



Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas and Hot Tubs¹

This standard is issued under the fixed designation F2387; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

The U.S. Consumer Product Safety Commission is aware of 138 swimming pool and spa drain suction entrapments between 1985 and 2001. During this time, 35 deaths due to drain suction entrapment have been confirmed, including 15 deaths due to hair entrapment, 15 deaths due to body entrapment and five deaths due to entrapment of an unknown type.

With the understanding of the potential hazard and despite the lack of extensive epidemiological data, the manufacturers, consumers, and users supported by CPSC staff decided on February 6, 2001 to proceed with dedicated time, expense, and effort toward development of a voluntary safety standard to reduce the possibilities of injuries due to swimming pool, spa, and hot tub body and limb entrapment.

If a cover or grate is unfastened, missing or broken, exposure to the drain suction force could produce evisceration. Even though it is expected that safety vacuum release devices may help in reducing cases of evisceration, the devices are not designed for nor intended to do so. More direct efforts are related to the use of proper drain covers, 12 by 12 in. or larger drain covers, pool covers, and so forth. “Layered protection” should be used as outlined in CPSC’s “Guidelines for Addressing Potential Entrapment Hazards Associated with Swimming Pools and Spas.”

This specification is not intended to and does not address hair entrapment.

Field fabricated vent pipes are excluded from this specification and will be addressed in a separate standard under development.

1. Scope

1.1 This specification covers requirements for safety vacuum release systems (SVRS) for use on swimming pools, spas, hot tubs, and wading pools.

1.2 This specification is intended to reduce the risk of drowning or entrapment by providing a rapid detection and rapid release of vacuum or preventing a dangerous vacuum altogether when a person becomes entrapped at the suction outlet serving a pumping system.

1.3 The values stated in customary English units are to be regarded as the standard. Any values in parentheses are given for information only.

1.4 The following safety hazards caveat pertains only to the test methods section, Section 5, of this specification. *This*

standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 *ASTM Standards*:²

D2466 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

D2468 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe Fittings, Schedule 40 (Withdrawn 2003)³

D2855 Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings

¹ This specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.51 on Safety Vacuum Release Systems for Swimming Pools, Spas and Hot Tubs.

Current edition approved Aug. 1, 2012. Published August 2012. Originally approved in 2003. Last previous edition approved in 2004 as F2387 – 04. DOI: 10.1520/F2387-04R12.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.