AQUAFAN 8 Hydro Powered Cooling Tower Cell

Indicative Data Sheet

Type		**AQF 8** Single Cell Counter Flow Induced Draft Cooling tower						
Project: **Customer:**								
Setting	Cell Unit Tower	<175 m3/h		AQF 8 1x1				< 770 gpm
Duty:			°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	170	m3/h	748	gpm		
		Thermal capacity	1,186	kW	338	RT		
	%	Thermal efficiency	59%					
	%	Evaporation	0.98%					
Opeartional Conditions	%	Load		100%	75%	50%		
Pressure required at Inlet*	bar/psi			1.75/26	1.02/15	0.5/8		
Installed Power*	kW/hP			10.7/13.4				
Energy Equivalent**	kW/hP			7.8/9.7	3.4/4.3	1.2/1.5		
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			none					
Nozzles			ABS					
Air:								
Fan type		Axial Fan	Streamline	SF6				
Nr. of Fans			1					
Nr. of Blades			6					
Material		Blade	ABS					
Diameter	mm		1800			6'		
Volume	m^3/s		17			36000	cfm	
Drive		A8Q	24-cup pelton-girard turbine			PA6		
Power Transmission			waterjet					
Nozzle		ZP36	----	mm				
Speed*	rpm		485					* approx
Bearings			Graflon replacable rings (graphite/teflon) on SST					
Lubrication			water					
Motor Power			none					
Enclosure			none					
Sizes:								
L	mm*		2700	IMP		8'10"		
W	mm*		2700			8'10"		
H	mm*		4500			14'9"		* approx
Connections:								
Outlet	DIN		200	DIN 2632	8"	150 lbs		
Inlet	DIN		150	DIN 2632	6"	150 lbs		
Weight:								
Empty	kg		700			1550	lbs	
Operated	kg		3000			6600	lbs	
Shipping Volume:		Components						
	m3	1 unit	7.2	knock-down condition			80 qft	
Noise:		PWL	SPL	at air intake				
	m	FAN	1			5	10	
	dB(A)	82	71			64	59 l +/- 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 at a specified location.						
		Installation and Operation Manual will be provided with shipment.						