port plumbing within substrate containers is, aside from the media issues, difficult to clean and dry due to the enclosed areas used for transferring purge gases. A means for facilitating cleaning of such substrate containers without disassembly and removal of media and purge components would be very advantageous. Particularly, problematic in cleaning are free standing towers such as disclosed in U.S. Pat. No. 6,042,651. Moreover, such towers are subject to movement and potential dislocation due to their conventional positioning where they may be inadvertently contacted and their connection only at the base of the substrate container. Better positioning and attachment methods and structures would be advantageous, particularly methods that do not rely on holes or fasteners that extend through walls or other barriers separating the enclosed interior of the container from the exterior.

The use of discrete towers in a front opening pod, the use of more than one discharge tower, and the optimal placement and securement of discharge towers or tubular environmental control components has not heretofore been adequately considered and optimized to satisfactorily address reliability, haze, contamination and particulate control, and cleaning issues in front opening large diameter wafer containers. As a transition is made from 300mm wafers to 450mm wafers, improvements in these areas will be even more important.

SUMMARY OF THE INVENTION

According to a first aspect, there is provided a front opening wafer container for wafers 300 mm and larger, the container comprising: a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a inwardly extending recess extending from the top of the container portion to the bottom of the container portion, at both lateral sides of the recess a protruding portion of the shell defines a pair of upright feet for seating the wafer container when the wafer container is rotated backwardly with the open front facing upwardly, the feet defining interior compartments, each compartment having a pair of opposing side wall portions, a back wall portion, two interior vertical corners, a top wall portion and a bottom wall portion; a door to fit in the open front and latchable to the door

frame; at least one elongate tubular environmental control component, secured within one of said compartments and being spaced from the pair of side wall portions and the back wall portion, the elongate tubular environmental control component having a length and the length extending substantially a distance between the top wall portion and the bottom wall portion, wherein the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

According to a second aspect, there is provided a front opening wafer container for wafers 300 mm and larger, comprising: a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion; a door to fit in the open front and latchable to the door frame; a pair of elongate tubular environmental control components positioned in the corner regions, each elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein each of the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

According to a third aspect, there is provided a front opening wafer container for wafers 300 mm and larger, the wafer container comprising: a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the

container portion; a door to fit in the open front and latchable to the door frame; an elongate tubular environmental control component positioned in one of the corner regions, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component, and wherein the elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected to the other by at least one of a plurality of latches and hinges, the two portions defining a containment portion.

According to a fourth aspect, there is provided a front opening wafer container comprising: a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion; a door to fit in the open front and latchable to the door frame; an elongate tubular environmental control component positioned in the container portion and extending substantially from the bottom of the container portion to the top of the container portion, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and is connected to the bottom of the container portion at a purge port and wherein the elongate tubular environmental control component is further comprised of an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

In an embodiment of the invention, a wafer container includes a tubular environmental control component that is configured with an open interior and slots communicating with the interior of the wafer container. One or two of the tubular component may be strategically placed in back corners or compartments of the wafer container and may be connected to purge inlets on the bottom of the wafer container. Certain embodiments may have a filter in addition to or alternatively to the absorbent material. In certain embodiment an additional purge inlet port may be utilized for a total of three purge inlets. The tubular components or the purge ports may have a check valve therein to control the flow direction of gas (including air) into and out of the container and with respect to the tower. The purge port may utilize an elastomeric grommet and the tubular component sealingly connected thereto. The tubular component may have a getter media piece rolled in an elongate circular fashion forming or shaped as a tube and disposed within the tower. The media can provide active and/or passive filtration as well as having capabilities to be recharged.

CLAIMS

1. A front opening wafer container for wafers 300 mm and larger, the container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a inwardly extending recess extending from the top of the container portion to the bottom of the container portion, at both lateral sides of the recess a protruding portion of the shell defines a pair of upright feet for seating the wafer container when the wafer container is rotated backwardly with the open front facing upwardly, the feet defining interior compartments,

each compartment having a pair of opposing side wall portions, a back wall portion, two interior vertical corners, a top wall portion and a bottom wall portion;

a door to fit in the open front and latchable to the door frame;

at least one elongate tubular environmental control component, secured within one of said compartments and being spaced from the pair of side wall portions and the back wall portion, the elongate tubular environmental control component having a length and the length extending substantially a distance between the top wall portion and the bottom wall portion.

2. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected by a plurality of latches for securing the elongate portions together, the two portions defining a containment region.

3. The front opening wafer container of claim 2 wherein the two elongate portions are hinged together defining a containment portion and the containment portion contains at least one of a filtration material or a vapor absorbent material.

4. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component has a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

5. The front opening wafer container of claim 4 further comprising an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

6. The front opening wafer container of claim 5 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

7. The front opening wafer container of claim 5 wherein the elongate blocking member is slidably engagable with the containment portion and is slidingly shiftable on between a blocking position and an aperture open position.

8. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprised of two elongate portions defining a containment portion, and wherein the elongate tubular control component further comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

9. The front opening wafer container of claim 1 further comprising an additional elongate tubular environmental control component located in an interior compartment and wherein the two elongate tubular environmental control components are both connected to a purge inlets on the bottom of the wafer container, and wherein the wafer container has a further purge inlet positioned on the bottom of the wafer container proximate to the door

frame, and further comprises a purge outlet on the bottom of the wafer container proximate the door frame.

10. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion and wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

11. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprised of a vapor absorbent material and the wafer container further comprises a bracket with spring arms to secure the bracket intermediate the pair of side wall portions of one of the compartments, the elongate tubular environmental control component removably attachable to the bracket.

12. A front opening wafer container for wafers 300 mm and larger, comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

a pair of elongate tubular environmental control components positioned in the corner regions, each elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein each of the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

13. The front opening wafer container of claim 12 wherein the pair of elongate tubular environmental control components are both outwardly exposed on the backside.

14. The front opening wafer container of claim 12 the pair of elongate tubular environmental control are spaced from the wall portions and the back side and the elongate tubular environmental control component has a length and the length extends substantially a distance between the top wall portion and the bottom wall portion.

15. The front opening wafer container of claim 12 wherein each elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected to the other by at least one of a plurality of latches and hinges, the two portions defining a containment portion.

16. The front opening wafer container of claim 15 further comprising an elongate blocking member that is positionable on at least one of the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

17. The front opening wafer container of claim 16 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

18. The front opening wafer container of claim 16 wherein the elongate blocking member is slidably engagable with one of the containment portions and is slidingly shiftable on said containment portion between a blocking position and an aperture open position.

19. The front opening wafer container of claim 12 wherein the elongate tubular environmental control components are each comprised of two elongate portions defining a containment portion, and wherein the elongate tubular control component further comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

20. The front opening wafer container of claim 8 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

21. The front opening wafer container of claim 12 wherein each of the containment portions has therein at least one of a filter material and an absorbent material.

22. A front opening wafer container for wafers 300 mm and larger, the wafer container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

an elongate tubular environmental control component positioned in one of the corner regions, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component, and wherein the elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected to the other by at least one of a plurality of latches and hinges, the two portions defining a containment portion.

23. The front opening wafer container of claim 22 wherein the containment portion has therein at least one of a filter material and an absorbent material.

24. The front opening wafer container of claim 22 further comprising an elongate blocking member that is positionable on the tubular environmental control component to

selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

25. The front opening wafer container of claim 24 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

26. The front opening wafer container of claim 22 wherein the elongate blocking member is slidably engagable with one of the containment portions and is slidingly shiftable on said containment portion between at least a blocking position and an aperture open position.

27. The front opening wafer container of claim 22 wherein the elongate tubular environmental control component is further comprised an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

28. The front opening wafer container of claim 27 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

29. The front opening wafer container of claim 1 wherein each of the containment portions has therein at least one of a filter material and an absorbent material.

30. A front opening wafer container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

an elongate tubular environmental control component positioned in the container portion and extending subantially from the bottom of the container portion to the top of the container portion, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and is connected to the bottom of the container portion at a purge port and wherein the elongate tubular environmental control component is further comprised of an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

31. The front opening wafer container of claim 30 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

32. The front opening wafer container of claim 30 wherein the elongate blocking member is formed of a rigid polymer and is slidably engagable with one of the containment portions and is slidingly shiftable on said containment portion between at least a blocking position and an aperture open position.

33. The front opening wafer container of claim 30 wherein the elongate tubular environmental control component is further comprised a cap formed of elastomeric material that resiliently expands to adheringly cover the top of the containment portion.

34. The front opening wafer container of claim 33 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

35. A front opening wafer container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

a pair of elongate tubular environmental control component positioned in the container portion, one at each of the corner regions and extending substantially from the bottom of the container portion to the top of the container portion, each of said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component is connected to the bottom of the container portion at a purge port inlet, and wherein the container portion has an additional purge port inlet, and the container portion further has a purge port outlet.

Claims:

1. A front opening wafer container for wafers 300 mm and larger, the container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a inwardly extending recess extending from the top of the container portion to the bottom of the container portion, at both lateral sides of the recess a protruding portion of the shell defines a pair of upright feet for seating the wafer container when the wafer container is rotated backwardly with the open front facing upwardly, the feet defining interior compartments,

each compartment having a pair of opposing side wall portions, a back wall portion, two interior vertical corners, a top wall portion and a bottom wall portion;

a door to fit in the open front and latchable to the door frame;

at least one elongate tubular environmental control component, secured within one of said compartments and being spaced from the pair of side wall portions and the back wall portion, the elongate tubular environmental control component having a length and the length extending substantially a distance between the top wall portion and the bottom wall portion, wherein the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

2. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected by a plurality of latches for securing the elongate portions together, the two portions defining a containment region.

3. The front opening wafer container of claim 2 wherein the two elongate portions together defining a containment portion and the containment portion contains at least one of a filtration material or a vapor absorbent material.

4. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component has a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion.

5. The front opening wafer container of claim 4 further comprising an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

6. The front opening wafer container of claim 5 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

7. The front opening wafer container of claim 1 wherein the elongate tubular environmental control component is comprised of two elongate portions defining a containment portion, and wherein the elongate tubular control component further comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

8. The front opening wafer container of claim 1 further comprising an additional elongate tubular environmental control component located in an interior compartment and wherein the two elongate tubular environmental control components are both connected to a purge inlets on the bottom of the wafer container, and wherein the wafer container has a further purge inlet positioned on the bottom of the wafer container proximate to the door frame, and further comprises a purge outlet on the bottom of the wafer container proximate the door frame.

9. The front opening wafer container of claim 1, wherein the elongate tubular environmental control component is comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion and wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

10. A front opening wafer container for wafers 300 mm and larger, comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

a pair of elongate tubular environmental control components positioned in the corner regions, each elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein each of the elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component.

11. The front opening wafer container of claim 10 the pair of elongate tubular environmental control are spaced from the wall portions and the back side and the elongate tubular environmental control component has a length and the length extends substantially a distance between the top wall portion and the bottom wall portion.

12. The front opening wafer container of claim 10 wherein each elongate tubular environmental control component is comprised of two elongate portions, each elongate portion

connected to the other by at least one of a plurality of latches and hinges, the two portions defining a containment portion.

13. The front opening wafer container of claim 12, further comprising an elongate blocking member that is positionable on at least one of the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

14. The front opening wafer container of claim 13, wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

15. The front opening wafer container of claim 10 wherein the elongate tubular environmental control components are each comprised of two elongate portions defining a containment portion, and wherein the elongate tubular control component further comprises an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

16. The front opening wafer container of claim 7 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

17. The front opening wafer container of claim 10 wherein each of the containment portions has therein at least one of a filter material and an absorbent material.

18. A front opening wafer container for wafers 300 mm and larger, the wafer container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and

defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

an elongate tubular environmental control component positioned in one of the corner regions, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and the elongate tubular environmental control component is connected to the bottom of the container portion at a purge port that is offset from the axis of the tubular environmental control component, and wherein the elongate tubular environmental control component is comprised of two elongate portions, each elongate portion connected to the other by at least one of a plurality of latches and hinges, the two portions defining a containment portion.

19. The front opening wafer container of claim 18 wherein the containment portion has therein at least one of a filter material and an absorbent material.

20. The front opening wafer container of claim 18 further comprising an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

21. The front opening wafer container of claim 20, wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

22. The front opening wafer container of claim 18 wherein the elongate tubular environmental control component is further comprised an elastomeric cap that resiliently expands to adheringly cover the top of the containment portion.

23. The front opening wafer container of claim 22 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.

24. The front opening wafer container of claim 18 wherein each of the containment portions has therein at least one of a filter material and an absorbent material.

25. A front opening wafer container comprising:

a container portion having container wall that extends around a closed left side, a closed right side, a closed bottom, a closed top, and a closed backside defining an open interior, the container portion having a plurality of horizontal wafer shelves spaced apart, affixed therein and defining a generally cylindrical wafer receiving region in the open interior for holding a stack of horizontal spaced apart wafers seated in the shelves, a door frame defining an open front, wherein the container portion wall at the back side has a pair of corner regions extending from the top of the container portion to the bottom of the container portion;

a door to fit in the open front and latchable to the door frame;

an elongate tubular environmental control component positioned in the container portion and extending substantially from the bottom of the container portion to the top of the container portion, said elongate tubular environmental control component having a containment portion with an interior and a plurality of apertures providing communication between the interior of the containment portion and the open interior of the container portion, and wherein said elongate tubular environmental control component has an axis that is upright and is connected to the bottom of the container portion at a purge port and wherein the elongate tubular environmental control component is further comprised of an elongate blocking member that is positionable on the tubular environmental control component to selectively obstruct the communication between the interior of the containment portion and the open interior of the container portion.

26. The front opening wafer container of claim 25 wherein the elongate blocking member is formed of an elastomeric material and the tubular environmental control component has attachment structure extending around the plurality of apertures and said blocking component resiliently engages to said attachment structure to sealingly block the communication between the interior of the containment portion and the open interior of the container portion.

27. The front opening wafer container of claim 25 wherein the elongate tubular environmental control component is further comprised a cap formed of elastomeric material that resiliently expands to adheringly cover the top of the containment portion.

28. The front opening wafer container of claim 27 wherein the cap has a shell engaging portion whereby the tubular environmental control component has two opposing ends and is secured at both ends to the container portion.