What is claimed is:

1. A fluid pump assembly, comprising:

    a. an outer mount comprising a first permanent magnet;

    b. an inner mount comprising a second permanent magnet; and

    c. a pump comprising a housing containing an inner plate having a soft magnetic material, a rotor body, and a stator configured to interact with the rotor body to rotationally drive the rotor body, the inner plate disposed between the rotor body and the inner mount, wherein

    the inner mount is configured to be positioned on a first side of a wall of a container,

    the outer mount is configured to be positioned on an opposite second side of the wall of the container and in opposing relationship with the inner mount,

    the pump is positioned in an abutting relationship with the inner mount such that the first permanent magnet, the second permanent magnet, and the inner plate collectively establish a magnetic circuit a having sufficient strength to mount and hold the outer mount, the inner mount, and the pump in place on respective sides of the wall of the container without mechanical support,

    the housing comprises an outer cover, a stator outer shell connected to the outer cover, a stator inner shell integrally connected to the stator outer shell, and a rear cover connected to the stator outer shell,

    wherein the stator outer shell has fluid inlets and the outer cover has fluid outlets, the fluid inlets of the stator outer shell and fluid outlets of the outer

cover are fluidly connected by a channel to sustain a flow of fluid therethrough.

2. The fluid pump assembly of claim 1, wherein the first permanent magnet comprises a plurality of magnets comprising a hard magnetic material.

3. The fluid pump assembly of claim 1, wherein the outer mount further comprises an outer plate having a second soft magnetic material.

4. The fluid pump assembly of claim 3, wherein the outer plate and the first permanent magnet are contained in an outer mount housing.

5. The fluid pump assembly of claim 1, wherein the inner mount further comprises an inner mount housing enclosing the second permanent magnet.

6. The fluid pump assembly of claim 1, wherein the second permanent magnet comprises a plurality of magnets comprising a hard magnetic material.

7. The fluid pump assembly of claim 1, wherein the outer mount or the inner mount further comprises a friction layer configured to be positioned adjacent to the wall of the container.

8. The fluid pump assembly of claim 1, wherein the rotor body comprises rotor magnets received in an annular compartment, and blades configured for causing the flow of fluid through the pump.

9. The fluid pump assembly of claim 1, wherein the rotor body contains rotor magnets in an annular compartment.

10. The fluid pump assembly of claim 1, wherein the pump further comprises an electricity connection to provide electricity to the stator.

11. The fluid pump assembly of claim 1, wherein the soft magnetic material is steel.

12. The fluid pump assembly of claim 1, wherein the pump is angularly adjustable relative to the inner mount.

13. The fluid pump assembly of claim 12, wherein the inner mount comprises a concave surface, and the pump comprises a convex surface, the convex surface of the pump abuts the concave surface of the inner mount.

14. A fluid pump assembly, comprising:
    a. an outer mount comprising a first permanent magnet;
    b. an inner mount comprising a second permanent magnet; and
    c. a pump comprising:
        i. a housing having an outer cover, a stator outer shell connected to the outer cover, a stator inner shell integrally connected to the stator outer shell, and a rear cover connected to the stator outer shell, wherein the stator outer shell has fluid inlets and the outer cover of the housing has fluid outlets, the fluid inlets and fluid

outlets are fluidly connected by a channel for the flow of fluid therethrough,

ii. a rotor body locating in the housing and having rotor magnets received in an annular compartment, and blades that are configured for causing the flow of fluid through the pump,

iii. a stator locating in the housing and configured to interact with the rotor body to rotationally drive the rotor body for causing the flow of fluid through the fluid inlets to the fluid outlets, and

iv. an inner plate positioned behind the rear cover and between the stator/rotor body and the inner mount, wherein

the inner mount is configured to be positioned on a first side of a wall of a container,

the outer mount is configured to be positioned on an opposite second side of the wall of the container and in opposing relationship with the inner mount,

the inner plate is positioned in an abutting relationship with the inner mount, such that the first magnet, the second magnet, and the inner plate collectively establish a magnetic circuit having a sufficient strength to mount and hold the outer mount, the inner mount, and the pump in place on the respective sides of the wall of the container without mechanical support.