IDRASCREEN®

Idrascreen®

Compact fine screening units

by VEOLIA
Water Technologies

The real self-cleaning screen

IDRASCREEN® represents the range of high capacity self-cleaning screen filters for wastewater pre-treatment and solids separation.

Separating solids from process and drainage water has always been a serious problem in many industrial sectors.

This problem has been faced by using various types of machinery and the results have been partially satisfactory at times and extremely disappointing at others: cylindrical separators cleaned by mechanical or spray system, vibrating sieves, static screen and various other devices have proved not to be able to solve the problem of solids separation.

IDRASCREEN® from 1973 has been introduced in a lot of applications, proving to be **the real self-cleaning screen**, capable of working for long periods with no assistance and little or no maintenance.

For more information visit our website
www.idraflot.com/idrascreen

IDRASCREEN®

High capacity compact screening units for wastewater pre-treatment and solids separation

The battle against the climate changes is a priority for everyone. Veolia Water Technologies Italia has a real commitment to reduce CO_2 emissions: we are working to make sure that our technological offering is ever more enviromentally sustainable.

CO_2 footprint

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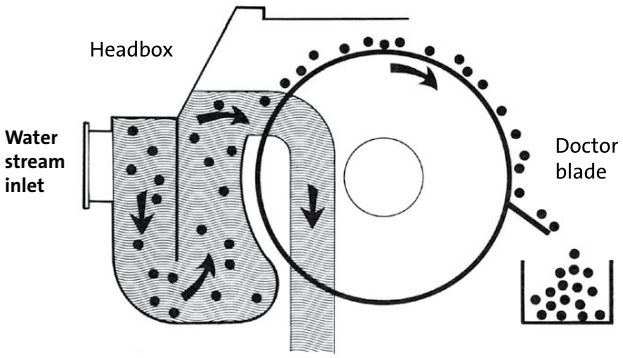
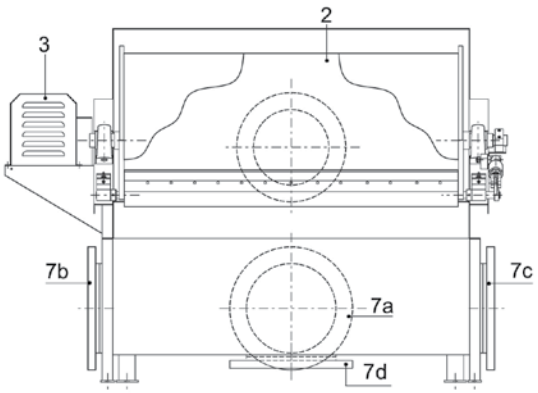
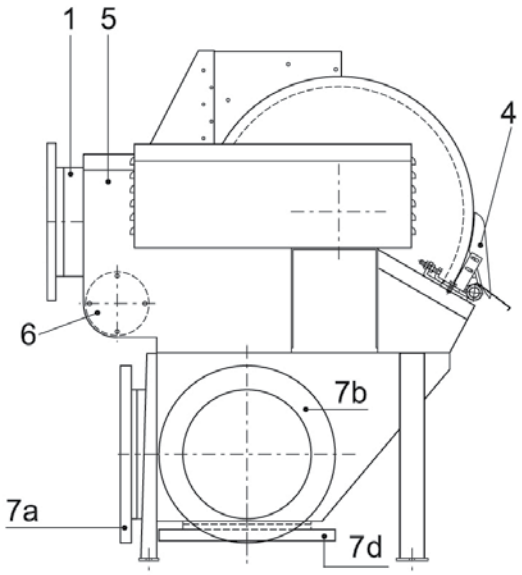
How it works

The inlet water to be screened flows into the headbox which is specially designed to slow down the flow and to distribute it correctly. The inlet overflows a sealed weir into the rotating cylindrical screen. The solids are retained on the outside screen surface and removed by the doctor blade.
The screened effluent passes again through the cylinder and carries on an efficacious backwashing of the screen openings. Thanks to this process, the portion of the cylinder screen is always perfectly clean. Moreover, the backwash avoids any mucilage formations inside the cylindrical screen.
IDRASCREEN® is properly equipped with an inner washing system with low/medium pressure to do the periodical cleaning which allows to avoid clogging phenomena and to reduce the cleaning maintenance and its relevant costs.

IDRASCREEN® also equipped with an overflow system to face unexpected inlet flowrate peaks.







Views

1. Water stream inlet
2. Screen cylinder
3. Drive unit
4. Doctor blade
5. Headbox
6. Bottom emptying

7a. Effluent outlet (standard position)
7b. Effluent outlet (position on request)
7c. Effluent outlet (position on request)
7d. Effluent outlet (position on request)

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Advantages

- Water and/or solids recovery
- Low initial investment and low installation costs
- Low operating costs
- High capacity with very reduced dimensions (from 1/3 to 1/5 of the other screen filters' footprint)
- Long life with little or no maintenance
- Corrosion resistant AISI 304/L or AISI 316/L stainless steel
- Low power consumption
- Reduction of clogging phenomena
- Efficient dry product separation

Applications

Industrial

- Meat and seafood processing
- Fruit and vegetables processing
- Sugar mills
- Animal livestock
- Brewing
- Wine production
- Pharmaceutical industry
- Pulp & paper
- Chemical industry
- Tanneries
- Sludge dewatering
- Textile
- Plastics industry
- Dairy

Municipal

- Fine screening
- Primary clarifiers pre-treatment
- Storm water overflow
- Ocean outfall systems
- Sludge screening

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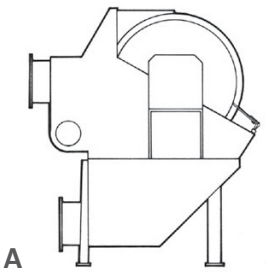
Components

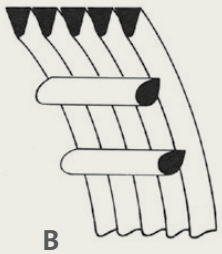
IDRASCREEN® **lateral view (A)**.

Frame, distribution and collecting base are made entirely of AISI 304/L or AISI 316/L stainless steel and sized to guarantee sturdiness and long life. To provide greater flexibility the chassis is divided into three parts: the headbox, the screen section (which can work as an indipendent unit) and the bottom collecting portion.
The unit can be supplied without the collecting base to be fitted directly on canals or pumping stations.
In case the discharged water needs to be piped, the use of a storage tank is advisable.

Optionals & Accessories

- Sliding blade system
- Outlet/inlet flange for canal fitting
- Odour control cover
- Frontal protection mesh
- Level control switch
- Electrovalve on washing system line
- Engine placement on the right
- Solenoid valve for washing
- Outlet flange position


A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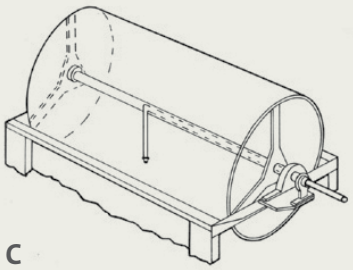
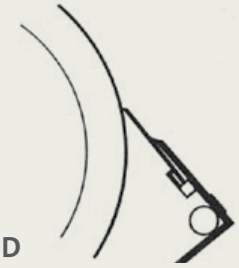

C


D

The cylinder (B), made entirely of AISI 304/L or 316/L stainless steel, is the heart of the machine and the result of a cutting edge construction technology. Wedge-shaped wire is wrapped around a supporting structure to form a helical coli, leaving free spaces from 0,25 to 2,5 mm (0.01 to 0.1 in) according to the client's requirements.
The wire has a trapezoid shape which has been designed to obtain high specific flow values with a minimum loss of head allowing, at the same time, the self cleaning process of the unit (Venturi effect).

The inner washing system (C) is fed by industrial water at low/medium pressure. It is composed by nozzles and the cleaning is only made periodically not continuously.

The doctor blade (D) has the function to remove the solids trapped on the surface of the screen. It's made of special corrosion-proof material, considerably softer than the material of the cylinder.

Motorization: the standard execution includes fitting of a geared motor.

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Sliding Blade System

The Sliding Blade System is a special equipment of the IDRASCREEN®, outcome of continuous research to solve those difficult cases where the effluents contain a high amount of fibres. These fine particles can become wedged under the doctor blade. The solution to this problem is the sliding blade device.
The continuous and alternative movement of the blade prevents the wedging of the material under its edge. The blade, going up, runs to meet the accumulated screened material. During its descent, it leaves the build up on the cylinder and, crawling on it, it cleans itself.

Materials

Austenitic stainless steel AISI 304/L and 316/L

Austenitic weakly bound structure, non-hardening, non-magnetic.
The low percentage of carbon in this alloy reduces the risk of intergranular corrosion.

Flowrates range *from 10 to 1,900 m3/h (from 44 to 8,365 gpm)*

FLOWRATE	SERIES	DRUM Ø mm. *(in)*	LENGTH mm. *(in)*
LOW	31	310 *(12)*	300-900 *(12 – 35)*
MEDIUM	62	630 *(25)*	300-2,000 *(12 – 79)*
HIGH	90	920 *(36)*	3,000 *(118)*

Resourcing the world

Veolia Water Technologies Italia

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