FLOTATION, TYPE HIGH RATE i-DAF
DAF applications above 1000 m³/hr / 25 MLD
TODAY’S CHALLENGES IN THE MARKET
Currently, efficient pre-treatment solutions for sea, surface, and wastewater are a major theme in the industrial and municipal water treatment markets. The rise of membrane filtration technology applications has presented companies with new challenges: to minimize costs (membranes and energy) and system failures.

The “High RATE i-DAF” is a SMART solution that guarantees maximum and efficient solids removal, taking pre-treatment technology to the next level. Especially for the purification of sea and surface water above 1000 m³/hr / 25 MLD, pre-treatment solutions have to be compact, robust, stable and modular at the same time.

Our customers benefit from three major intelligent improvements compared to conventional DAF and alternative pre-treatment:

1. High quality membrane feed water due to robust and reliable removal of solids.
2. Low CAPEX, thanks to:
   - Low civil cost due to compact and small footprint.
   - Standardized production.
3. Low OPEX, thanks to:
   - Low energy consumption.
   - Low sludge treatment cost by enhanced sludge thickening.

APPLICATIONS
- Desalination
- Drinking water intake
- Process water production
- Wastewater treatment
- Industrial zones

DRIVERS TO DETERMINE DAF UNIT APPLICATIONS
The Dissolved Air Flotation technology (DAF) has proven to be very successful as a pre-treatment step. Nijhuis flotation systems have been developed since the 1970s and our units stand out as the best in its field.

To determine the unit application, several drivers will be taken into account to execute the unit in stainless steel, (super)duplex or concrete:

- Transportation;
- Flexibility;
- Footprint;
- Water capacity.

CUSTOMER BENEFITS
1. Reduce footprint requirements by 50 – 75% due to the intelligent plate pack technology.
2. Lower energy consumption up to 30% by the fine patented non clogging Nijhuis bubble aeration.
3. Reduce sludge disposal by Nijhuis smart level control.
4. Operational flexibility by anticipating on fluctuating flows.
5. Reduce operations time and maintenance costs by i-MONITORING
7. Execution in stainless steel, (super) duplex or concrete.
NIJHUIS HIGH RATE i-DAF REFERENCES

Singapore, 800 m³/hr / 20 MLD, Tank Farms

Saudi Arabia, 875 m³/hr / 21 MLD, industrial wastewater

Singapore, 1000 m³/hr / 24 MLD, Tank Farms

Singapore, 1200 m³/hr / 29 MLD, Petrochemical

China, 1400 m³/hr / 34 MLD, Refinery

Design example 1500 m³/hr / 36 MLD
Nijhuis High Rate i-DAF References

Brno Czech rep., 1625 m³/hr / 39 MLD, Metal Processing

Corsica France, 1675 m³/hr / 40 MLD, Municipal post-MBBR

U.S.A., 2000 m³/hr / 48 MLD, algae removal

> 4000 m³/hr / 100 MLD, multiple bay configuration

Customer Benefits

1. Minimized transport costs due to on-site integration in civil structures.
2. Optimized corrosion resistance due to non-metal material use.
3. Total Nijhuis integrated Intelligence.

Nijhuis i-CONSTRUCT

In-house Nijhuis multidisciplinary team to determine:

- Design, including wall thickness;
- Construction management;
- Execution.

Contact

Contact us to evaluate your business case

E: info@nijhuisindustries.com
T: +31 (0)314 74 90 00
Doetinchem | The Netherlands

Or contact your local sales & service center:

www.nijhuisindustries.com