A prefabricated swimming pool and spa combination for in-ground installation. The integrated pool/spa combination comprises a swimming pool that has a contiguous vertical perimeter pool wall. The pool wall forms the periphery or boundary of the swimming pool. Additionally, the pool wall forms the swimming pool enclosure. The swimming pool also includes a bottom surface. The bottom surface is engaged to the pool wall. The bottom surface of the swimming pool and the pool wall form the shape of the pool. The present invention also includes a spa integrated within the swimming pool. In particular, the spa is disposed within the swimming pool. The spa is circumscribed by the pool wall. The spa includes a contiguous vertical perimeter spa wall. The spa wall forms the spa enclosure. The spa wall is engaged to the bottom surface of the swimming pool. The spa is engaged in a way such that the pool wall has no common boundary with the spa wall.
PREFABRICATED SWIMMING POOL AND SPA COMBINATION

CROSS-REFERENCE TO RELATED APPLICATIONS

STATEMENT RE: FEDERALLY SPONSORED RESEARCH/DEVELOPMENT

BACKGROUND

The technical field generally relates to swimming pools. More particularly, the present invention relates to a prefabricated fiberglass swimming pool and spa combination wherein the spa is wholly disposed within the interior of the prefabricated fiberglass pool shell.

Swimming pools are well known in the art. Prefabricated swimming pools have increased in popularity, and it is common to see a backyard swimming pool for recreation in family homes. To that end, swimming pools are manufactured in various shapes and sizes. There are numerous types of pools including above-ground pools, vinyl-lined in-ground pools, gunite pools, poured-concrete pools and fiberglass pools. Prefabricated fiberglass swimming pools generally consist of molded, one-piece structures that rest within an excavated portion of ground, the latter defining an excavated floor that is compacted, typically with sand and water, and graded to the contours of the pool. Typically, once set into place the fiberglass pool is filled with water while construction sand is water-compacted around the outside of the pool to lock the pool into position. Thereafter, a coping is formed on the outer periphery of the pool and electrical connections and plumbing for heating and filtering is installed.

Advantageously, fiberglass pools have the ability to flex without losing strength, which is especially important in areas where the ground may have a tendency to shift. Moreover, fiberglass pools are approximately seventeen times stronger than concrete, with a tensile strength of approximately 11,300 pounds per square inch. As a consequence, such flexibility allows the pool to expand and contract with the earth without being damaged. Moreover, because the tile trim affixed about the periphery of the pool is typically secured via a silicone adhesive silicone grout, such tile will also flex with the pool and thus remain more durably attached, unlike tile trim affixed to conventional concrete pools. Moreover, because silicone grout is utilized, the same is thus impervious to stains and algae growth. In fact, it is well-documented that the installation of a fiberglass pool is substantially easier and less time consuming versus the time it takes to construct and outfit a conventional concrete pool. Exemplary of such fiberglass pools include those pools produced by San Juan Products, Inc. of Lakeland, Fla. and displayed via its website, http://sanjuanpools.com.

Also well known in the art are integrated swimming pool/spa combinations. There is a multitude of swimming pool and spa integrated systems and designs. Usually, the spa is disposed outside the wall of the swimming pool. The spa may also be attached to the swimming pool. Some designs of integrated pool/spa combinations share a common wall or boundary. For example, the spa may be disposed within the pool; however the periphery of the pool wall shares at least one common wall with the spa. Other pool and spa combinations do not include the spa disposed within the swimming pool; rather the spa may share a common wall or boundary with the pool wall at same section along the periphery of the pool. The pool/spa integrated system is designed to have the appearance that the spa is built into the swimming pool and in some designs the spa is in fact built-in. Typically, the spa area of the pool and spa integrated system is located in a corner of the pool or adjacent to the periphery of the pool.

Despite the numerous designs of swimming pools and spas and combinations thereof, there are no swimming pool and spa combinations wherein the spa is disposed within the swimming pool such that the spa is completely circumscribed by the boundaries or the periphery of the pool wall. In other words, there are no integrated pool and spa combinations wherein the spa is surrounded by the pool and the pool boundary does not share a common boundary with the spa. Additionally, there are no integrated fiberglass pool and spa combinations that are generally a molded piece structure wherein the spa is disposed within the pool boundary such that it appears as an island within the pool. Along these lines, by virtue of the manufacturing process for forming fiberglass pools, such structures would necessarily have to be integrated as part of the molding process, which as a consequence would substantially complicate and add to the cost associated with manufacturing fiberglass pools. As such, consumers are often limited as to what additional options they can incorporate as part of their fiberglass pools, and thus cannot incorporate a spa within the pool that shares no common boundary with the pool. In this regard, there is typically no way to easily incorporate such structures without permanently affixing such structures in or around the swimming pool.

Accordingly, there is a substantial need in the art for a prefabricated pool and spa combination wherein the spa is surrounded by the pool and shares no common boundary with the pool regardless of its construction type (i.e., whether fabricated from concrete or fiberglass). There is likewise a need in the art for such an integrated pool and spa consists of a molded one piece pre-formed structure or shell. There is additionally a need in the art for such a system that is of exceedingly simple construction, exceptionally durable, and can provide substantial options to pool purchasers while minimizing complications associated with the fiberglass pool manufacturing process.

BRIEF SUMMARY

The present invention specifically addresses and alleviates the above-identified deficiencies in the art. In this regard, the present invention is directed to a prefabricated swimming pool and spa combination for in-ground installation and use. The integrated pool and spa combination comprises a swimming pool that has a contiguous vertical perimeter pool wall. The pool wall forms the periphery or boundary of the swimming pool. Additionally, the pool wall may be thought of as forming the swimming pool enclosure. The swimming pool also has a bottom surface. The bottom surface is engaged to the pool wall. The bottom surface of the swimming pool and the pool wall form the shape of the pool. The present invention also includes a spa integrated within the swimming pool. In particular, the spa is disposed within the swimming pool. The spa is circumscribed by the pool wall. The spa includes a contiguous vertical perimeter spa wall. The spa wall forms the spa enclosure. The spa wall is engaged
to the bottom surface of the swimming pool. The spa is engaged in a way such that the pool wall has no common boundary with the spa wall.

[0012] The present invention may also include a swimming pool that has a portion of the bottom surface depresses. The depressed portion is capable of receiving a spa structure. The spa wall is engageable with the depressed portion of the bottom surface.

[0013] In another embodiment of the present invention, it is envisioned that the prefabricated swimming pool and spa combination includes a contiguous stairway formed from the pool to the spa. The stairway is integrally located within the pool for egress and ingress from the pool to the spa or vice versa. In a preferred embodiment of the present invention the prefabricated pool and spa molded one piece structure is manufactured such that the electrical connections and plumbing for the heating and filtering of the pool and spa combination are shared.

[0014] One aspect of the present invention contemplates using a ramp to connect the pool wall to the spa wall. The prefabricated swimming pool and spa combination may also include steps for ingress or egress to the pool and/or the spa. In a preferred embodiment of the present invention the material used to construct the prefabricated pool/spa is comprised of fiberglass.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] These as well as other features of the present invention will become more apparent upon reference to the drawings.

[0016] FIG. 1 is a perspective view of a swimming pool and spa combination;

[0017] FIG. 2 is a perspective view taken along lines 2-2 of FIG. 1.

[0018] FIG. 3 is a top plan view thereof;

[0019] FIG. 4 is a cross-sectional view of a swimming pool and spa combination;

[0020] FIG. 5 is a cross-sectional view of a swimming pool and spa combination.

DETAILED DESCRIPTION

[0021] The detailed description set forth below is intended as a description of the presently preferred embodiment of the invention, and is not intended to represent the only form in which the present invention may be constructed or utilized. The description sets forth the functions and sequences of steps for constructing and utilizing the invention. It is to be understood, however, that the same or equivalent functions and sequences may be accomplished by different embodiments and that they are also intended to be encompassed within the scope of the invention.

[0022] Referring now to the Figures, and initially to FIG. 1, there is shown a prefabricated swimming pool and spa combination 10. It is contemplated that the swimming pool and spa combination 10 is installed in ground. The pool and spa combination 10 is generally for use in-ground. Generally, the pool and spa combination consists of molded one piece structure or shell that rests within an excavated portion of the ground. Usually sand and water is compacted and graded to the contours of the pool. In a preferred embodiment of the present invention the prefabricated swimming pool and spa combination 10 is comprised of fiberglass. Prefabricated swimming pools have the distinct advantage of being set into an area of excavated land. Delivery of the swimming pool and spa combination usually consists of one large molded fiberglass shell. Thus, installation of prefabricated pools is more efficient and less time consuming. The prefabricated swimming pool and spa combination 10 typically consists of a single uniform pre-formed shell. The pre-formed shell is fitted to an excavated area of land as noted above. Additionally, manufacturing a pool and spa combination 10 in one piece molded prefabricated shell is desirable because it reduces the cost of manufacturing and the time required to produce such a prefabricated shell. Furthermore, when both the pool 15 and the spa 16 are composed of one molded shell the combination 10 results in improved durability.

[0023] An aspect of the present invention contemplates both the pool 15 and the spa 16 being permanently integrated as a single uniform pre-formed shell. In another embodiment, the prefabricated pool and spa combination 10 may include a molded two-piece structure. For example, the pool 15 may be a pre-formed shell and the spa 16 may be a separate pre-formed shell. The spa 16 may be added to the pool 15 separately. When the spa 16 is added, it may be added by permanently integrating both the pool 15 and spa 16 to form the pool and spa combination 10. Another aspect of the present invention contemplates integrating the spa 16 with the prefabricated pool shell without requiring the spa 16 to be permanently affixed to the pool 15 shell. This feature of the present invention allows for the spa 16 to be removed or installed in the future without additional excavation or modification to the prefabricated molded pool structure.

[0024] The swimming pool and spa combination 10 includes a contiguous vertical perimeter pool wall 12. The pool wall 12 forms the enclosure of the prefabricated swimming pool and spa combination 10. The pool wall 12 essentially encloses the pool 15 swimming area. In this respect, the pool wall 12 also encloses the spa 16 area. As will be discussed below, the spa is disposed within the pool area 15 without the spa wall 18 sharing a common boundary with the pool wall 12 as is typically the case with other swimming pool and spa combinations as disclosed for example in U.S. Pat. No. 5,727,264 to Craig et al. As may be seen in the drawings, the pool wall 12 is not required to take any particular geometrical shape. However, the pool wall 12 may be formed as a rectangle, square, circle, oval and various other shapes that are capable of being prefabricated and formed as a unitary molded shell. The pool wall 12 may vary in height depending on the depth required or desired measurements for the pool 15. The pool wall 12 is comparable to other fiberglass pool walls prefabricated and molded as a pre-formed shell. The pool wall 12 may also include a tile trim affixed about the periphery of the pool 15. The tile trim may be secured via a silicon adhesive grout. With respect to FIG. 1, the drawing is an exemplary model of a specific type of pre-formed pool and spa combination 10 manufactured and marketed by San Juan Products, Inc. of Lakeland, Fla. As will be readily appreciated by those skilled in the arts, the in ground pool 10 may comprise any of a variety of pool shapes and sizes known in the art.

[0025] The pool and spa combination 10 includes a bottom surface 14. The bottom surface 14 is a part of the prefabricated shell. The bottom surface 14 is also the portion that lies on top of the compacted excavated floor when the prefabricated shell is installed for in-ground use. In this respect, the bottom surface 14 is engaged to the pool wall 12 to form the shell of the prefabricated pool and spa combination 10. In an
embodiment of the present invention wherein the prefabricated pool shell does not include a permanently engaged spa 16, the bottom surface 14 may be depressed for receiving the prefabricated spa shell. Thus, the spa shell may be permanently integrated into the pool shell at the depressed portion 24 of the bottom surface 14.

In another aspect of the present invention whereby the prefabricated pool and spa combination 10 already includes a permanently integrated spa shell, the bottom surface 14 may not require a depressed or recessed portion for receiving the spa shell. A preferred embodiment of the present invention also includes steps or a stairway integrated to the pool wall 12 and the bottom surface 14. Thus, an aspect of the present invention contemplates the prefabricated shell including a pool area 15 that may later receive a pre-formed or prefabricated spa shell at the bottom surface 14 for affixing the spa 16 to the prefabricated pool 15.

Referring now to FIGS. 4 and 5, the prefabricated pool and spa combination 10 may be viewed from the side and the area underneath the bottom surface 14 may be viewed. In another embodiment of the present invention, the depressed area 24 of the bottom surface 14 is capable of receiving a prefabricated spa 16 that is manufactured and produced separately from the prefabricated pool shell. Referring back now to FIG. 1, there is shown an exemplary embodiment by which the spa 16 is disposed within the pool wall 12. As illustrated, the spa 16 is circumscribed by the pool wall 12. The spa 16 is completely disposed within the pool 15 area. The spa 16 also includes a contiguous vertical perimeter spa wall 18. The spa wall 18 forms the enclosure of the spa 16.

FIG. 1 reveals circularly shaped spa 16, however, the spa 16 may be formed in any shape. The spa wall 16 is engaged to the bottom surface 14 of the swimming pool and spa combination 10. The spa wall 16 may engage the bottom surface 14 in such a manner where the spa wall 18 shares no common boundary with the pool wall 12. This is readily apparent in FIGS. 1-3. The spa 16 is disposed within the pool 14 such that a swimmer may swim around the spa 16 within the enclosed pool 15 area. Additionally, the spa 16 may be in use within the pool while others are swimming in the pool 15. Essentially, the pool 15 and spa 16 are no longer separated because the spa is disposed within the pool 15 and it shares no common boundary. This is advantageous because the pool and the spa may be prefabricated and pre-formed as one unitary shell that may allow for substantially easier installation and less time consuming. Furthermore, a prefabricated pool and spa combination 10 with the spa 16 disposed within the pool area 15 conserves space while maintaining both the pool and the spa features.

In another embodiment of the present invention the pool and spa combination 10 includes a stairway 20 from the pool that may curve towards the top of the spa 16. This construction allows for easy ingress or egress from the pool 15 to the spa 16 and vice versa. The pool and spa combination 10 may also include a ramp or a bridge not shown in the figures, for access to the spa 16 without entering the pool 15. Although the user of the spa 16 will be within the pool 15 area because of the way the spa 16 is disposed within the pool 15. As will be appreciated by those skilled in the art, varying structures that strike various balances between size, holding strength, holding surface area and molding simplicity will be understood to be encompassed within the teachings of the present invention, and such embodiment as depicted is provided by way of example rather than limitation.

Additional modifications and improvements of the present invention may also be apparent to those of ordinary skill in the art. Thus, the particular combination of parts and steps described and illustrated herein is intended to represent only certain embodiments of the present invention, and is not intended to serve as limitations of alternative devices and methods within the spirit and scope of the invention.

What is claimed is:
1. A prefabricated swimming pool and spa combination for in-ground installation, comprising:
a swimming pool having a contiguous vertical perimeter pool wall forming the swimming pool enclosure, the swimming pool having a bottom surface, the bottom surface being engaged to the pool wall; and
a spa disposed within the swimming pool such that the spa is circumscribed by the pool wall, the spa having a contiguous vertical perimeter spa wall forming the spa enclosure, the spa wall being engaged to the bottom surface of the swimming pool such that the pool wall has no common boundary with the spa wall.
2. The prefabricated swimming pool and spa combination of claim 1 wherein a contiguous stairway is integrally formed within the pool for egress and ingress from the pool to the spa.
3. The prefabricated swimming pool and spa combination of claim 1 wherein a ramp connects the pool wall with the spa wall.
4. The prefabricated swimming pool and spa combination of claim 1 wherein the pool includes steps for ingress or egress to the pool and/or the spa.
5. The prefabricated swimming pool and spa combination of claim 1 wherein the pool comprises a fiberglass pool.
6. The prefabricated swimming pool and spa combination of claim 1 wherein the electrical connections and plumbing for the heating and filtering of the pool are shared components.
7. A prefabricated swimming pool for in-ground installation, comprising:
a swimming pool having a first contiguous vertical perimeter pool wall forming the swimming pool enclosure, the swimming pool having a bottom surface, the bottom surface being engaged to the pool wall, the bottom surface of the swimming pool having a depressed portion for receiving a spa such that the spa is disposed within the swimming pool; and
a spa having a contiguous vertical perimeter spa wall forming the spa enclosure, the spa wall is capable of being attached to the bottom surface of the swimming pool such that the pool wall has no common boundary with the spa wall.