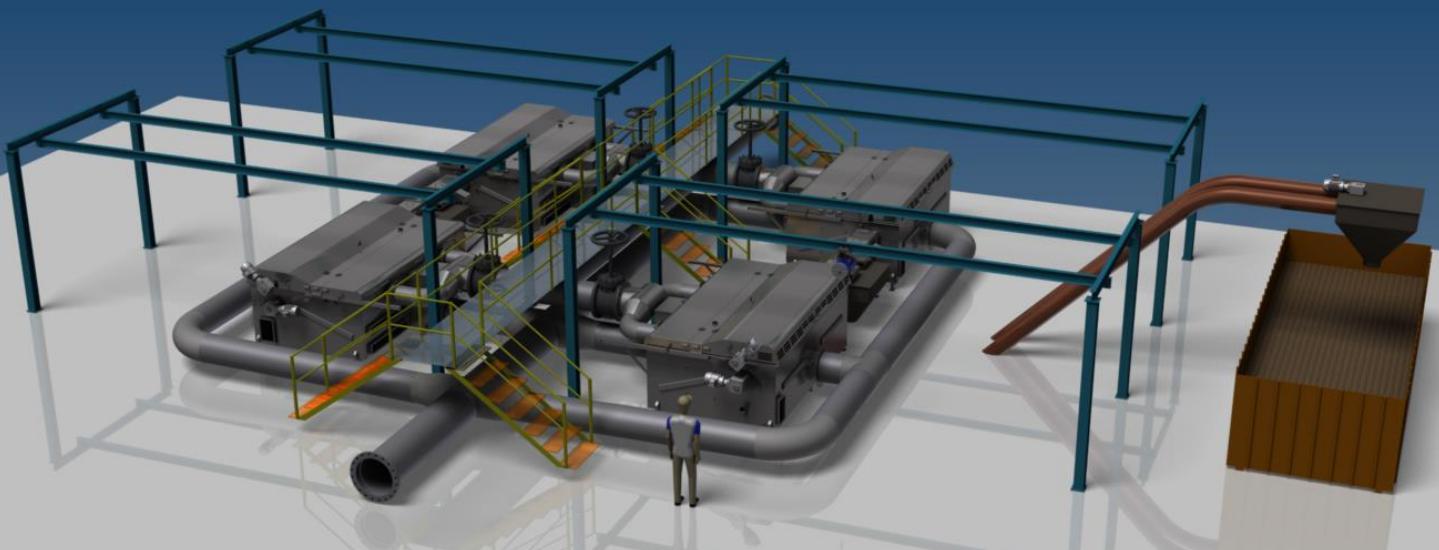




PROVIDING SOLUTIONS FOR A BETTER FUTURE

## EcoSieve Industrial Separation



PROVIDING SOLUTIONS FOR A BETTER FUTURE

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## The Mitcherson EcoSieve™

The EcoSieve™ is a high efficiency, high flow liquid solid separator that provides large scale filtration in an economical compact modular package. The EcoSieve™ is a mechanical device that screens suspended solids from incoming liquids. Captured solids are collected and dewatered and exiting liquids are filtered. The EcoSieve™ has extensive applications for industrial operations. The EcoSieve™ is the perfect solution for industrial plants that need to remove suspended solids from either a process stream or a waste stream. Whether you are looking to increase capacity of existing systems or looking to upgrade existing systems to meet the rising demands of new discharge requirements the EcoSieve™ is the perfect solution at an affordable price

**The Mitcherson EcoSieve™ provides improved treatment efficiency, smaller footprint, lower initial cost and operating costs compared to other treatment processes.**

## Industrial Applications

Efficiently removing solids from your waste streams and improving system performance is the key to lowering cost and benefiting the environment. The EcoSieve™ can surpass the capabilities of existing conventional technologies for primary treatment in any of the following industries:

Meat Processing

Beverage and Fermentation

Fish Hatcheries and Farms

Poultry Processing

Food Processing Industry

Pulp and Paper

Fish Processing

Fruit and Vegetable Processing

Tanning

This list is not exhaustive, EcoSieve can have application anywhere liquid solid separation is a component of an industrial process.

## EcoSieve™ Design Detail

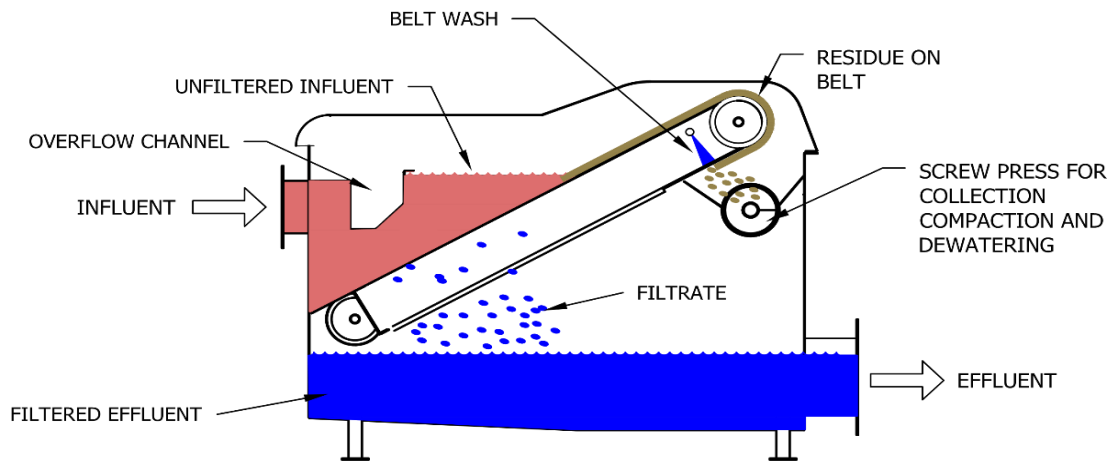
Mitcherson believes that the key to success is to provide the best possible equipment at the lowest possible cost. Our close attention to engineering and performance has resulted in the design of equipment that out-performs others, is reliable, and operator friendly.



## Mitcherson EcoSieve™ Operation

The Mitcherson EcoSieve™ utilizes a proprietary and patent pending continuous sieve to separate solids from influent. The EcoSieve™ passes influent through a revolutionary rotating polyester sieve with openings between 150 to 800 microns.

The continuous belt screen receives influent in an enclosed tank, which is then filtered and directed to downstream process equipment. The sieved solid residue is then conveyed above the tank liquid level, to the belt cleaning section, and removed by dewatering where solids are expelled as a cake. The dewatered solids or cake can discharge to a container or to a conveying system for either quick disposal or conversion to energy.



**Figure 1. Mitcherson EcoSieve Flow Schematic**

Table 1 - MITCHERSON ECOSIEVE™ DESIGN DATA -					
Performance		ES-270	ES-940	ES-1800	ES-3600
Maximum Hydraulic Capacity <sup>1</sup> GPM (LPM)		300 (1,136)	1,045 (3,955)	2,120 (8,024)	4,240 (16,048)
%TSS Removal Efficiency (typical)		40-70 %	40-70 %	40-70 %	40-70 %
%Solids from Dewatering (typical)		30-40 %	30-40 %	30-40 %	30-40 %
Model	Weight	Dimension		KWh Rating	Estimated Power Usage <sup>2</sup>
ES-270	1,230 lbs. (558 kg)	78" W x 69" D X 52" H 2.0m W x 1.8m D X 1.3m H		1.63 kWh (2.2 HP)	27 kWh/day
ES-940	1,790 lbs. (812 kg)	95" W x 81" D X 59" H 2.4m W x 2.1m D X 1.5m H		1.69 kWh (2.3 HP)	28 kWh/day
ES-1800	4,390 lbs. (1,991 kg)	132" W x 94" D X 70" H 3.3m W x 2.4m D X 1.8m H		3.12 kWh (4.2 HP)	52 kWh/day
ES-3600	7,000 lbs. (3,175 kg)	216" W x 133" D X 70" H 5.5m W x 3.4m D X 1.8m H		5.47 kWh (7.3 HP)	92 kWh/day

<sup>1</sup>Actual throughput capacities will depend on belt screen porosity and incoming solids loading (i.e., TSS)

<sup>2</sup>Estimated power consumption based on 24-hr continuous operation & 70% duty cycle (average)



Figure 2. ES-1800 Stand-alone unit



Figure 3. ES-3600 Stand-alone unit



Figure 4. ES-270 Skid Mounted Mobile unit

The Mitcherson EcoSieve Models ES-270, ES-940, ES-1800 are single belt machines. The ES-3600 is a duplex arrangement with 2 belt assemblies installed in one housing with one solids collection system. The EcoSieve can be provided on a pre-wired skid mounted platform which can drastically reduce field installation cost. Our skid units can be mobile stand-alone units ready for deployment.

Permanent installations can be set-up with automated solid collection systems taking significant labor out of managing solids produced in large scale operations. All EcoSieve units are provided with a basic control system. Mitcherson can customize the control system for remote control, real-time monitoring, upgrade human interface and additional controls for auxiliary systems. Many options are available to make an EcoSieve installation the perfect fit for your application.

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