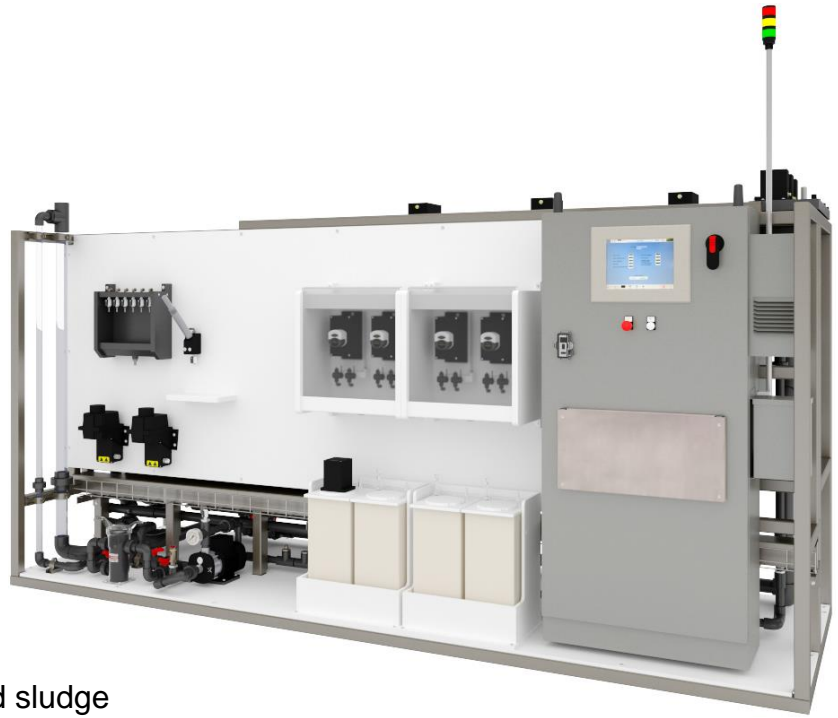
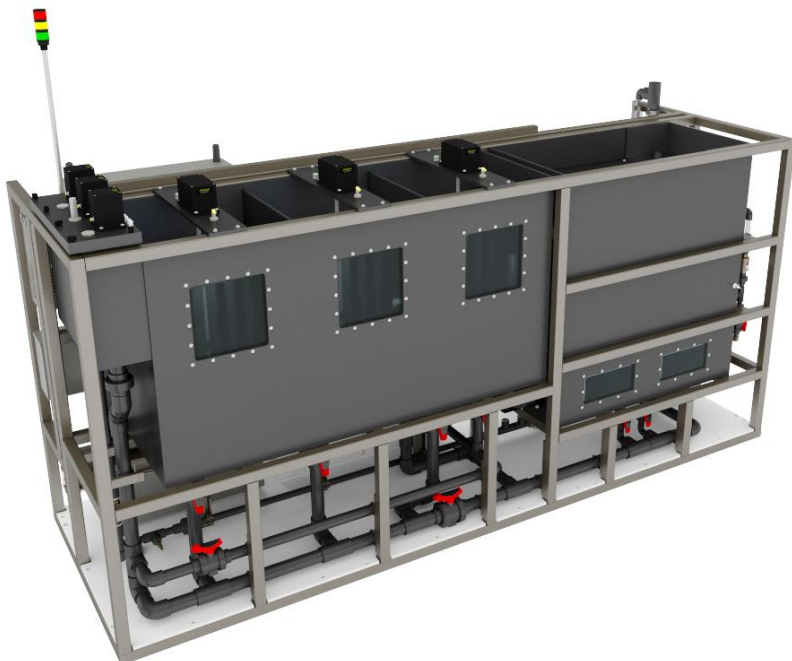


- ✓ Feed pump with automatic flow control
- ✓ Influent basket strainer for debris removal
- ✓ Chemical feed systems configurable for flow-pacing, closed-loop PID, or trim control
- ✓ Chemical feed pump configurable as a composite sampler
- ✓ Influent piping weir eliminates need for feed tank
- ✓ Multiple 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



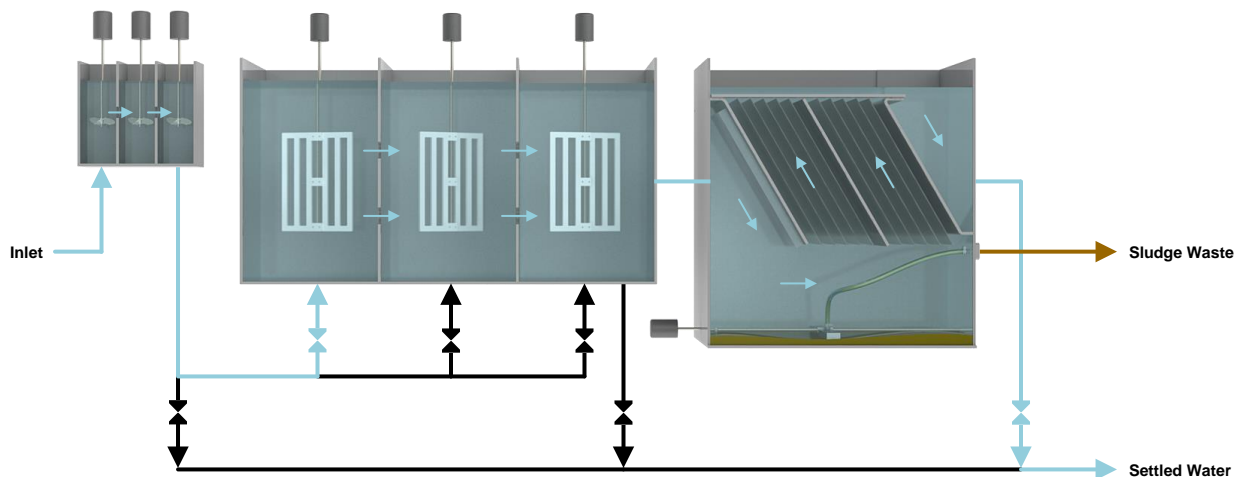
All information presented in this data sheet is for configuration code S09533224-10PC-2TU-2PH-4CF-1CM. See ordering section for other configurations.

Example Specifications

S09533224-10PC-2TU-2PH-4CF-1CM		
Flow Rate	1...12 gpm	3.8...45.5 L/min
Strainer Size	> 0.031 inch	> 793 μm
Rapid Mix Basins	3	3
Rapid Mix Basin Volume	2.5 gallon	9.5 L
Rapid Mix Velocity Gradient	50...1000 s^{-1}	50...1000 s^{-1}
Flocculation Basins	3	3
Flocculation Basin Volume	95 gallon	360 L
Flocculation Velocity Gradient	5...130 s^{-1}	5...130 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 ft^2	0.43 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	3.75 gallon	14.2 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

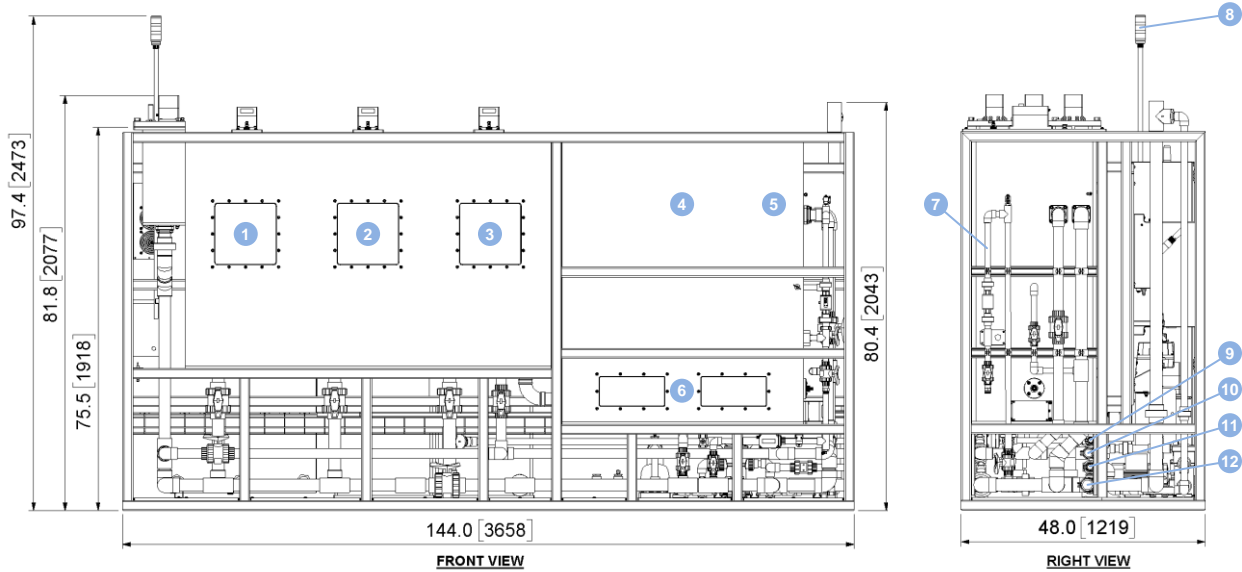
Operation

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.

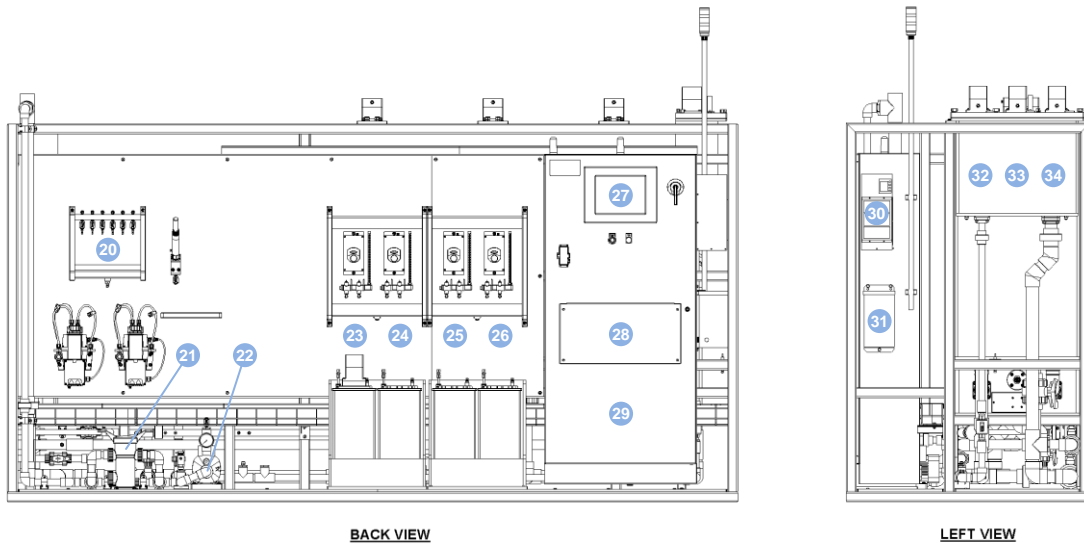
General Arrangement Drawings



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.



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.

