



XELLECE IN WATER TREATMENT

TERCIJARNI TRETMAN
DISK FILTER

*TERTIARY TREATMENT
DISC FILTER*





XELLECE IN WATER TREATMENT

TERCIJARNI TRETMANI
TERTIARY TREATMENTS

X-DF

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Model

X-DF**DISK FILTER
DISC FILTER****OPIS I PRINCIP RADA**

Disk filter – model X-DF je uređaj koji je napravljen za mikrofiltraciju otpadne vode i koristi se u finalnoj fazi tretmana vode. To je uređaj koji ima visoku efikasnost izdvajanja nečistoća koristeći perforiranu ploču od nerđajućeg čelika AISI 316 koja ima otvore prečnika 20 mikrona.

Perforirane ploče imaju sledeće prednosti :

- 1) Tokom pranja čestice ne prolaze kroz perforirane ploče
- 2) Suspendovane čestice se ne nakupljaju unutar perforirane ploče
- 3) Održavanje je jednostavno i habanje ograničeno
- 4) Izuzetno su otporni na uslove rada

Voda teče iznutra prema spolja tokom koga suspendovane čvrste materije ostaju blokirane unutar filtera čime se omogućava da rezervoar bude uvek čist. Uređaj je opremljen sistemom za pranje sa mlaznicama koji se aktivira svaki put kada nivo vode u rezervoaru dostigne unapred zadati nivo. U standardnoj verziji nivo vode se podešava pomoću štapnog indikatora nivoa. Na zahtev se mogu ugraditi ultrazvučni indikatori nivoa kao i sistem povratnog ispiranja sa dvostrukom filterskom ispunom radi lakšeg održavanja.

Voda ulazi kroz ulazni priključak i nastavlja svoj put unutar cevi koja je postavljena u sredini uređaja i dolazi do sekcije za filtraciju. Tokom filtracije diskovi nisu u radu sve dok količina čvrstih materija koje se zadržavaju na perforiranim pločama ne uzrokuje njihovo začepljenje i podizanje nivoa vode u rezervoaru.

U tom trenutku se aktivira rotacija diskova i sistem za pranje koji je smešten u njihovom gornjem delu koji omogućava kontra pranje perforiranih ploča od čvrstih čestica. Čestice koje su se nalazile na perforiranim pločama se potiskuju ka kanalu koji je smešten unutar centralne cevi i ispuštaju napolje van uređaja.

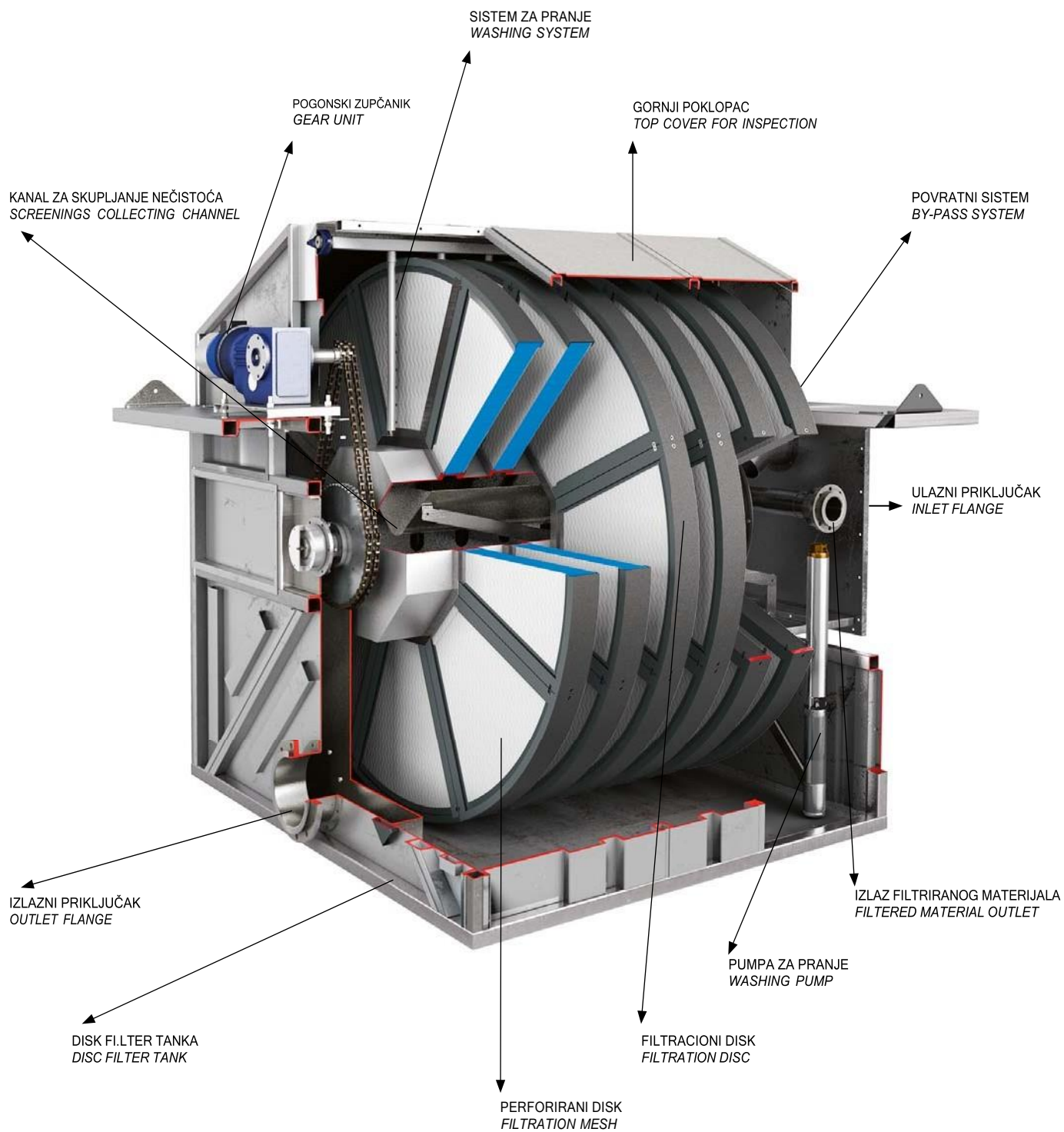
Voda koja se koristi za sistem pranja se transportuje pomoću uronjene ili centrifugalne pumpe koja se može postaviti vertikalno ili horizontalno na spoljnu stranu uređaja. Stoga upotreba filtrirane vode nije potrebna. Da bi se sprečilo začepljenje instaliran je dodatni filter. Nivo vode u rezervoaru se reguliše pregradom koja reguliše nivo opterećenja i koja omogućava održavanje diskova uronjenih na vrednost koja je jednaka 60% površine filtriranja.

Filtrirana voda nakon sistema za regulaciju pomoću pregrade prolazi kroz izlazni priključak.

MATERIJAL IZRADE GLAVNIH KOMPONENTI UREĐAJA:

- Prihvatni rezervoar: AISI304 ili AISI316
- Kućište disk filtera: AISI304 ili AISI316
- Perforirane ploče: AISI316
- Spoljna struktura diska: Polietilen

Standardna verzija uređaja uključuje napajanje pomoću električnog kontrolnog panela, šipkastog senzora nivoa, uronjene pumpe za povratno pranje i povratnog sistema u slučaju blokade uređaja.



Model
X-DF

DISK FILTER DISC FILTER



Filtro del sistema di controlavaggio
Counter washing system filter

DESCRIPTION AND WORKING PRINCIPLES

The disc filter - model X-DF - is a machinery designed for the microfiltration of wastewater, used in the final phase of their treatment.

It is a machine designed to obtain high separation efficiency, using meshes realized of AISI 316 stainless steel, with a filtering aperture of 20 µm.

The meshes offer the following advantages:

- 1) They are not crossed by suspended solids during washing
- 2) Cleanliness is very effective because the suspended solids do not accumulate inside the meshes
- 3) Maintenance is simple and wear is limited.
- 4) They are highly resistant

The water flow proceeds from the inside towards the outside, during this passage the suspended solids are blocked inside the filter allowing the containment tank to remain always clean. The machine is equipped with a washing system with nozzles that is activated each time the water level inside the containment tank (either in brick material or stainless steel) reaches the preset level. In the standard version the water level is adjusted using the bar level indicators. On request, with extra cost, can be provided ultrasonic level indicators with one or two levels and a backwash system with double cartridge filter for easier maintenance.

The water that enters through the appropriate feeding flange continues on its way inside a tube placed in the center of the machine and from there reaches the filtration sectors of the X-DF.

During the filtration the discs are not in operation as long as the amount of solids held from the meshes causes a clogging of the same and the consequent raising of the water level inside the tank.

At this point is activated the rotation of the discs and the washing system placed in their upper part, than working in countercurrent, allows a perfect cleaning of the meshes. The retained solids from the meshes are pressed from the backwash water flow inside a specific channel located inside the central tube, and then slide towards the discharge flange of the solids.

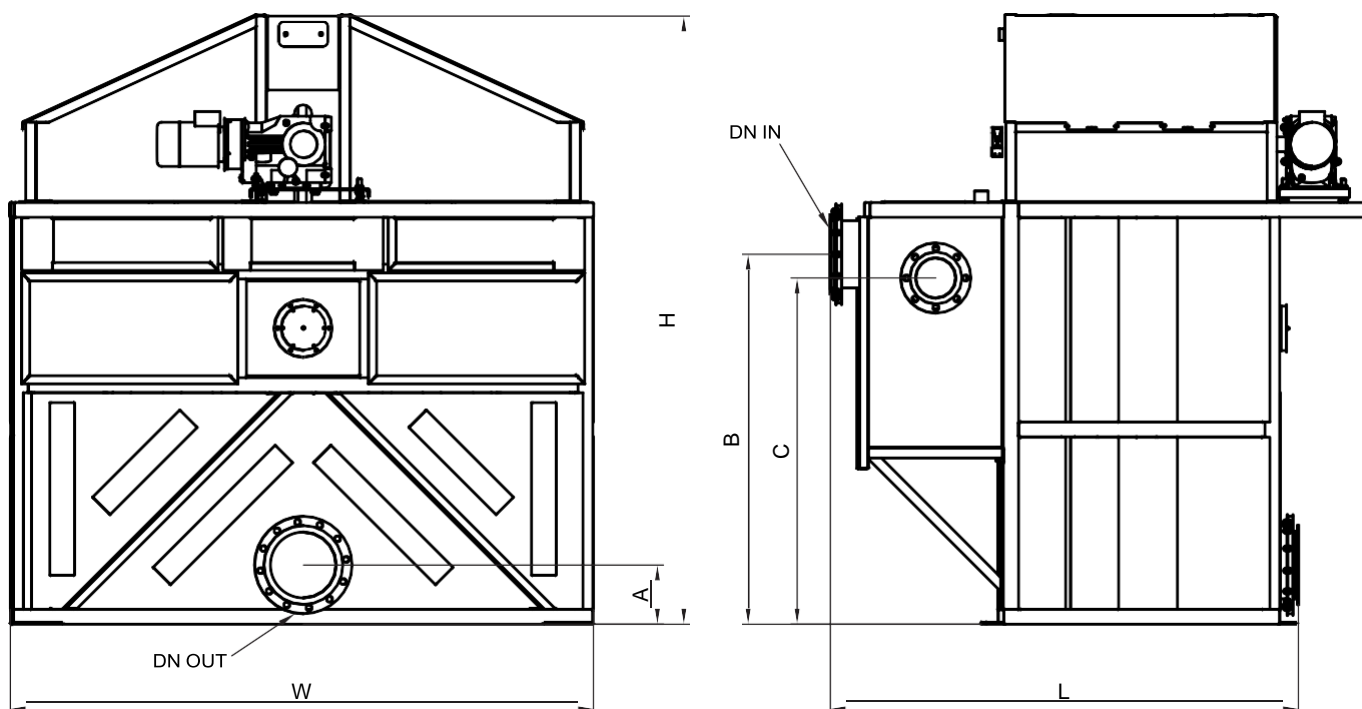
The water used by the washing system is picked up, by means of a high prevalence submersible pump or by an external centrifugal pump, which can be placed vertically or horizontally at the discretion of the project. Thus using filtered water is not necessary any connection with the mains water. In order to safeguard from clogging, is installed a further filter. The water level inside the containment tank is regulated by a barrier that regulates the level of load and that allows to maintain the discs immersed to a value equal to 60% of the filtering area.

Filtered water, after the barrier regulation system, passes through the outlet flange.

MATERIAL OF CONSTRUCTION OF MAIN COMPONENTS:

- Containing tank (optional): AISI 304 or AISI 316
- Structure of the disc filter: AISI 304 or AISI 316
- Filtration mesh: AISI 316
- Outside structure of the discs: Polyethylene

The standard version includes the supply of an electrical control panel wired, a bar level sensor, a submersible pump for backwashing and a by-pass system, in case of block of the machine.



| MODEL | Ukupna površina zone filtracije m ² | Protok vode za pranje 6 Bar (l/s) | Snaga motora kW | Snaga pumpe kW | Visina H | Širina W | Dužina L |
|--------------|--|-----------------------------------|-----------------|----------------|----------|----------|----------|
| X-DF 2200/4 | 21 | 1,9 | 0,75 | 2,2 | 2470 | 2350 | 2390 |
| X-DF 2200/6 | 31,5 | 2,9 | 1,1 | 4,0 | 2470 | 2350 | 2870 |
| X-DF 2200/8 | 42 | 3,9 | 1,1 | 5,5 | 2470 | 2350 | 3350 |
| X-DF 2200/10 | 52,5 | 4,9 | 1,5 | 7,5 | 2470 | 2350 | 3830 |
| X-DF 2200/12 | 63 | 5,9 | 1,5 | 7,5 | 2470 | 2350 | 4310 |
| X-DF 2200/14 | 73,5 | 6,9 | 1,5 | 7,5 | 2470 | 2350 | 4790 |
| X-DF 2200/16 | 84 | 7,9 | 2,2 | 11,5 | 2470 | 2350 | 5270 |
| X-DF 2200/18 | 94,5 | 8,9 | 2,2 | 11,5 | 2470 | 2350 | 5750 |
| X-DF 2200/20 | 105 | 9,9 | 3 | 11,5 | 2470 | 2350 | 6230 |

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