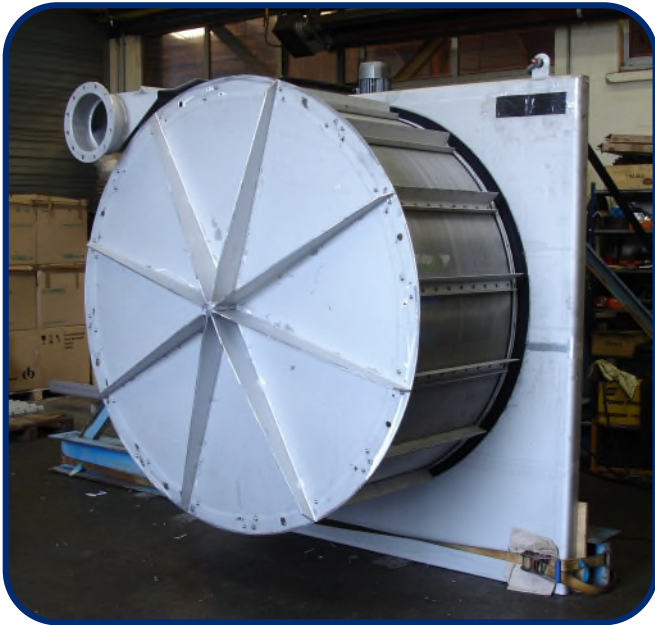


SUBMERGED WATER INTAKE FISH-FRIENDLY SCREEN (SWIFF)

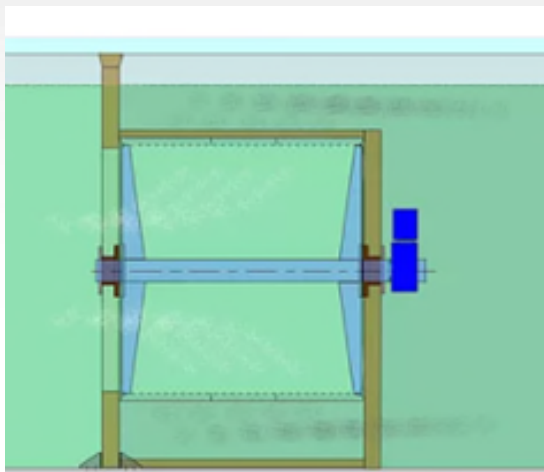


PURPOSE

- ◆ The BEAUDREY SWIFF screen has been developed to overcome marine life mortality problems of traditional screens.
- ◆ The BEAUDREY-patented “SWIFF” screen (Submerged Water Intake, Fish-Friendly Screen) is designed to protect all forms of water-life (fish, eels, etc.).
- ◆ It is thus particularly suited where fish-protection is mandatory. It is however also a solution where the maintenance of all other types of screening machines is costly.
- ◆ It is particularly well suited where low water approach velocity is mandatory.

APPLICATIONS

- ◆ Fossil and nuclear power plants
- ◆ Chemical plants
- ◆ Desalination plants
- ◆ Manufacturing plants
- ◆ Refineries
- ◆ Irrigation



ADVANTAGES

- ◆ Highest fish survival available
- ◆ Can be retrofitted in any existing screening plant with no alterations to civil works
- ◆ Can be retrofitted to replace almost any type of existing water screen without changing approach velocity and screening surface
- ◆ Uses backwash pumps especially designed to protect fish, eels and other water life
- ◆ Totally submerged system which ensures water-life is never removed from the water
- ◆ The surface of the screening element is divided into deep compartments for large debris handling
- ◆ Can be designed with several pumps for redundant applications
- ◆ No debris carry-over or by-pass
- ◆ Resistant to high pressure differentials
- ◆ Fitted with NOCLING™ anti-fiber screening panels for water with high fibrous content (screening sieve available)
- ◆ Fewer moving parts than a traditional travelling band screen allows for easier, less frequent and lower-cost maintenance

DESCRIPTION

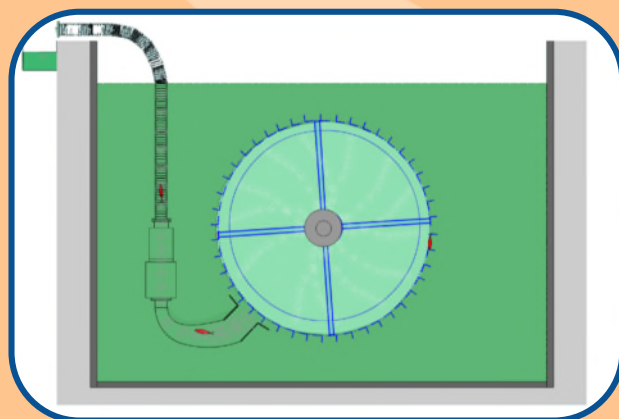
- ◆ The SWIFF screen is a horizontal cylindrical drum-shaped structure the surface of which consists of a screening element divided into deep compartments.
- ◆ Life-forms are collected in the deep compartments of the submerged cylinder's external surface. As the drum rotates, each compartment passes in front of the backwash suction scoop which removes the debris by reversing the flow through the mesh.
- ◆ The screen normally rotates at low speed with the pump in service and switches to high speed if, in spite of the low-speed rotation, the head-loss continues to rise.
- ◆ The screen is designed to be lifted up using an existing overhead crane. It is then locked into position on deck and all the items requiring maintenance are fully accessible from the deck.
- ◆ Reverse rotation is provided should large debris block the SWIFF screen's operation.
- ◆ All equipment can be lifted out of the water in four hours or less for inspection. It has fewer moving parts than a traditional travelling band screen which allows for easier, less frequent and lower-cost maintenance, and also allows it to hold up in continuous operation.
- ◆ The SWIFF screen has been designed to minimize the time a fish is in contact with the screen. The rotating screening wheel can be completely cleared in one minute.

MATERIALS

MATERIALS	FRESH WATER	SALT WATER
Main frame	Painted carbon steel or AISI 304L stainless steel	Painted carbon steel AISI 316L, duplex or super-duplex stainless steel
Screening disk and filtration mesh	AISI 304L stainless steel	AISI 316L, duplex or super-duplex stainless steel
Bolts and sundries	A2 stainless steel	A4, duplex or super-duplex stainless steel

SIZES AND DATA

- ◆ Diameter : from 1 m onwards
- ◆ Width :
 - ◇ Up to 3 m for smaller diameters
 - ◇ Up to 10 m for machines above 7 m in diameter
- ◆ Mesh apertures:
 - ◇ From 6x6 mm down to 0.5x0.5 mm



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