Part # WHALEFIN6 x 56mm LIQUID

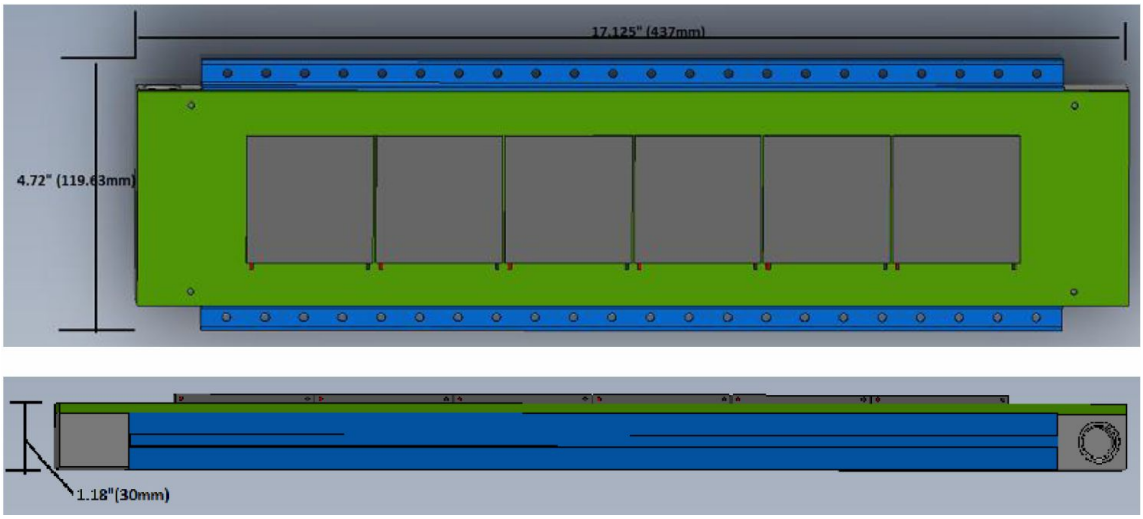
DESIGN PARAMETERS: Our liquid sinks are designed around maximum cooling. Designed based on the Blue Whales Pectoral fins. The fins on steep vertical angle dives do not allow water to cavitate (air to form) against the fin and lose lift. This in turn allows the whale to use the least amount of energy maximizing work performed by forcing the water against the fin at a higher rate than the speed of descent. The design creates micro vortexes that speed up the flow of liquid that allows liquid to cling to the bottom of the plate where the modules are mounted. This allows for much lower power for the pump for the same amount of work. The design also saves power by creating turbulent flow with low flowing water thereby maximizing mixing of the liquid to pick up maximum heat flux. All of this is done with parallel flow.

Feature:

- All Aluminum construction
- ½" ID 5/8" OD 90° Brass barbed fittings for both in port & out port.
- Mate to a ½" ID silicon tube for best results with 3/16" wall thickness.
- Low flow low pressure drop design.
- Flow rates 2.5 liters per minute optimal, (ref. page 2)
- All flow is in parallel **NO** serial flow.
- 6 x 56 mm only modules **must be placed** on the deck as part of design**

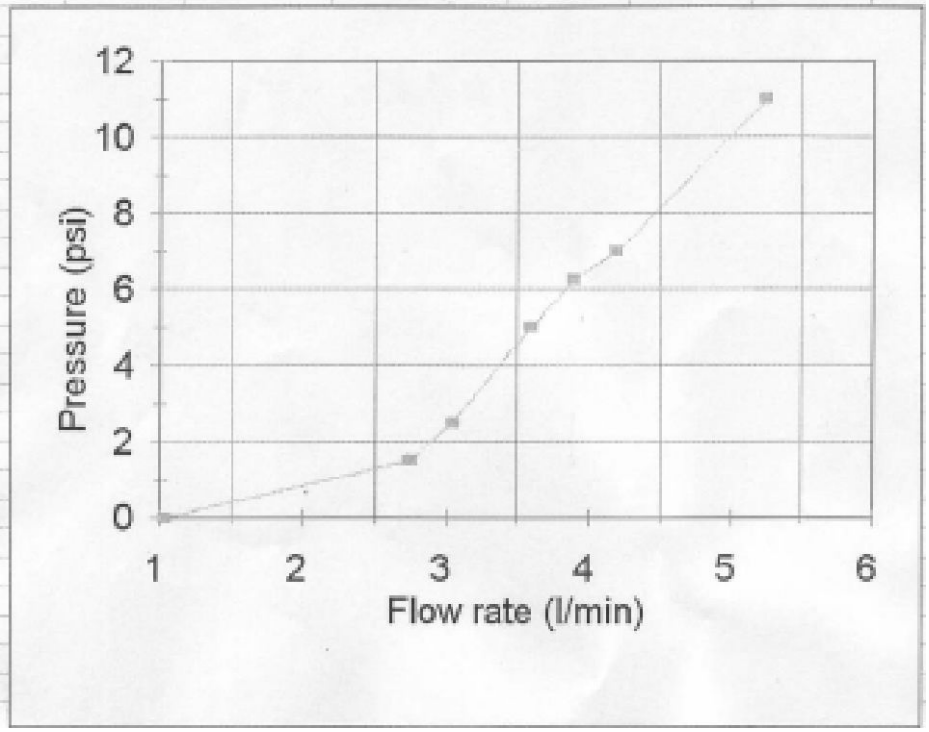
Populated with 6 pieces of 56 x 56mm modules:

TEG1-12611-6.0
TEG1-12611-8.0
TEG1-24111-6.0
TEG1-PB-12611-6.0



** Because of our large flow surface under the modules of the cold interface plate. The correct number of modules are required for proper operation of the liquid sink. Failure to use 4 x 56mm modules in this case will reduce counter pressure on the O-ring which may cause it to leak.

No#	flow (l/min)	Pressure(psi)	
1	1.03	0	0
2	2.75	1.5	0
3	3.05	2.5	0
4	3.6	5	3.3
5	3.9	6.25	5
6	4.2	7	8
7	5.25	11	11



* Above flow rate as compared to water pressure is representative of all Whalefin™ designs