocculation Basin 1 |
| 2 | Flocculation Basin 2 |
| 3 | Flocculation Basin 3 |
| 4 | Sedimentation Basin  |
| 5 | Settled Water Basin  |

|    |                           |
|----|---------------------------|
| 6  | Sludge Collection Chamber |
| 7  | Sludge Flow Control Assy. |
| 8  | Status Beacon             |
| 9  | Sludge Waste, 1" MPT      |
| 10 | Settled Water, 1½" FPT    |

|    |                     |
|----|---------------------|
| 11 | Inlet, 1" MPT       |
| 12 | Drain Waste, 2" MPT |
|    |                     |
|    |                     |



|    |                        |
|----|------------------------|
| 20 | Sample Sink            |
| 21 | Basket Strainer        |
| 22 | Feed Pump              |
| 23 | Chemical Feed System 1 |
| 24 | Chemical Feed System 2 |

|    |                        |
|----|------------------------|
| 25 | Chemical Feed System 3 |
| 26 | Chemical Feed System 4 |
| 27 | Operator Interface     |
| 28 | Folding Shelf          |
| 29 | Control Panel          |

|    |                   |
|----|-------------------|
| 30 | Air Conditioner   |
| 31 | Power Transformer |
| 32 | Rapid Mix Basin 1 |
| 33 | Rapid Mix Basin 2 |
| 34 | Rapid Mix Basin 3 |

Dimensions: inch [mm]

## Data Logging

The following parameters are automatically collected and stored for analysis. The collection is performed at a user-specified frequency from once per second to once per twelve hours. The values are time and data stamped and simultaneously written to a formatted text file on a removable flash drive and to a backup file on the internal solid state drive. These files can be transferred by removing the flash drive or using file transfer protocol over a remote connection.

|                                |                         |                       |                            |
|--------------------------------|-------------------------|-----------------------|----------------------------|
| Inlet Turbidity                | Rapid Mix 3 Gradient    | Chemical 1 Dosage     | Chemical 3 Tank Level      |
| Inlet pH                       | Flocculation 1 Gradient | Chemical 1 Flow       | Chemical 4 Dosage          |
| Inlet Temperature              | Flocculation 2 Gradient | Chemical 1 Tank Level | Chemical 4 Flow            |
| Feed Pump Suction Pressure     | Flocculation 3 Gradient | Chemical 2 Dosage     | Chemical 4 Tank Level      |
| Strainer Differential Pressure | Settled Water Turbidity | Chemical 2 Flow       | System Diagnostic Data     |
| Feed Flow                      | Settled Water pH        | Chemical 2 Tank Level | Spare Signal 1 (4...20 mA) |
| Rapid Mix 1 Gradient           | Sludge Flow             | Chemical 3 Dosage     | Spare Signal 2 (4...20 mA) |
| Rapid Mix 2 Gradient           | Sludge Removal Interval | Chemical 3 Flow       | Spare Signal 3 (4...20 mA) |

## Remote Operation

The pilot module is designed for fully automatic un-manned operation and can be monitored and controlled remotely. A wireless cellular router is installed in the control panel. This device can provide remote access to the pilot module in locations where adequate cellular data service is available. The router can be configured for the Verizon or AT&T networks depending on which network has the best service at the installed location. Data service is included during the warranty period. Data service beyond the warranty period can be purchased from Intuitech in one year blocks. Any task normally performed using the operator interface can also be performed remotely using a laptop computer, tablet, or smartphone. The operator interface can also be configured to send alarm notifications via email or text messaging.



## Warranty

Equipment manufactured by Intuitech is warranted to be free from defects in material and workmanship for a period of one year from the date of manufacture. In the event of any defect in material or workmanship, Intuitech will repair and/or replace, at its option, part or parts, which are proven to have been defective, provided the Buyer provides written notice of the defect during the warranty period. The Buyer shall notify Intuitech of the preferred location of repair. If the defective equipment is returned to Intuitech's manufacturing facility, the Buyer is liable for all costs associated with removal, shipping and re-installation of the equipment. The Buyer must obtain authorization from Intuitech prior to return of the equipment. If the defective equipment is repaired at the Buyer's site, the Buyer is liable for travel costs, including, but not limited to, airfare, auto rental, hotel, meal per diem and transit time to and from the site charged at a rate of \$125 per hour. The Buyer must provide a purchase order for the amount of the estimated charges before travel arrangements will be made. If the defect has resulted from improper storage, installation, operation or maintenance of the equipment, Intuitech reserves the right to reject the warranty claim. Intuitech makes no warranty, express or implied, other than the foregoing express warranties.

## Ordering

Our standard Flocculation and Sedimentation Pilot Module can be configured as shown below. It can also be customized to meet specific requirements for an additional cost. Please contact Intuitech for more information.

