

DECANTATION AND FILTRATION TECHNOLOGY

DESCRIPTION

The water treatment plants equipped with decantation and filtration technology, known as conventional technology, are especially suitable for surface waters (rivers, lakes, and reservoirs) as well as for the treatment of groundwater or wells that require the removal of specific contaminants (iron, manganese, arsenic, etc.).

These plants are equipped with different water purification processes such as sieving, oxidation, coagulation, decantation, sand filtration, active carbon, disinfection, etc. And whole treatment is manufactured based on standard 20- or 40-foot containers.

These kind of treatment plants are equipped with the following treatments:

- Pumping: from the collection point to the plant
- First roughing: first removal of coarse and floating particles through hydrocyclone, sieves etc
- Oxidation: for bacteria elimination and soluble metal ions precipitation (As, Mn, Fe, etc.).
- Dosing of reagents: such as oxidizing compounds for pre-disinfection and coagulants for precipitation of colloids and formation of flocs
- Lamella decanting: Sedimentation of flocs formed in the previous stage
- Filtration: sand, AFM and activated carbon filtration to reach the final quality
- Post-treatment: chlorination by chlorine gas or hypochlorite



Benefit:

- ✚ High quality water: drinking water complying with WHO specifications (World Health Organization) or customer's higher requirements
- ✚ Easy to transport by its container structure
- ✚ Minimum civil works: only small ditches and foundations
- ✚ Easy and quick, assembly, all its elements are inside the containerised structure
- ✚ Easy commissioning: preassembled plant
- ✚ Easy operation: reliable technologies and easy operation
- ✚ Centralized operation: Electric control cabinet in the container structure
- ✚ Robust maintenance: High quality equipment
- ✚ Mobile: possibility of relocating the packaged plant.

TREATED WATER QUALITY

The water treated by this kind of containerised plant meets the following minimum quality levels:

- ✚ Turbidity: < 5 NTU
- ✚ Color: < 15 TCU
- ✚ Taste and Smell: nonexistent
- ✚ pH: 6.5-8.5
- ✚ Residual chlorine (mg / l): 1-2 mg/l after 30 minutes contact
- ✚ Faecal coliforms: 0 UFC/100 ml
- ✚ Total coliforms: 0 UFC/100 ml

CAPACITY/VOLUME

Flow (m3/d)	Number of containers
5	1 of 20 ft
25	2 of 20 ft
50	1 of 40 ft
100	2 of 40 ft + 1 of 20 ft
200	3 of 40 ft + 2 of 20 ft
400	6 of 40 ft + 4 of 20 ft
500	5 de 40 ft
1000	12 de 40 ft

