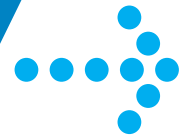




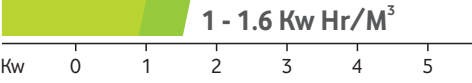
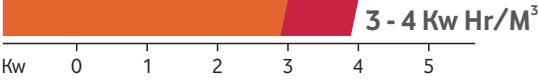


# MIRANDA Technology Advantages

MIRACELL® / DROPBOX® Biodisk System vs. Activated Sludge System



Comparative Point	MIRANDA BIODISK SYSTEM	ACTIVATED SLUDGE SYSTEM
Process	Attach Growth Biodisk Process	Activated Sludge Process
Sludge Treatment	No Sludge recycle, stabilized sludge ready for use as fertilizer without additional operations	Sludge recycling required, belt press required to treat final sludge
Water Effluent Quality (BOD/TSS)	Tertiary 10/10ppm (10/10 mg/lt)	Secondary 30/30 ppm (30/30 mg/lt)
Noise	Low noise levels / 65-70 dB 	High noise levels / 125 dB 
Odor	Negligible	Very High
Foaming	None	High degree of foaming
Corrosion	No corrosion due to composite design 	High Corrosion due to rusting steel 
Maintenance & Cleaning Process (chemicals)	Maintenance Free Self cleaning automated process	Maintenance Needed sludge removal with chemical and mechanical treatment of sludge
Cost & Efficiency	Low Cost due to simple technology yet Very High Efficiency	High Costs and Modest Efficiency
Operating Cost	Low (no blowers required natural aeration, personnel requirement is minimal, if any...)	High Maintenance Costs (blowers and large number of mechanical motors required, large number of personnel required)
Energy Consumption	Low 	High (Air Pumps and Large Number of Mechanical Motors Required) 
Replacement of Major Items	No Replacement	Replacement of electromechanical parts (ie. Sludge Pumps, Recycling Pumps, Gears, Etc.)
Maintenance	Very Low	High



Comparative Point

MIRANDA BIODISK SYSTEM

ACTIVATED SLUDGE SYSTEM

Aesthetic Appeal

Aesthetically appealing due to its design and quality of materials.



NO aesthetic appeal. High corrosion due to steel container type design



Required Footprint

Over 50% lesser footprint

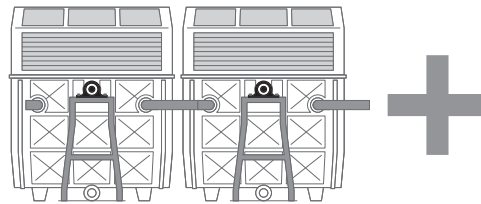


Large

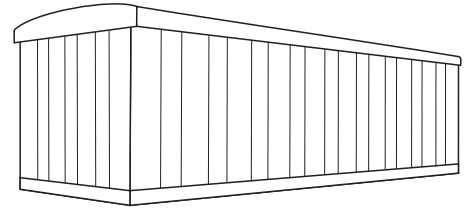


Possibility of Expansion or Reduction

Unlimited due to modularity

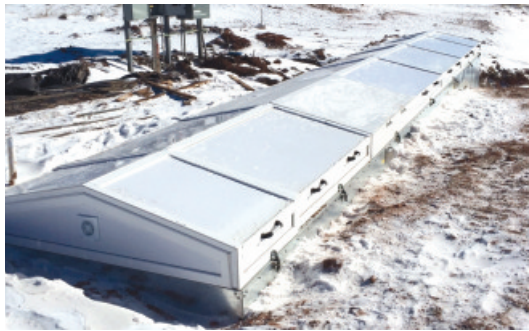


Limited



Construction Possibilities

Aboveground and underground



Aboveground and some of them can be erected underground (with limited capacity)



Relocation

Possible



Limited Possibility

