AQUAFAN 10 Hydro Powered Cooling Tower Cell

Indicative Data Sheet

Type		**AQF10** Single Cell Counter Flow Induced Draft Cooling tower						
Project: **Location:**								
Setting	Cell Unit Tower	< 250 m3/h		AQF10 1x1				< 1100 gpm
Duty (example):			°C		°F			
		HWT	38.0		100.4			
		CWT	32.0		86.6			
		WBT	27.8		82.0			
		Range	6.0		13.8			
		Approach	4.2		4.6			
		Flow	240	m3/h	1056	GPM		
		Thermal capacity	1,674	kW	477	RT		
		Thermal efficiency	59%					
		Evaporation	0.98%					
Operational Conditions	%	Load		100%	75%	50%	25%	
Pressure required at Inlet	bar/psi			1.45/22	0.7/11	0.2/3		
Installed Energy at Pump(s)*	kW/hP			12.6/16				
Mean energy Consumtion**	kW/hP			9.2/12	5.8/8	1.7/3		
Materials:								
Cooling Tower Body			FRP pultruted profiles & cladding with SST 304 fasteners.					
Air Inlet			PVC Screens in FRP frame					
Fan Stack			FRP					
Infill		Splash	PP	CentraFill 135		2*900/2*3'	PVC	
Drift Eliminator		ZZ-labyrint	PVC	CentraDeck 135		< 0.005 %	PVC	
Water Turbine			PA6+SST 304					
Basin			FRP					
Nozzles			ABS					
Air:								
Fan type		Axial Fan	Streamline	SF7				
Nr. of Fans			1					
Nr. of Blades			6					
Material		Blade	ABS					
Diameter	mm		2100			7'		
Volume	m^3/s		27			57000	cfm	
Drive		A8Q	24-cup pelton-girard turbine			PA6		
Power Transmission			waterjet					
Nozzle		ZP36	----	mm				
Speed*	rpm		420				* approx	
Bearings			Graflon replacable rings (graphite/teflon) on SST					
Lubrication			water					
Motor Power			none					
Enclosure			none					
Sizes:								
L	mm*		3300	IMP		17'1"		
W	mm*		3300			8'10"		
H	mm*		5000			16'5"	* approx	
Connections:								
Outlet	DIN	1x	250	DIN 2632	10"	150 lbs		
Inlet	DIN	1x	200	DIN 2632	8"	150 lbs		
Weight:								
Empty	kg		900			2000	lbs	
Operated	kg		4500			9900	lbs	
Shipping Volume:		Components						
	m3	1 unit	13.6	knock-down condition		150	qft	
Noise:		PWL	SPL	at air intake				
	m	FAN	1		5	10		
	dB(A)	83	72		65	60	tol +/- 3 dB(A)	
Remarks:	*	Only required at max. thermal load and at most worse climate conditions (max. WBT). During the year a lower inlet pressure is required to achieve the design cooling capacity.						
	**	The electrical energy needed to operate the AQUAFAN cooling tower at max. thermal load. This energy is added to the circulation pump(s). Installation and Operation Manual will be provided with shipment.						