

IAS Water Quality Skimmer Installation Instructions (for sizes 1.5" through 4")

You will need:

IAS Water Quality Skimmer Head
6' **SOLID CORE SCHEDULE 40 PVC** pipe the same size as the skimmer head pipe (Barrel)
IAS Flexible Coupling
IAS-provided orifice plate (if requested)
All-purpose or PVC primer and glue
Water

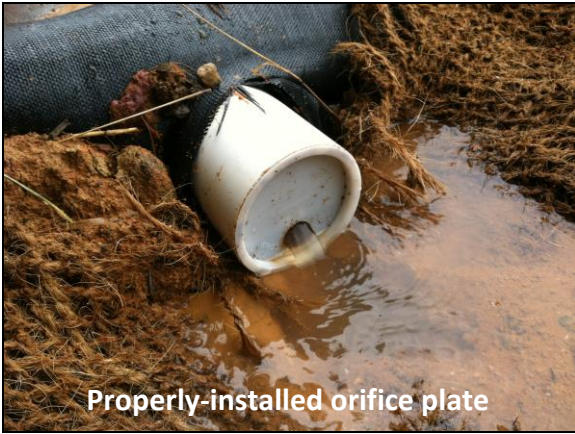
Skimmer assembly/installation instructions:

1. Glue the IAS Flexible Coupling to the outlet pipe.
 - a. Prime and apply glue to the inside of the Flexible Coupling bell and to the outside of the outlet pipe.
 - b. Attach the Flexible Coupling to the outlet pipe. Note: if the Flexible Coupling has a curve to it, orient the curve upward so that it forms a U when viewed from the side.
2. Unscrew both caps next to labels marked "FILL W/ H2O" on top of skimmer. ***Completely fill*** each side of the skimmer head with water (potable or non-potable water sources are acceptable). When fill-hole is at the point of overflow, reattach each plug to the skimmer head. ***It is VERY important that each side be filled completely in order for the skimmer to float in a balanced manner once placed in the basin.***
3. Screw the 6' solid core schedule 40 PVC Barrel into the IAS Skimmer Head. Do not over-tighten the two together as this is unnecessary and will make adjusting the head to float evenly more difficult. Additionally, leaving a small amount of "play" between the skimmer head and barrel will allow it to "self-level" in the basin.
4. Glue the Barrel to the IAS Flexible Coupling.
 - a. Orient the Skimmer Head/Barrel such that the feet of the skimmer head and the end of the barrel are on the ground.
 - b. Prime and apply glue to the inside bell of the IAS Flexible Coupling and to the outside of the end of the Barrel.
 - c. Attach the Barrel to the IAS Flexible Coupling.
 - d. Loosen one of the metal fasteners on the Flexible coupling to remove any torque that may have been introduced through gluing the joints together. Retighten the metal fastener.
5. Attach one end of a rope to the skimmer head and the other end to a stake at the side of the basin. Leave enough slack in the rope for the IAS Water Quality Skimmer to move through its fill range of motion.

If the basin plans call for the outlet pipe to be raised above the bottom of the basin, it is VERY important that a rock pad be constructed to the height of the bottom of the outlet pipe (as seen in the photos below). If this is not done or if the pad is not built to the same height as the bottom of the outlet pipe, the skimmer will not function properly.

When complete the IAS Flexible coupling should be lying flat on the ground or on the rock pad (if one is specified). If the skimmer is installed without a rock pad, and the IAS Water Quality Skimmer Head/Barrel assembly should be touching the ground at three points: the bottom of the two legs and the point at which the Barrel is attached to the IAS Flexible Coupling. If it is installed with a rock pad (as seen below), the unit will be touching at two points: the top of the Barrel/middle of the skimmer head and the point at which the Barrel is attached to the IAS Flexible Coupling.





Properly-installed orifice plate

Orifice plate installation instructions:

1. If an orifice plate to reduce the rate of flow from the size skimmer installed is specified, drill hole (sized per specifications) in the IAS-provided orifice cap. Hole should be drilled close to the edge of the plate.
2. Using PVC glue, glue plate to the outside of the discharge pipe (on the outlet side of the dam wall) with drilled hole situated at the bottom-most point in the pipe.
3. In order to insure maximum rate of flow, be certain to adequately excavate and stabilize the drainage area at the outlet pipe in order to avoid collection of standing water over the outlet hole.

Maintenance:

Trash: IAS Water Quality Skimmer is designed to float in a manner that keeps the inlet holes just below the surface and below any floating debris that would clog the holes. It is also designed with multiple holes such that if one hole is clogged the others should continue to flow. If a clog is noticed a quick tug on the rope should dislodge any debris.

Skimmer Head Doesn't Float Flat: If the skimmer head isn't floating evenly on the surface of the water, (a) pull skimmer head up from basin with attached rope and check to make sure both water chambers are completely filled, and (b) loosen head at threaded point between skimmer head and 6' barrel to make allow for a small amount of "play" between the two parts and return to basin. If certain that water chambers are both completely filled & head is loosened slightly from barrel, instead of pulling skimmer out of basin, you may also loosen one of the metal fasteners on the Flexible Coupling, twist the Barrel until the skimmer floats evenly, and then retighten the metal fastener.



Properly-installed 1.5" skimmer

Please contact us with any installation questions you may have.

Sizing of the IAS Water Quality Skimmer

IAS Water Quality Skimmers come in several sizes to accommodate a range of flows. In most cases the orifice size will be indicated on the Erosion Control Plan. In other instances, the plans will indicate a volume to be drained in a specified time period. The chart below summarizes the flow characteristics of our most common size skimmers. Selecting a skimmer is as simple as finding the required drawdown time in the first row and selecting the closest volume to your requirement. The Skimmer size will be in the first column.

Orifice Size (in.)	Barrel Size (in)	Discharge Pipe (in)	24-Hour Flow (CF)	3-Day Flow (CF)	5-Day Flow (CF)
1.50	2	2	1,804	5,412	9,020
1.75	2	2	2,405	7,216	12,027
2	3	3	3,928	11,784	19,640
2.5	3	3	6,137	18,412	30,687
3	4	4	10,205	30,616	51,026
4	4	4	22,220	66,661	111,101
5	6	6	34,719	104,157	173,596
6	6	6	49,995	149,987	249,978
8	8	8	102,631	307,894	513,156

Example: A sediment trap has a volume of 32,567 cf and is required to be drawn down in 3 days. From the chart under the 3-Day Flow column, the closest given flow is 30,616 cf. Looking to the right on the chart, we see that the orifice size needed is a 3". This indicates that a 3" IAS Water Quality Skimmer will draw down the required volume in just over 3 days. If the requirement had been a drawdown time of 24 hours, the correct IAS Water Quality Skimmer size would have been 5". Generally the drawdown time is given in a range. For example, in North Carolina sediment traps are required to draw down in 24 to 72 hours. Using a 3-day draw-down time would meet that requirement.

If your project requires a skimmer size that is not listed above please contact us. We can make custom-sized skimmers.