CLAIMS

What is claimed is:

1 A modular heat exchange tower that extends vertically along a longitudinal axis, comprising:

a first module comprising a first basin disposed therein;

a second module that defines a plenum, wherein said second module comprises a outlet;

a first flume in fluid communication with said outlet, wherein said flume extends from said second module to said first module,

wherein said first flume comprises:

a first linear base wall;

a first linear side wall that extends from said first linear base wall at an angle; and

a second linear side wall that opposes said first linear side wall that extends at an angle from said first linear base wall;

a first heat exchange section; and

an air current generator.

2. The modular heat exchange tower according to claim 1, further comprising a third module having a second basin disposed therein.

3. The modular heat exchange tower according to claim 1, wherein said first flume further comprises a first top linear wall that extends between said first and second sidewalls generally parallel to the base wall.

4. The modular heat exchange tower according to claim 1, wherein said first flume is trapezoidal in geometry.

5. The modular heat exchange tower according to claim 2, further, comprising:

a second flume in fluid communication with said outlet, wherein said second flume extends from said third module to said second module, wherein the second flume comprises:

a second linear base wall;

a third linear side wall that extends from said linear base wall at an angle; and

a fourth linear side wall that opposes said third linear side wall that extends at an angle from said second base wall.

6. The modular heat exchange tower according to claim 5, wherein said second flume further comprises a second top linear wall that extends between said third and fourth sidewalls generally parallel to the second base wall.

7. The modular heat exchange tower according to claim 6, wherein said second flume is trapezoidal in geometry.

8. The modular heat exchange tower according to claim 2, wherein said first basin comprises a first depressed section; said second basin comprises a second depressed section and said third module comprises a third depressed section.

9. The modular heat exchange tower according to claim 8, where said first, second and third depressed sections are in fluid communication with one another.

10. The modular heat exchange tower according to claim 2, further comprising a second heat exchange section.

11. The modular heat exchange tower according to claim 9, further comprising:

a fourth module; and

a fifth module,

wherein the first heat exchange section is disposed in the first module and the fourth module,

wherein the second heat exchange section is disposed in the third module and the fifth module.

12. The modular heat exchange tower according to claim 10, wherein the fourth module is positioned vertically adjacent to the first module along the longitudinal axis,

wherein the fifth module is positioned vertically adjacent to the third module along the longitudinal axis.

13. The modular heat exchange tower according to claim 12, wherein the first heat exchange section is disposed in the first module and the fourth module is further disposed vertically adjacent to the first basin along the longitudinal axis,

wherein the second heat exchange section disposed in the third module and the fifth module is further disposed vertically adjacent to the second basin along the longitudinal axis.

14. The modular heat exchange tower according to claim 13, further comprising a sixth module,

wherein the sixth module comprises at least a portion of the air current generator.

15. The modular heat exchange tower according to claim 14, wherein the sixth module is disposed between the fourth module and the fifth module along an axis perpendicular to the longitudinal axis.

16. The modular heat exchange tower according to claim 15, further comprising:

a third basin; and

a fourth basin,

wherein the third basin and the fourth basin are configured to receive separate streams of liquid,

wherein the third basin is disposed vertically adjacent to the first heat exchange section along the longitudinal axis such that the stream of water received by the third basin flows into the first heat exchange section and into the first basin,

wherein the fourth basin is disposed vertically adjacent to the second heat exchange section along the longitudinal axis such that the stream of water received by the fourth basin flows into the second heat exchange section and into the second basin.

17. The modular heat exchange tower according to claim 1, wherein the first heat exchange section comprises cross-flow fill.

18. The modular heat exchange tower according to claim 10, wherein the second heat exchange section comprises cross-flow fill.

19. A modular heat exchange tower that extends vertically along a longitudinal axis, comprising:

a first module comprising a first basin disposed therein;

a second module comprising a second basin disposed therein;

a third module that defines a plenum, wherein said third module comprises a outlet;

a first flume in fluid communication with said outlet, wherein said flume extends from said third module to said first module and has a curvilinear geometry;

a first heat exchange section; and

an air current generator.

20. The modular heat exchange tower according to claim 19, wherein said curvilinear geometry is elliptical.

21. The modular heat exchange tower according to claim 20, wherein said curvilinear geometry is circular.

22. A modular heat exchange tower, comprising:

a first fluid basin disposed in a first module;

a second fluid basin disposed in a second module;

a flume that extends between said first fluid basin and said second fluid basin, wherein said flume comprises:

a first linear base wall;

a first linear side wall that extends from said first linear base wall at an angle; and

a second linear side wall that opposes said first linear side wall that extends at an angle from said first linear base wall.