

Domino VGS-M

Vertical Gravity Separator - Mycelx Filtration

Introduction

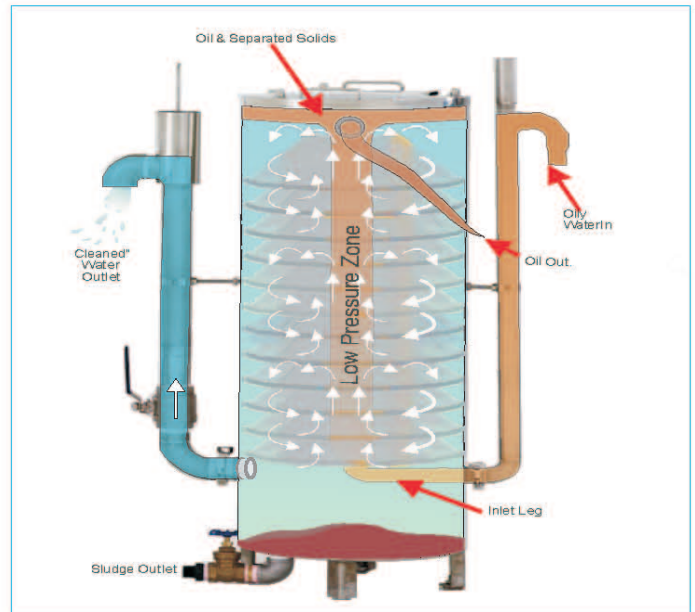
The Domino **VGS-M** was designed to remove hydrocarbons from wash water when discharge parameters are under 30 ppm or is to the environment.

The Domino **VGS-M** uses both Vertical Gravity Separator (VGS) and MYCELX Filtration technology to remove hydrocarbons and oils within the water.

+ The Domino VGS operates by ingenious control of both fluid velocity and pressure. These forces gently coax non-emulsified impurities from water by allowing high density contaminants to fall into a sludge retaining area at the bottom of the vessel, and oil droplets and low density suspended solids to rise to the top of the vessel. The oil and suspended solids then drain of into a waste tank.

+ The Mycelx filter designed for further removing the full range of persistent remaining organic hydrocarbon compounds refined from crude oil including highly toxic BTEX chemicals as well as the suspected carcinogens PCBs, chlorinated solvents, and organically bound metals etc. To get rid of those "stubborn contaminants", the treated water disposed to the sewer absolutely meets all the standard requirements from governmental authorities.

As its ingenious performance, **Domino VGS-M** is presently used in many industrial water treatment processes. The technology is also used throughout the world in the marine, industrial, & environmental industries and in stormwater runoff systems to prevent damaging pollutants from entering waterways.



How a VGS Works

Domino VGS-M removes

- + Petroleum Hydrocarbons (BTEX* To Crude Oil)
- + Organically Bound Metals
- + Chlorinated Solvents and other Organic compounds (PCB, POPS, PAH)*
- + Persistent Organic Pollutants, Biphenyl, Polychlorinated, Polyaromatic

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Domino VGS-M

Why Both Products (Domino VGS & Mycelx Filtration)?

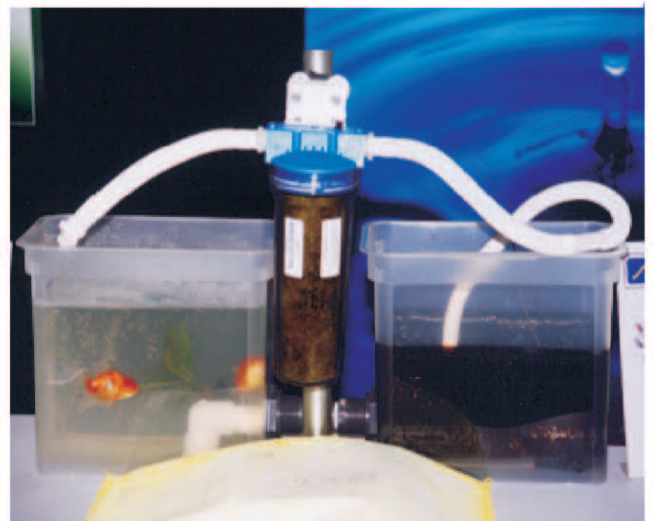
The Domino VGS alone can not guarantee continual discharges of under 30 ppm with a varying influent. By moving the bulk of the hydrocarbons with the VGS, the consumable cost of filters is greatly reduced. Two Domino bags filters also increase the life of the Mycelx filter cartridges. The Mycelx filter is as the name implies, as filter, and is therefore a consumable.

Materials Captured by Domino VGS-M

- Aromatic Hydrocarbons (BTEX)
- Aliphatic Hydrocarbons & Solvents
- Crude Oil & Fuel/Sheen
- Cycloalkanes
- Chlorinated Organics
- Pesticides & POPs*
- Organic Polymers
- Vegetable Oils & Animal Fats
- Colloidal Heavy Metals
- Silicone Oil
- Persistent Organic Pollutants:
PCBs, Dioxin, Furan, DDT, Aldrin,
Chlordane, Dieldrin, Endrin, Heptachlor,
Hexachlorobenzene, Mirex & Toxaphene.

Conclusion

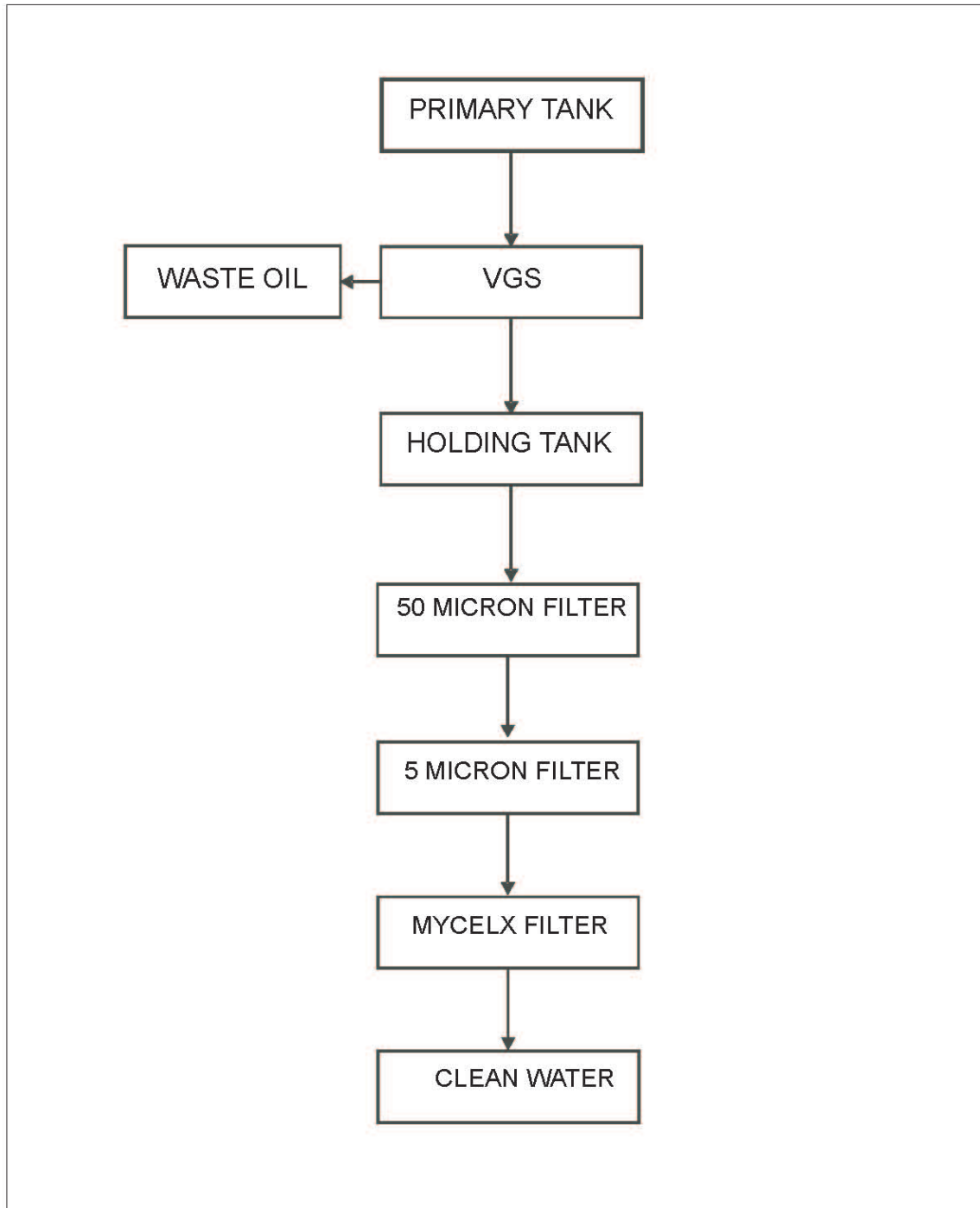
- Domino VGS-M Is highly efficient (99.9%) and does not release the pollutants they capture.
- Mycelx filter was approved by EPA and other regulatory authorities.
- Exhibits low differential pressure which saves energy and keeps the system from blocking.
- Provides the "safety margin" to meet today's enhanced discharge requirements.
- Skid mounted, pre-plumbed and wired for easy installation and relocation if required.



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Domino VGS-M Process Diagram



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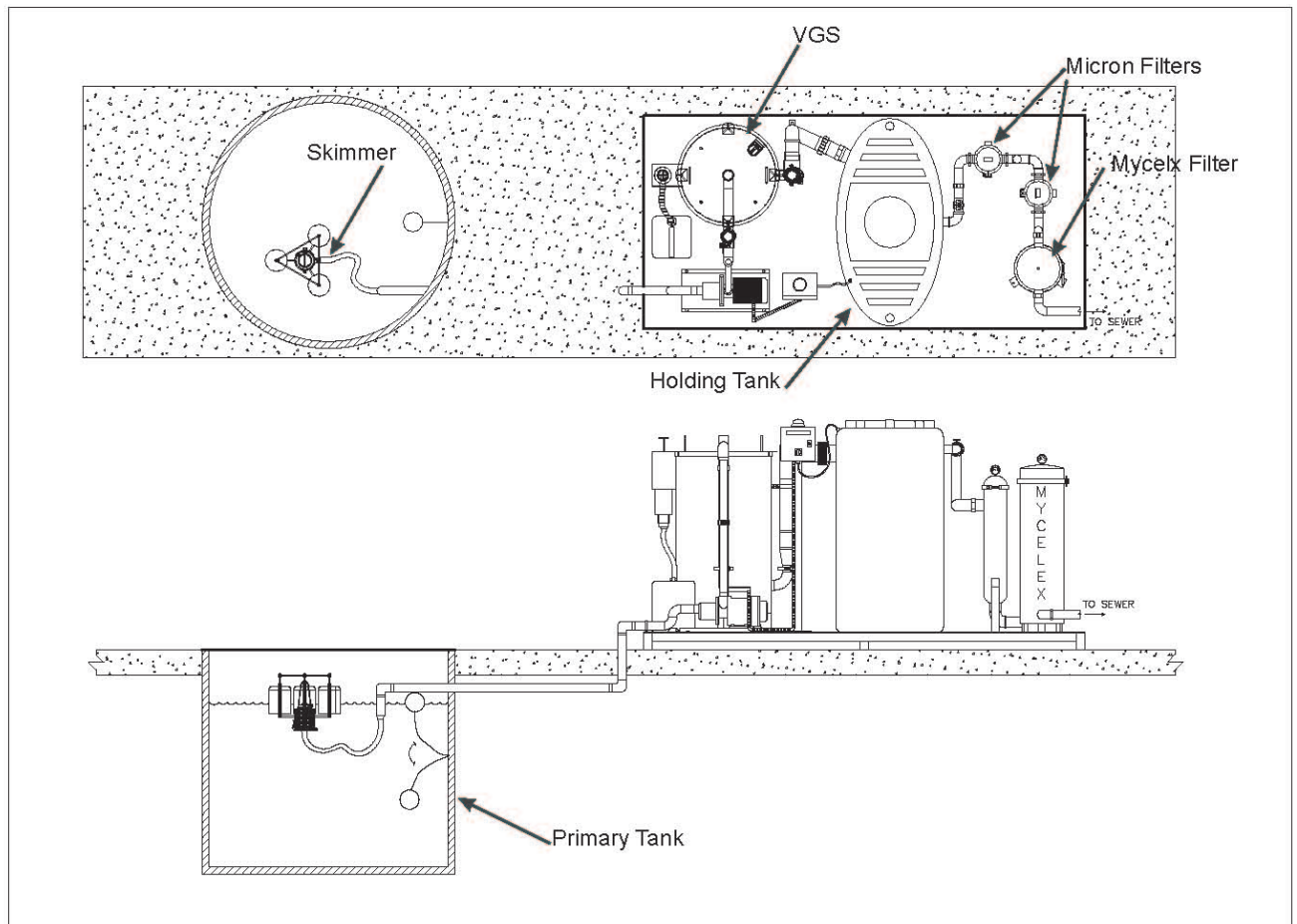
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Domino VGS-M

Typical Domino VGS-M Installation

Key Components

- Domino VGS 304 SS
- Mycelx Filter 304 SS
- Micron Filters (5 & 50)
- Bag filters 304 SS (5+1)
- Suction Pump
- Pump Control Panel
- Float Switches
- Floating Skimmer
- Holding Tank



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Domino VGS-M

How it works

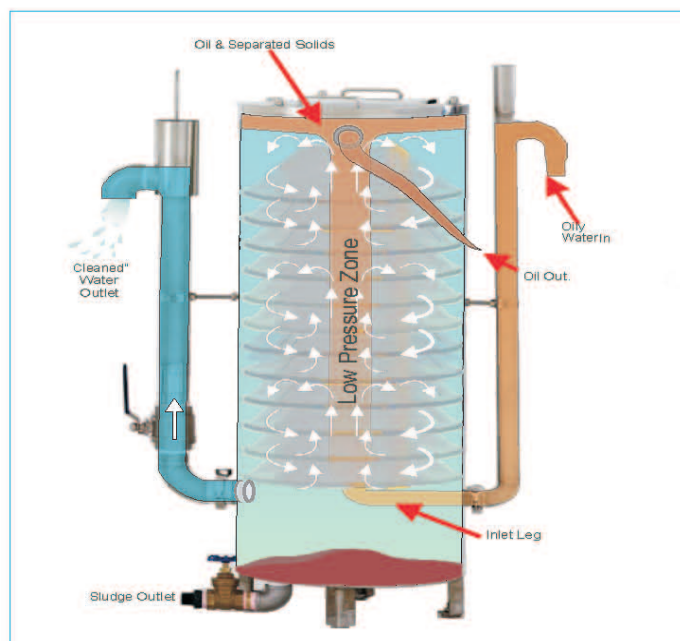
Waste water with high levels of hydrocarbons is treated in two main steps:

Step 1: Domino VGS Treatment

- Dirty water from the primary tank is drawn into the Domino VGS by the suction pump. The Domino VGS removes most of oils and releases the cleansed water into the holding tank where the sub-marine pump sucks the “first round” treated water through the Micron Filters for removing solids and other contaminants down to 5 Micron.

- The “treated” water will enter the output leg, at a point when the fluid is most free of contaminants, and flow up and out of the system.

- Heavy solids and sludge are removed from the system via a sludge valve at the base of the main body.



How a VGS Works

Step 2: Mycelx Filter Treatment

- The cleansed water after treated by the VGS and Micron Filters continually goes through the Mycelx Filter for the final treatment before disposal to the sewer. The Mycelx filter holds most of remaining persistent hydrocarbon components whilst the sludge kept by the Mycelx filter is ready for disposal. The “clean water” which meets all the strict regulations is then discharged to the sewer.

