

Suction Outlet Covers Covers

VGB act of 2008

- Enacted by Congress.
- Signed by President Bush
December 19, 2007.
- Law effective Dec. 19, 2008.
- Regulated by the Consumer Protection Safety Commission
- Single drains no longer meet code requirements.
- Drains closer then 3' center to center no longer meet code requirements.
- Brought the term" Safety Vacuum Release" to the industry.
- Formal Code - ANSI/APSP / ICC—7 2013
- SVRS testing — ANSI / ASME A112.19.17-2010

Residential pool and Spa —Hot points

- * Arrow Master Pools performing Renovation or Service work on your pool requires us to update your pool to the current code.
- * These codes are designed to make your backyard as safe as possible.
- * We are Trained Industry Professionals — Holding a Certified Building Professional certification from APSP.
- * Single drains are no longer allowed — (no grandfathering)
- * Drains closer then 3' center of cover to center of cover do not meet code for distance of separation.
- * Expiration dates on the suction outlet covers do exist
- * There are approved flow rates for ALL new covers

Terminology Defined

Suction Outlet Covers—Drain lids are no longer referred to as such. The code refers to all lids as "Suction Outlet Covers". All VGB approved lids have an expiration date, flow rate. Approved Mounting location may vary. (vertical or horizontal).

SVRS—Safety Vacuum Release system—Any system capable of providing vacuum release at a suction outlet in case of a high vacuum occurrence due to a suction outlet blockage.

CPSP—Consumer Safety Protection Commission

ANSI—American National Standard's Institute

APSP—Association of Pool and Spa Professionals (Just changed (spring 2019) to Pool and Hot tub Alliance)

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Suction Outlet Covers

Single and Dual Drains

There are no pools with existing single suction outlet covers that meet the current code. All single suction systems or systems with two suction outlets **MUST** do one of the following:

- * Convert the suction outlet(s) into a return line, from the filter back to the pool.
- * Permanently disable the suction line. Only allowed if the skimmers can handle the full flow needed to meet the turnover rate. This depends on the pools gallonage and the existing plumbing sizes. Removing a valve handle on a suction line is **NOT** considered a permanent solution.
- * Install an approved SVRS
- * Install a Gravity feed system—A very expensive and complicated procedure that will take up a large amount of square footage in a yard.
- * Install a vent system. This would be installed on the suction outlet trunk line. Again a very expensive and time consuming procedure that involves cutting out part of the deep end floor of the structure.



Properly installed suction outlet spacing

SVRS — Safety Vacuum Release System

There are three styles of approved SVRS device.

One senses the electrical draw at the pump motor. With this style the device would turn off the pump motor when it sensed a high electrical meaning there was a blockage of water flow on the suction line supplying water to the pump. These units are more costly and require an electrician for installation.

The second version is a device capable of sensing vacuum either before the suction port of the pump or in the basket area of the pump. Upon an increased vacuum scenario the pump (depending on the unit installed) will either shut the pump off, or open a port letting air into the pump volute and releasing the entrapment. One main issue with opening the port for an air release is that the pump motor is still running and if it can not prime there may be damage caused to the pump itself. These units are cheaper and do not require an electrician for installation.

There are three styles of SVRS . Electric, external vacuum units and pumps with ability to sense vacuum or amp draw, constructed into them.

The third style of SVRS is a pump that has the ability to sense vacuum (or amp draw) within itself. While running and moving water through a filter system or booster pump system this pump has the ability to constantly sense the vacuum on the suction line, or amp draw on the motor. Upon sensing a high vacuum, or amp draw situation it will shut itself down immediately releasing the entrapment.

Flow Rates

Every Suction outlet cover manufactured now has a "Flow Rate" stamped right on it. The flow rate is in terms of an allowable rate of Gallons Per Minute (GPM) to flow through the surface of the lid. The rate is determined and approved for a flow that will not cause a hair entanglement. This is one of the many tests that any suction outlet cover must pass in order to be sold to the public. A hair entanglement would be a deadly occurrence if it were to happen far enough under water to keep the person's head submerged. The flow rate stamped onto the lid MUST be greater than the maximum flow the pump can produce.

The CPSC has been tasked with enforcing the VGB Act. That makes the enforcement of the Act a Federal issue.

Expiration Dates

Each suction outlet cover manufactured is also stamped with an expiration date. Most manufacture's cover's are approved for either 5 or 7 yrs. Some of the test's that help determine the lifespan of a cover are U.V. degradation and brittle testing from being exposed to sanitizers for extended periods of time. Because U.V. and sanitizers are the two main reasons for the lifespan, the clock does not start counting until the day the lids are installed - NOT the manufacture date. In short for you, this means that your suction outlet cover does HAVE to be REPLACED at regular intervals. We have started to use a company created database to track the installation date of the suction outlet covers for any and every client that we service .



Look closely at your covers the dates are there

Flow rates vary depending on where the cover is mounted. The same cover can have differing rates for Horizontal VS vertical mounting.

**This does relate to all Single submerged suction outlets.
INCLUDING wall mounted vacuum lines.**

Arrow Master Pools

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We are a family owned and operated business.

We opened our doors in 1962. We have spent many decades dedicated to offering gold level customer service to all of our clientele.

Shallow bodies of water are the most dangerous. That means spas, hot tubs, wading pools, and baby pools are at the top of this list. Any body of water can be dangerous but, where the youngest of family members tend to be can be the most unsafe of places.

We leave you with the five known hazards as described in the VGB Act, Section 4.4

- * Hair entanglement
- * Limb entrapment - suction to a fitting
- * Body entrapment - suction to a fitting
- * Evisceration - has only ever happened with a broken
- * Mechanical - such as a bathing suit strap or chain

Please, if you have a pool or spa with a broken or missing drain lid (suction outlet cover)

DO NOT SWIM

without calling us first and getting the issue remedied.

Toll free : (800) 834-0232