

Solid / Liquid separation by **variable interaction forces**: VIF Filters

Solid/liquid separation is concerned with the removal of molecules and molecular aggregates, colloids and particulates from liquids. Interaction forces can make the solid/liquid separation easier or more difficult. The nature of the dominant interactions varies according to the interaction forces between the dispersed phase and the continuous phase/separating media.

Italtraco is now offering the variable interaction forces filters, "VIF Filters". This proprietary technology offers high specific flow rates, from 10 to 30 cu.m./sq.m./h., with a range of filtration from 0.3 microns to 9 microns. The S.P.R. process can also be supplied by Italtraco to optimize the filtration process and / or to achieve the more stringent States regulations in terms of COD.

The VIF Filters, developed by Italtraco, incorporate the Italtraco's world-wide patented "two- phase" media, which has high interaction forces during the filtration phase and very low interaction forces during the backwash phase, this allows the removal of the dirt load from the two-phase filtering media surface.

The VIF Filters offer a more efficient method of filtering than that provided by the traditional fine & micro particulate removal filters. The VIF Filters have the following features:

- they are self-cleaning and allow continuous operation;
- the modular basic unit is very compact and fully transportable;
- backwash takes a matter of seconds compared with the 40/50 minutes required for multimedia or sand filters;
- installation and commissioning times are minimal.

