CLAIMS

1. A hollow shaft impeller, comprising:

a hollow impeller housing having a hub defining an interior volume and an impeller bore providing access to the interior volume;

a magnet sized to be disposable within the interior volume;

an impeller cap removably coupled to the hollow impeller housing proximate to the impeller bore;

an impeller retainer removably coupled to the magnet and sized to be disposed within the interior volume; and

a plurality of impeller blades projecting from the hub, characterized that in at least one fin is disposed on each impeller blade of the plurality of impeller blades.

2. The hollow shaft impeller of claim 1, wherein the plurality of impeller blades includes three, four, or five impeller blades.

3. The hollow shaft impeller of claim 1 or claim 2, wherein the at least one fin is triangular shaped.

4. The hollow shaft impeller of claim 1 or claim 2, wherein the at least one fin is disposed on each impeller blade of the plurality of impeller blades between a top edge and a bottom edge of each impeller blade of the plurality of impeller blades.

5. The hollow shaft impeller of claim 1 or claim 2, wherein the at least one fin is disposed on, and extends from, a blade face of each impeller blade of the plurality of impeller blades.

6. The hollow shaft impeller of claim 1, further comprising a gasket coupled to the impeller cap and configured to, with the impeller cap, seal the interior volume at the impeller bore, optionally wherein the gasket is an O-ring, optionally wherein the gasket comprises an elastomeric material, optionally wherein the elastomeric material is a vinyl material, a polyethylene material, a

polypropylene material, a nylon material, a silicon material, a polytetrafluoroethylene material, or a rubber material.

7. The hollow shaft impeller of claim 1, wherein the impeller retainer comprises:

a circular flange having a top surface and an opposite bottom surface.

8. The hollow shaft impeller of claim 7, wherein the impeller retainer further comprises:

a boss projecting from the top surface of the circular flange.

9. The hollow shaft impeller of claim 8, wherein, when the impeller retainer is disposed within the interior volume, the boss is configured to interact with the impeller cap.

10. The hollow shaft impeller of claim 7, wherein the impeller retainer further comprises:

a cylinder descending from the bottom surface of the circular flange.

11. The hollow shaft impeller of claim 10, wherein the cylinder of the impeller retainer comprises:

a plurality of rails disposed about an exterior surface of the cylinder.

12. The hollow shaft impeller of claim 11, wherein the magnet comprises:

a bore centrally disposed on the magnet; and

a plurality of slots disposed around a perimeter of the bore.

13. The hollow shaft impeller of claim 12, wherein the cylinder and the plurality of rails are keyed to the bore and the plurality of slots of the magnet such that the bore and the plurality of slots of the magnet are configured to at least partially receive the cylinder and the plurality of rails of the impeller retainer.

14. The hollow shaft impeller of claim 13, wherein, when the cylinder and the plurality of rails of the impeller retainer are disposed within the bore and the plurality of slots of the magnet, the magnet is coupled to the impeller retainer.

15. The hollow shaft impeller of claim 1, wherein the impeller cap comprises:

cap beams and cap slots disposed about the impeller cap,

optionally wherein the impeller bore of the hollow shaft impeller comprises:

hub beams and hub slots disposed about the impeller bore, wherein the cap beams are configured to be disposed within the hub slots and the hub beams are configured to be disposed within the cap slots when the impeller cap is coupled to the hollow impeller housing.