



May 1, 2009

Regarding: Clearance certification for VGB compliant models & “DAISY CHAIN” channels

In order to remain “VGB 2008” compliant, AquaStar Pool Products, Inc. requires that the installer follows our “INSTALLATION INSTRUCTIONS” completely. These instructions may be found on our website at [www.aquastarpoolproducts.com](http://www.aquastarpoolproducts.com) by clicking on “News and Information” under the “Product Info” section. We are in the process of revising our “Installation Instructions” to eliminate some of the confusion that still exists with sump depths, plumbing configurations, fps vs. GPM, etc. They will be divided into 3 (three) separate specification sheets: (1) Channel Drains (2) 18” x 18” & Larger (3) All others including Retro-fits.

**Special note re “chaining” frame & grates to form long channels:**

This installation is permissible by AquaStar provided that the professional:

- 1) Does not alter mudframe in any way
- 2) Installs special AquaStar support bars (Part numbers: 9XB, 12XB or 18XB) where the frame & grate span the long trough without structural support. These bars are designed to be embedded in cement/plaster at the ends & to support the grate without blocking any of the openings.
- 3) “AquaBond” or “AB” putty mudframe to support bars before plastering over or filling gap between frames.
- 4) Keep sump depth the total length of trough with  $1 \frac{1}{2}$  x Diameter of the largest pipe.
- 5) **NOTE:** Even though the C.P.S.C. & A.P.S.P. declare the above to be a “Single, Unblockable” (i.e. 2 Drains in 1), always check 1<sup>st</sup> with your D.O.H. official.

With all field fabricated or manufactured sump installations, single or multiple pipe and/or pump configurations are permitted. Also, any size pipe is permitted – the larger diameter the better. The key here is that we do not exceed the maximum flow rate marked on top of the cover for the total system. All AquaStar suction outlet covers have been tested with 3 inch deep sumps (unless otherwise indicated). ASME A112-2007 specifically indicates in Section 2.3.4 Submerged Suction Outlets as follows: “Those (suction outlets) that do not connect directly to the circulation piping must have either the manufacturer’s recommended (manufactured) sump below or behind the outlet cover/grate, or a field built sump of the design specified by the manufacturer... Alternatively, a sump built in accordance with Fig. 2 (... $1 \frac{1}{2}$  times the diameter...) shall be permitted”. This default setting of  $1 \frac{1}{2}$  times the diameter of the pipe to be the distance/depth from the top of the pipe to the bottom of the grate are for suction outlet installations where the manufacturer does not specify what sump design they require under their respective grates. AquaStar’s 12” x 12” covers and smaller, plus all 32” channel drains, have all been tested and approved at 3 inches sump depth. Our 18” x 18” & 24” x 24” VGB compliant suction outlet covers have deeper installation instructions. AquaStar requires a minimum 6 inch sump depth for our 18” x 18” suction outlet covers with pipes 4” and greater and a minimum 12 inch sump depth for our 24” x 24” suction outlet covers with pipes 8” and greater. In the rare instances that the pipes are much smaller under these larger grates, the professional may elect to go with the shallower sump depth by using the “ $1 \frac{1}{2}$  x Diameter Fig. 2 default setting”. For additional verification, please contact Steve Barnes (Pentair Water) or Leif Zars (Gary Pools) of the ASME/ANSI A112-2007 Standard committee.

Also, please note that on “page 1” of the “Installation Instructions” approximately mid-section, and on “page 4” second section; that we remind the installer that they must check with the local jurisdiction or health inspectors for additional installation requirements. We remind them that sometimes, certain “Departments of Health” have stricter requirements; therefore, it is strongly advised that they should check with their local health department before they proceed with any installation. Yes, we all want to comply with the federal mandate, but the local Department of Health has the final say.

Thank you for your continued support for the compliant & safe installation of AquaStar Pool Products. Please feel free to contact me with any additional questions at (619) 972-8459. Also, keep an eye on our upcoming “FAQ’s” section of our website for the most recent information. Coming soon we will have suction outlets tested and approved at “0 inch Depth” for floor, side-wall, and spa installation, both retrofit and new.

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