

CONTAINER FOR USE WITH A COUNTER MOUNTED DISPENSING SYSTEM

FIELD OF THE DISCLOSURE

This disclosure relates to liquid dispensing systems and in particular
5 containers for use with a counter mounted dispensing system.

BACKGROUND

Counter mounted soap and foam dispensers are becoming
commonplace in modern away from home washroom environments. In fact many
10 of the washroom counters produced are supplied complete with a predrilled 1"
diameter hole in close proximity to washbasin to allow for the easy installation of
such systems. These dispensers are available as both manual pump activated and
automatic sensor activated devices, with the dispensing head being installed in
counter from above, and the cartridge of product installed below the counter.
15 Systems are available that use both hygienically sealed collapsible cartridges as
well as open refillable reservoirs. There are several reasons why a counter
mounted system is preferable to a wall mounted system, examples being: a lack of
wall space; maintaining the washroom aesthetic; and personal preference.

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SUMMARY

The present disclosure relates to a container for flowable material
configured to be installed in a counter below an access hole. The container
includes a first deformable portion and a second deformable portion. The first
25 deformable portion defines a first cavity and has a sealable first cavity inlet which is

sealed. The first deformable portion has flowable material therein. The second deformable portion defines a second cavity and is in flow communication with the first cavity. The first deformable portion is configured to deform to fit into the access hole when substantially no flowable material is therein and the second deformable portion configured to deform to fit through the access hole when substantially no flowable material is therein. The first deformable portion is configured to deform to fit into the access hole when substantially all of the flowable material has been urged into the second deformable portion.

Then container may include a means for releasably inhibiting flow from the first cavity to the second cavity.

The container may include a neck portion between the first deformable portion and the second deformable portion.

The container may include a removable clip configured to engage the neck portion and to inhibit flow from the first cavity to the second cavity when engaged on the neck portion.

The sealable first cavity inlet may be sealed with a pump. The pump may include a dip tube. The pump may be configured to be engaged by a dispenser.

The first deformable portion may have a liquid therein and further may include a seal affixed to the sealable first cavity inlet.

The pump may have a dip tube and the pump is connectable to the sealable first cavity inlet whereby the dip tube extends through the first deformable portion into the second deformable portion.

The seal may be removable prior to connecting the pump.

The dip tube may be insertable through the seal.

The first deformable portion may be detachable from the second deformable portion.

The first deformable portion may include a first neck portion and the second deformable portion may include a second neck portion and the first neck portion and the second neck portion may be releasably connectable together. The first neck portion and the second neck portion may be connected with a detachable neck joint wherein the neck joint is a perforated neck joint or a press fit neck joint. Alternatively the first neck portion and the second neck portion may be connected with a screw fit neck joint.

The container may further include a box for transporting the container. The box may include a removable portion.

The second deformable portion may be wound into a tube. The tube may be folded so that the tube rests against the first deformable portion.

The first deformable portion and the second deformable portion are resiliently deformable.

The first deformable portion and the second deformable portion may be manufactured from one of BOPP (biaxially oriented polypropylene), BON (biaxially oriented nylon), CA (cellulose acetate), CTFE (chlorotrifluoroethylene), EAA (ethylene acrylic acid), EEA (ethylene-ethyl acrylate), EMA (ethylene-methyl acrylate), EVA (ethylene-vinyl acetate), EVOH (ethylene-vinyl alcohol), HIPS (high impact polystyrene), LDPE (low-density polyethylene), LLDPE (linear low-density polyethylene), mPE (metallocene polyethylene) OPP (oriented polypropylene), PA (polyamide), PAN (polyacrylonitrile), PB (polybutylene), PE (polyethylene), PET

(poly(ethylene terephthalate)), PETG (poly(ethylene terephthalate) glycol), PLA (poly(lactic acid)), PP (polypropylene), PS (polystyrene), PTFE (polytetrafluoroethylene), PUR (polyurethane), PVC (poly(vinyl chloride)), and PVDC (poly(vinylidene chloride)). or from one of latex, silicone rubber, polyisoprene and mylar.

A cage may be attached to the counter below the access hole. The cage may include a lower portion removably attached to an upper portion.

The disclosure includes a method of installing a container of flowable material in a counter below an access hole, the container having a first deformable portion in flow communication with a second deformable portion, the method comprising the steps of:

feeding the second deformable portion having substantially no flowable material therein through the access hole;

urging the flowable material in the first deformable portion into the second deformable portion;

feeding the first deformable portion having substantially no flowable material therein into the access hole; and

positioning a pump in the access hole whereby the pump is in flow communication with the container.

The pump may be attached to the first deformable portion prior to the first feeding step.

The method may include the step of attaching a dispenser to the pump.

The first deformable portion may have a first cavity inlet and a seal

attached thereto and the method may include the step of removing the seal and then performing the step of positioning a pump.

The first deformable portion may have a first cavity inlet and a seal attached thereto and method may include the step of piercing the seal with the
5 pump and then performing the step of positioning a pump.

The container may further include a box and the box includes a removable portion, and the method may include the steps of removing the removable portion of the box; removing the first deformable portion from the box; squeezing the box to urge the flowable material in the first deformable portion into
10 the second deformable portion; and removing the box.

Further features will be described or will become apparent in the course of the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

15 The embodiments will now be described by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a dispensing system having a liquid container located underneath a counter;

Fig. 2 is a perspective view of a container just prior to being mounted
20 through an aperture formed in a counter;

Fig. 3 is a perspective view of the container of figure 2 with a second deformable portion of the container through the aperture formed in the counter and a first deformable portion of the container above the counter;

Fig. 4 is a sectional view of figure 3 showing the container of figures 2

and 3 with a second deformable portion of the container through the aperture formed in the counter and a first deformable portion of the container above the counter;

Fig. 5 is a perspective view of the container similar to that shown in figure 3 but showing a portion of the liquid having been transferred from the first deformable portion and into the second deformable portion;

Fig. 6 is a sectional view of the container of figure 5;

Fig. 7 is a sectional view of the container similar to that shown in figure 5 but showing more of the liquid having been transferred into the second deformable portion;

Fig. 8 is a sectional view of the container similar to that shown in figures 6 and 7 but showing the liquid having been transferred into the second deformable portion and showing the pump installed in the aperture formed in the counter;

Fig. 9 is a perspective view of the container of figures 2 to 8 installed in the aperture formed in the counter and further showing an optional dispenser being positioned over the pump;

Fig. 10 is a perspective view of the container similar to that shown in figures 2 to 9 but showing an alternate pump and showing a portion of the container through the aperture formed in the counter and a portion above the counter and showing a user urging the liquid from the first cavity into the second cavity formed in the first and second portions, respectively, of the container;

Fig. 11 is a perspective view similar to that shown in figure 10 but showing less liquid in the first cavity;

Fig. 12 is a perspective view similar to that shown in figure 11 but showing even less liquid in the first cavity;

Fig. 13 is a perspective view similar to that shown in figure 12 but showing the first cavity being stuffed into the aperture in the counter;

5 Fig. 14 is a perspective view of the container and pump of figures 10 to 13 installed in the aperture formed in the counter and further showing an alternate embodiment of an optional dispenser being positioned over the pump;

Fig. 15 is a perspective view of a shipping container for use with a liquid container examples of which are shown in the earlier figures;

10 Fig. 16 is a perspective view of the shipping container shown in figure 15 and showing removable portion partially removed;

Fig. 17 is a perspective view of the shipping container of figures 15 and 16 showing the removable portion removed;

15 Fig. 18 is a perspective view similar to that shown in figure 17 but showing the second deformable portion wound into a tube and extending downwardly from the shipping container;

Fig. 19 is a perspective view similar to that shown in figure 18 but showing the second deformable portion on the verge of being inserted into the aperture in the counter;

20 Fig. 20 is a perspective view similar to that shown in figure 19 but showing the second cavity inserted into the aperture in the counter;

Fig. 21 is a perspective view similar to that shown in figure 20 but showing the shipping container partially collapsed;

Fig. 22 is a perspective view similar to that shown in figure 21 but

without the counter and showing the second deformable portion partially filled with liquid;

Fig. 23 is a perspective view similar to that shown in figure 22 but showing the shipping container removed therefrom and the first deformable portion
5 as it would be in a counter;

Fig. 24 is a perspective view of an alternate liquid container wherein the inlet to the first cavity is sealed with a removable seal;

Fig. 25 is perspective view of the liquid container of figure 24 showing the removable seal partially removed;

10 Fig. 26 is perspective view of the liquid container of figures 24 and 25 showing the removable seal removed;

Fig. 27 is perspective view of the liquid container of figures 24 to 26 positioned in a counter, having the removable seal removed and showing a pump and dip tube on the verge of being inserted into the inlet;

15 Fig. 28 is a partially broken away perspective view of an alternate liquid container wherein the inlet to the first cavity is sealed with a pierceable seal and showing the seal being pierced by a dip tube;

Fig. 29 is a perspective view of another alternate liquid container similar to that shown in figure 2 but being made of resiliently deformable material;

20 Fig. 30 is a perspective view of the liquid container of figure 29 showing the liquid container with a second deformable portion of the container through the aperture formed in the counter and a first deformable portion above the counter;

Fig. 31 is a cross sectional view of the liquid container of figure 30;

Fig. 32 is a cross sectional view of the liquid container of figures 29 to 31 showing liquid container fully interested in the aperture and the liquid in the second deformable portion;

Fig. 33 is a perspective view of another alternate embodiment of the liquid container wherein the first deformable portion is detachable from the second deformable portion and showing the second deformable container wound into a tube;

Fig. 34 is a perspective view of the liquid container of figure 33 and showing the liquid in the second deformable liquid container and the first deformable liquid container collapsed;

Fig. 35 is a perspective view of the liquid container of figures 33 and 34 wherein the first liquid container is attachable to the second liquid container with a detachable neck joint but showing the first deformable liquid container removed from the second deformable liquid container;

Fig. 36 is a perspective view of the liquid container of figure 35 and showing a pump and dip tube on the verge of being positioned in the second deformable container;

Fig. 37 is a perspective view of the liquid container similar to that shown in figures 33 and 34 wherein the first liquid container is attachable to the second liquid container with threaded attachment but showing the first deformable liquid container removed from the second deformable liquid container; and

Fig. 38 is a perspective view of the liquid container of figure 37 and showing a pump and dip tube on the verge of being positioned in the second deformable container.

DETAILED DESCRIPTION

Referring to figures 1 to 11, a counter mounted dispensing system is shown generally at 10. The counter mounted dispensing system 10 includes a deformable container 12 and a pump 14. Dispensing system 10 is adapted to be positioned in a counter 16 through an access hole 18. The access hole 18 may have a mount 19 extending upwardly from the hole. The deformable container 12 is for use in association with a liquid or other flowable material, typically hand cleaner or foamable hand cleaner.

10 The deformable container 12 includes a first deformable portion 20 which defines a first cavity 22 and a second deformable portion 24 which defines a second cavity 26. The second cavity 26 is in flow communication with the first cavity 22 through a neck portion 30. The first cavity 22 has a first cavity inlet 28. The second deformable portion 24 is configured to deform to fit through the access hole 15 18 when substantially no flowable material is therein. The second deformable portion 24 may be wound into a tube as shown in figure 2. It may be wound into a tube during the manufacturing process prior to shipping and the tube configuration facilitates feeding the second deformable container 24 through the access hole 18. The tube configuration also inhibits the flow from the first cavity 22 to the second 20 cavity 26. When the tube is unwound, the liquid may be urged from the first cavity into the second cavity. Thus, the tube configuration can serve as a means for releasably inhibiting the flow from the first cavity to the second cavity.

Similarly, the first deformable portion 20 is configured to deform to fit through the

access hole 18 when substantially no flowable material is therein. Second deformable portion 24 will unwind from the tube configuration as flowable material moves from the first deformable portion 20 into the second deformable portion 24.

Optionally the first cavity inlet 28 is sealable first cavity inlet and is
5 sealed with a pump 14. Pump 14 may be any standard type of pump. An example of the pump used herein is shown in US application 13/458,318, filed April 27, 2012. An alternate example of a pump 15 is shown in figures 10 to 14. It will be appreciated by those skilled in the art that a wide variety of pumps may be used with deformable container 12. The pump has a dip tube 34 that extends from the first
10 cavity 22 into the second cavity 26 when the dispensing system 10 is positioned in the counter 16. Optionally the pump 14 is adapted to be attached to or engaged by a dispenser 32. Alternate pump 15 may also be adapted to engage a dispenser 33. The dispenser may be attachable to the counter 16.

Optionally the deformable container 12 may be housed in a removable
15 box 36, as shown in figures 15 to 23. Box 36 is particularly useful for transporting the container. Box 36 may have a removable portion 38 that is easily removed from the box to provide access to the deformable container 12 inside, such that the seal is removed prior to connecting the pump. Optionally box 36 may include fold lines 39 as shown in figures 21 to 23. Fold lines 39 are used to facilitate a controlled
20 collapsing of the box 36. Box 36 is designed to contain the deformable container 12 that includes a first deformable portion 20 filled with liquid and a second deformable portion 24 wound into a tube and then folded so that it rests against the first deformable portion 20 as can be seen in figure 17. The first deformable portion 20 may have a pump 15 attached to the first cavity inlet 28 as can be seen in figure 22.

It will be appreciated by those skilled in the art that, by shipping a container 12 with a pump sealed thereto, the liquid is shipped to the end user in a hygienic fashion and it minimizes the opportunity to contaminate the liquid from the manufacturer to the user. In addition, box 36 can provide further protection for the container 12 during shipping.

Optionally the deformable container 12 may include a removable seal 40 as shown in figure 24 and 27. Removable seal 40 is designed to be affixed to the first cavity inlet 28. Removable seal 40 may be removed after the deformable container 12 is positioned in the counter 16. The pump 14 and dip tube 34 assembly is connectable to the sealable first cavity inlet whereby the dip tube extends through the first deformable portion and into the second deformable portion when the first deformable portion has been pushed into the access hole. The pump 14 is then installed in the access hole. Optionally the deformable container 12 may have seal 42 that is adapted to be pierced by pump 14 and dip tube 34 assembly whereby the dip tube is insertable through the seal as shown in figure 28.

Optionally a removable clip 44 may be included as shown in figure 29 and 30. The clip 44 is configured to engage the neck portion 30 and to inhibit flow from the first cavity to the second cavity when the clip 44 is engaged on the neck portion 30. Thus the clip 44 serves as a means for releasably inhibiting the flow from the first cavity to the second cavity. The container mounted dispenser system 10 may also include a cage 46 below the counter 16 to contain the deformable container 12 once it is positioned in the access hole 18 in the counter. The cage 46 may include an upper portion 48 attached to the underside of the counter and a lower portion 50 removably attachable to the upper portion 48.

Referring to figures 33 to 38, container 12 may be configured such that first portion 60 may be detachable from second deformable portion 62. In this configuration first portion 60 includes a first neck portion 64 and second deformable portion includes a second neck portion 66. Second neck portion 66 has a collar 68
5 extending outwardly therefrom and the collar 68 is adapted to rest on the access hole 18 of the counter 16. The first neck portion 64 and the second neck portion 66 are releasably connectable together. By way of example only, the first neck portion 64 is connected to the second neck portion 66, as shown in figures 35 and 36, with a detachable neck joint wherein the neck joint is a perforated neck joint or a press fit
10 neck joint. Alternatively it may have a screw fit neck joint 70 as shown in figures 37 and 38.

Note that in the embodiments shown in figures 33 to 38 the first portion 60 need not be a deformable portion since it is not being pushed through access hole 18 in the counter 16.

15 The embodiments of the container 12 may be manufactured from a variety of different materials. The container 12 may be made from a deformable material. By way of example only the first and second deformable portions may be manufactured from BOPP (biaxially oriented polypropylene), BON (biaxially oriented nylon), CA (cellulose acetate), CTFE (chlorotrifluoroethylene), EAA (ethylene acrylic
20 acid), EEA (ethylene-ethyl acrylate), EMA (ethylene-methyl acrylate), EVA (ethylene-vinyl acetate), EVOH (ethylene-vinyl alcohol), HIPS (high impact polystyrene), LDPE (low-density polyethylene), LLDPE (linear low-density polyethylene), mPE (metallocene polyethylene) OPP (oriented polypropylene), PA (polyamide), PAN (polyacrylonitrile), PB (polybutylene), PE (polyethylene), PET

(poly(ethylene terephthalate)), PETG (poly(ethylene terephthalate) glycol), PLA (poly(lactic acid)), PP (polypropylene), PS (polystyrene), PTFE (polytetrafluoroethylene), PUR (polyurethane), PVC (poly(vinyl chloride)), and PVDC (poly(vinylidene chloride)).

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Alternatively the container may be made from a resiliently deformable material as shown in figures 29 to 32. When the container 12 is made from a resiliently deformable material the first deformable portion, neck and second deformable may appear to be one long balloon like structure and it is when the container is in use that the first deformable portion 52 and second deformable portion 54 are defined. The neck 56 is defined by the clip 44. By way of example only, the first and second deformable portions may be manufactured from latex, silicone rubber, polyisoprene and mylar, In use the different embodiments of the container 12 are designed to facilitate providing or installing a liquid container at a location under the counter for use with a pump that is attached to the counter 16. In use, the second deformable portion 24 of the container 12 is inserted or fed through the access hole 18 in the counter 16. Once the second deformable portion 24 is fully inserted into the hole, the clip 44, if present, is removed. Thereafter, pressure is exerted on the first deformable portion 20 such that the liquid in the first cavity is urged from the first cavity and starts to flow into the second cavity. Pressure may be exerted by hand as shown in figures 10 and 11 or by way of a controlled collapse which may be achieved with the box 36. Once the liquid has been transferred into the second cavity the pump is positioned in the access hole 18. In some embodiments the pump is attached to the first deformable portion prior to shipping as shown in figures 1 to 23 and 29 to 32. Alternatively where the container includes

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a removable seal 40, the seal is removed and the pump and dip tube assembly is positioned in the access hole as shown in figure 24 to 27. As another alternative where the seal is a piercable seal 42 the dip tube pierces the seal 42 and the pump and dip tube assembly are positioned in the access hole 18. A further alternative is shown in figures 33 to 38 wherein the second deformable container portion 62 includes a collar 68 which rests on the access hole 18 and the first deformable container portion 60 is detachable from the second deformable portion 62. The container 12 may include a detachable neck joint 66 wherein the neck joint is a perforated neck joint or a press fit neck joint as shown in figure 35 and 36.

Alternatively the neck joint may be a threaded neck joint 70 as shown in figures 37 and 38. Thereafter the pump and dip tube assembly are positioned in the access hole 18. Optionally a dispenser 32 or 33 may then be positioned over or attached to the pump 14 or 15 and the dispenser is adapted to engage the pump such that activation of the dispenser engages the pump 14 or 15 and causes liquid to be drawn up the dip tube 34 into the pump 14, 15 and dispensed through the dispenser 32 or 33. It will be appreciated by those skilled in the art that the dispenser may be a hand activated dispenser or the dispenser may include a motion sensor to automatically activate the dispenser.

Various embodiments and aspects of the disclosure will be described with reference to details discussed below. The following description and drawings are illustrative of the disclosure and are not to be construed as limiting the disclosure. Numerous specific details are described to provide a thorough understanding of various embodiments of the present disclosure. However, in certain instances, well-known or conventional details are not described in order to

provide a concise discussion of embodiments of the present disclosure.

As used herein, the terms, “comprises” and “comprising” are to be construed as being inclusive and open ended, and not exclusive. Specifically, when used in the specification and claims, the terms, “comprises” and “comprising” and variations thereof mean the specified features, steps or components are included. These terms are not to be interpreted to exclude the presence of other features, steps or components.

As used herein, the term “exemplary” means “serving as an example, instance, or illustration,” and should not be construed as preferred or advantageous over other configurations disclosed herein.

As used herein, the terms “about” and “approximately” are meant to cover variations that may exist in the upper and lower limits of the ranges of values, such as variations in properties, parameters, and dimensions. In one non-limiting example, the terms “about” and “approximately” mean plus or minus 10 percent or less.

As used herein, the term “substantially” refers to the complete or nearly complete extent or degree of an action, characteristic, property, state, structure, item, or result. For example, an object that is “substantially” enclosed would mean that the object is either completely enclosed or nearly completely enclosed. The exact allowable degree of deviation from absolute completeness may in some cases depend on the specific context. However, generally speaking the nearness of completion will be so as to have the same overall result as if absolute and total completion were obtained. The use of “substantially” is equally applicable when used in a negative connotation to refer to the complete or near complete lack

of an action, characteristic, property, state, structure, item, or result.

Unless defined otherwise, all technical and scientific terms used herein are intended to have the same meaning as commonly understood to one of ordinary skill in the art.

WHAT IS CLAIMED IS:

1. A container for flowable material configured to be installed in a counter below an access hole, the container comprising:
 - a first deformable portion defining a first cavity, having flowable material therein and having a sealable first cavity inlet and the first cavity inlet being sealed;
 - a second deformable portion defining a second cavity in flow communication with the first cavity;
 - the second deformable portion configured to deform to fit through the access hole when substantially no flowable material is therein; and
 - the first deformable portion is configured to deform to fit into the access hole when substantially all of the flowable material has been urged into the second deformable portion.
2. The container as claimed in claim 1 further including a means for releasably inhibiting flow from the first cavity to the second cavity.
3. The container as claimed in claim 1 further including a neck portion between the first deformable portion and the second deformable portion.
4. The container as claimed in claim 3 further including a removable clip

configured to engage the neck portion and to inhibit flow from the first cavity to the second cavity when engaged on the neck portion and the removable clip is a means for inhibiting flow from the first cavity to the second cavity.

5. The container as claimed in any one of claims 1 to 4 wherein the sealable first cavity inlet is sealed with a pump.

6. The container as claimed in claim 5 wherein the pump includes a dip tube.

7. The container as claimed in any one of claims 1 to 4 further including a seal affixed to the sealable first cavity inlet.

8. The container as claimed in claim 7 further including a pump having a dip tube and the pump is connectable to the sealable first cavity inlet whereby the dip tube extends through the first deformable portion into the second deformable portion.

9. The container as claimed in claim 8 wherein the seal is removable prior to connecting the pump.

10. The container as claimed in claim 8 or 9 wherein the dip tube is insertable through the seal.

11. The container as claimed in any one of claims 1 to 4 wherein the first

deformable portion is detachable from the second deformable portion.

12. The container as claimed in claim 1 wherein the first deformable portion includes a first neck portion and the second deformable portion has a second neck portion and the first neck portion and the second neck portion are releasably connectable together.

13. The container as claimed in claim 12 wherein the first neck portion and the second neck portion are connected with one of a press fit neck joint, a tear off neck joint and a threaded neck joint.

14. The container as claimed in any one of claims 5, 6, and 8 to 10 wherein the pump is configured to be engaged by a dispenser.

15. The container as claimed in any one of claims 1 to 14 further including a box for transporting the container.

16. The container as claimed in claim 15 wherein the box includes a removable portion.

17. The container as claimed in any one of claims 1 to 16 wherein the second deformable portion is wound into a tube and the tube serves as a means for inhibiting flow from the first cavity to the second cavity.

18. The container as claimed in claim 17 wherein the tube is folded so that the tube rests against the first deformable portion.

19. The container as claimed in any one of claims 1 to 18 wherein the first deformable portion and the second deformable portion are resiliently deformable.

20. The container as claimed in any one of claims 1 to 19 wherein the first deformable portion and the second deformable portion are manufactured from one of BOPP (biaxially oriented polypropylene), BON (biaxially oriented nylon), CA (cellulose acetate), CTFE (chlorotrifluoroethylene), EAA (ethylene acrylic acid), EEA (ethylene-ethyl acrylate), EMA (ethylene-methyl acrylate), EVA (ethylene-vinyl acetate), EVOH (ethylene-vinyl alcohol), HIPS (high impact polystyrene), LDPE (low-density polyethylene), LLDPE (linear low-density polyethylene), mPE (metallocene polyethylene) OPP (oriented polypropylene), PA (polyamide), PAN (polyacrylonitrile), PB (polybutylene), PE (polyethylene), PET (poly(ethylene terephthalate)), PETG (poly(ethylene terephthalate) glycol), PLA (poly(lactic acid)), PP (polypropylene), PS (polystyrene), PTFE (polytetrafluoroethylene), PUR (polyurethane), PVC (poly(vinyl chloride)), and PVDC (poly(vinylidene chloride)).

21. The container as claimed in any one of claims 1 to 19 wherein the first deformable portion and the second deformable portion are manufactured from

one of latex, silicone rubber, polyisoprene and mylar.

22. The container as claimed in any one of claims 1 to 21 further including a cage configured to be attached to the counter below the access hole.

23. The container as claimed in claim 22 wherein the cage configured to be attached to the counter includes a lower portion removably attached to an upper portion.

24. A method of installing a container of flowable material in a counter below an access hole, the container having a first deformable portion having flowable material therein in flow communication with a second deformable portion, the method comprising:

feeding the second deformable portion having substantially no flowable material therein through the access hole;

urging the flowable material in the first deformable portion into the second deformable portion;

feeding the first deformable portion having substantially no flowable material therein into the access hole; and

positioning a pump in the access hole whereby the pump is in flow communication with the container.

25. The method as claimed in claim 24 wherein the pump is attached to the first deformable portion prior to feeding the second deformable portion through the access hole.

26. The method as claimed in claim 24 further including attaching a dispenser to the pump.

27. The method as claimed in claim 24 wherein the first deformable portion has a first cavity inlet and a seal attached thereto and the method further including removing the seal before positioning the pump.

28. The method as claimed in claim 24 wherein the first deformable portion has a first cavity inlet and a seal attached thereto and the method further including piercing the seal with the pump before positioning the pump.

29. The method as claimed in claim 24 wherein the container further includes a box and the box includes a removable portion, and the method further including removing the removable portion of the box; removing the first deformable portion from the box; squeezing the box to urge the flowable material in the first deformable portion into the second deformable portion; and removing the box.