What is claimed is:

1. A fluid containment pressure vessel adapted to be in communication with a pressure source, comprising:

(a) a body having an interior volume;

(b) a top cap sealingly attachable to said body, said top cap having an orifice that communicates with said interior volume when said top cap is attached to said body; and

(c) a pressure relief valve actuatable between an open position allowing fluid to flow from said interior volume through said orifice in said top cap, and a closed position preventing fluid from flowing from said interior volume through said orifice; wherein said pressure relief valve is actuatable by a lock mechanism that prevents removal of said top cap from said body when said pressure relief valve is in said closed position, said lock mechanism comprising a member movable on said top cap to engage with a lock-receiving member on said body.

2. The fluid containment pressure vessel of claim 1, wherein said pressure relief valve is positioned in said top cap.

3. The fluid containment pressure vessel of claim 1, wherein said pressure relief valve comprises a seal, a

piston and a biasing member biasing said piston to a valve open position, and wherein said lock mechanism comprises a cam slot in which said piston tracks such that actuation of said lock mechanism from the open position to the closed position forces said piston to overcome the force of said biasing member and cause said seal to seal against said orifice, wherein the cam slot is configured so that the head of the piston tracks in the cam slot as the lock mechanism is actuated between the open and closed position.

4. The fluid containment pressure vessel of claim 1, wherein the lock mechanism locks said top cap with the body when engaged with said lock-receiving member.

5. The fluid containment pressure vessel of claim 1, wherein the lock mechanism comprises a pin actuatable to a position where it prevents rotation of said top cap relative to said body.

6. The fluid containment vessel of claim 1, further comprising a stir bar assembly in said interior volume.

7. The fluid containment vessel of claim 1, wherein said interior volume comprises a membrane.

8. The fluid containment vessel of claim 7, further comprising a base cap sealingly attachable to said body, and a membrane holder rotatingly coupled to said base cap.

9. A method of filtering a sample, comprising:

providing a pressure vessel comprising a body having an interior volume, a membrane positioned in said interior volume, a stir member positioned in said interior volume, a cap sealingly attachable to said body, said cap having an orifice in communication with said interior volume, and a pressure relief valve actuatable between an open position allowing fluid flow from said interior volume through said orifice in said cap, and a closed position preventing fluid from flowing from said interior volume through said orifice;

introducing said sample into said interior volume;

sealing said cap to said body;

actuating said pressure relief valve to said closed position;

applying pressure as to said interior volume to filter said sample with said membrane;

stirring said sample with said stir member;

ceasing the application of pressure to said interior volume;

venting said interior volume by actuating said pressure relief valve to said open position;

removing said cap from said body to access said interior volume; and

recovering product retained on said membrane.

10. The method of claim 9, wherein said pressure relief valve is actuatable by a lock mechanism that prevents removal of said cap from said body when said pressure relief valve is in said closed position.

11. The method of claim 9, wherein said pressure relief valve comprises a seal, a piston and a biasing member biasing said piston to a valve open position, and wherein said lock mechanism comprises a cam slot in which said piston tracks such that actuation of said lock mechanism from the open position to the closed position forces said piston to overcome the force of said biasing member and cause said seal to seal against said orifice, wherein the cam slot is configured so that the head of the piston tracks in the cam slot as the lock mechanism is actuated between the open and closed position.