

TURBIDEX FILTER

MEDIUM !!! NEW POSITIVE REFERENCES

Report Bypass-Filter based on TURBIDEX Filter material

Location: Paper-Factory Germany

Application: Treatment 25 m³/h Surface Water to Boiler Feed Water

Process-Chain: Surface Water - Iron-based flocculation - Ultrafiltration - Activated Carbon Filtration - Softening - ReverseOsmosis 1/11 in serial/parallel operation - BoilerFeed water

Problem: Turbidity Riverwater bleeks existing Ultrafiltration

Solution of problem:

Operation-Mode 1: Inline - Pretreatment of Ultrafiltration (UF) with TURBIDEX-Filter

Operation-Mode 2: bypassing UF for availability of clear water du ring backwash-UF

Operation-Mode 3: bypassing TURBIDEX-Filter during own backwash

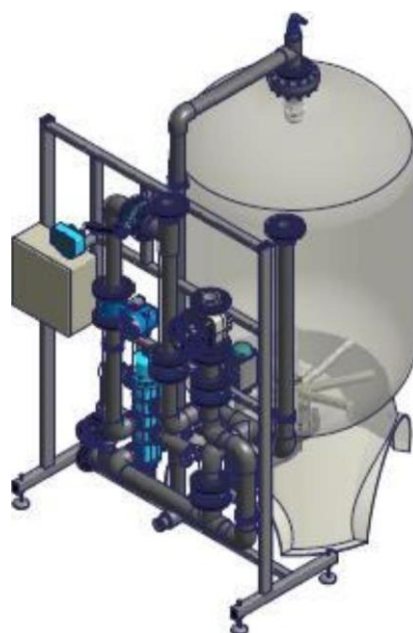
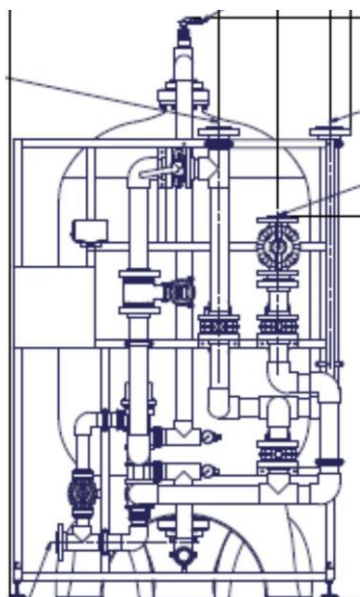
Result:

Installation of Filter was done in October 2014

TURBIDEX-Filter is in Operation

No blocking of UF since the operation of the new TURBIDEX-Filter

Filter drawings as built :



LENNTECH

info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289

Turbidex is natural zeolite mineral of volcanic origin, used for water filtration, flocculation enhancement, heavy metal removal, oily waste absorption, solidification/ stabilization.

Benefits of Turbidex:

- With **filtration efficiency in the 3 to 5 micron range**, Turbidex enhanced performance results in down stream cost savings for chemicals, filter cartridges, membrane cleaning, membrane life, etc.
- With **nominal service flow rates up to 15gpm/ft²** in pressure filters, Turbidex allows significant savings in initial equipment costs when compared to traditional media. Turbidex allows for **peak flow rates up to 20gpm/ft²**.
- Traditional sediment filtration media rely on mechanical straining to remove suspended solids for turbidity reduction. Turbidex filtration medium **incorporates straining as well as ion exchange, sedimentation and flocculation** to produce crystal clear water.
- Due to very high surface area, the **loading capacity** of Turbidex medium is up to **1.5 times greater than multi-media and up to 2.8 times greater than sand filters**. This results in longer run times with less frequent backwashing, resulting in significant water savings.
- **Weighing 50-70% less than traditional media**, using Turbidex will result in substantial freight savings.
- A single medium versus multiple media simplifies ordering, shipping and warehousing. Loading one media allows for a quick and easy installation.
- Very **resistant to chemicals** (chlorine, acid, etc).

	Flow rate m/h Pressure filters	Flow rate m/h Gravity filters	Filtration efficiency	Loading factor
Sand	19-29	5-7	25-30 micron	X
Multi-media	29-37		12-15 micron	1.5X
Turbidex	37-49	10-12	3-5 micron	2.8X

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