

# 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 NO-CLING™ panel
- ◆ Fish are then kept in deep radial compartments located in front of the NO-CLING™ panel
- ◆ Within one minute, they are channeled by a fish-friendly pump into a returning flume. From here they are redirected by a pipeline around the water screen and into the outlet water
- ◆ The fish are never exposed to the high or negative pressures and temperatures of the power plant, nor do they ever 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 H<sub>2</sub>O pressure differentials
- ◆ Design to retrofit thru-flow travelling band screens as well as for new plants
- ◆ Installed with NOCLING™ anti-fiber screening panels for water with high fibrous content (screening sieve available)
- ◆ 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
- ◆ Desalinization plants
- ◆ Manufacturing plants
- ◆ Refineries
- ◆ Irrigation

## MATERIALS

- ◆ Frame: stainless steel 304L, 316L, Duplex or Super Duplex
- ◆ Rotating wheel and screening disk: stainless steel 304L, 316L, Duplex or Super Duplex
- ◆ Nuts and bolts: Duplex stainless steel or Super Duplex stainless steel
- ◆ Other materials available upon request

## SIZE AND DATA

- ◆ Channel width from 1.2m to 4.6m. Beaudrey will built to the specific dimensions of your site
- ◆ Mesh size available from superfine 0.5 mm to 10 mm
- ◆ Flow-rate up to 36,000 m<sup>3</sup>/h (148,000 GPM)



Contact us for a quote at  
[www.beaudrey.com/contact](http://www.beaudrey.com/contact)