

Ceramic UF for Oil & Gas Oil Fields

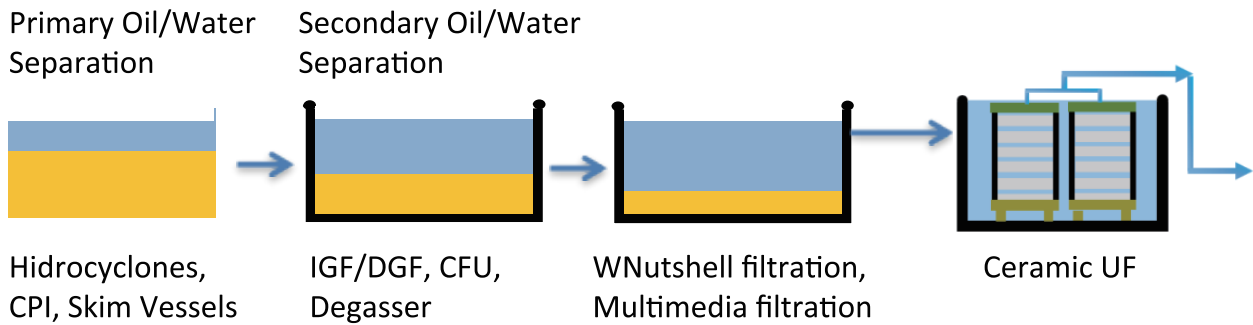
itN is the founder of Ceramic Flat Membrane with 18 years' R&D experience in nano-coating technology and manufacturing ceramic membranes, which provides the best filtration technology for produced water treatment plants. Off-shore and On-shore oil & gas plants are facing more and more challenges to upgrade the water quality to meet global water standards and regulations for on-shore reuse and disposal, off-shore discharge, and on-shore and off-shore reinjection (PWRI).

The Ceramic technology has plenty of advantages in Oil & Gas fields applications:

1. Effective removal of all TSS, bacteria (log LRV 4.7), clay and oil.
2. Flexible membrane tower layout, stainless steel membrane frame and pipe work, suitable for ATEX certifications.
3. Smaller footprint (Compare to Polymer UF).
4. High flux (50 up to 200 LMH)
5. High recovery rate (more than 98%)
6. Long life span (more than 20 years)
7. Low energy consumption (< 0,1 Kwh/m³).



Typical Process for Produced Water



Operation Parameters

Membrane Material	Al ₂ O ₃ Nano-coating
Flow Path	Outside-in
Temperature	5-90°C
Flux	50 - 200 LMH
Recovery Rate	≥ 98%
Cycle of Chemical Enhanced Backwash (CEB)	> 4 weeks
Cycle of Cleaning in Place(CIP)	6-9 months
Life time	> 20 years
Effluent TSS	< 1 mg/L
Effluent Oil	< 1 mg/L

Ceramic UF Data Sheet

No.	Item	FCT-40-o	FCT-64-o	FC-R160-o	FCR-224-o
1	No. of Filtration Towers	1	1	4	4
2	No. of Modules per Tower	10	16	10	14
3	Total Filtration Area [m ²]	40	64	160	224
4	Capacity [m ³ /d]	48-190	76-300	190-760	260-1075
5	Length [mm]	624	624	2350	2350
6	Width [mm]	638	638	732	732
7	Height [mm]	1980	2970	1910	2470
8	Total Weight [kg]	350	530	1750	2250

Note: ItN specialists have broad expertise and experience ranging from planning, engineering, construction, investment and operations of projects. If you need any help, please contact us.