Installation Manual

In-floor cleaning & circulation system
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  In-floor Layout (Sample)
  Certified Design Sheet (Sample)
  Certified Design Sheet (Blank)
Submit a Plan for Design Layout

Mandatory

To ensure proper cleaning and efficiency of the in-floor system, it is mandatory that all pool drawings be sent to the factory for review to insure proper layout design (see Appendix). This can be done through our dealer portal, email or by fax:

- **Dealer Portal**: dealers.aamfg.com (after a login has been created)
- **Email**: design@aamfg.com
- **Fax**: 602.532.4894

All drawings must be:

- Formatted for 100% or actual size and set 1/8" scale,
- Accompanied with a Certified Design Cover Sheet completely filled out (see Appendix).

Completed drawings will be returned within 48 hrs of receipt.

The layout drawings and their dimensions of the pool are based on a 1’ radius in the shallow end and a 5’ radius in the deep end. Proper hydraulic design and head placement are the most important points to insure that the in-floor system is working properly.
Excavation

Standard vs Hard Dig

For a standard dig, there is typically no need to dig the pool any deeper than normal to accommodate the plumbing for the in-floor system. However, in the event of a hard dig, where the pool is being dug in an area that exhibits very hard soil conditions (caliche, rock, coral), it may be advisable to over-dig the pool 8” to 12”, plumb the floor system, back-fill the pool with compactable soil and then apply the appropriate compaction required.

Equipment Location

It is recommended that the pool equipment be located as close to the pool as possible, and the skimmer be located near the transitional break or center of the pool. This will allow the return lines for the in-floor system to utilize the same trenches dug for the skimmer and the main drain lines. If this is done, the excavator can dig the skimmer niche all the way to the floor, wide enough to accommodate the return lines for the in-floor system, as well as the main drain line (see Figure 1, page 5).

Transitional Breaks

A transitional break will be treated as if it were a wall and will require additional cleaning heads along both sides of the break in order to insure that the in-floor system will provide proper cleaning for the entire pool floor.
Plumbing the Pool Floor and Filtration Run

IMPORTANT!
All pipe for the in-floor system must be a minimum of 2" schedule 40 PVC or equivalent, unless otherwise noted on the Certified Design Layout.

NOTE:
Only use the 2" x 15" A&A Manufacturing riser provided with each cleaning head. This riser is not standard schedule 40 pipe as it has been specially extruded to ensure the exact inside diameter (I.D.) required to accept the floor fitting without the need to ream (Figure 2). The A&A Manufacturing riser is printed with red ink, in a repeating pattern ("A&A Manufacturing A&A Manufacturing A&A Manufacturing") for easy identification.

It is highly recommended that a colored primer and cement be used to easily determine if a joint has been missed.

1. It is recommended that the feed lines to each zone (group of cleaning heads) enter the pool at the skimmer niche, near the transitional break or center of the pool. The skimmer niche should be excavated to the pool floor and be wide enough to accommodate the feed lines for in-floor system, as well as the main drain line.

2. When starting to plumb the in-floor feed lines, begin by plumbing down the skimmer niche and follow the trench to the first zone (Figure 1). It is important that the pipes be plumbed as close to the back of the skimmer niche as possible, as this will aid in the placement of the steel and ensure maximum strength of the shotcrete in this area.

3. The risers for the in-floor cleaning heads must maintain a 90° angle to the finished pool floor. This can be achieved by combining two 45° elbows and a short length of pipe between the two fittings which will allow for any possible adjustments needed to achieve the proper angle to the pool floor. When possible, it is highly recommended that sweep 90° elbows be used in place of standard 90° elbows. This will allow for maximum water flow, while also improving overall system performance. Before gluing these three pieces together, experiment with the position of each until the desired angle is achieved. With a marking pen, mark lines across each of the parts so that, when they are taken apart to be glued, they will be returned to exactly the same position. This will ensure that you of have the proper angle for the riser.

4. Take careful consideration that the plumbing of each zone is performed according to A&A Manufacturing's Certified Design Layout. Following the completion of the riser positioning and plumbing, glue a 2" cap on the open end of each riser in preparation of the systems pressure test.
Preparing the Layout for the Cleaning Heads

1. Mark the exact location of each cleaning head in the pool floor by driving a wood stake or a piece of rebar into the ground at the proper location (See Appendix).

2. With a string, tie a loop over the stake. Extend the length of the string out 6’ in one direction, this will serve as the radius for the circular pattern created by the in-floor cleaning head. Moving around the stake, use either a sharp object or spray paint at the end of the string to trace a circle around the stake.

3. Once a circle has been traced around each of the stakes, stand outside the pool dig to see if all areas will be covered. It is important to allow sufficient overlap between each in-floor head. See your in-floor layout for the required specifications.

4. Once the above steps have been completed, the trenches can be dug for the skimmer niche, filter run and in-floor pipe runs. The floor pipe trenches need to be a minimum depth of 6” (The skimmer niche can be dug to the pool floor by the excavator, but dressing out the niche may be necessary).
5. Once all of the plumbing for the risers and feed lines inside the pool have been completed, begin plumbing all feed lines from the skimmer niche back to the A&A water valve. This will ensure that all the lines, including the suction lines, are lying flat in the trench. Confirm the placement of the lines in the trench so that they are laying in the proper order in relation to the porting of the water actuator valve.

6. Connect all feed lines in the filter run trench to the A&A Manufacturing water valve (see pages 10-12 for instructions for plumbing the water actuator valve).
If heat bending PVC pipe is desired, take extra precaution to avoid distorting the pipe, especially at the connections.

Figure 2

Figure 3
When designing the steps (Figure 4), it is highly recommended that all corners are coved (b) rather than finished with sharp angles (a). This will significantly increase the cleaning efficiency of the in-floor system. It is desirable to place the center of the cleaning heads no more than 4" from the front of the finished step edge. This will allow the jets of water to reach further around a curved step. The following drawing (Figure 5) gives the dimensions for riser placements that can be used for the standard step sizes, i.e., top step with an 18" deep tread and the second and third steps with a tread depth of 12". These dimensions are also based upon a 12" bond beam.

The horizontal dimensions are taken from the back of the bond beam form to the centers of the risers while the vertical dimensions are taken from the top of the bond beam form to the top of the 2" cap on the risers.
IMPORTANT!
Do not try to set the height of the risers by measuring from the bottom up.

Figure 5
1. If the spa shares common equipment with the pool, refer to the diagram provided (Figures 6 & 7) for the proper method of plumbing.

2. When the spa shares common equipment with the pool, it will be necessary to provide a means for the water introduced to the spa, through the in-floor system, to be returned to the pool. This is required because the water used to clean the spa has been drawn from the pool. The recommended method of returning this water is with a spa spillway, although, it can also be accomplished by installing a 3” balance line between the pool and spa (balance line cannot exceed 10’ in length).

3. If the spa is raised, it is imperative that a check valve be installed just below the actuator valve in the line that feeds the spa. Otherwise, water in the spa will drain back through the cleaning heads until the water in the spa reaches the same level as in the pool.

4. To provide water for a spa spillway feature, consult A&A Manufacturing for the modifications required to assume the cleaning efficiency of the in-floor system will not be reduced.
Plumbing the Low Profile Water Valve

IMPORTANT!
All pipe for the in-floor system MUST be a minimum of 2” schedule 40 PVC or equivalent, unless otherwise noted on the Certified Design Layout.

NOTE:
When gluing the 2” schedule 40 PVC to the housing of the low profile valve, use only a medium to heavy body PVC to PVC pipe cement. Do not use primer.

The A&A low profile water valve is ready to pressurize, there is no need to open the valve to remove parts prior to pressurizing the system. A brass nut has been installed ahead of the band clamp knob. DO NOT REMOVE this nut until after the pressure test has been completed and the pressure released from the system, then discard it.

Height and Port Arrangement

The A&A low profile water valve rotates in a clockwise direction when viewed from above. When the water valve is plumbed as followed, the porting sequence should be arranged differently depending on whether the main-drains are located in the middle or in the deep end of the pool (Figure 8).

<table>
<thead>
<tr>
<th>Pipes</th>
<th>Vertical Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘A’</td>
<td>total height</td>
</tr>
<tr>
<td>‘B’</td>
<td>subtract 2.5” from ‘A’</td>
</tr>
<tr>
<td>‘C’</td>
<td>subtract 8” from ‘A’</td>
</tr>
</tbody>
</table>

Figure 8
Figure 9
Located in the Equipment Area

1. Determine the length of pipe that will be required to continue the feed line into the low profile water valve, so that it remains at the same height as the rest of the equipment plumbing manifold and cut two pieces of 2” schedule 40 PVC pipe to that length (Figure 10).

2. For vertical pipes 'A', the zones in the rear of the plumbing diagram, determine and set the grade height (Figure 8). Example: If the grade height is 16”, cut two 16” lengths of pipe for vertical pipes 'A'.

3. For vertical pipes 'B', cut two pipe lengths that are 2 ½” shorter than vertical pipes ‘A’.

4. For vertical pipes 'C', cut two pipe lengths that are 8” shorter than vertical pipes ‘A’.

5. Glue the feed line from the equipment plumbing manifold into the low profile water valve using a level to ensure that the pipes from the valve are vertical. Now glue the 2” lines from each zone in the pool into the appropriate sweep 90° elbow at the bottom of the low profile water valve.
Located Remotely Near the Pool

IMPORTANT!
The band clamp of the low profile water valve needs to be higher than the water level of the pool. If lower than the water level, excessive flooding will occur out of the valve when the clear lid is removed for service or repair.

However, if the height of the low profile water valve must be below water level, a shut-off valve will be required on each of the lines entering and exiting the water valve.
ALL SHUTOFF VALVES MUST BE ACCESSIBLE FOR SERVICE.

NOTE:
If the desired level of the low profile water valve is below the finished grade, the valve must be installed inside a housing similar to a sprinkler valve box. This housing must be large enough to allow access to the band clamp of the valve. Center the housing over the valve so that the band clamp knob is accessible! (Figure 11)

1. Run Schedule 40 PVC pipe size specified on the A&A Design Sheet, from the plumbing manifold in the equipment area, to the remote low profile water valve location.
2. Determine and set the grade height and plumb the water valve as specified in the previous section titled, “Located in the Equipment Area.”

Figure 11
Valve Configurations

NOTE:
Whenever plumbing two ports together, it is essential that neighboring ports, (Figure 12), are not plumbed together. This will allow discharged water from the valve, reversing flow and reentering the valve through the neighboring port. If this occurs, cleaning performance may be severely hindered or completely disabled.

![Incorrect connection](image1)

![Correct connections](image2)

**Figure 12**

**Standard Single-Valve Configurations**

![5-port configuration](image3)

**Figure 13**

![4-port configuration](image4)

**Figure 14**
3-Port Valve Variations

The 3-port (Figure 15) low profile water valve can be plumbed either manually in the field or by utilizing the factory prepared option.

1. The manually configured option will provide more indexing of the heads and standard operating time per zone (a).

2. Alternatively, A&A Manufacturing offers a factory prepared 3-port option (d) that comes with three of the six ports sealed, utilizing a custom cam to switch between zones.

This option will provide less indexing of the heads and greater run-times per zone. Additionally, this will always allow a bypass where two zones will operate simultaneously. This solution is recommended for circulation applications only, as opposed to cleaning applications.

2-Port Valve Variations

The 2-port (Figure 16) low profile water valve can be plumbed either manually in the field or by utilizing the factory prepared option.

1. The manually configured option will provide more indexing of the heads and standard operating time per zone (c).

2. Alternatively, A&A Manufacturing offers a factory prepared 2-port option (d) that comes with four of the six ports sealed, utilizing a custom cam to switch between zones.

This option will provide less indexing of the heads and greater run-times per zone.
9-Port Valve Configuration

In circumstances where up to nine zones may be required, a nine port configuration (Figure 17) may be utilized. This double valve configuration must not be utilized for an in-floor system that requires ten or more zones. If ten or more zones are required, one of the standard dual valve configurations (Figure 18) should be utilized instead. Otherwise, balanced flow will not be achieved.

Standard Dual-Valve Configurations

In circumstances where larger pools are concerned, more than six zones may be required. When this is required, A&A Manufacturing offers two configurations that may be used. These configurations are designed to provide a balanced flow to each zone.

With option 1, the feed valve (shown as the center valve, Figure 18) needs to be plumbed at the same height as both receiving valves.

With option 2, the feed valve (shown as the center valve Figure 18) must be plumbed with sweep 90° elbows. If sweep 90° elbows are unavailable or not used, option 1 must be utilized.
Properly Joining Ports

When making the connection between two ports it is strongly recommend that the lines are plumbed together as far away from the valve as possible. An absolute minimum distance of 24 inches will be required in order to prevent back-flow into the valve from the connected line (Figure 19).
Pressurizing the System

IMPORTANT!
It is imperative that the pressure be released from the system before removing the band clamp from the actuator valve. Failure to perform this task may cause injury or damage to the valve body.

NOTE:
The A&A Manufacturing low profile valve comes ready to pressure test. It is imperative that all lines from the actuator valve be cleared of debris before the pool is turned over to the customer. This will ensure that there will be no cleaning head malfunction due to debris plugging or restricting flow.

A 4” diameter PVC ring sits under all the 2” T-valves to keep them held up during the pressurizing process. Remove this ring and discard it before starting operating the system.

1. Once the pressure from the system pressure test has been released, remove the clamp knob and the brass pressure test lock nut from the band clamp and discard the nut (Figure 20).

2. Remove the clear lid from the top of the low profile water valve to gain access to the internal valve components. Remove the impeller, gear plate and the 4” diameter PVC ring sits under the 2” T-valves.

3. Once the lines have been cleared, you may replace the gear plate, impeller and clear lid. Re-install the band-clamp by tapping around the outside of the clamp as you tighten the clamp knob to ensure a good seal. The system is now ready to start-up.

Figure 20
Adjusting the Low Profile Water Valve

The Speed Control

The rotation speed of the low profile water valve is determined by the position of the clear lid when it is placed on the valve. For maximum cleaning efficiency, it is recommended that the cycle time for each zone be adjusted to run between 30 to 45 seconds. The volume of water allowed to enter the impeller chamber of the actuator valve controls the speed. When the clear valve lid is removed from the housing of the water valve, a raised speed control guide can be seen on the top lip of the housing. When assembled, a molded groove in the clear lid will accept the speed control guide (Figure 21).

1. Place the clear lid on the valve housing so the molded groove in the lid is over the speed control guide.

2. Cycle time between zones will be increased by rotating the clear valve lid counterclockwise and decreased by rotating it clockwise.

3. Once the desired speed is achieved, remove the band-clamp and, with a marking pen, place a mark on the edge of the clear lid and valve housing as registration marks. This will allow the replacement of the clear lid to the same position if and when the valve is opened.

The QuikStop™

The QuikStop™ serves as a pause control for the low profile water valve. To pause the valve, raise the black lever on the clear lid to the full vertical position so that it locks in place. To restart the water valve, return the lever to its original horizontal position (Figure 22).
Preparation to Set the Floor Fittings

IMPORTANT!

Check to ensure that all the A&A risers will finish perpendicular to the contour of the finished pool floor prior to applying the concrete.

1. Cut the caps from the risers (Figure 23) approximately 3" above the finished shotcrete surface (a).

2. Set the depth of the cut-off tool so that the blade will cut the stub of the riser even with the finished shotcrete surface. This setting will require a dimension of approximately 4 ½" from the top of the cut-off tool frame to the bottom of the saw blade. Adjustments may be required to get the exact depth of the cut. This will allow each of the riser stubs to be cut at the precise depth and angle, to the plaster or marcite thickness of 3/8". If an exposed aggregate or pebble finish is used (or a thicker finish), set the cut-off tool so that it leaves the stub higher.

3. Cut each of the riser stubs with the cut-off tool while positioning the frame on the shotcrete surface so that the stub will be cut at the same angle as the finished floor (b).

4. Begin clearing the lines as described in the section titled, “Clearing the Lines.”

5. Apply both primer and glue on the inside of the A&A Manufacturing PVC riser stub and apply glue to the floor fitting only.
Clearing the Lines

NOTE:

It is important that the following instructions take place after preparing the risers for the floor fittings and before the floor fittings are glued into place. Failure to do so will require of additional labor later in the process.

Items Required

- Chicago-style plugs (qty 6-7)
- Canvas ‘Drain Jet’ (rubber style will not work)
- Garden hose

It is imperative that all the lines for the in-floor system be cleared of dirt and debris in two separate stages during the installation process. The first of the two line clearing stages is an essential part required for the proper operation of the cleaning system. Failure to clear the lines will cause additional warranty trips to the finished pool site, as a result of, cleaning heads functioning improperly or not at all.

Pebbles, dirt and other bits of debris can plug the cleaning head orifices reducing or even completely stopping the flow of water through the cleaning head. These obstructions to the return flow will increase the pressure in that particular zone and could result in damage to either the cleaning head itself or the water valves internal gears.

Clearing Procedure

1. After all of the risers have been cut and prepared for the acceptance of their floor fittings (as shown in the following section titled, “Installing the Floor Fittings”), begin by plugging all of the cut risers in a single zone. In the riser positioned furthest from the equipment system, allow the plug to fit loose enough to for quick removal but, tight enough to resist water pressure generated by the canvas ‘Drain Jet.’

2. In the equipment area, remove the lid, gear kit and T-valves from the low profile water valve.

3. Insert the canvas ‘drain jet,’ into the corresponding valve port, and turn it on.

4. Allow the water pressure to build up inside of the zone and then quickly remove the ‘loose’ Chicago style plug from its port. This will cause a pressurized discharge of water out of the open riser which will draw the PVC cuttings and dirt debris out of the zone. Once complete, remove a Chicago style plugs from the blocked risers, and begin setting up the next zone.

5. Repeat this process for each zone until the lines for all remaining zones have been cleared.
Installing the Floor Fittings

IMPORTANT!
Check to ensure that all the A&A Manufacturing’s PVC risers will finish perpendicular to the contour of the finished pool floor prior to applying the concrete.

Use only ABS to PVC cement when gluing the floor fitting to A&A Manufacturing’s PVC riser. Never apply primer directly to the floor fitting, only glue. The heat produced may distort the plastic.

1. Apply both primer and glue on the inside of the A&A Manufacturing’s PVC riser stub.

2. Apply only glue to the floor fitting. Do not remove the slurry cap or the Protecta foam from the floor fitting (Figure 24).

3. Seat the prepared fitting inside of the riser stub, making sure that the depth will allow the floor fitting to remain flush with the floor once the desired surface material has been added.

Figure 24
Preparing for the Internal Heads

Description

A&A Manufacturing’s slurry cap has been designed with the express purpose of providing our builders with the ability to perform a complete pool installation, without exposing the floor plumbing to excessive construction debris.

The slurry cap’s flat top has been designed to sit inside the floor fitting while maintaining a flush surface with the color-ring (Figure 25). Just under the flat top, encircling the cap, is a short band that helps provide additional friction to the inside wall of the floor fitting (a). Underneath, the tips of the ribs rest on a small lip inside the floor fitting that extends just below the bottom of the color-ring (b). The dense rib pattern inside the center ring provides structural strength to aid in resisting the occasional step of plaster spikes from finishing crews.

Removal Process

The slurry cap, as well as Protecta foam, will come preassembled with each floor fitting. Once the floor fitting has been plumbed into the riser, the slurry cap will have no need to be disturbed until the completion of the interior surface (after the final acid wash with aggregate finishes). The slurry cap can be easily removed by puncturing the outer ring of the cap with a flat-head screwdriver or similar tool. Once the slurry cap is removed, it can be discarded and the Protecta foam can be pulled out with two fingers, or by using needle nose pliers (Figure 26).
NOTE:
In geographic areas where freezing may be a possibility, it will be necessary to take precautionary steps to prevent any damage to the in-floor system. To prevent damage to the system, all the water in the feed lines that are located above the frost line and in the water valve must be removed.

General Winterization Procedure

1. Remove the upper housing from the standard top feed water valve or the lid from the low profile valve.

2. Remove all the internal parts from the water valve and store them for re-installation in the spring.

3. Remove the cleaning heads from the pool and spa that are above the frost line and store them until the spring.

4. Clear the lines by using either a portable tank type air compressor or a 2 hp spa blower. One at a time, blow all of the water out of each port of the A&A water valve. Once a line is cleared of all water, plug that port in the water valve and each of the floor fittings where the cleaning heads were removed in Step #2.

5. Remove the lid from the LeafVac™ canister and set the 3-way valve on the lines into the LeafVac™ so the skimmer side is open and the main drain side is closed. With the blower, blow the water from the suction port in the bottom of the skimmer back through the LeafVac™ canister and place a 2” test plug in the suction port of the skimmer. Switch the 3-way valve on the LeafVac™ from skimmer to main drains.

6. With the compressor or spa blower, blow all the water from the LeafVac™ canister to the main drains through the upper port inside the LeafVac™ canister. Once the water has been blown out to the main drains, install a 2” plug in the upper port of the canister to prevent water from rising back up into the pipe.

7. After the filter has been drained for winterizing, turn the pump on a short time to evacuate all the water from the LeafVac™ canister. While the pump is still running, quickly install another 2” test plug in the bottom threaded fitting of the canister. Shut the pump off. The filter should drain a little more water that was pulled from the LeafVac™.

8. After lowering the pool water level below the skimmer, remove the venturi fitting from the inlet fitting of the venturi skimmer. This will allow the water in the return line to the skimmer to drain into the skimmer when the return header is drained back at the pool equipment.

9. For those feed lines that supply cleaning heads below the frost line, fill the lines with air and quickly install winterizing plugs in the corresponding port of the water valve to create an air lock that will prevent the water from rising back up the lines to above the frost line.
Preparing the Low Profile Water Valve for Winterization

NOTE:
The 2” T-valve removal or winterization tool kit (Figure 27) consists of 3 tools- the extractor tool, the seat protection disc and the T-valve installation tool.

1. With the pump shut OFF, remove the band clamp and lid from the 2” T-valve.

2. Remove all the internal parts (impeller, 2 shims, gear plate, 2 stainless steel anti-friction washers and the center shaft) and place these parts in a box or plastic bag for storage over the winter.

3. With the extractor tool, remove each T-valve assembly from the valve base. Raise the T-valve assembly in a vertical position and insert the extractor tool under the valve. Pry the assembly out of the pin seats by pulling the extractor tool rearward (Figure 28).

4. Immediately insert the plug of your choice into the cleared port. Repeat this procedure for the remaining five ports. Replace the lid and band clamp for the duration of the winter.

5. Remove the lid from the LeafVac™ canister and set the 3-way valve on the lines into the LeafVac™ so the skimmer side is open and the main drain side is closed. With the blower, blow the water from the suction port in the bottom of the skimmer back through the LeafVac™ canister and place a 2” test plug in the suction port of the skimmer. Switch the 3-way valve on the LeafVac™ from skimmer to main drains.
Configuring the Low Profile Water Valve After Winterization

1. Remove the band clamp and lid from the 2" T-valve.

2. Remove the winterizing plugs from all six ports of the T-valve.

3. Place the seal protection disc at the bottom of the T-valve base. This will be used to give a slight lift to the T-valve assembly while reinstalling.

4. Now place the pins of one of the T-valve assemblies into the notches above one of the valve seats, allowing the front of the T-valve assembly to rest on the seal protection disc. Failure to lift the T-valve assembly during re-installation will result in damage to the valve seats and the T-valve assembly.

5. Place the forked ends of the T-valve installation tool on the pins resting in the notches (Figure 29). With a mallet, firmly tap the top of the installation tool, driving the pins down into the notches until they are fully seated. Test the assembly to make sure it raises and lowers freely.

6. Repeat this procedure with each of the remaining five assemblies.

7. Reinstall the rest of the valve internals (center shaft, 2 seal protection discs, gear plate, 2 stainless steel washers and the impeller).

8. Remove the cam from the gear plate assembly and install it down over the center shaft.

9. Lift at least three of the T-valve assemblies and stand them in the vertical position so the cam can drop to the bottom of the valve base. Then allow the three vertical assemblies fall back down on the cam.

10. Take the remaining portion of the gear plate assembly and start it over the center shaft holding the 2 stainless steel shims in place so that the center shaft passes through them as it exits the top of the gear plate assembly.

11. While looking down through one of the holes in the gear plate, line up the square shaft with the square hole in the cam and line the pin in the support post with the small round hole in the cam.

12. Push the gear plate down till the square pin and the support post pin have locked completely into the cam and then install the impeller.

13. Install the valve lid making sure that the speed control guide is lined up with the groove in the underside of the lid. Install the band clamp and hand tighten snuggly.

Figure 29
INCREASE IN PLUMBING LINE SIZES.


ADDITIONAL WATER DEMANDS MAY BE MET BY SEPARATE PUMP AND SUCTION DRAINS AND THE RESPONSIBILITY OF THE DEALER TO CALCULATE.

NOTE!
AN EXTRAORDINARY WATER DEMANDS MAY BE MET BY SEPARATE PUMP AND SUCTION DRAINS AND THE RESPONSIBILITY OF THE DEALER TO CALCULATE.

G4V

ADDITIONAL NOTES

WATER LINE SIZE:

G4V VENTURI HEADS
G 4V HP VENTURI HEADS
G4 HIGH FLOW HEADS
G3 LOW FLOW HEADS
QUIK LEAF VAC
QUIKSKIM AND LEAF VAC
STANDARD 1/4" PVC TO 1" PVC
DETERMINATION OF ADDED PUMP & FILTER REQUIREMENTS CRITERIA AND ARE THE RESPONSIBILITY OF THE DEALER TO CALCULATE.

DEALER ABC POOL COMPANY
ADDRESS: 123456 E MAIN ST
CITY: SOMEWHERE, STATE AZ
SALESPERSON: JOHNNY SALESMAN
APPORX: 400, 56 FT
SYSTEM ORDERED

G4V

ADDITIONAL NOTES

G4V VENTURI HEADS
G 4V HP VENTURI HEADS
G4 HIGH FLOW HEADS
G3 LOW FLOW HEADS
QUIK LEAF VAC
QUIKSKIM AND LEAF VAC
STANDARD 1/4" PVC TO 1" PVC
DETERMINATION OF ADDED PUMP & FILTER REQUIREMENTS CRITERIA AND ARE THE RESPONSIBILITY OF THE DEALER TO CALCULATE.

DEALER ABC POOL COMPANY
ADDRESS: 123456 E MAIN ST
CITY: SOMEWHERE, STATE AZ
SALESPERSON: JOHNNY SALESMAN
APPORX: 400, 56 FT
SYSTEM ORDERED

G4V

ADDITIONAL NOTES

G4V VENTURI HEADS
G 4V HP VENTURI HEADS
G4 HIGH FLOW HEADS
G3 LOW FLOW HEADS
QUIK LEAF VAC
QUIKSKIM AND LEAF VAC
STANDARD 1/4" PVC TO 1" PVC
DETERMINATION OF ADDED PUMP & FILTER REQUIREMENTS CRITERIA AND ARE THE RESPONSIBILITY OF THE DEALER TO CALCULATE.
Please award trip points to Pool Salesperson:  

Please FAX to A&A at (602) 532-4894 or email to design@aamfg.com

Pool Company:  

**ABC Pool Company**

**Address:**  

**City:**  

**State:**  

**Zip:** 98765

**Phone:**  

**Fax:**  

**E-Mail:** example@company.com

How do you want the design sent back to you?  

- [ ] FAX  
- [ ] Email  
- [ ] PDF  
- [ ] CAD

Customer or Job Name:  

**Jane & John Doe**

**Address:**  

**City:**  

**State:**  

**Zip:** 98765

**Phone:**  

**Fax:**  

**Homeowner E-Mail:** example@homeowner.com

<table>
<thead>
<tr>
<th><strong>REQUIRED Length of pipe between the Main Drain and the Pump:</strong></th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depth:</strong></td>
<td>3 to 9.5</td>
</tr>
</tbody>
</table>

We use:  

- [ ] UP Rated Pumps  
- [ ] FULL Rated Pumps  
- [ ] Variable Speed Pump  
- [ ] Pump Size Sold (if any)

Pump Model Name:  

**Pump Model #:**

Filter Type:  

- [ ] Cartridge  
- [ ] DE  
- [ ] Sand

Interior Finish:  

- [ ] Pebble  
- [ ] Plaster  
- [ ] Vinyl  
- [ ] Fiberglass  
- [ ] Other:

(CHECK ONE BOX FOR EACH)  

- [ ] Pool Only (No cleaning heads in spa)  
- [ ] Pool & Spa with Common Equipment  
- [ ] Raised Spa  
- [ ] Heater  
- [ ] Solar Heater (If Yes: Booster pump required)  
- [ ] AVSC Drain (Channel Drain)  
- [ ] "PDR2" 10 inch Main Drains (2)  
- [ ] Quik Water Leveler  
- [ ] Beach Entry: [ ] Modified  
- [ ] True Beach (show waterline)

- [ ] Total QuikSkim’s*** Qty: 2  
- [ ] Total Quik LeafVac’s*** Qty: 1

- [ ] Transitional Break Shown (if applicable)  
- [ ] Heads in the Negative Edge Basin*  
- [ ] Heads in the Spa Trough*  
- [ ] Water demands from same pool pump*  
- [ ] GPM: 78

- [ ] Duo Valve System (if necessary)  
- [ ] Automatic Surface Returns (if possible)**  
- [ ] Chlorinator/Generator:  
- [ ] In-Line Chlorine-Generator  
- [ ] Dek-Clor  
- [ ] In-Line Erosion  
- [ ] ** May require additional pump  
- [ ] ** Direct return line from Actuator Valve to pool wall

| **ORDER THE SYSTEM:** | [ ] YES  
|------------------------|-------|

- [ ] NO  

**P.O. #:** 9876543

**Ship Method:**  

- [ ] Next Day  
- [ ] 2nd Day  
- [ ] 3rd Day  
- [ ] Ground  
- [ ] Will Call (Pick Up)

**Cleaning Heads / Main Drain:**  

- [ ] White  
- [ ] Black  
- [ ] Gray  
- [ ] Gold  
- [ ] Dark  
- [ ] Blue  
- [ ] Tan (Heads Only)  
- [ ] Light Gray

**Deck Lids:**  

- [ ] White  
- [ ] Black  
- [ ] Tan  
- [ ] Gray  
- [ ] Light Gray

**Please also send:**  

- [ ] QuikSkim QTY:  
- [ ] QuikSkim Body Color:  
- [ ] White  
- [ ] Black  
- [ ] Gray

- [ ] Quik LeafVac QTY:  
- [ ] Quik Dek-ClerQuik  
- [ ] Water Leveler  
- [ ] QuikPure 3

- [ ] "PDR2" 10 inch Main Drain (2)  
- [ ] YES Qty:  
- [ ] with Sumps

**AVSC Channel Drain:**  

- [ ] YES Qty: 2  
- [ ] Single  
- [ ] Dual  
- [ ] Pebble Top  
- [ ] Standard Top

**Note** – All drains will be the same color as the cleaning heads selection unless otherwise specified.

| (AVSC) *Note – All drains will be the same color as the cleaning heads selection unless otherwise specified.* | YES  
|--------------------------------------------------|-------|
| **Gunite Reusable Cover (AVSC)** | [ ] YES  
| **SplashDown Water Jet** |  
- [ ] Qty:  
- [ ] 22"  
- [ ] 44"  
- [ ] White  
- [ ] Gray

**SplashDown Water Lily (22")** |  
- [ ] Qty:  
- [ ] White  
- [ ] Gray

**SplashDown Crystal (22")** |  
- [ ] Qty:  
- [ ] White  
- [ ] Gray

**Aqua Arch (Brass)** |  
- [ ] Qty:  
- [ ] Trio Deck Jet Qty:  
- [ ] Bronze  
- [ ] Gray  
- [ ] Tan

**Whispa** | [ ] YES  
- [ ] White  
- [ ] Gray  
- [ ] Tan  
- [ ] Light Gray

**Additional Information:**

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*Hydrostatic Valve Connection included on all AVSC Channel drains*
Design Coversheet

Please award trip points to Pool Salesperson: ____________________________

Please FAX to A&A at (602) 532-4894 or email to design@aamfg.com

Pool Company:
Address: ____________________________ City: ____________________________ State: ______ Zip: ______
Phone: ____________________________ Fax: ____________________________ E-Mail: ____________________________

How do you want the design sent back to you?  FAX ☐ Email ( ☐ PDF ☐ CAD)

Customer or Job Name: ____________________________
Address: ____________________________ City: ____________________________ State: ______ Zip: ______
Phone: ____________________________ Homeowner E-Mail: ____________________________

****** REQUIRED Length of pipe between the Main Drain and the Pump: _______ Feet ******

Depth: _______ to _______ Length _______ Width _______ Surface Area _______

We use: ☐ UP Rated Pumps ☐ FULL Rated Pumps ☐ Variable Speed Pump ☐ Pump Size Sold (if any) _______

Pump Model Name: ____________________________ Pump Model #: ____________________________

Filter Type: ☐ Cartridge ☐ DE ☐ Sand

Interior Finish: ☐ Pebble ☐ Plaster ☐ Vinyl ☐ Fiberglass ☐ Other: ____________________________

(CHECK ONE BOX FOR EACH) YES ☐ NO ☐

Pool Only (No cleaning heads in spa) ☐ Heads in the Negative Edge Basin* ☐
Pool & Spa with Common Equipment ☐ Heads in the Spa Trough* ☐
Raised Spa ☐ Water demands from same pool pump* ☐
Heater ☐ GPM: ____________________________
Solar Heater (If Yes: Booster pump required) ☐ Duo Valve System (if necessary) ☐
*PDR2* 10 inch Main Drains (2) ☐ Automatic Surface Returns (if possible)** ☐
Quik Water Leveler ☐ Chlorinator/Generator: ____________________________
Beach Entry: ☐ Modified ☐ True Beach (show waterline) ☐

Total QuikSkim’s*** Qty: _______ ☐ In-Line Chlorine-Generator ☐ Dek-Clor ☐
Total Quik LeafVac’s*** Qty: _______ ☐ In-Line Erosion ☐ * May require additional pump

*** All G4 systems will include a FlowVis***

Are your pools constructed with: ☐ **No/Minimal coves** ☐ **Standard cove** ☐

ORDER THE SYSTEM: YES ☐ NO ☐ P.O. # ______

Ship Method: Next Day ☐ 2nd Day ☐ 3rd Day ☐ Ground ☐ Will Call (Pick Up) ☐

Cleaning Heads / Main Drain: White ☐ Black ☐ Gray ☐ Gold ☐ Dark ☐ Blue ☐ Tan (Heads Only) ☐ Light Gray ☐

Raised Lids: White ☐ Black ☐ Tan ☐ Gray ☐ Light Gray ☐

QuikSkim QTY: ☐ YES Qty: _______ ☐ ☐ ☐

*PDR2* 10 inch Main Drain (2): White ☐ Black ☐ Gray ☐ Tan (Heads Only) ☐ Light Gray ☐

AVSC Channel Drain: White ☐ Black ☐ Tan ☐ Gray ☐ Light Gray ☐

Quik LeafVac QTY: ☐ YES Qty: _______ ☐ ☐ ☐

AVSC Channel Drain: White ☐ Black ☐ Tan ☐ Gray ☐ Light Gray ☐

**Note – All drains will be the same color as the cleaning heads selection unless otherwise specified.**

Gunite Reusable Cover (AVSC) ☐ YES ☐ Cleaning Head Installation Tool ☐ YES

SplashDown Water Jet: Qty: _______ ☐ 22” ☐ 44” ☐ White ☐ Gray

SplashDown Water Lilly (22”) ☐ White ☐ Gray

SplashDown Crystal (22†) Qty: _______ ☐ White ☐ Gray

Aqua Arch (Brass) Qty: _______ ☐ Trio Deck Jet Qty: ☐ Bronze ☐ Gray ☐ Tan

Whispa Qty: _______ ☐ YES ☐ White ☐ Gray ☐ Tan ☐ Light Gray

Additional Information: ☐ YES ☐ White ☐ Gray ☐ Tan ☐ Light Gray

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Hydrostatic Valve Connection included on all AVSC Channel drains

Revised 09/15/16
Intelligent pool systems