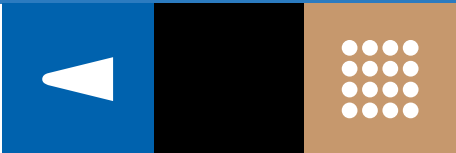
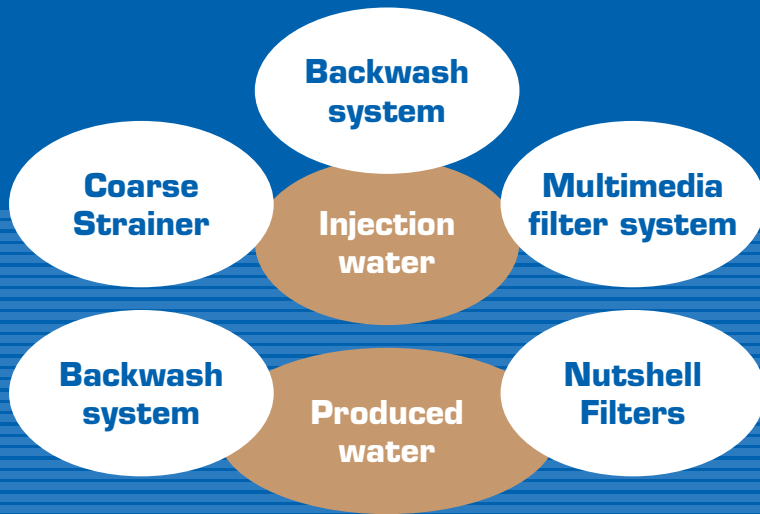




On- and Offshore Filtration Applications



Different Applications



Why choose Trislot®?

Trislot is the world leader in wedge wire filter elements for on- and offshore filtration applications. You can rely on our engineering team to assist you in the product specification. In the past Trislot has proven itself as a reliable partner to companies active in the on- and offshore market.

1. Elements for Coarse strainer

Typical application

Removal of solid contaminates from injection seawater, mostly used in a self cleaning system (scrapers, backwash, suction nozzles,...). These elements can either be slot tubes or cylinders.

Common product specifications

- ▶ Material : Super duplex UNS 32550 / UNS 32750-60 (NORSOK M650 certified material) / SMO 254 / Titanium GR II / Monel 400 / Hastelloy / 316L / ...
- ▶ Flow in to out
- ▶ Slot opening : 40µm – 5mm
- ▶ Diameters: 150mm and up
- ▶ Cleaning by brush, scraper, suction scanners, Bernoulli effect, backwash or disc cleaning

Wedge wire advantages

Needless to say that the maintenance cost and risk of defects need to be minimized on offshore applications. Wedge wire holds advantages that have a larger return on investment than any other filter medium:

- ▶ Strong mechanical construction
- ▶ Non-clogging surface
- ▶ No maintenance or replacement costs



Reverse rolled slottube for cleaning by brush or suction scanners



Slottube flow in to out for cleaning by backwash

2. Slot tubes for Automatic Backwash Filters

Typical application

Continuous removal of solid contaminates from injection/produced seawater.

Common product specifications

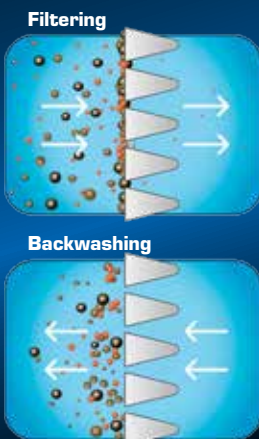
- ▶ Materials : Super duplex UNS 32550 / UNS 32750-60 (NORSOK M650 certified material) / SMO 254 / Titanium GR II / Monel 400 / Hastelloy / 316L / ...
- ▶ Slot tubes Flow in to out.
- ▶ Slot opening : 40µm - 500µm
- ▶ Diameters: 25mm and up



Wedge wire advantages

In this application high flow rates are common. Because of the continuous slot, wedge wire gives a high open area. Therefore the total volume of the installation is less than with other media. Small footprint and light weight is of importance in offshore applications. Other advantages are:

- ▶ Strong mechanical construction
- ▶ Non-clogging surface
- ▶ No maintenance or replacement costs
- ▶ Perfect round slot tube



Filter cycle

During the filter cycle, the solids are deposited on the smooth surface. This cake acts as an extra filter for finer particles. The fines that slip through do not get stuck in the conical slots.

Backwash cycle

By reversing the flow, the cake and dirt are removed from the filter surface

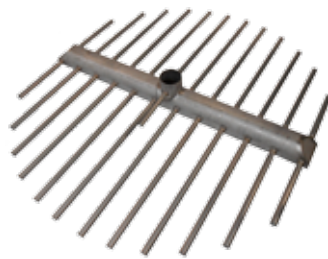
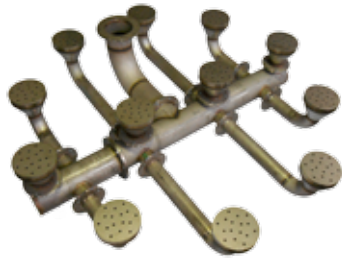
3. Wedge wire in Multimedia Filter: Distributor-Collector, Header & Laterals

Typical applications

Treatment and filtration of injection/produced seawater through multi-media vessel.

Common Product Specification

- ▶ Materials: Super Duplex UNS32550 / UNS32750-60 (NORSOK M650 certified material) - Stainless Steel 316L
- ▶ Flow out to in
- ▶ slot opening : 50 μ - 500 μ
- ▶ Profile width : 1 - 1.5 mm
- ▶ diameter slot tubes: 25 mm and up

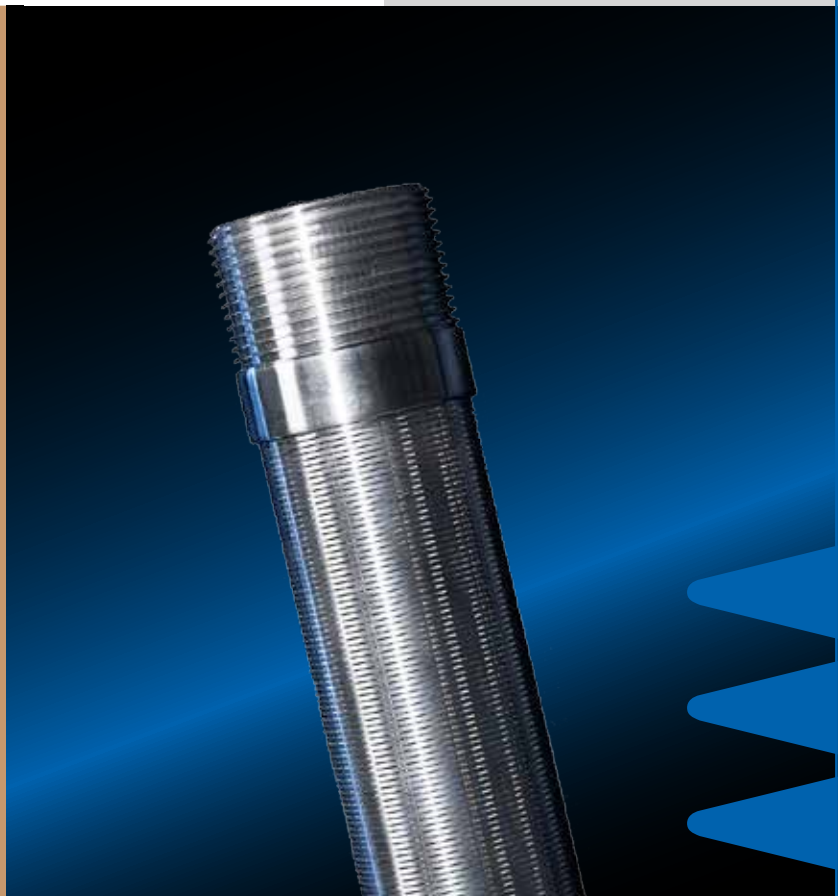


Advantages

collector system with wedge wire laterals

Compared to other solutions this collector system guarantees that there are no dead zones in collecting the fluid, which means a faster filtration. Other important advantages are :

- ▶ Superb backwash ability and non-clogging
- ▶ Custom-made and fit for purpose
- ▶ Excellent flow distribution and media retention
- ▶ Strong construction
- ▶ Long service life
- ▶ Low maintenance costs



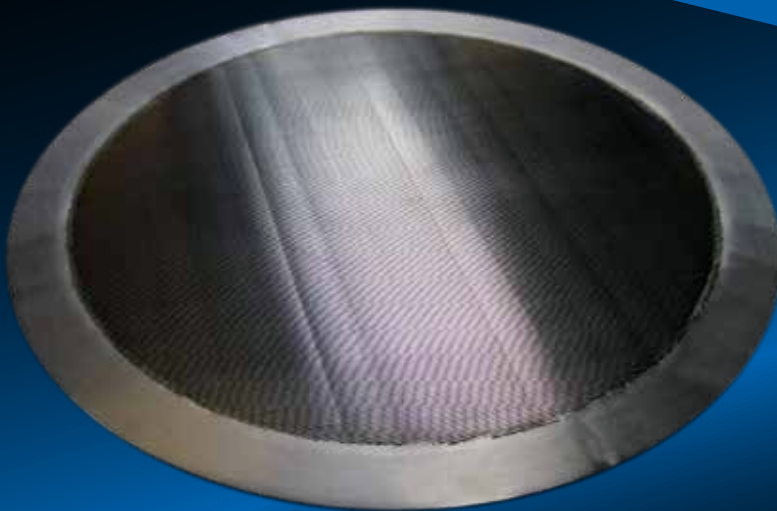
4. Nutshell filter bottoms

Typical applications

Removing/retaining of suspended solids and hydrocarbons, oily residues, etc in produced seawater through nutshell (Wallnut/Pecan) -media filter layer. Allowing reinjection into source (Water flooding).

Common Product Specification

- ▶ Materials : Stainless Steel 304 / 316L (other materials are available e.a. Super Duplex)
- ▶ slot opening : 250 - 500 μ
- ▶ Profile widths : 0.75 - 1 - 1.5 mm



Product advantages

Because of the continuous slot wedge wire has more open area than other filter media. Thereby the cleaning cycle becomes shorter. The wedge wire filter bottom is made of cold drawn wire that gives more mechanical stability than for example milled plate. If necessary at all we can reinforce the wedge wire bottom without reducing the open area. Other advantages equally important are :

- ▶ Superb backwash ability and non-clogging
- ▶ Custom-made and fit for purpose
- ▶ Excellent flow distribution and media retention
- ▶ Rigidity
- ▶ Long service life
- ▶ Low maintenance costs

Trislot® Quality Assurance

- ▶ ISO 9001 Certified
- ▶ Norsok M630 production process
- ▶ Trislot® focuses on Total Quality Management
- ▶ 50 years of experience

Trislot® dedicated Sales team



From left to right : Mike Verduyn, Marie Cheyens, Yannic Lievrouw, Glenn Vercruyce, Sandra Van Slambrouck, Yves Struyve, Nurit Galling, Geert Follet

References

Recently Trislot® has successfully manufactured some nutshell filter bottoms/collector systems to high profile customers enabling them to meet the very strict North Sea requirements. More than 20 years we have been producing filter elements for injection water and produced water the world leading players in the oil & gas.

Now recently acquired jobs:

- ▶ multiple injection/produced water projects in Santos Basin – Brazil
- ▶ Full Norsok certified elements for North Sea
- ▶ (Spare) parts for projects based in Australia, Angola, Qatar, Gulf of Mexico, Caspian Sea, Myanmar, Vietnam, ...