



RENEWABLE DIESEL

Tallow Filtration Applications

Renewable diesel is an advanced biofuel that is biodegradable. It is a cleaner-burning, drop-in replacement to petroleum diesel fuel and can be used in vehicles and heating systems. Renewable diesel is primarily produced from animal fats, inedible corn oil, and vegetable oils.

The Benefits of an optimized filtration system include:

- Improve operation efficiency by delivering cleanest possible feedstock to your hydrotreater
- Protect downstream equipment
- Lower operating and maintenance costs and extend life of catalyst
- Improved heat transfer and process controls
- Ability to meet final product sales specification

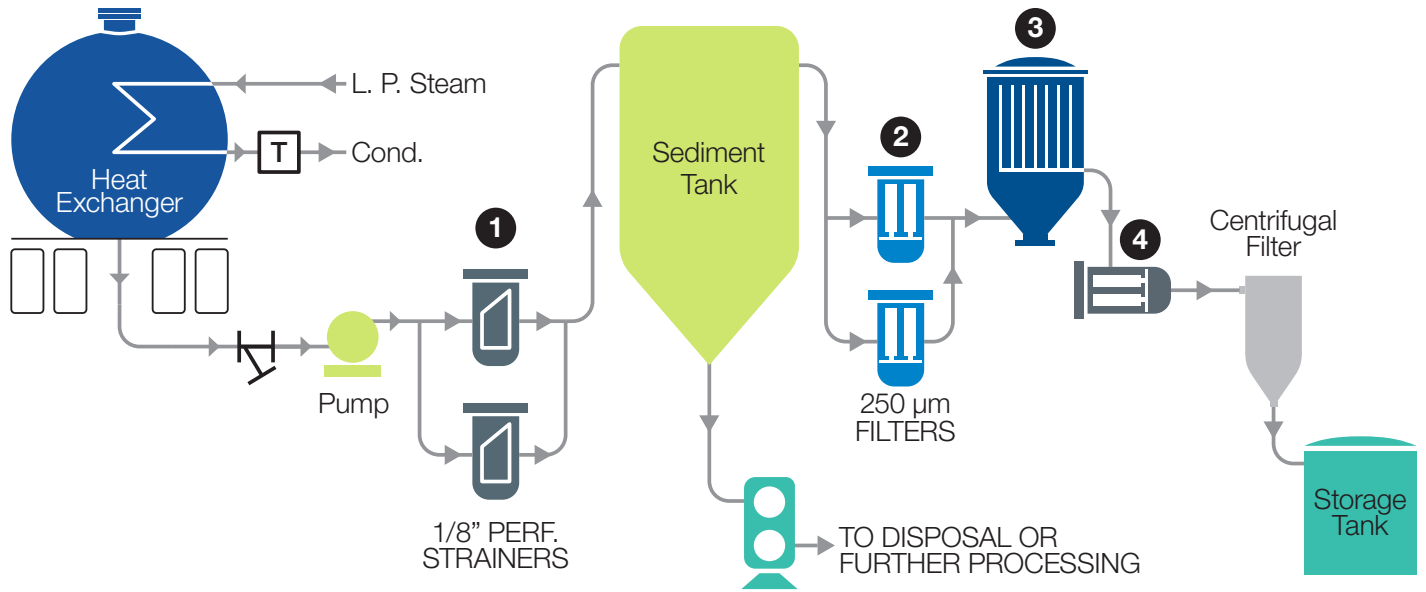
About one-third of the fats and oils produced in the United States are animal fats including beef tallow, pork lard, and chicken fat. Animal fats are attractive feedstocks for renewable diesel because their cost is substantially lower than the cost of vegetable oil and animal fat feedstocks can be made into high-quality diesel.

Because it has the same chemical structure as petroleum diesel, renewable diesel can be used in engines that are designed to run on conventional diesel fuel —with no blending required.

Waste fat from animal carcasses are removed and then made into an oil using a rendering process. Rendering consists of grinding the animal by-products to a fine consistency and cooking them until the liquid fat separates and pathogens are destroyed.

Solid bone meal contaminants, phospholipids, or gums and other contaminants need to be removed to provide clean feedstock for the hydrotreater. This is a highly temperature sensitive process that can make it challenging.

Truck Unloading Tallow Filtration



	Filter Solution	Filter Purpose	Filter Benefit
01	Basket Strainers	Removal of large bone meal particulate	Easily remove the large particles from the rendering process
02	High Flow Vessels with Pleated Bag Filters	Removal of suspended particulates down to 25 micron after settling	Bag filters efficiently and cost effectively remove the next level of particulates
03	Pressure Leaf Filters	Removal of suspended solid fat and other particulates and contaminants	These cake on the filter and can be removed efficiently
04	High Flow Vessels with Cartridge based Filters	Removing fine particulates down to 10 micron	High flow, high efficiency polishing filtration solution to ensure clean feedstock for the hydrotreater

