

WATER AND WASTEWATER TREATMENT



Actiflo[®] / Dusenflo[®] Package Plants

Designed to fit a wide range of applications: drinking water, industrial process water, primary and tertiary wastewater treatment



JOHN MEUNIER

The Actiflo® package plant units are engineered to provide a compact modular system in response to an ever growing demand for high performance water treatment process.

These package plants are compact and thus ideal for sites with space limitations. They are designed to offer easy access to all its components, allowing efficient maintenance and inspection routines.

KEY FEATURES

- **High efficiency**

The Actiflo® package plants are designed to treat a wide variety of raw water. By efficiently removing turbidity, color, suspended solids, metals, TOC, taste and odor, the process insures that the water it produces is of the highest quality. Though the systems are very compact, they offer nevertheless comparable performances to systems built on a larger scale.

- **Savings**

The extremely high efficiency of the Actiflo® ballasted floc settling process allows settling rates ranging from 40 to 200 m/h (20 to 80 USgpm/sq.ft.), leaving conventional settling tanks far behind performance wise. Since the units are extremely compact and competitively priced, civil engineering costs are, as a result, greatly reduced.

- **Process stability**

The package plants consistently produce quality treated water even under rapid raw water fluctuations in flow-rate, turbidity or temperature.

- **Very short start-up time**

The package plants will reach a steady operational state very quickly (usually less than 20 minutes).

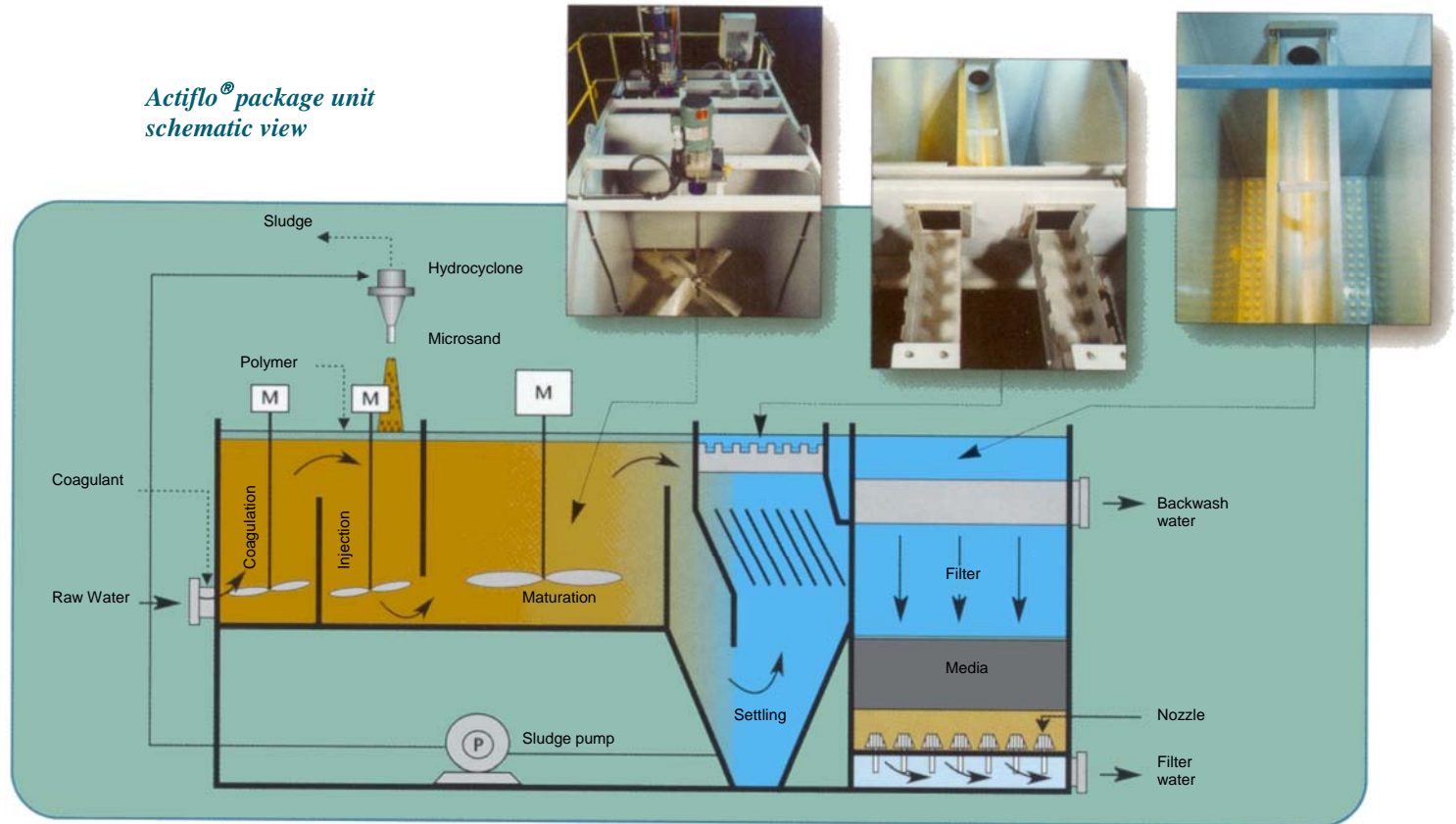
The retention time of the process is very short and consequently, the responsiveness to changes in raw water characteristics and in chemical dosages is therefore minimized. Operating the unit in a stop / start mode becomes then a major advantage when considering efficient energy management control.



HOW DOES IT WORK

ACTIFLO® settling process

The particular design pertaining to the coagulation, injection and maturation tanks, the dosage of microsand and a lamellar settling process, all contribute in providing a high performance and reliable water treatment system.



- ***Water coagulation***

A coagulant is injected to the raw water upstream of the unit. The water then enters a rapid mix tank to destabilize colloidal matter.

- ***Flocculation***

A polymer is injected to the coagulated water. The microsand is used to weigh down the flocs. Moderate mixing accelerates the formation of polymer bridges between pin flocs, suspended solids and microsand. Larger and heavier flocs are formed.

- ***High-rate settling***

Heavy flocs ballasted by microsand settle quickly in the lamellar tube area down to the thickening hopper. Clarified water is collected in a series of troughs. Filtration and disinfection can follow, if required.

- ***Microsand recirculation***

The settled sludge is continually pumped to a hydrocyclone where sand and sludge are efficiently separated. The hydrocyclone recycles the microsand back into the injection tank and discharges the sludge throughout the process.

DUSENFLO® gravity filter

The Dusenflo® gravity filter features a highly efficient backwash system. The injection of water or a combination of both water and air combined with uniquely designed nozzles for a perfectly clean filter media. The filtration bed can either consist of a single layer of sand or multiple layers of sand, anthracite or activated carbon.

Filtration rates range from 10 to 20 m/h (4 to 8 USgpm/sq.ft.).

OPERATION AND CONTROL

The Actiflo[®] package plant comes complete with all the necessary monitoring equipment including a control panel and a Human Machine Interface. In addition, field instrumentation such as a turbidimeter, a pH-meter, a chlorine analyzer and a remote monitoring system can complete the package as options.

MODELS

- The Actiflo[®] units are manufactured in our plant and delivered pre-assembled.
- For increased treatment capacity, these units may be installed in parallel.

<i>Model*</i>	<i>Capacity</i>	
	m ³ /h	USgpm
100	30 to 100	130 to 440
200	50 to 160	220 to 700
300	80 to 250	350 to 1100
400	130 to 400	570 to 1760
500	210 to 650	925 to 2860
600	330 to 1000	1450 to 4400
700	520 to 1600	2250 to 7000
750	590 to 1750	2550 to 7550

*Other units are available upon request.

- The units are available in two configurations: the Actiflo[®] process alone (clarifier) or the Actifilter, which combines the Actiflo[®] clarifier and the Dusenflo[®] filter.
- Different options are also available to complete the package.
- The pre-assembled units may be installed in a container.
- Manufacturing, delivery, installation and start-up are carried-out promptly.

MOBILE PILOT PLANT

Profiting from years of experience, know-how and numerous treatment plant installations and pilot plant testing, **John Meunier Inc.** is able to precisely pinpoint the type of treatment best suited for a given application. Mobile pilot plants are available to provide on-site confirmation of the treatment efficiency. The main mobile pilot plant can reach a capacity of up to 125 m³/h (600 US gpm) and features a fully equipped laboratory, including state of the art instrumentation.

JOHN MEUNIER

Head Office

4105 Sartelon
Saint-Laurent (Quebec) Canada H4S 2B3
Tel.: 514-334-7230 www.johnmeunier.com
Fax: 514-334-5070 sales@johnmeunier.com

Ontario Office

2000 Argentia Road, Plaza 4, Unit 430
Mississauga (Ontario) Canada L5N 1W1
Tel.: 905-286-4846 www.johnmeunier.com
Fax: 905-286-0488 ontario@johnmeunier.com