

## **R** The Vibrating Filter

High-frequency sieving action prevents rapid filter loading

### **The Rosedale Vibrating Filter**

prevents filter cake from forming on the element surface. As in sieving, the screen through which the product passes is rapidly agitated. This prevents the building up of even smaller particles on larger ones stopped at the screen. By keeping over-sized material bouncing off the screen, the smaller particles can reach the screen and pass through. This sieving-type filter is ideal for paints, medicines, paper coatings, foods, or any product containing desirable solids that can be classified by size.



Clean, unlubricated plant air at 25 to 60 psi is supplied to this 3/8-in NPT port

Outlet for purged material

Air Outlet (To Silencer)

FLUID INLET

Seal

Air Hoses

Vibrating Motor

FLUID OUTLET

Unlike standard sieving, the vibrating filter works in a closed, pressurized system that greatly increases throughput. The high-frequency vibration also serves to delump agglomerated material.

The vibrating filter contains a perforated stainless steel basket lined with either stainless wedgewire or wire cloth. An air-driven vibrating motor at the bottom causes the basket to vibrate. The vibration rate is changed by varying the air pressure between 25 and 60 psi. Higher pressures produce higher frequencies. The basket is isolated from the housing, so very little vibration is transmitted to housing and piping.

### **Cleaning The Filter**

- Release system pressure, and close inlet and outlet valves. Turn off the air to the vibrating motor.
- Loosen the eye nuts enough to swing rod ends free of the cover. Open the drain valve at the outlet to remove the remaining clean fluid.
- Remove cover-vibrator-basket assembly straight-up for the housing. (Contaminated fluid will now drain from the housing.)
- The easiest method for cleaning the unit is to run the vibrator while the basket is immersed in solvent. If this isn't effective, the basket must be removed and cleaned by hand.
- Separate the filter basket by removing the cotter pin, castle nut and lock washer. If the basket doesn't break free, tap the top of the basket lightly. If that fails, tap the stem down on a wood board to break the basket loose.
- Use brushes, solvents, compressed air, or other suitable means to remove the contaminant from the wire cloth or wedgewire element. Be careful not to damage the basket with sharp instruments.

## How To Order

Build an ordering code as shown in this example

Example:	Housing	Options
<b>VF- 4- 12- 3/4P- 1 -300- S -T -T- 100WW</b>		
<b>VIBRATING FILTER</b>		
<b>MODEL</b>		
<b>SIZE</b>		
<b>PIPE SIZE &amp; CONNECTION</b>		
3/4-in. female NPT	= <b>3/4P</b>	
1-in. female NPT	= <b>1P</b>	
1-1/2-in. female NPT	= <b>1-1/2P</b>	
2-in. female NPT	= <b>2P</b>	
1-in. 150 class ANSI flange	= <b>1F</b>	
1-1/2-in. 150 class ANSI flange	= <b>1-1/2F</b>	
2-in. 150 class ANSI flange	= <b>2F</b>	
<b>OUTLET STYLE</b>		
Bottom	= <b>1</b>	
Side	= <b>2</b>	
<b>PRESSURE RATING</b>		
<b>HOUSING MATERIAL</b>		
<b>COVER SEAL</b>		
<b>BASKET SEAL</b>		
<b>BASKET ELEMENT</b>		
50-micron wedgewire	= <b>50WW</b>	
75-micron wedgewire	= <b>75WW</b>	
100-micron wedgewire	= <b>100WW</b>	
125-micron wedgewire	= <b>125WW</b>	
150-micron wedgewire	= <b>150WW</b>	
25-micron wire cloth	= <b>25</b>	
50-micron wire cloth	= <b>50</b>	
75-micron wire cloth	= <b>75</b>	
100-micron wire cloth	= <b>100</b>	
125-micron wire cloth	= <b>125</b>	
150-micron wire cloth	= <b>150</b>	

### Specifications

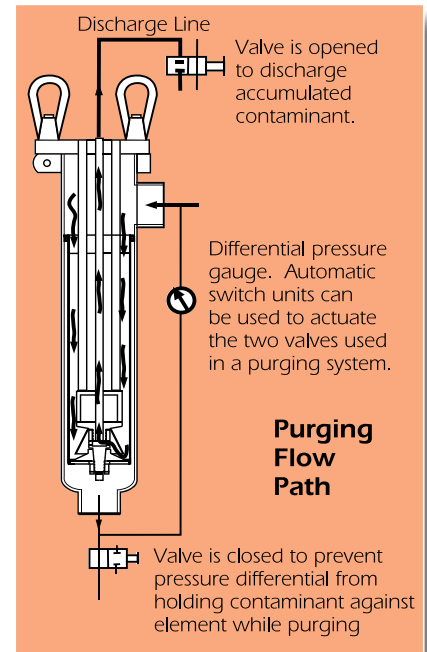
- Unlubricated plant air: 20 psi
- Maximum flow: 20 gpm
- Maximum pressure: 300 psi
- Maximum pressure drop: 50 psi
- Pressure drop (clean): 2 psi
- Air Consumption: 2 SCFM

### Element

Wedgewire baskets are available in micron ratings ranging from 50 to 150 (25 microns equal .001 in.). Wire used has a strong wedge-shaped cross-section. Wire cloth-lined baskets are available with micron openings from 25 to 150. Wire cloth has a much higher percent of open area than wedgewire. A given flow passes through with less pressure drop.

### Materials

Housings and metal internals are 304 stainless steel. Air hoses are nylon with nickel-plated steel fittings. Seals are Teflon.



### Dimensions (IN)

