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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				