

Summary Analysis of the Virginia Graeme Baker Pool and Spa Safety Act

The Virginia Graeme Baker Pool and Spa Safety Act (Act) promotes the safe use of pools, spas and hot tubs by imposing mandatory federal requirements for suction entrapment avoidance and by establishing a voluntary grant program for states with laws that meet certain minimum requirements as outlined in the Act. Effective December 20, 2007, the Act is being administered by the U.S. Consumer Product Safety Commission (CPSC).

1. Mandatory Federal Requirements for Entrapment Avoidance. By December 20, 2008, the Act requires:

- Safety Drain Covers.** Each swimming pool or spa drain cover manufactured, distributed, or entered into commerce in the United States shall conform to the American National Standard ASME A112.19.8 - 2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs published by the American Society of Mechanical Engineers (ASME). Compliance with this Standard will be enforced by the CPSC as a consumer product safety rule.
- Public Pool Drain Covers.** Each public pool and spa (as defined), both new and existing, shall be equipped with drain covers conforming to the ASME/ANSI A112.19.8 - 2007 Standard described above.
- Public Pool Drain Systems.** Each public pool and spa (pump) with a single main drain, other than an unblockable drain, shall be equipped with one or more additional devices or systems designed to prevent suction entrapment that meet the requirements of any applicable ASME/ANSI Standard or applicable consumer product safety rule. In addition to a compliant drain cover, such additional devices or systems include a safety vacuum release system (SVRS), or suction limiting vent system, or gravity drainage system, or automatic pump shutoff system, or drain disablement, or other system determined by the CPSC to be equally effective in preventing suction entrapment.

ANSI/APSP-7 Standard Exceeds Federal Requirements. All pools and spas configured to comply with ANSI/APSP-7 *American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins* will comply with each of these mandatory requirements.

2. Voluntary Grant Program for States. The CPSC will also establish and administer a

grant program for eligible states. A sum of \$2 million is authorized to be appropriated to

the CPSC for each of the fiscal years 2009 and 2010. In order to be eligible for a grant,

a state must impose certain requirements by statute, including:

- Barriers.** The enclosure of all outdoor residential pools and spas by barriers to entry that will effectively prevent small children from gaining unsupervised and unfettered access;
- Suction Entrapment Avoidance.**

New. Each pool and spa built more than one year after enactment of the state statute shall employ one of the following:

- ⌚ The installation of more than one safety drain per suction system, or

- ⌚ The installation of one or more unblockable drains, or
- ⌚ No drains.

Existing. In addition to a compliant drain cover, each pool or spa with a single main drain, other than an unblockable drain, shall be equipped with one or more of the following safety options — a safety vacuum release system (SVRS), or suction limiting vent system, or gravity drainage system, or automatic pump shut-off system, or drain disablement, or other system determined by the CPSC to be equally effective in preventing suction entrapment.

□ **Funding.** The grant program directs state recipients to use grant funding to:

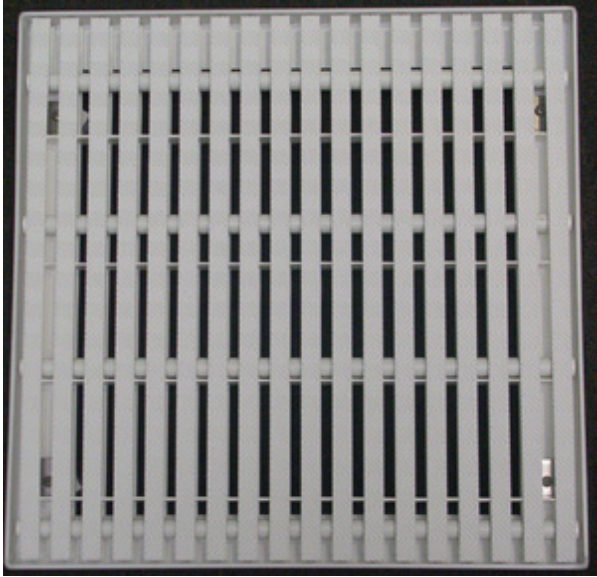
- ⌚ Hire and train enforcement personnel and
- ⌚ Educate pool companies, pool owners and operators, and other members of the public about the standards contained in the Act and about the prevention of drowning or entrapment of children.

ANSI/APSP-7 Standard Exceeds Federal Requirements. All pools and spas configured to comply with the ANSI/APSP-7 Standard will conform to these provisions and any state that adopts the Standard will meet the Act's minimum state requirements. This ANSI/APSP-7 Standard is the only comprehensive approach to engineering swimming pools and spas to avoid all five suction entrapment hazards: hair entrapment, limb entrapment, body suction entrapment, evisceration/disembowelment, and mechanical entrapment. The design requirements and construction practices in this Standard are based upon sound engineering principles, research, and field experience that, when applied properly, provide for a safe installation that exceeds the requirements of the Act.

3. Public Safety Education: The Act requires the CPSC to establish and carry out a public education program on methods to prevent drowning and entrapment in pools and spas. \$5 million is authorized to be appropriated for each of the fiscal years 2008-2012 to carry out the education program.

MAIN DRAIN SUMMARY CHART

This summary is of common main drain covers and grates. This summary does not include all covers. This information is based on manufacture's information whenever available. The pictures show the cover with its base setting on concrete. Installed in a pool, the plaster will cover the base and only the top of the grate or cover will be visible.

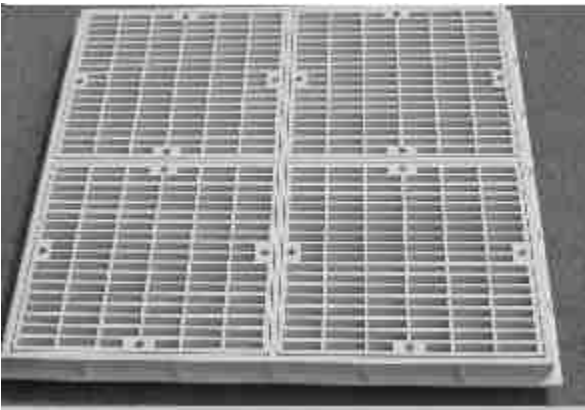


GRATE 18"x18"

Manufacturer: Pentair

Maximum Flow at 535 G.P.M.

Open area = 115 sq. inches



GRATE 18"x18"

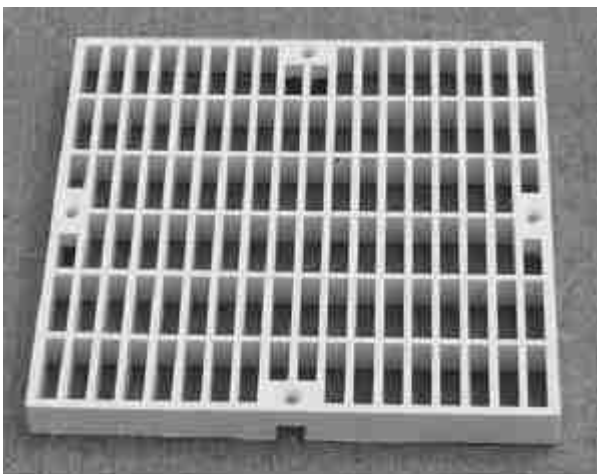
Manufacturer: Hayward, Pac Fab and others

Maximum Flow at 1.5 FPS

Hayward : 756 PM (168 In²)

PacFab: 918 GPM (196 In²)

Notes: 18x18 grates measure 24" diagonally, so ASME/ANSI A112 certification is not required. In many applications, this type cover is ideal because it does not protrude up from the pool surface creating a toe stub hazard and can handle high flow rates.



GRATE 12"X12"

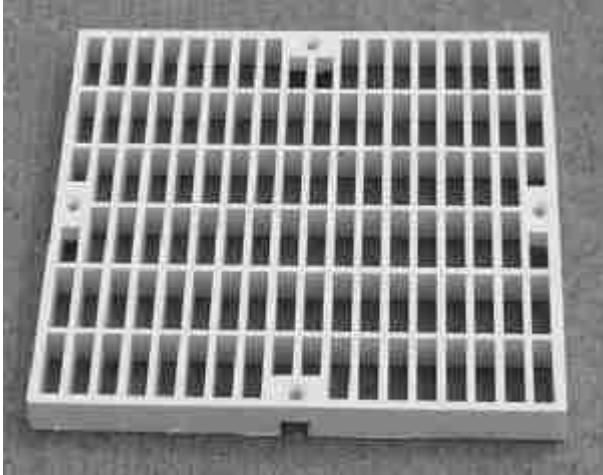
Manufacturer: Hayward, Pac Fab **N.L.A** and others

Maximum Flow at 1.5 FPS

Hayward : 306 PM (68 In²)

PacFab: 401 GPM (85 In²)

Notes: 12X12 grates do not measure 24" diagonally, so ASME/ANSI A112 certification is required. However, there are no A112 approved replacement covers available at this time. Until they are available, these grates may be used, but flow rates must not be exceeded. When A112 approved covers become available,, these grates will need to be replaced.



GRATE 9"X9"

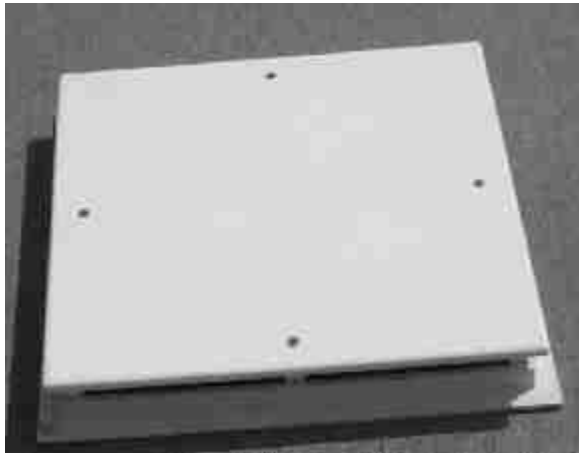
Manufacturer: Hayward, Pac Fab and others

Maximum Flow at 1.5 FPS

Hayward : 198 GPM (44 In²)

PacFab: 229 GPM (49 In²)

Notes: 9X9 grates do not measure 24" diagonally, so ASME/ANSI A112 certification is required. However, there are no A112 approved replacement covers available at this time. Until they are available, these grates may be used, but flow rates must not be exceeded. When A112 approved covers become available,, these grates will need to be replaced.



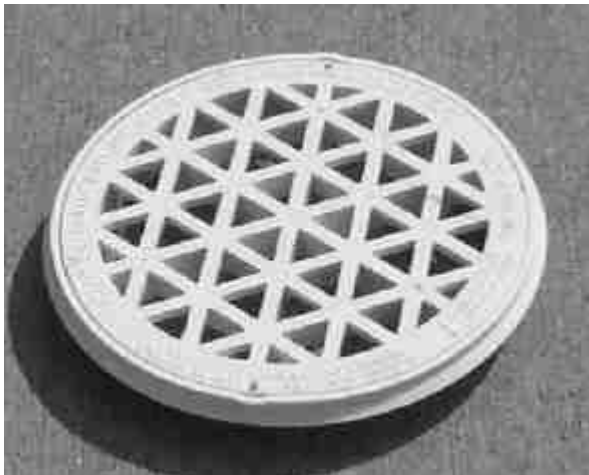
Pac Fab 12"X12" Anti Vortex Cover

Manufacturer: Pac Fab

Maximum Flow at 1.5 FI'S

142 OPM(31.5 In²)

Notes: This 12X12 cover is NOT ASME/ANSI A112 approved. However, there are no AI 12 approved replacement covers available at this time. Until they are available, this cover may be used, but flow rates must not be exceeded. When AI 12 approved covers become available, these covers will need to be replaced. Note: Cover has no name or markings.



Flat Grate, under 10" diameter

Manufacturer: Various

Maximum Flow at 1.5 FI'S

Not Acceptable

These grates are not allowed. They must be replaced with an AI 12 approved cover by the same manufacturer or an AI 12 approved universal cover.



Pac Fab 8" Anti Vortex

Manufacturer: Pac Fab **N.L.A.**

**Maximum Flow at 1.5 FPS
Not Acceptable**

This cover is not A112 approved and is not allowed. They must be replaced with an A112 approved cover by the same manufacturer or an A112 approved universal cover.

This cover has 4 screw holes on top and typically no name or markings.



Purex 8 1/16" Anti Vortex

Manufacturer: Purex **N.L.A.** (Pac Fab)

**Maximum Flow at 1.5 FPS
Not Acceptable**

This cover is not A112 approved and is not allowed. They must be replaced with an A112 approved cover by the same manufacturer or an A112 approved universal cover.

This cover has 4 screw holes on top, a domed shape and square holes around the sides



APP 7 7/8 Anti Vortex

Manufacturer: Advanced Pool Products **N.L.A.**

**Maximum Flow at 1.5 FPS
Not Acceptable**

This cover is not A112 approved and is not allowed. They must be replaced with an A112 approved cover by the same manufacturer or an A112 approved universal cover.

This cover has 2 screw holes on top, a slightly domed shape and round holes around the sides. There is an APP logo on the top center



American Products Anti Vortex 8610590

Manufacturer: Pac Fab

**Maximum Flow at 1.5 FPS
Unknown**

This cover is UL listed at 80 GPM, Pentair Sources indicate that it is ANSI/ASME A112 approved.

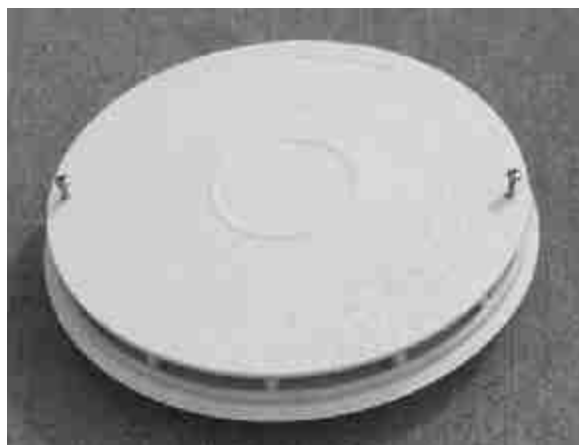


Hayward SP1048 Anti Vortex

Manufacturer: Hayward

**Maximum Flow at 1.5 FPS
Haywood sources indicate cover is acceptable to the
A112.19.8M standard.**

This cover has 2 screw holes on top, a domed shape and rectangular holes around the sides. There is an "H" (Hayward) logo on the top center.



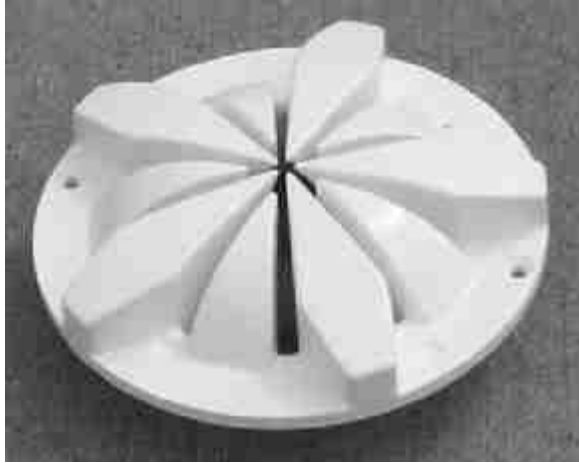
Sta Rite 8" Anti Vortex 0712-0741

Manufacturer: Sta Rite

**Maximum Flow, ANSI/ASME A112 Rating
60 GPM**

This cover is A112 approved at 60 GPM

The Sta Rite cover is flat on the top with a circle in the center. Water is drawn in on the elevated sides..



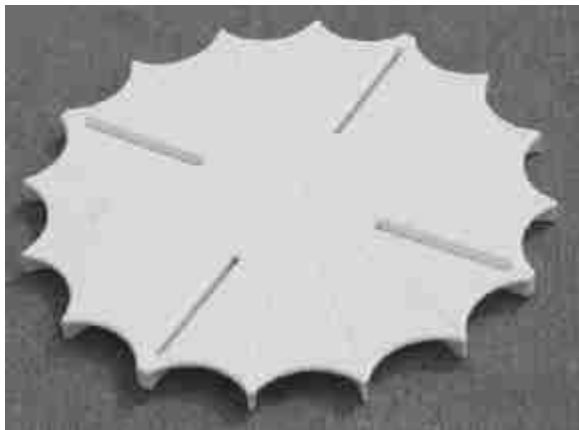
Anti Hair Snare Plus

Manufacturer: Triodyne Systems

**Maximum Flow, ANSI/ASME A112 Rating
109 GPM**

This cover is A112 approved at 109 GPM
The Anti Hair Snare cover has multiple "peddles" that are at different heights. The hole in the center is designed to allow hair that might be trapped to slip out the center. The Anti Hair Snare is a universal cover that fits most existing sumps up to 8".

Different holes are drilled out, depending on the existing sump



Star 100 Anti Entrapment Cover

Manufacturer: World Wide Sports

**Maximum Flow, ANSI/ASME A112 Rating
80 GPM**

This cover is A112 approved at 80 GPM
The Star 100 has a distinctive star shape, designed to prevent body entrapment. The four slots allow different screw patterns so the cover can fit any sump up to 10 inches.



DS 360

The DS 360 has a Safe Flow Rate not to exceed 123 gallons per minute. Retrofits up to 2-1/2" pipe. Manufactured of high quality Ridged Vinyl Compound (PVC): meets the NSF 50/ASME/ANSI A112.19.8, Standard, 27 sq. inches open surface area., includes Uni-Screw (316 grade) stainless steel screws and security tool included. Comes in a sealed container to insure all parts intact.

Manufactured by: New Water Solutions, Inc. of Topton, NC.



Primus Main Drain

Manufacturer: Gary Equipment Co

**Maximum Flow Rate at 1.5 FPS:
132.6 GPM**

This cover has slotted area of 24.25 x 3.21, so it's diagonal measurement is over 24" as required for grates. The grate is also designed to snap out of place in case of hair entrapment. Screws are not used to attach the grate, per manufacturer's specifications, the grate snaps into place.