




ESCO PROCESS (Asia Pacific)

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Actual Comparison Table for 10,000 m³/day ACSF Fine Filtration Skid Package

Manufacturer				Others
Type of media filter		Microgrooved polypropylene hollow disk pack		Granular media
Trade name		ACSF		Permutit, etc.
Rating	microns	2		2
Vessel Size & Weight Data				
Vessel OD	mm	1250		2340
Vessel T-T	mm	1560		1041
Approximate weight	M-Tons	1		17
No of vessel/skid	Unit	2 duty and 1 standby		
Overall Skid Size & Weight Data				
Skid length	mm	6000		15000
Skid width	mm	2400		3600
Skid height (Overall)	mm	3000		3000
Skid footprint area	Sq. metres	14.4		54
Total weight (dry)	M-Tons	4.2		57
Total weight (wet)	M-Tons	8.6		70
Other Mitigating Cost				
Performance		Steady throughout disk life	Increased plugging over time	
External backwash piping		Not required	Required	
Backwash pump		Not required	Required	
Scour air blower		Not required	Required	
Each backwash duration (typical)		< 180s	> 1800s	
Time vessel if off-duty for backwashing	(typical)	< 180s	> 3600s	
Media migration		None downstream	Expected carry-over	
Media replacement		Permanent	Once every 2 - 3 years	
Anti-bacteriological chemicals		> 20% lower compared to MMF at first charge	Increased with prolonged use	
Utility air requirement		For backwash	For air scouring	
Actuated valves		5 nos	> 5 nos	
Customer End Requirement				
Electrical				
Power cables		Not required	Required	
Cable tray		Not required	Required	
Controls				
Cables		> 25% savings	No savings	
PLC based inputs		31	43	
PLC based outputs		15	21	
Software firm tags		46	64	
Operating & Maintenance Data				
Media replacement duration		5 years guarantee	Typically 2 (No guarantee)	
Media change work	Every 2 years	None	Yes	
Water consumption (per year @ 1 backwash cycle per week)				
Backwashing	m ³	104	> 9048	
Water cost	\$2/m ³	208	> 18096	
Power consumption (KWH per year @ \$0.1/KWH)				
Backwash pump	45 HP	None	27,286.88	
Scour air blower	35 HP	None	12,733.88	
Compressed air	5 HP	1,819.13	649.69	
		TOTAL (\$)	2027.13 (96% lower)	58766.45
ACSF can be reusable				
Translated also to less labour to tie-in and integrate				
Less weight handling and less labour required				