FLOATING INTAKES FOR DUGOUTS AND PONDS

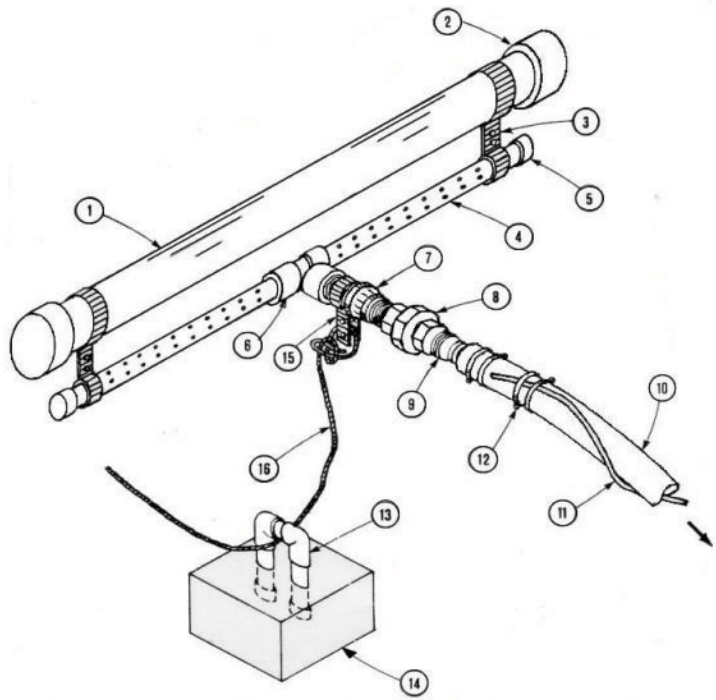
The most suitable water in a dugout or pond is located near the surface. This water has been exposed to the air and has a higher oxygen level. A floating intake, properly constructed and located, is important in assuring that it is drawn into your water system.

Floating intakes have a number of advantages. They are easy to install, float on the water surface during summer and are easily pulled under water below ice level for winter operation. This results in efficient, year round operation. The floating intake described below is sufficient for flows up to 60 l/m (16gpm) and does not require the use of a boat for installation.

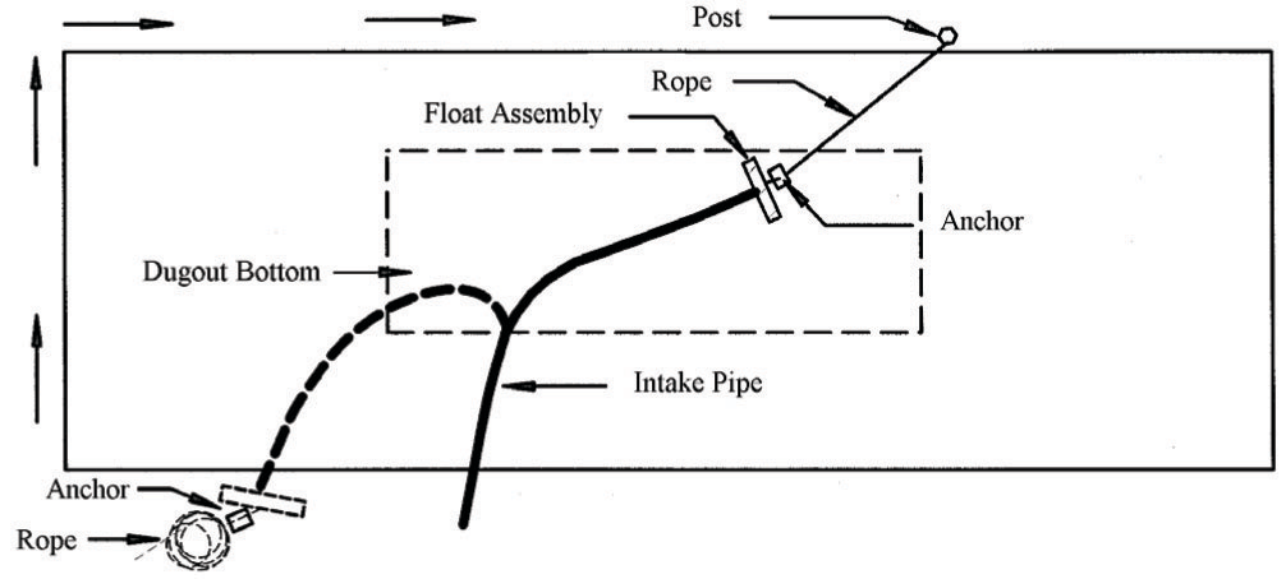
Float Assembly Construction

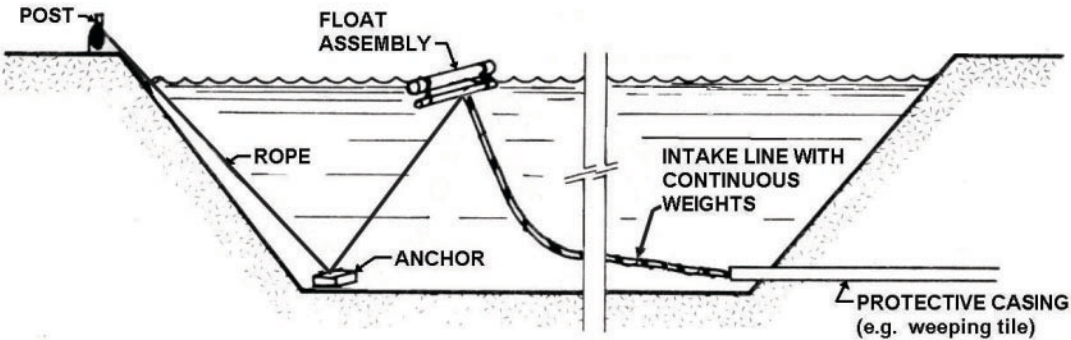
The float assembly shown may be purchased or constructed following the steps below.

Numbering matches the numbers of the parts in the diagram opposite.



1. Construct a float chamber 75mm x 1 m (3"x 3') of rigid plastic pipe (PVC).
2. Seal the float chamber using 75mm (3") solvent welded caps.
3. Fit 25mm x 3mm (1" x 1/8") steel strapping snugly to the float chamber but loosely fitted on the intake pipe to allow for rotation. Distance between the two chambers should be about 150 mm (6").
4. Install intake pipes consisting of two 0.5 m (1.5') lengths of 50mm (2") PVC (Sch 80) pipe with approximately two hundred 3mm (1/8") perforations on 25mm (1") spacing.
5. Seal the float assembly intake pipes using 50mm (2") solvent welded end caps.
6. Solvent weld a 50mm (2") PVC tee (S x S x FPT) to the intake pipes.
7. Thread a 40mm x space (1½" x space) PVC nipple and 50mm x 40mm (2" x 1½") reducer bushing into the cleanout tee.
8. Thread a swivel fitting - 40mm (1½") PVC union to the PVC nipple. It should be partially tightened and tack glued to eliminate further loosening, but allowing rotation.
9. Thread a male insert adapter (PVC or nylon) into the swivel fitting.
10. Connect an intake line using polyethylene pipe (minimum size 40mm (1½").
11. Place a continuous weight made of 12mm (½") polyethylene pipe filled with dry sand on the intake pipe. Once the sand is inserted, saturate with water.
12. Secure the continuous weight using nylon cable ties or stainless steel clamps.
13. Cast in place a PVC u-shaped pipe made of solvent welded elbows and pipes as shown.
14. Construct a rectangular concrete anchor 300mm x 300mm x 150mm (12" x 12" x 6") or a circular concrete anchor 400mm x 112mm (16" x 4.5") weighing approximately 35 kg (75 lb.).


Post
Rope
Float Assembly
Anchor
Dugout Bottom
Intake Pipe
Anchor
Rope


POST
FLOAT
ASSEMBLY
ROPE
ANCHOR
INTAKE LINE WITH
CONTINUOUS
WEIGHTS
PROTECTIVE CASING
(e.g. weeping tile)