PRODUCT SPECIFICATION & EVALUATION

Product: Ultra-filtration system	Reviewed By: SOLTECK Engineering Dept

DESCRIPTION & SPECIFICATIONS

Ultra-filtration (UF) is a hydro static membrane which rejects suspended solids, bacteria, viruses, pathogens and produces a water quality with very high purity and low silt density. It is used as a pretreatment for industrial biologically effluent, surface water prior to reverse osmosis and other membrane systems.

Fig.1 – Ultra-filtration System in Operation

PROCESS

UF is a low pressure-driven mechanical process for separating and concentrating suspended solids, colloids and high molecular weight materials in solution.
UF membranes are tubular filters, which are designed and manufactured by a leading European supplier. They reject solids while allowing clean water to pass through. The UF design uses the wash water to flow over the membrane surface at a set flow rate and pressure, which keeps the surface clean, from the build-up of solids.
The process is referred to as "cross flow" the concentrated wastewater is referred to as "concentrate" while the clarified water produced from the UF is referred to as "permeate".

STRENGTHS

- Removal of suspended solids and turbidity with constant filtrate quality.
- High bacteria and virus removal rates.
- High chemical resistance and temperature tolerance for effective membrane cleaning
- Low energy
- Maximum operational safety and reliability.
- Compact design resulting in small system footprint
- Excellent filtration performance with high flux

EVALUATION VERSION AND DATE:	DOCUMENT STATUS:
Document Version: Product_Code_37120273.pdf Date: 03.01.2013 / Ver 05	Status: Approved