

BEAUDREY BOXWIP SYSTEM



PURPOSE

A water intake with a screening plant is required for many types of industrial plants. While a small part of the plant, it requires much work from the Contractor:

- ◆ Design and choice of layout
- ◆ Equipment specification
- ◆ Purchase of components
- ◆ A rather complex civil structure anchored not to float
- ◆ Project coordination
- ◆ Delivery of components
- ◆ Installation and grouting
- ◆ Cabling and testing
- ◆ Commissioning

The BEAUDREY patented BOXWIP avoids all this hassle.

The BOXWIP is a self-contained “blackbox”-type screening plant delivered fully-assembled, cabled and tested.

DESCRIPTION

The water enters the BOXWIP concrete pit through the upstream aperture, flows through the bar rack which is periodically cleaned by a wall-plate mounted “CV” type rake. The wall-plate is slid into the wall slots.

The water flows through the WIP wall-plate mounted screening wheel. The debris are arrested on the Nocling screening element.

The wheel is rotated when the head-loss reaches a set value.

The wheel compartments are backwashed each in turn by screened water pumped out by the wash pump.

The water backwashes the debris into the upstream collection scoop. The debris-laden water flows up to deck level for disposal.

The rake and WIP screen are fully automatic with head-loss control.

Each is wall-plate mounted, fully piped and cabled ready to be craned down into the civil structure slots.

ADVANTAGES

- ◆ Fully self-contained, plug-in, “black-box” concept
- ◆ Includes all necessary systems (trash rakes, WIP screens and ancillaries)
- ◆ Delivery of pre-assembled, fully cabled modules
- ◆ Capable of handling all debris in large quantities (jelly-fish, seaweed, leaves, man-made debris, etc.)
- ◆ Fish-friendly (has been recognized as the “best available technology”)
- ◆ Smooth pump-feed pattern
- ◆ Very economical
- ◆ Very compact
- ◆ Short delivery
- ◆ 48 hour crane installation
- ◆ No Buyer engineering costs
- ◆ Next to no protrusion above deck level
- ◆ Sturdy, proven and reliable

MAIN COMPONENTS

A BEAUDREY BOXWIP system includes:

- ◆ A sliding wall-plate mounted bar rack and trash rake, when required, fully cabled
- ◆ A sliding wall-plate which carries a submerged, self-cleaning WIP screen, a back-washing pump and the wash-water and debris exit pipe together with all cables and head-loss sensors.
- ◆ The wall-plates are slid into wall slots.
- ◆ A full-cabled control switchgear cabinet into which are plugged the rake and the WIP screen.



NECESSARY ANCILLARIES AND OPTIONAL FEATURES

OPTIONAL FEATURES:

- ◆ Bar screen cleaning automatic trash rake
- ◆ Atex compliance
- ◆ Seismic qualification
- ◆ Two-speed WIP screen for large debris concentrations.
- ◆ Trash disposal concentrator.
- ◆ Rake trash basket

MATERIALS

- ◆ Painted carbon steel structure and AISI 304 internals for fresh-water applications.
- ◆ All duplex or super-duplex stainless steel for seawater applications.
- ◆ Other materials on special request.

APPLICATIONS

- ◆ BOXWIP systems are especially well-suited for desalination plants, small power stations, district cooling, LNG plants, etc.

SIZES AND DATA

- ◆ Four standard pit width sizes: 1.5, 2.0, 2.5 and 3.0m for flow rates up to 3200m³/h, 5700m³/h, 8800m³/h and 12700m³/h.
Other larger sizes on special request
- ◆ Mesh aperture from 3x3 to 10x10mm.
Finer mesh on special request.
- ◆ Depth depends on the lowest water level in service in front of the inlet penstock.



In need of a quotation? Contact us at:
www.beaudrey.com/contact