

# Intake Screens

## The Simple Way To Deal With Complex Problems In Surface Water Withdrawal

Passive intake screens, for the withdrawal of large volumes of water from streams, lakes/reservoirs is a very important segment of the products designed and manufactured by Hendrick Screen Company.

In this literature we have tried to answer commonly asked questions about water intake screens and systems. If your question is not answered, please call and we will provide a solution to your problem.

### What Is Passive Screening?

Passive screening admits water through the intake point at a low, uniform velocity. Water passes through the screen while aquatic life and debris remain in the water source. The screens have no moving parts, therefore the term "passive screening". The screens can be placed away from the shoreline for better water quality and distant from high concentrations of debris and marine life.

### Advantages of Hendrick Passive Screening

Passive water intake screens offer these Advantages:

- Reliable water delivery
- Lower screen cost
- Simple intake and pump station design
- Lower maintenance cost
- Fouling material stays out of the pumping station
- Environmentally fish friendly
- Bio-fouling stays off the screen

### Keeping A Passive Hendrick Intake Screen Clean

Installing an intake screen at the proper depth, distance from the shoreline and proper distance from each other is a crucial step in avoiding clogging debris. Proper screen design is another. A Hendrick intake screen minimizes plugging problems with built-in maximum open area so water enters the system at a low velocity. Potentially plugging materials are not held against the screen surface. Smaller fouling material is kept out of the pumping system by using uniform slot openings with very close tolerances.

In high debris environments, debris removal is achieved with the installation of a Hendrick airburst system. Debris is carried up and away from the screen surface with a rapid release of air through manifold of nozzles designed into the intake system.

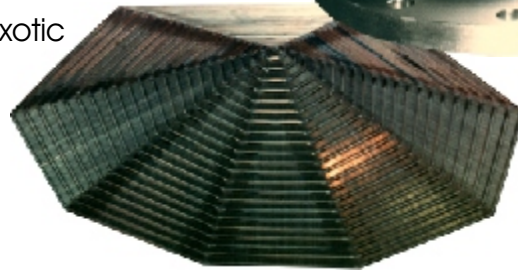


Tee Screen



Flat Panels

Exotic



Drum Screen

Other design considerations will also determine whether or not a passive intake screen will remain free of debris. These factors include:

The screens proximity to the water surface

- The proximity of screens to one another
- Additional structures required to protect the screen
- Support of screens in the water
- The location of the air connection
- Piping of multiple-screen assemblies
- The use of screens in multiple-level withdrawal
- Rail systems for easy screen removal
- The use and placement of a chemical feed line
- Space requirements for airburst systems
- Water temperature and ice formation