CLAIMS

What is claimed is:

1. A first container enclosing a sterilizable second container,

the first container comprising a top surface, a bottom surface, a sterile interior volume,

an outlet, and an inlet comprising a sterile filter;

the bottom surface comprising a pedestal;

the second container being positioned upon the pedestal;

wherein:

the container constricts the volume of the second container;

the filter provides sterility within, and allows air/gas to enter, the interior volume of the first container; and,

the integrity of the second container may be tested measuring the release of air/gas from the second container through the outlet.

2. A method for testing the integrity of the second container of claim 1, the method comprising pressurizing the interior volume of the first container to a testing pressure and maintaining the testing pressure for a period of time and measuring any decrease in pressure to detect a defect in the second container.

3. The method of claim 1 wherein the integrity of the second container is tested using a vacuum.

4. An apparatus comprising:

a housing comprising an at least partially open panel and a closed panel;

a rolled sterile single use container:

positioned adjacent to the at least partially open panel of housing; and,

comprising inlet and outlet tubing protruding through the open end of the housing, the inlet

tubing comprising a sterile filter.

~~5. A method comprising:~~

~~a) positioning a rolled sterile single use container within a housing comprising a partially open panel and a closed panel,~~

~~the container being arranged such that the container to unrolls horizontally from the partially open panel toward the closed panel,~~

~~the container comprising inlet and outlet tubing arranged opposite the closed end and protruding through the open end, the inlet tubing comprising a sterile filter; and,~~

~~b) filling the container with a sterile fluid through the inlet tubing and sterile filter such that the container unrolls horizontally from the partially open panel toward the closed panel of the housing as the fluid fills the container.~~

~~6. An apparatus comprising:~~

~~a housing comprising an internal volume and an at least partially open bottom panel;~~

~~a sterile single use container upon the at least partially open bottom panel;~~

~~inlet and outlet tubing attached to the sterile single use container through the at least partially open bottom panel, the inlet and outlet tubing each comprising a sterile filter,~~

~~wherein:~~

~~the sterile single use container is filled with sterile fluid through the inlet tubing; and,~~

~~as the sterile single use container is filled, the volume thereof expands into the internal volume of the housing without application of additional upward force on the sterile single use container.~~

~~7. A method for filling a sterile single use container using the apparatus of claim 6, the method comprising:~~

~~a) positioning the sterile single use container within the housing; and,~~

~~b) filling the container with a sterile fluid through the inlet tubing and sterile filter Such that the container expands vertically from the partially open panel toward the substantially closed panel of the housing as the fluid fills the container.~~

~~8. A device comprising:~~

~~a container comprising an internal volume;~~

~~tortuous path within the internal volume;~~

~~the tortuous path being composed of a sterilizable material;~~

~~the container being attachable to a sterile single use container and a vent to form a passage between the sterile single use container and the vent;~~

~~wherein:~~

~~the sterile single use container is capable of holding fluid for a reaction that produces gas which is exhausted through passage to reach the vent, the gas optionally comprising liquid in the form of a foam; and,~~

~~any foam present in the gas is destroyed within the passage such that only gas reaches the vent.~~

~~9. The device of claim 8 wherein the tortuous path and the sterile single use container are composed of substantially the same material.~~

~~10. A method for venting gas from a reactor by carrying out a reaction in a sterile single use container affixed to a device of claim 8 and passing the gas stream resulting from the reaction through the device, wherein any foam present in the gas stream is destroyed prior to reaching the vent.~~

~~11. A sterile single use container comprising an internal volume, the container comprising a detachable attachment device comprising:~~

~~a first attachment mechanism substantially positioned within the internal volume of the container; and,~~

~~a second attachment mechanism substantially positioned on the exterior of the container;~~

~~wherein:~~

~~the first and second attachment mechanisms may be reversibly attached to one another;~~

~~the first attachment mechanism further comprises an attachment mechanism for reversibly attaching a device within the the internal volume of the container thereto; and,~~

the second attachment mechanism further comprises an attachment mechanism for reversibly attaching a device exterior to the container thereto.

12. The detachable attachment device of claim 11 wherein a device exterior to the container is a lifting mechanism.

13. A detachable attachment device comprising:

a device body comprising an internal recessed portion and a first surface opposite a second surface;

a coupling groove; and,

an attachment mechanism;

wherein:

the attachment mechanism is affixed to the first surface;

the coupling groove extends from the second surface of the device body formed within the device body and is in communication with the internal recessed portion..

14. A device comprising:

a housing:

in communication with the internal volume and the exterior of a single use container;

comprising one or more attachment points within each of the internal volume and the exterior of the single use container; and,

comprising an enclosure comprising a sealing mechanism;

wherein:

a first component may be attached to the housing through an attachment point within the internal volume of the single use container and / or within the sealing mechanism;

a second component may be attached to the housing through an attachment point exterior to the single use container and / or within the sealing mechanism;

such that the first and second components are reversibly attached to one another.

~~15. A disposable reaction container comprising at least two sheets of material fixably attached to one another along a first axis and at least one fixture access point or implement port along a second axis in at least one of the sheets.~~

~~16. The disposable reaction container of claim 15 comprising four sections adjoined to one another.~~

~~17. The disposable reaction container of claim 16 wherein the sections are adjoined to one another along a seam of at least two other sections.~~

~~18. The disposable reaction container of any one of claims 15-17 wherein the sections meet along a central axis and the fixture access point or implement port is positioned off of the central axis within one of the sections.~~

~~19. A reactor system comprising:~~
~~a. a mobile carriage assembly;~~
~~b. the disposable reaction container of claim 16 removably attached to the carriage assembly; and,~~
~~c. a mobile carriage assembly holder into which the mobile carriage assembly may be removably inserted.~~

~~20. A housing for attaching mechanical fixtures to a disposable reaction container, the housing being positioned within the container.~~

~~21. The housing of claim 20 comprising an internal seal housing, seal shaft, at least one first retaining ring, at least one bearing ball, internal seal housing retainer, at least one second retaining ring, and an O-ring.~~

~~22. The housing of claim 20 or 21 further comprising at least one pocket for using one or more lip seals and/or additional mechanical seals to seal the housing.~~

CLAIMS

What is claimed is:

1. A single use disposable container comprising:

an internal volume and an attachment device;

the attachment device comprising:

a first attachment mechanism comprising a device body positioned within the internal volume of the container,

the device body comprising: a first surface opposite a second surface; an internal recessed portion; and, a coupling groove in communication with the internal recessed portion, the coupling groove comprising a first portion extending from the second surface of the device body toward the first surface and a second portion continuous with the first portion and extending parallel to said second surface; and,

a second attachment mechanism extending from the first surface of the first attachment mechanism and external to the internal volume of the single use disposable container.

2. The single use disposable container of claim 1 wherein the second attachment mechanism is reversibly attached to a lifting device.

3. The single use disposable container of claim 2 wherein the second attachment mechanism device comprises an eye bolt.

4. The single use disposable container of claim 3 wherein the single use disposable container is a film and wherein a portion of said film is sealed to the first surface of the attachment device.

5. The single use disposable container of claim 2 wherein the single use disposable container is a film and wherein a portion of said film is sealed to the first surface of the attachment device.

6. The single use disposable container of claim 1 wherein the single use disposable container is a film and wherein a portion of said film is sealed to the first surface of the attachment device.