

SYSTEMS

.....

1. SK
- 2.
- 3.
4. VSA SYSTEM
- 5.

SK

Hotel ,
 50
 1 SK

2.

1. SK
 SK 1990
 (Ultrafiltration Hollow Fiber Membrane)
 , 1992 SKYRANE

2
 1274mm 1.3
 1 2755
 12.5% 1 1960

가

IR52 2006 22.6% 가
 , 1994 KT 7.6%

가
 2006 4.5 2011 20

(Microfiltration Hollow Fiber Membrane) , 1998 가
 (water backwashing) 가

VSA SYSTEM , 1997
 VSA SYSTEM 2000 가

2002

EM

1. SK

| | | |
|---------------|---|--------------------------|
| | | |
| (Re0use) | | SK UF system, VSA system |
| | 內 | C/T Project |
| | | , 等 |
| (End of pipe) | | (42) |
| | | KIMAS system |
| | | - |
| | | APT , Syetem |
| | | - |
| | | RO |
| | | , 等 |
| | | / |
| | | / 等 |

2.

| | | | | | | |
|---|------|-------|-------|-------|--------|--------|
| | | | | | | |
| | (mm) | 1,274 | 1,405 | 578 | 982 | 973 |
| 1 | (m3) | 2,755 | 4,227 | 4,446 | 34,270 | 22,096 |

2006 7.9 / 4.5 가 13.5% / 3. 가

3. Water Reclamation and Reusing System , 가 1 , ,

가

가

가

4. VSA VSA SYSTEM

3

가

(Foulant)

가

SK

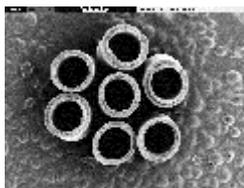
VSA SYSTEM

3

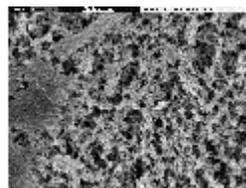
VSA SYSTEM

()

| Filter | Pore size(μm) | | | | |
|---------------------|---------------|--------|--------------|-----------------------|------------------------|
| R/O Membrane () | 0.0001 | (NaCl) | Spiral Wound | CA | UF MWCO 1, 3, 5萬 |
| UF Memb. () | 0.001 ~ 0.01 | | | PSF | |
| MF Memb. () | 0.1 ~ 10 | | Tubular | PE PA PAN PP | |
| Filter | > 1 | | | | MF 0.1 & 0.3μm |



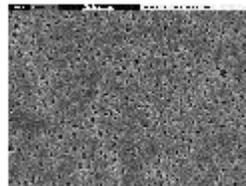
Cross-section



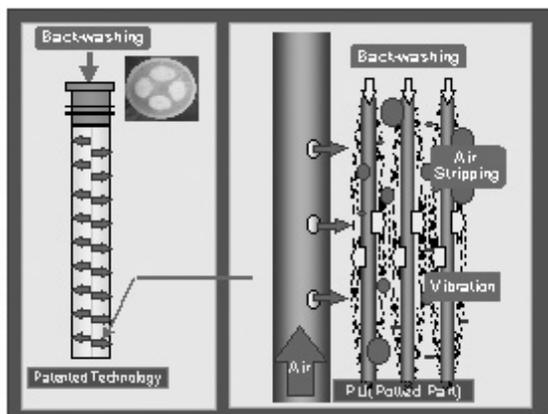
Inside view



Cross-section

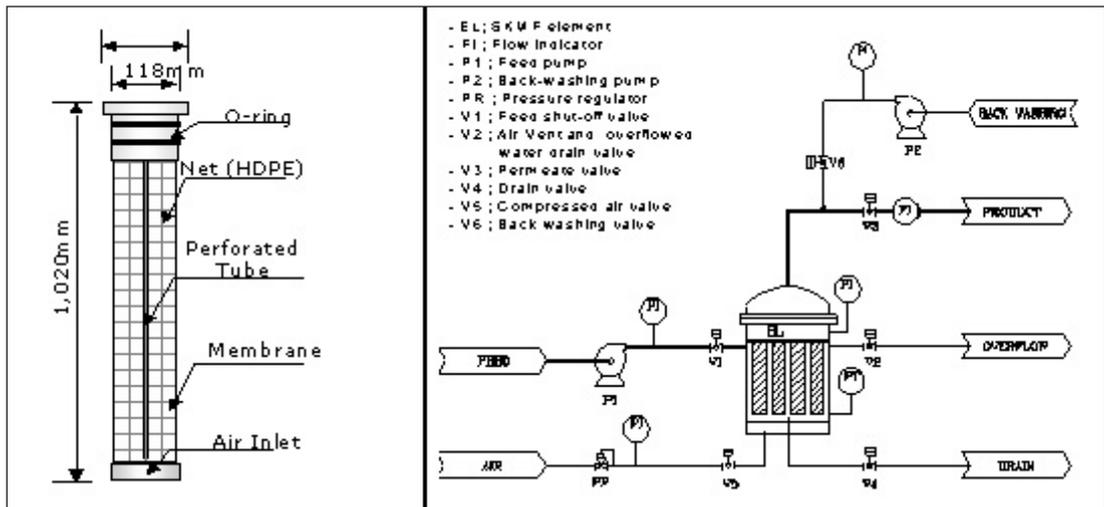


Outside view



1. VSA SYSTEM

2. VSA(Vibrating and Stripping Air)



3. VSA

VSA SYSTEM foulant SKYRANE-MF 1 0.1/03

VSA SYSTEM

VSA SYSTEM

가

가 4 STEAM EJECTOR

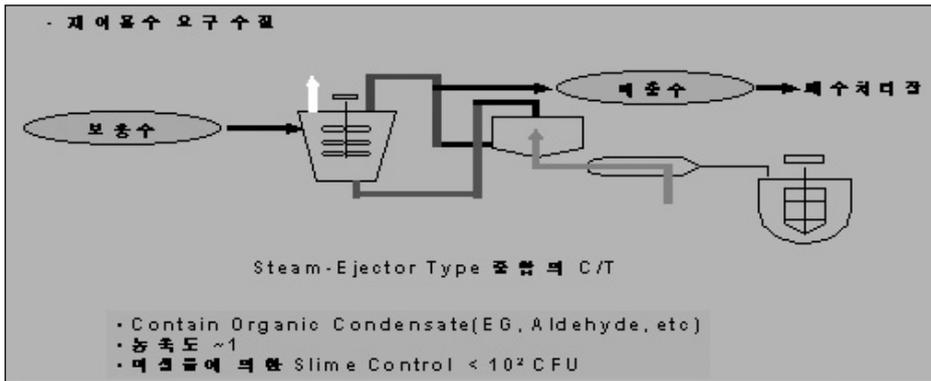
foulant 50 Pilot test VSA

Pilot test SYSTEM 가 가 NaOCl VSA fouling

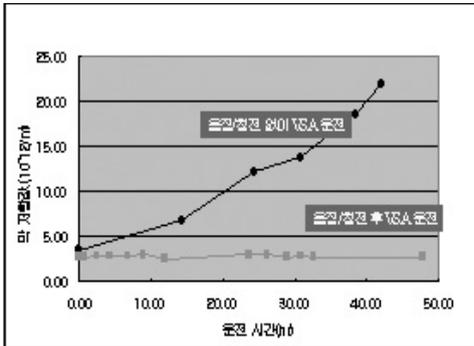
(2) VSA Vibrating and Stripping by Air 가 가 NaOCl

Pilot test 500 2003 6 9 Pilot test NaOCl

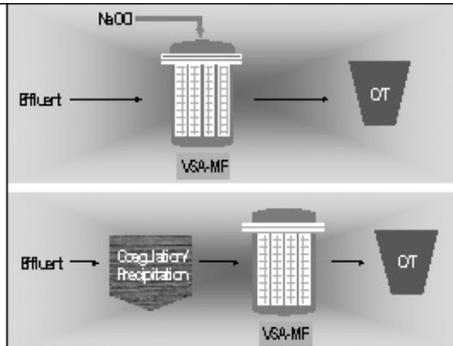
3 Polysulfone



4. STEAM EJECTOR



5. /



6. Fouling (上; NaOCl, 下; /)

fouling / Hotel

Polyaluminum chloride /

5 /

fouling / 4

VSA SYSTEM

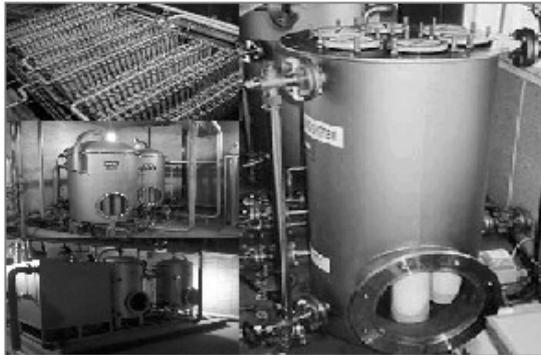
2003 6 5.

9 scale slime SYSTEM 가 VSA

VSA SYSTEM

2.

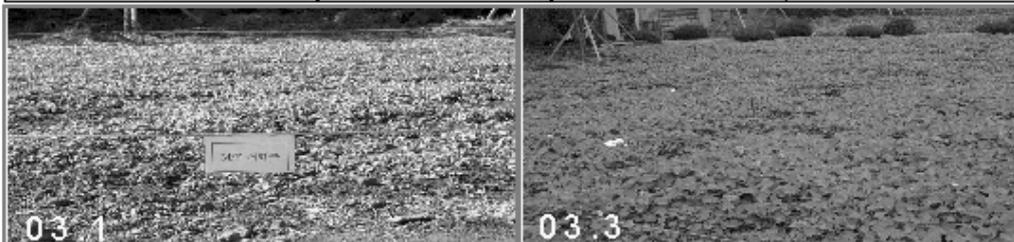
| | | | | | | |
|---|------|-------|-------|-------|--------|--------|
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| 1 | (m3) | 2,755 | 4,227 | 4,446 | 34,270 | 22,096 |



| | | |
|----|------------------------|-------|
| 1 | 21 C.C. | 500 |
| 2 | | 400 |
| 3 | Intercontinental hotel | 200 |
| 4 | Central city | 1,200 |
| 5 | | 600 |
| 6 | | 500 |
| 7 | ASEM & | 400 |
| 8 | Walker hill hotel | 400 |
| 9 | | 300 |
| 10 | () | 200 |
| 11 | | 100 |
| 12 | | 1,000 |

7. VSA SYSTEM

| 항목 | 발광수 | VSA 처리수 | RO 처리수 |
|--------------------------|---------|---------|--------|
| 경도도 (uS/cm) | 3293.57 | 3288.00 | 67.62 |
| BOD ₅ (ppm) | 12.01 | 8.00 | 0.70 |
| CO D _{mn} (ppm) | 10.63 | 7.56 | 0.35 |
| SS(ppm) | 6.61 | 0.3 < | ND |
| Cl(ppm) | 826.74 | 812.06 | 13.00 |



8. - J (上: , 下:)

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 ,
 ,
 , / , 가 .