

## **Case History no. 24 – Beverage Manufacturer Replaces Disposable Filter Media with Permanent Stainless Steel Media**

### **Problem:-**

A client in the beverage industry uses large volumes of 40 mesh ( 400 micron ) and 20 mesh ( 800 micron ) polypropylene fabri-basket filter bags ( 510 sq. inches per bag ) to filter beverage concentrate prior to filling IBC's. The product in each IBC is worth IR£200,000 ( €300,000 )

The filters are insurance filters to prevent foreign bodies such as pieces of gasket and miscellaneous debris from getting into the product. They use large numbers of bags that can be cleaned in place.

The bags are very porous with a high percentage of free open area and have a large volume in which to accommodate solids.

We must give them stainless steel media with sufficient surface area to handle the flow rates and low  $\Delta P$ .

### **They must be:-**

- **Free draining**
- **Robust**
- **Suitable for C.I.P.**
- **3116L stainless steel for 150psiG**

### **Duty Details:-**

<i>Flow rate:-</i>	17,000 LPH ( 75 US gpm )
<i>Fluid:-</i>	Beverage concentrate
<i>Viscosity:-</i>	Up to 5,000 centipoise
<i>Solids Loading:-</i>	Trace Solids
<i>Retention rating:-</i>	380 890 micron required
<i>Line Size:-</i>	3"

### **Solution: -**

After detailed discussion and comparisons between what they are currently using and the possible alternatives we offered them RPA straight - through 3" SR3336 units complete with viton A ( food grade ) gaskets and tri-cluster ( for maximum filter area and backwash diffusion ) slotted wedge wire elements.

### **Result:-**

We detailed all the possible benefits and back draws of the units and concluded that they would need 1 or possibly 2 units for each line.

They ordered 10 lines in total.