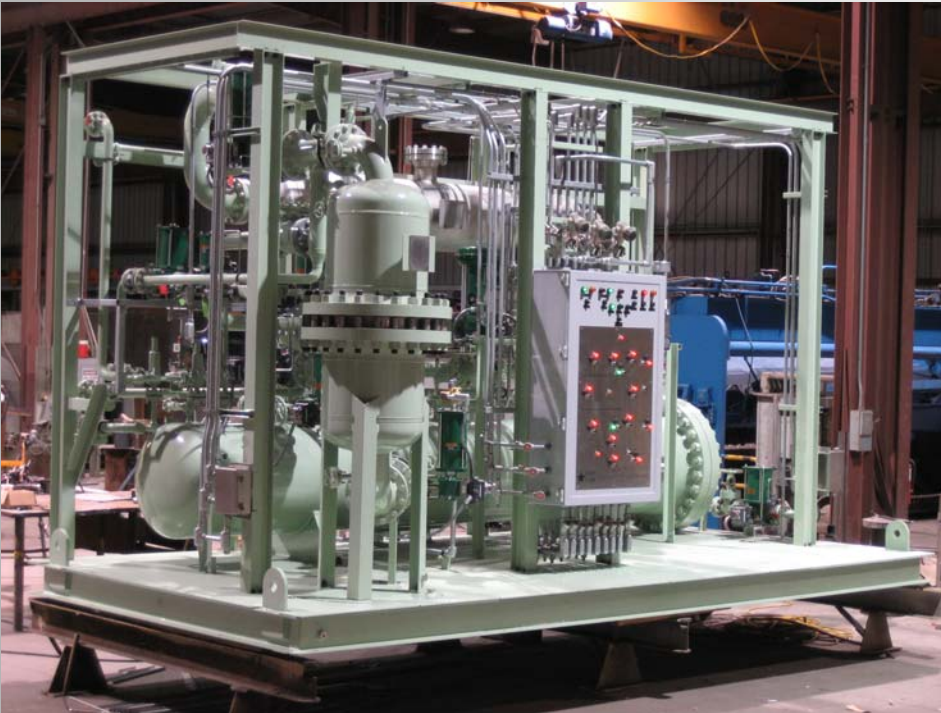


Regenerative Filtration Systems



Features and Benefits

- ◆ Stainless Steel Long Life Backflushable Filter Elements
- ◆ Optional Permanent Filter Elements
- ◆ Low Overall System Pressure Drop
- ◆ Optional Future Expansion Capabilities
- ◆ Fully Automatic PLC Controlled Operation
 - ◆ Diagnostic Manual Control Mode
- ◆ Fully Instrumented with Reporting Capabilities
 - ◆ Eliminates manual Operator readings
- ◆ Low Differential Pressure
- ◆ Low Power Consumption
- ◆ Low Maintenance
- ◆ Minimized Hazardous Waste Volume
- ◆ Eliminates Operator Exposure to Hazardous Materials
- ◆ Fully Customizable
- ◆ Standard One Year Warranty

NeuLogic Systems' Automated Backflushing Filter line offers the best possible means of filtration while minimizing operating costs and operator intervention.

A Programmable Logic Controller (PLC) continuously monitors process conditions with an array of instruments and sensors. When the differential pressure across the filter elements reaches the dirty setpoint, an automatic cleaning process is triggered.

Automation allows for 100% unattended operation of our filtration system. The equipment protects itself with internal safeguards, and will notify plant control if attention is required. NeuLogic Systems has integrated state-of-the-art PLC controls with advanced programming techniques to simplify plant operations and increase safety.

Our multi-vessel filter systems can be configured to provide 100% "on-line" filtration. Increased filtration can be enabled on demand. Our design also allows for easy post-installation capacity expansion.

NeuLogic Systems' engineered designs, quality components, and state-of-the-art manufacturing processes will ensure years of trouble free operation.

RFS

Regenerative Filtration Systems

RFS

Industrial strength long life filters or permanent elements require a heavy duty cleaning process. The RFS starts a cleaning cycle when the differential pressure transmitter detects dirty filter elements. In a single vessel configuration, the entire system is taken offline, directing the fluid through a smart by-pass valve. When the application demands, an optional chase fluid displaces valuable or hazardous process fluids, thereby reducing operating costs and hazardous waste disposal volumes. High pressure backflush gas is



stored in the accumulator vessel (upper horizontal vessel). The system then releases the high pressure gas, therefore driving the purified fluid backwards through the filter elements. This high-pressure-low-volume backflushing process thoroughly removes the contamination (filter cake) from the inside out. This forces the "filter cake" off of the elements and into the large receiving vessel (lower horizontal vessel). This regenerative process takes place in less than a second, bringing the elements back to their original state.

Backflushable Long Life (right) or permanent (below left) stainless steel filter elements lie at the heart of our systems. The filter elements have been specifically designed to provide the highest contaminant holding capacity without sacrificing flow rate or pressure drop.



The Long Life element media consists of a sintered and compressed metal fiber; reinforced on both sides by woven wire mesh and a high strength spring. These elements have a proven record of reliability and longevity.



Our the top-of-the-line Permanent Etched Disc Filters are used in the most demanding applications.

Our the top-of-the-line Permanent Etched Disc Filters are used in the most demanding applications.



NeuLogic Applications

- ◆ Rich and Lean Amine Systems
- ◆ Oil & Gas Processing
- ◆ Petrochemical
- ◆ Hazardous Materials
- ◆ Nuclear
- ◆ Waste Water
- ◆ Power Generation
- ◆ Utilities
- ◆ Food Service
- ◆ Pharmaceutical
- ◆ Machine Tools
- ◆ Fuel Blending

These systems can be customized to suit any filtration application where exposure to the process must be limited.

Regenerative Filtration Systems

RFS

The RFS has a small Eco Footprint. The entire system can be powered off a standard household outlet. Low maintenance components reduce turn-around times, and costs. The ultra-low overall system differential pressure saves precious pumping power. There are no dirty filter elements to change (or dispose of), saving on potentially high hazardous waste disposal costs and messy spills. When equipped with a waste post processing Decanter vessel, the only material to disposal of is a tooth-paste like sludge.



NeuLogic Advantages

- ◆ Turn Key Solutions
- ◆ Large & Small Scale
- ◆ Cutting Edge Manufacturing Technology
- ◆ Product Training
- ◆ Full Engineering Documentation Package
- ◆ Remote Diagnostics
- ◆ Integration to Plant Control
- ◆ Full Range of Certifications Compliance: ASME, NEC, UL, CSA, ATEX, IEC, NEMA, etc.
- ◆ Quick Time to Delivery

Our engineering team is always available to create a system that best meets our customers needs.

PLC integration gives our systems the flexibility to meet customer requirements for monitoring and control. Plant communication can be as simple or sophisticated as necessary to report important information to everyone who needs it.



Remote control and diagnostics are implemented to provide a superior system management. NeuLogic System's closed loop control mechanism uses feedback from an impressive array of instrumentation, monitoring all critical system parameters.

Filtration is a critical system process. Update your process with today's "state of the art" system. Protect personnel, systems, plant and your bottom-line by equipping with the most advanced, flexible, and reliable system available,

the Regenerative Filtration System by
NeuLogic Systems.



Regenerative Filtration Systems

RFS

Product Code Builder

RFS - 10 - 1E - L250 - H - W - N2 - CPS - BC - DEC - AB

Series Name

RFS – Regenerative Filtration System

Filtration Size (nom.)

01 – 1 µm	10 – 10 µm
05 – 5 µm	25 – 25 µm
	C – custom

System Size

- 1 – Single Vessel
- 1E – Single Vessel w/ expansion
- 2 – Dual Vessel
- 2E – Dual Vessel w/ expansion
- 3 – Triple Vessel
- 3E – Triple Vessel w/ expansion
- 4 – Quad Vessel

System Capacity

L### – Desired Liquid Flow Rate (GPM)
G### – Desired Gas Flow Rate (SCFM)

Backflush Gas

- N – Nitrogen
- H – Hydrocarbon Gas
- S – Steam
- C – Custom (customer specified)

Chase Fluid

- N – None
- O – Oil Based
- W – Water Based
- G – Gas
- C – Custom (customer specified)

Area Classification

N1 – NEC Class 1, Division 1, Explosion Proof	I0 – IEC Zone 0
N2 – NEC Class 1, Division 2, Explosion Proof	I1 – IEC Zone 1
N4 – NEC NEMA 4 Weather Proof	I2 – IEC Zone 2
	C – Custom (customer specified)

Piping Specification

- SP – Standard Piping Specification
- CP – Custom Piping Specification (customer specified)

Options (append to end, separated by dashes –)

- DEC – Waste Post-Processing Decanter Vessel
- BGC – Backflush Gas Booster Compressor
- IAC – Instrument Air Booster Compressor (pneumatic)
- CLP – Chase Liquid Pump
- GUI – Touch Panel Graphical User Interface
- LDP – Ultra Low Differential Pressure Option

Build a Product Code

To begin, choose the filter size, in microns, for the smallest size particles you need to remove. Select system size; multi-vessel systems provide either 100% on-line filtration or on-demand capacity expansion.

Liquid and Gas systems are available in a large range of flows rates; indicate liquid (L) or gas (G) followed by flow rate in GPM or SCFM respectively.

System utilities (backflush gas & chase fluid) can be selected to match those available onsite. Enter corresponding selections.

All our systems can be designed for use in all area classifications.

NeuLogic Systems will assist in properly sizing system parameters to meet your process conditions. System sizing will utilize customer desired flow rate, fluid viscosity, particle loading, and filtration size. Please download our Preliminary Project Information Inquiry Form on our website.



1541 Palma Drive
Ventura, CA 93003

NeuLogic
SYSTEMS

Phone (805) 650-0295
www.neulogicsystems.com