

WATER INTAKE PROTECTION (W.I.P.)

THE FISH FRIENDLY INTAKE SCREEN



DESCRIPTION

- ◆ As the water flows through the screening disk, marine species are arrested by the fish-friendly NOCLING™ panel.
- ◆ Fish are then kept in deep radial compartments located in front of the NOCLING™ panel.
- ◆ The wheel rotates continuously.
- ◆ Within one minute, they are channeled by a fish-friendly pump into a returning flume. From there they are returned by a pipeline to nature.
- ◆ The fish are never exposed to high or negative pressures nor high temperature changes. They never leave the water, so they are never exposed to air.

PURPOSE

- ◆ Water intake systems using traditional travelling band screens are often faced with the problem of debris carry-over and marine life mortality as a result of fish impingement and entrainment on the screen.
- ◆ They are not well-suited for water-life recovery and return and often these screens can be difficult to retrofit with fish-saving technologies.
- ◆ The BEAUDREY WIP screen has been developed to overcome these problems and can be considered an alternative technology to traditional travelling band screens; it can be retrofitted into existing thru-flow screen pits. Its design is a combination of the time-tested "Scoop-a-fish™" system and the revolutionary BEAUDREY Debris Filter resulting in a unique, reliable and high-performing screen.



ADVANTAGES

- ◆ Well suited for water life: a two-year, independent study has confirmed that the WIP has no negative impact on marine life
- ◆ Helps plants to achieve EPA 316(b) requirements
- ◆ Proven lowest fish mortality rate of intake systems
- ◆ Fully customizable
- ◆ No debris carry-over
- ◆ Resistant to high H₂O pressure differentials
- ◆ Design to retrofit thru-flow travelling band screens as well as for new plants
- ◆ Installed with NOCLING™ anti-fiber and anti-jellyfish screening panels for water with high fibrous content
- ◆ Easy to operate and maintain; all equipment can be lifted out of the water in three hours or less for inspection.
- ◆ Fewer moving parts than a traditional travelling band screen allows for easier, less frequent and lower-cost maintenance
- ◆ Based on the design principle of the BEAUDREY "W" filter, allowing for spare part interchangeability with the BEAUDREY Zero Ball Loss (ZBL) condenser tube-cleaning system and the BEAUDREY debris filter.
- ◆ Slid into wall guides, it can easily be lifted out for maintenance without dewatering the pit.

CONVERSION FROM THRU-FLOW

- ◆ The WIP's design allows for simple installation into existing thru-flowing travelling band screens guides
- ◆ After an existing thru-flow screen is dismantled and removed from the pit, the modular WIP can be slid into the pit within a day
- ◆ No modification of the concrete structure is required



APPLICATIONS

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

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

SIZE AND DATA

- ◆ Channel width from 1.2m to 4.6m. Beaudrey will build to the specific dimensions of your site
- ◆ Mesh size available from superfine 0.5 mm to 10 mm
- ◆ Flow-rate up to 36,000 m³/h (148,000 GPM)



Contact us for a quote at
www.beaudrey.com/contact