

**A compact, portable, self-contained system for continuously filtering mechanical vacuum pump fluids.**

## Key Features

- Protects your vacuum pump and pump fluid.
- Reduces maintenance costs.
- Prolongs pump and fluid life.
- Removes acids, alkalis, moisture, particles and other corrosive or contaminating materials.

VisiFlow Oil Filtration System was designed to provide a dependable and efficient method for protecting your vacuum pump and pump fluid from contamination or destruction. In the semiconductor industry and the chemical industry VisiFlow provides protection from acids, particles, alkalis, moisture and other corrosive or contaminating materials. Processes that require this protection include LPCVD, Ion Implanting, Dry Etching, Reactive Ion Etching, Vacuum Distillation, Freeze Drying and many others.

VisiFlow uses a positive displacement gear pump with a built-in by-pass relief valve. The pump provides a flow rate of 3.8 liters/minute (1 gpm) and can be used with most pump fluids including Fomblin and Krytox.

The clear plastic (SAN) sumps provide full visibility for monitoring the condition of the filter elements and the pump fluid. This, in addition to the inlet and exhaust pressure gauges, tells you when the filter element is no longer effective and should be changed. And because the filter housings are attached with quick-connect two-way shut-off fittings, the housing can be removed to a fume hood or other convenient location to change filters. No need to move the lightweight tray or to disconnect the transfer hoses every time you want to

## Oil Filtration System



change the filter elements. Keep spare filter housings loaded with filter element and vacuum pump fluid on the shelf for emergency changes.

The mounting tray is a steel fabrication designed to provide a rugged bulkhead for mounting the system components and has a tight, uncluttered, easy to clean drip pan. It has four oil resistant rubber feet and a convenient carrying handle.

The two filter housings, gear pump, and motor are mounted on the portable tray. The system is connected to the vacuum pump by means of steel reinforced transfer hoses. These hoses are made of synthetic rubber and are heat and oil resistant. Stainless steel braided, conductive Teflon transfer hoses are available as an option. The VisiFlow system weighs less than 50 pounds.

Select from three filter materials to meet your requirements, Cellulose Acetate, Activated Alumina or PolyPro; use them separately or in combination.

The Cellulose Acetate filter is a special patented blend of virgin wood and cotton fibers having controlled density and a large surface area. The full-flow stacked disc elements eliminate channeling common in other types of layered filter media and also remove contaminants as small as 1 micron.

The Activated Alumina filter element is effective in removing Lewis acids and polar compounds as well as other acids, water and particles. This filter element is commonly used in combination with the Cellulose Acetate element.

The PolyPro element traps high volumes of solids associated with some LPCVD and dry etch processes giving longer useful life to the second stage filter element. It should be used as the first stage filter in applications which generate a high volume of particulates.

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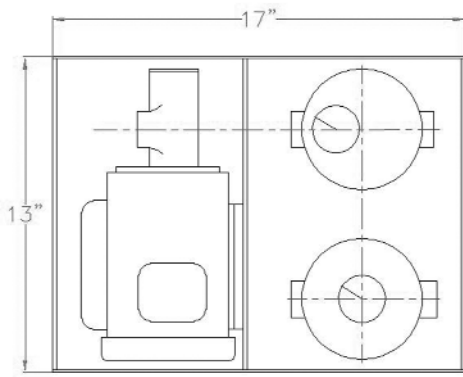
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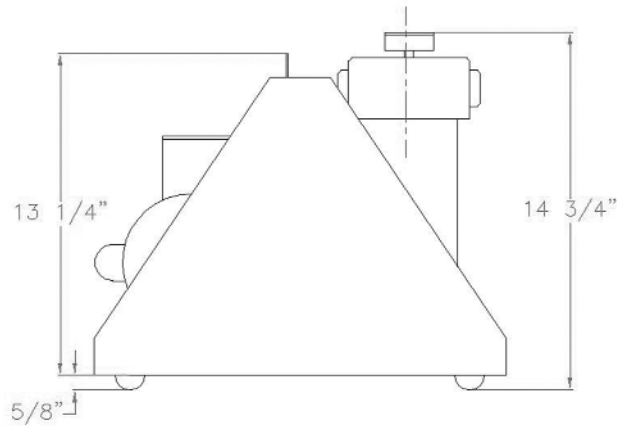
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Systems for use with Fomblin, Krytox, Halovac and other inert fluids receive special treatment. Each part of the system is completely degreased to remove all traces of hydrocarbons. The filter housings have a clear plastic (SAN) sump for full visibility of the fluid and the filter elements. The system uses stainless-steel braided, conductive Teflon lined transfer hoses. All plumbing and quick connect couplings are stainless steel.

If your process generates large amounts of particles, such as in silicon nitride and LTO processes in LPCVD, then the Model 401400 series pre-filters are just what you need. The 5 micron PolyPro filter will remove large particles before they can clog the circulating pump and the filter element is easy to change. An added benefit is the longer life you will get from the first and second stage filters.



(Overall: 13" Wide X 17" Long X 14 3/4" High)



## ORDERING INFORMATION

Description	Model Number
Complete with positive displacement gear pump, ¼ Hp motor, two filter housings mounted on carrying tray with two-way shut-off quick connect couplings, 10" clear plastic (SAN) sumps, two pressure gauges, two 5 foot long steel reinforced synthetic rubber transfer hoses.	425000
As above but with two 5" clear plastic (SAN) pumps.	425005
For use with Fomblin, Krytox, Halovac - complete with positive displacement gear ¼ Hp motor, two filter housings mounted on carrying tray with two-way shut-off quick connect couplings, 10" clear plastic (SAN) sumps, two pressure gauges, two 5' long stainless steel braided conductive Teflon hoses. All metal fittings are stainless steel. The quick connect couplings are stainless steel.	425100
Same as 425100 but with 5" sumps.	425105

## Replacement Elements

Description	Model Number
cellulose acetate for 10" sumps	400900
cellulose acetate for 5" sumps	400905
activated alumina for 10" sumps	400910
activated alumina for 5" sumps	400915
PolyPro 2 for 10" sumps	400920
PolyPro 2 for 5" sumps	400925
PolyPro 5 for 10" sumps	400930
PolyPro 5 for 5" sumps	400935
PolyPro 20 for 10" sumps	400940
PolyPro 20 for 5" sumps	400945

Power requirements 115 Volts AC, 60 Hz.  
 System weight - less than 50 lbs.

## Fluid Capacity

Models 42500, 425100	2.65 liters
Models 425005, 425105	1.72 liters

## Options

Description	Model Number
Stainless Steel Pressure Gauge 0 to 100 psi	400620
Stainless Steel Pressure Gauge 30"Hg / 30 psi	400630

## Accessories

Description	Model Number
Pre-Filter for 425000	401400
Pre-Filter for 425100	401410
Pre-Filter for 425005	401405
Pre-Filter for 425105	401415
Adapter Kit for vacuum pumps - please specify make and model vacuum pump.	401000
Adapter as above but stainless steel.	401001
Flushing Kit consisting of one 15" hose with male plugs on both ends and one complete quick dis- connect (male & female).	401100
Filter Housing Wrench	401200

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