



Certified to NSF/ANSI/CAN 50



VINYL/FIBERGLASS FLOW STAR™ SKIMMERS

Max Flow
2½" Pipe: 90 GPM
2" Pipe : 63 GPM

Min Flow
2½" Pipe: 15 GPM
2" Pipe : 15 GPM

PUBLIC & RESIDENTIAL INSTALLATION, OPERATION & PARTS

Float valve and deck lid are not NSF certified.

IMPORTANT SAFETY INSTRUCTIONS FOR SKRVFL3Nxxx, SKRVFL3Nxxx-L, SKRVFL18xxx, SKRVFL18xxx-L, SKRFFL3Nxxx, SKRFFL3Nxxx-L, SKRFFL18xxx, SKRFFL18xxx-L, SKRFL12xxx, SKRFL12xxx-L, SKRFL12Bxxx, SKRFL12Bxxx-L, SKR36xxx, SKR36xxx-L, SKR36Bxxx, SKR36xxx-L

READ AND FOLLOW ALL INSTRUCTIONS

⚠ WARNING!

HAZARDOUS SUCTION. RISK OF HAIR OR BODY ENTRAPMENT, DROWNING OR DISEMBOWELMENT. When an equalizer is used, the opening in the pool shall be protected by a VGBA Compliant drain cover rated for 100 GPM or greater. NOTE: Skimmer is not equivalent to a main drain. If not using a single, unblockable drain, all pools, spas and hot tubs must have at least two main drains besides skimmer(s) or a "single, unblockable" drain.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

OPERATION

Operation Overview

Pump suction pulls water through skimmer. Water flowing into skimmer carries floating leaves, bugs, etc., where they are trapped in the skimmer basket. Dust, body oils, etc., pass through the basket to be removed by the filter. Weir door in skimmer opening enhances surface flow and skimming action.



Figure 1:
Data Plate Image

Water Level

Keep pool, spa or hot tub water level at the middle water level mark, on the data plate image located inside skimmer housing, for best performance. Never operate below the low mark, see Figure 1.

Flow Adjustments

Adjust valves located before the pump, see Figure 2.

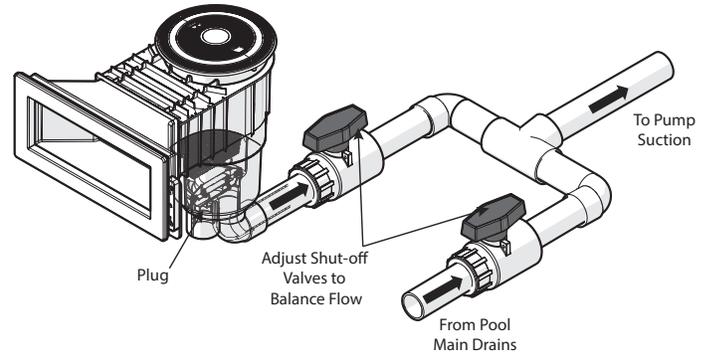


Figure 2: Typical residential installation

Vacuuming Pool

Remove deck lid and skimmer basket. If there is a float valve, remove it and plug equalizer port that is closest to the pool. Replace basket and place vacuum plate on top of basket. Fill the vacuum hose with water and then place your hand over the end of the hose as you bring it through the skimmer throat, or over the deck to attach it to the vacuum plate (Figure 3). Follow instructions in vacuum owner's manual for vacuuming operation. After vacuuming, remove hose, vacuum plate and basket, unplug equalizer port and reinstall float valve, basket and deck lid.

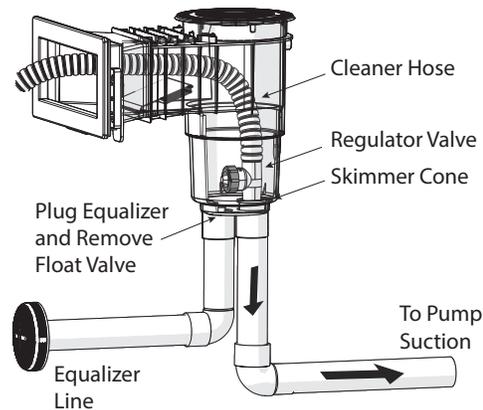


Figure 3: Vacuuming pool; float and check valves removed, equalizer port plugged.

MAINTENANCE

Periodically check weir for free operation. Replace if damaged or worn. Check strainer basket as often as needed for accumulated leaves, debris, etc. Empty basket as required.

Skimmer deck lid is made of impact and weather resistant materials, but extended use (5-10 years) may lead to reduced strength. Regularly check condition of skimmer lid. Look for cracks, chips, deterioration of plastic, etc. If any sign of damage or deterioration is found, replace the deck lid and fasteners.

To winterizing, drain pool until level is below skimmer inlet. Remove cover, basket and float. Plug bottom port(s). Cover skimmer to prevent rainwater or snow from entering the skimmer where it could freeze.

WARNING! LOW WATER LEVEL CAN MAKE IT DIFFICULT TO EXIT POOL AND MAY DAMAGE PUMP AND OTHER POOL EQUIPMENT.

Note: An equalizer line is a way to bypass the skimmer and it is intended to inhibit damage to the pump when pool water level is below the throat of the skimmer or the basket is full. You must check your local code as some require equalizer lines, others don't allow them and others leave it to the pool designer. When equalizer line is used the cover inside the pool must be VGBA compliant, and have a flow rating higher than the skimmer's configuration-specific flow rating.

SKIMMER LAYOUT AND SUCTION LINE SIZING

Skimmers are critically important for removing floating contaminants, oils, and debris; for this reason modern pool building codes require that the number of skimmers installed are capable of handling 100% of the filtration flow rate.

1. The minimum number of skimmers needed is based on facility type (See Table 1).
2. When selecting the location for skimmers, at least one should be placed so that the prevailing wind blows towards the skimmer.
3. Size suction pipe based on the design flow rate such that the water velocity in the pipe will not exceed six feet per second. To increase system flow capacity for long pipe runs, use multiple pipes (both ports) or larger pipe (2.5" spigot, or 3"/4" adapter bushing #BFB101). See figures 5 and 7 piping layout.

Table 1: Skimmers Required Per Square Foot Area

Facility Type	Area Per Skimmer (sq. ft.)
Public Pool	500
Residential Pool	800
Public and Residential Spa	150

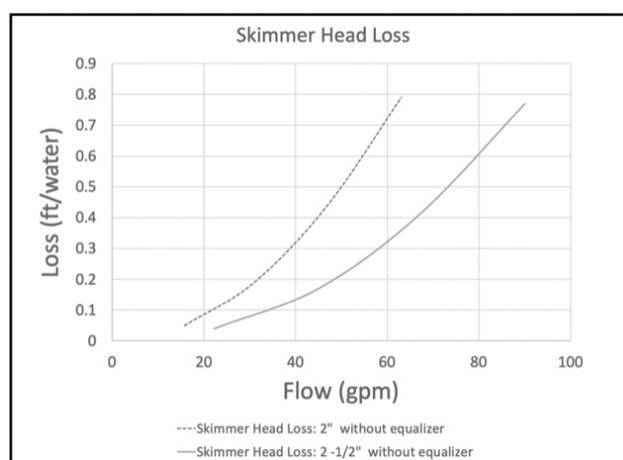
Example: A public pool that is 1000 sq. ft. requires at least two skimmers.

INSTALLATION

See section "Dimensions and Parts List", "Face Plate Dimensions", and "Face Installation Instructions" for basic dimensions and further instructions. Top cover frame has 1" vertical height adjustment.

PIPE CONNECTIONS AND TESTING

Connect pump inlet line to rear port in bottom manifold. Skimmer manifold is PVC, and comes in a variety of configurations. For threaded connections inside skimmer manifold, do not use pipe dope; to seal joint use RTV Silastic #732 (preferred), Teflon tape or Plasto-Joint Stik. For slip connections, apply PVC primer to PVC pipe only. Then apply PVC to PVC solvent cement to both pipe and slip connections. Consult distributor for correct solvent cement for pipe used. Assemble joint per cement manufacturer's instructions, allowing recommended set time before pressure testing.

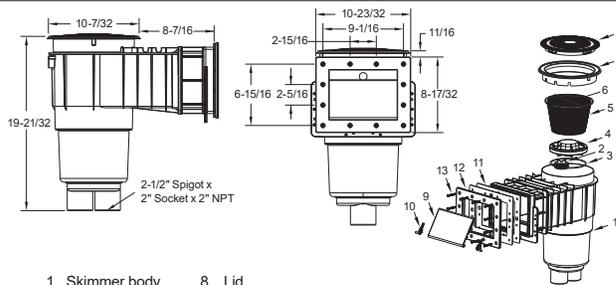


WARNING! PLASTIC CEMENTS AND PRIMERS CAN BE FLAMMABLE, POISONOUS OR BOTH. CLOSELY FOLLOW CEMENT MANUFACTURER'S INSTRUCTIONS.

WARNING! FALLING AND TRIPPING HAZARD. THE DECK LID MUST BE INSTALLED FLUSH WITH THE DECK LEVEL.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with Narrow 9" Throat for Vinyl



- | | |
|-------------------|--|
| 1. Skimmer body | 8. Lid |
| 2. 2" Port Plug | 9. Weir Assembly |
| 3. O-Ring | 10. Weir Clip, Qty 2 |
| 4. Float Assembly | 11. Gasket, Extender 9" And 12", Qty 2 |
| 5. Basket | 12. Face Frame, Extender 9" And 12" |
| 6. Skimmer Basket | 13. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 12 |
| 7. Collar | |

Also Included
14. Decorative Cover

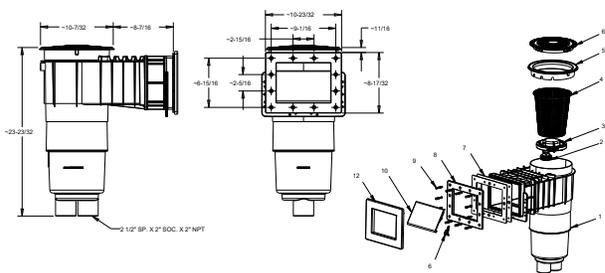
Part Numbers/Colors

- SKRVFL3N101 - White
- SKRVFL3N102 - Black
- SKRVFL3N103 - Lt. Gray
- SKRVFL3N105 - Dk. Gray
- SKRVFL3N108 - Tan

Part # SKRVFL3Nxxx

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Narrow 9" Throat and 9" Ultra Basket for Vinyl (Optional Water Bond)



- | | |
|----------------------------|---|
| 1. Deep Skimmer Body | 7. Gasket Extender 9" And 12", Qty 2 |
| 2. 2" NPT Port Plug | 8. Face Frame, Extender 9" And 12" |
| 3. Float Assembly | 9. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 12 |
| 4. 9" Ultra Skimmer Basket | 10. Weir Door Assembly |
| 5. Skimmer Collar | 11. Weir Door Clips |
| 6. Skimmer Lid | 12. Decorative Cover |

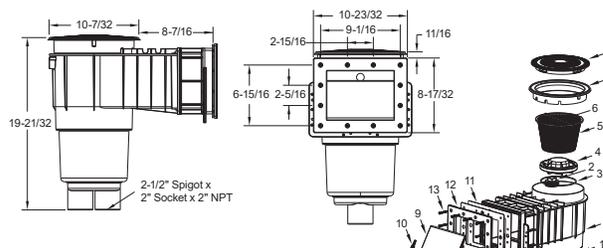
Part Numbers/Colors

- SKRVFL3N101-L - White
- SKRVFL3N102-L - Black
- SKRVFL3N103-L - Lt. Gray
- SKRVFL3N105-L - Dk. Gray
- SKRVFL3N108-L - Tan

Part # SKRVFL3Nxxx-L/
SKRVFL18xxx-L (Bonded)

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Narrow 9" Throat and Water Bond for Vinyl



- | | |
|-----------------------|--|
| 1. Skimmer body | 9. Weir Assembly |
| 2. 2" Port Plug | 10. Weir Clip, Qty 2 |
| 3. O-Ring | 11. Gasket, Extender 9" And 12", Qty 2 |
| 4. Float Assembly | 12. Face Frame, Extender 9" And 12" |
| 5. Basket | 13. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 12 |
| 6. Skimmer Basket Rod | 14. Bonding Plate Assembly |
| 7. Collar | |
| 8. Lid | |

Also Included
15. Decorative Cover

Part Numbers/Colors

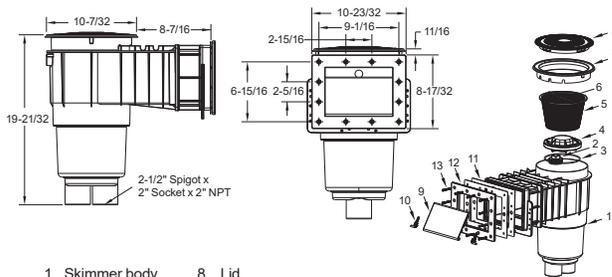
- SKRVFL18101B - White
- SKRVFL18102B - Black
- SKRVFL18103B - Lt. Gray
- SKRVFL18105B - Dk. Gray
- SKRVFL18108B - Tan

Part # SKRVFL18xxx

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with Narrow 9" Throat for Fiberglass



- | | |
|-------------------|--|
| 1. Skimmer body | 8. Lid |
| 2. 2" Port Plug | 9. Weir Assembly |
| 3. O-Ring | 10. Weir Clip, Qty 2 |
| 4. Float Assembly | 11. Gasket, Extender 9" And 12", Qty 2 |
| 5. Basket | 12. Face Frame, Extender 9" And 12" |
| 6. Skimmer Basket | 13. 12 x 1-3/4" Flat Head Phillips, 316 SS, Qty 12 |
| 7. Collar | |

Also Included
14. Decorative Cover

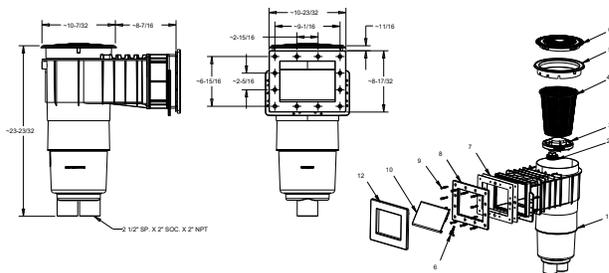
Part Numbers/Colors

- SKRFFL3N101 - White
- SKRFFL3N102 - Black
- SKRFFL3N103 - Lt. Gray
- SKRFFL3N105 - Dk. Gray
- SKRFFL3N108 - Tan

Part # SKRFFL3Nxxx

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Narrow 9" Throat and 9" Ultra Basket for Fiberglass (Optional Water Bond)



- | | |
|----------------------------|---|
| 1. Deep Skimmer Body | 7. Gasket Extender 9" And 12", Qty 2 |
| 2. 2" NPT Port Plug | 8. Face Frame, Extender 9" And 12" |
| 3. Float Assembly | 9. 12 x 1-3/4" Flat Head Phillips, 316 SS, Qty 12 |
| 4. 9" Ultra Skimmer Basket | 10. Weir Door Assembly |
| 5. Skimmer Collar | 11. Weir Door Clips |
| 6. Skimmer Lid | 12. Decorative Cover |

Part Numbers/Colors

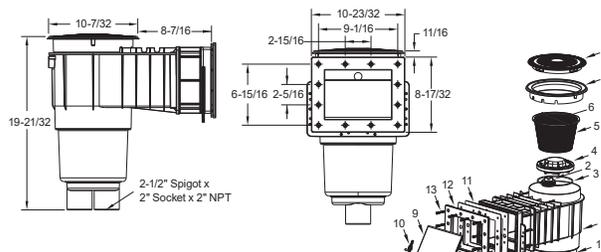
- SKRFFL3N101-L - White
- SKRFFL3N102-L - Black
- SKRFFL3N103-L - Lt. Gray
- SKRFFL3N105-L - Dk. Gray
- SKRFFL3N108-L - Tan

Part # SKRFFL3Nxxx-L

Part # SKRFFL18xxx-L

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Narrow 9" Throat and Water Bond for Fiberglass



- | | |
|-----------------------|--|
| 1. Skimmer body | 9. Weir Assembly |
| 2. 2" Port Plug | 10. Weir Clip, Qty 2 |
| 3. O-Ring | 11. Gasket, Extender 9" And 12", Qty 2 |
| 4. Float Assembly | 12. Face Frame, Extender 9" And 12" |
| 5. Basket | 13. 12 x 1-3/4" Flat Head Phillips, 316 SS, Qty 12 |
| 6. Skimmer Basket Rod | 14. Bonding Plate Assembly |
| 7. Collar | |
| 8. Lid | |

Also Included
15. Decorative Cover

Part Numbers/Colors

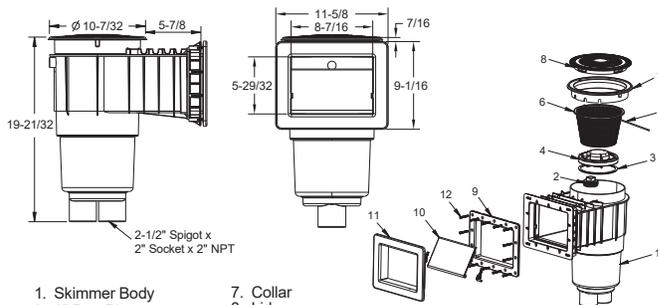
- SKRFFL18101 - White
- SKRFFL18102 - Black
- SKRFFL18103 - Lt. Gray
- SKRFFL18105 - Dk. Gray
- SKRFFL18108 - Tan

Part # SKRFFL18xxx

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with 5" Deep Throat for Fiberglass



- | | |
|-----------------------|--|
| 1. Skimmer Body | 7. Collar |
| 2. 2" Port Plug | 8. Lid |
| 3. O-Ring | 9. Gasket |
| 4. Float Assembly | 10. Weir Assembly |
| 5. Skimmer Basket Rod | 11. Cover |
| 6. Basket | 12. 12 x 1-3/4" Flat Head Phillips
316 SS, Qty 14 |

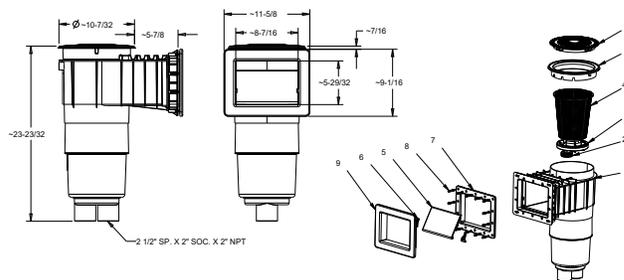
Part Numbers/Colors

- SKRFL12101 - White
- SKRFL12102 - Black
- SKRFL12103 - Lt. Gray
- SKRFL12105 - Dk. Gray
- SKRFL12108 - Tan

Part # SKRFL12xxx

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with 5" Deep Throat and 9" Ultra Basket for Fiberglass (Optional Water Bond)



- | | |
|----------------------------|--|
| 1. Deep Skimmer Body | 7. Face Frame |
| 2. 2" NPT Port Plug | 8. #12 x 1-3/4, Flat Head Phillips, 316 SS |
| 3. Float Assembly | 9. Weir Door Assembly |
| 4. 9" Ultra Skimmer Basket | 10. Weir Door Clips |
| 5. Skimmer Collar | 11. Skimmer Collar |
| 6. Skimmer Lid | 12. Decorative Cover |

Part Numbers/Colors

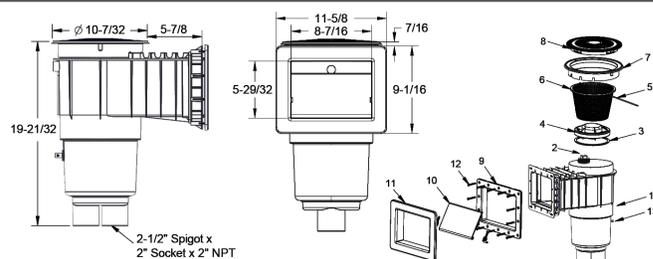
- SKRFL12101-L - White
- SKRFL12102-L - Black
- SKRFL12103-L - Lt. Gray
- SKRFL12105-L - Dk. Gray
- SKRFL12108-L - Tan

Part # SKRFL12xxx-L

SKRFL12Bxxx-L (Bonded)

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with 5" Deep Throat and Water Bond for Fiberglass



- | | |
|-----------------------|--|
| 1. Skimmer Body | 9. Gasket |
| 2. 2" Port Plug | 10. Weir Assembly |
| 3. O-Ring | 11. Cover |
| 4. Float Assembly | 12. 12 x 1-3/4" Flat Head Phillips
316 SS, Qty 14 |
| 5. Skimmer Basket Rod | 13. Bonding Plate Assembly |
| 6. Basket | |
| 7. Collar | |
| 8. Lid | |

Part Numbers/Colors

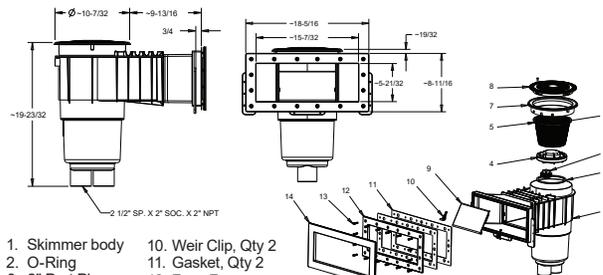
- SKRFL12B101 - White
- SKRFL12B102 - Black
- SKRFL12B103 - Lt. Gray
- SKRFL12B105 - Dk. Gray
- SKRFL12B108 - Tan

Part # SKRFL12Bxxx

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST

FlowStar® Wide Mouth Skimmer for Vinyl



1. Skimmer body
 2. O-Ring
 3. 2" Port Plug
 4. Float Assembly
 5. Basket
 6. Basket Rod
 7. Collar
 8. Lid
 9. Weir Assembly
 10. Weir Clip, Qty 2
 11. Gasket, Qty 2
 12. Face Frame
 13. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 16
 14. Decorative Cover
- Also Included**
15. 12 x 1-1/2" Pan Head Phillips, 316 SS, Qty 4
 16. 12 x 5/8" Pan Head Phillips, 316 SS, Qty 4
 17. Easy Clip Spacer, Qty 3

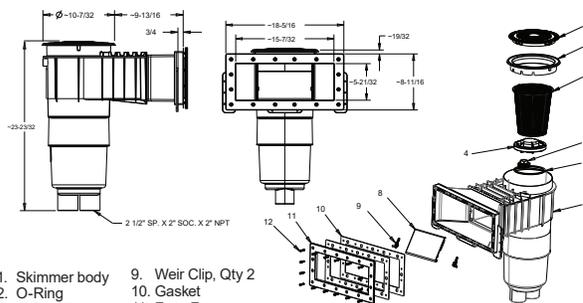
Part # SKR36xxx

Part Numbers/Colors

- SKR36101 - White
- SKR36102 - Black
- SKR36103 - Lt. Gray
- SKR36105 - Dk. Gray
- SKR36108 - Tan

Float valve and deck lid are not NSF certified.

FlowStar® Wide Mouth Skimmer and 9" Ultra Basket for Vinyl (Optional Water Bond)



1. Skimmer body
 2. O-Ring
 3. 2" Port Plug
 4. Float Assembly
 5. 9" Ultra Basket
 6. Collar
 7. Lid
 8. Weir Assembly
 9. Weir Clip, Qty 2
 10. Gasket
 11. Face Frame
 12. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 16
- Also Included**
13. 5/8" Pan Head Phillips, 316 SS, Qty 4
 14. 1-1/2" Flat Head Phillips, 316 SS, Qty 4
 15. Decorative Cover
 16. Easy Clip Spacer, Qty 3

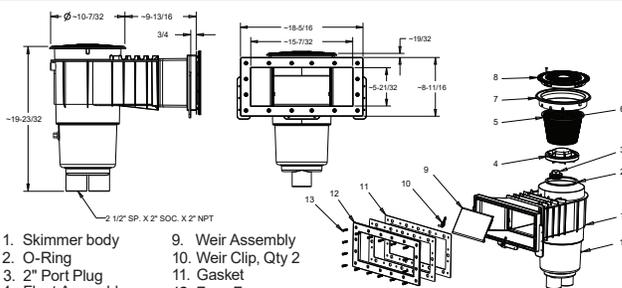
Part # SKR36xxx-L
SKR36xxxB-L (Bonded)

Part Numbers/Colors

- SKR36101-L - White
- SKR36102-L - Black
- SKR36103-L - Lt. Gray
- SKR36105-L - Dk. Gray
- SKR36108-L - Tan

Float valve and deck lid are not NSF certified.

FlowStar® Wide Mouth Skimmer and 9" Ultra Basket for Vinyl and Water Bond



1. Skimmer body
 2. O-Ring
 3. 2" Port Plug
 4. Float Assembly
 5. Basket
 6. Basket Rod
 7. Collar
 8. Lid
 9. Weir Assembly
 10. Weir Clip, Qty 2
 11. Gasket
 12. Face Frame
 13. 12 x 1-1/4" Flat Head Phillips, 316 SS, Qty 16
 14. Bonding Plate Assembly
- Also Included**
15. 5/8" Pan Head Phillips, 316 SS, Qty 4
 16. 1-1/2" Flat Head Phillips, 316 SS, Qty 4
 17. Decorative Cover
 18. Easy Clip Spacer, Qty 3

Part # SKR36Bxxx

Part Numbers/Colors

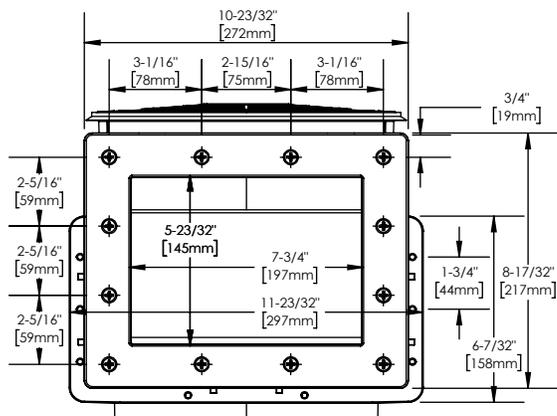
- SKR36B101 - White
- SKR36B102 - Black
- SKR36B103 - Lt. Gray
- SKR36B105 - Dk. Gray
- SKR36B108 - Tan

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST *CONTINUED*

Flow Star Skimmer with 9" Deep Throat, Float Assembly, Basket, Lid, Adjustable Collar For Fiberglass/Vinyl

Model # SKRFFL3Nxxx/SKRFVL3Nxxx, SKRFFL3Nxxx-L/SKRFVL3Nxxx-L, SKRFFL18xxx/SKRFVL18xxx, SKRFFL18xxx-L/SKRFVL18xxx-L



CUT OUT PANEL OTHER THAN WOOD

A-HEIGHT MAX 5-13/16" (148 mm) MIN 6-1/16" (154 mm)

B-WIDTH MAX 8" (203 mm) MIN 8-1/4" (210 mm)

CUT OUT PANEL FOR WOOD PANEL WITH VINYL LINER

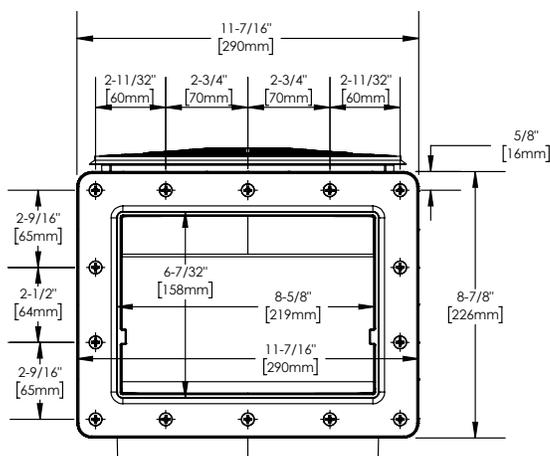
A-HEIGHT MAX 7-9/16" (192 mm) MIN 7-13/16" (198 mm)

B-WIDTH MAX 9-7/8" (251 mm) MIN 10-1/8" (257 mm)

DRILL or PUNCH 12 HOLES 1/4" DIAMETER AS SHOWN,

Flow Star Skimmer with 5" Deep Throat, Float Assembly, Basket, Adjustable Collar For Fiberglass

Model # SKRFL12xxx, SKRFL12xxx-L, SKRFL12Bxxx, SKRFL12Bxxx-L



CUT OUT PANEL OTHER THAN WOOD

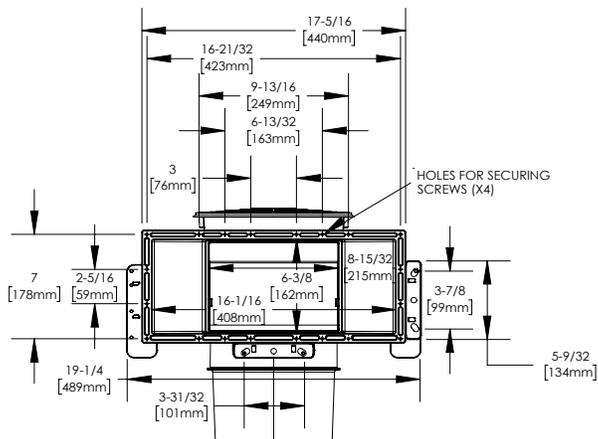
A-HEIGHT MAX 6-9/16" (167 mm) MIN 6-13/16" (173 mm)

B-WIDTH MAX 9-1/8" (232 mm) MIN 9-3/8" (238 mm)

DRILL or PUNCH 14 HOLES 1/4" DIAMETER AS SHOWN,

Flow Star Wide Mouth Skimmer with 9" Deep Throat, Float Assembly, Basket, Lid, Adjustable Collar For Fiberglass/Vinyl

Model # SKR36xxx, SKR36xxx-L, SKR36Bxxx, SKR36Bxxx-L



CUT OUT PANEL OTHER THAN WOOD

A-HEIGHT MAX 6" (152 mm) MIN 6-1/4" (159 mm)

B-WIDTH MAX 15-9/16" (395 mm) MIN 15-13/16" (402 mm)

CUT OUT PANEL FOR WOOD PANEL WITH VINYL LINER

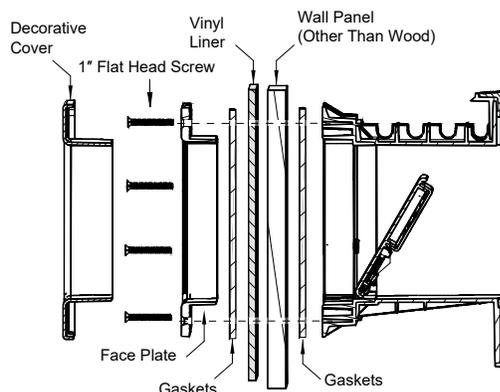
A-HEIGHT MAX 7-11/16" (195 mm) MIN 7-15/16" (202 mm)

B-WIDTH MAX 17-7/16" (443 mm) MIN 17-11/16" (449 mm)

DRILL or PUNCH 16 HOLES 1/4" DIAMETER AS SHOWN,

FACE INSTALLATION INSTRUCTIONS

Figure 7: Skimmer Installation Cut-away

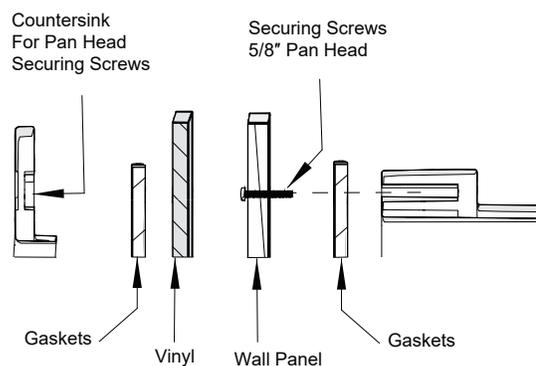


INSTRUCTIONS FOR OTHER THAN WOOD PANEL

(See Figure 7)

1. Drill and cut wall panel section per above dimensions on previous page.
2. Place gasket on skimmer face, making sure holes in gasket align with holes in skimmer face. A very light application of silicon sealant will assist in holding gasket in place.
3. Align skimmer face and gasket with drilled panel holes and fasten to wall panel. For SKR36xxx use the top center and bottom center holes with the pan head securing screws (Figure 8). Use appropriate holes and four screws.
4. If vinyl liner pool, install liner before proceeding to step 5.
5. Align second gasket and face plate. Tightly fasten the skimmer face with provided screws. If vinyl liner pool, pierce liner through face plate holes one at a time prior to inserting screws. Screws must go through face frame, gasket, liner, wall panel, gasket, and into skimmer face.
6. Install skimmer face cover, (Not available with SKR36xxx). If vinyl liner pool, cut out liner along inside edge of the skimmer face cover.

Figure 8: SKR36xxx Securing Screws



INSTRUCTIONS FOR WOOD PANEL WITH VINYL

(See Figure 8)

1. Cut out wall panel approximately 1/8" larger than outside dimensions of skimmer face (NOT face frame or cover).
2. Insert skimmer into panel cut out from rear. Butt the mounting flange against the rear of the panel. Use "U" shims, if necessary to make the face of the skimmer flush with the inside of the pool. Fasten the skimmer to the rear of the wood panel by securing with stainless or brass wood screws through the skimmer mounting flange.
3. Place gasket on skimmer face, make sure the holes in the gasket align with holes in skimmer face. A very light application of silicon sealant will assist in holding gasket in place.
4. Install vinyl liner.
5. Align second gasket and face plate. Fasten tightly to skimmer face with provided screws. Pierce liner through face plate holes one at a time by inserting screws.
6. Install skimmer face cover, (Not available with SKR36xxx). Cut out liner along inside edge of the skimmer face cover.

LIMITED WARRANTY

Skimmers manufactured by AquaStar are warranted to be free of defects in material and workmanship for one year from date of installation. The foregoing warranties relate to the original consumer purchaser ("Purchaser") only. AquaStar shall have the option to repair or replace the defective product, at its sole discretion. Purchasers must pay all labor and shipping charges necessary to replace the product covered by this warranty. Requests for warranty service must be made through the installing dealer. This warranty shall not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance, or other circumstances which are not in AquaStar's direct control. This warranty sets forth AquaStar's sole obligation and Purchaser's exclusive remedy for defective products. AQUASTAR SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT EXTEND BEYOND THE DURATION OF THE APPLICABLE EXPRESS WARRANTIES PROVIDED HEREIN. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Supersedes all previous publications.