



FLOTATION, IPF

Compact dissolved air flotation



The intelligent Dissolved Air Flotation (i-DAF) system is based on the Nijhuis innovative and intelligent aeration system (i-AIRATION) which forms fine air bubbles that support and increase the separation of particles. For decades the Nijhuis Dissolved Air flotation unit has been known as the most robust and best DAF unit available on the market. The compact i-DAF with plate packs, type IPF, can either be integrated in a total solution or offered as a single product for your wastewater.

APPLICATIONS

- Compact **pre-treatment solution** for industrial and municipal wastewater (with or without flocculation system).
- **Activated sludge** solution for a continuous biological treatment system for industrial and municipal wastewater.
- **Smart removal** of suspended solids, oil and greases and coagulated & flocculated particles.

CUSTOMER BENEFITS

1. Proven and robust technology
2. Minimal footprint requirements, compact unit with plate pack.
3. High level of standardisation and efficient, state of the art production
4. Laminar flow through unit for optimal removal efficiency.
5. Intelligent DAF design:
 - Lower sludge discharge costs, higher dry solids content
 - Better effluent quality
 - i-AIRATION system to control & monitor the aeration process
 - Optimized chemical costs by use of a Nijhuis i-DOSE.



TECHNICAL DESCRIPTION

In the stainless steel Intelligent DAF, type IPF the separable particles will float to the surface. The floating particles will be removed automatically and continuously by a scraper mechanism.

A lamella plate pack is installed to increase the separation area of the unit and ensures that even the smallest flocs are removed from the wastewater. This makes the Intelligent DAF, type IPF unit very compact.

The on-built recirculation system & aeration system (i-AIRATION) is equipped with unique and patented non clogging aeration devices and will form air bubbles who will support the separation of particles. The unit is equipped with automatic sediment removal valves for removing any settled material.

The unit selection and the stainless steel material selection is based on the type of wastewater, the hydraulic and sludge handling capacity.

| Type, Series | Hydraulic Capacity m ³ /hr | Sludge Load m ³ /hr | Length mm | Width mm | Height mm | Weight Empty - Full | Power kW |
|--------------|---------------------------------------|--------------------------------|-----------|----------|-----------|---------------------|----------|
| IPF 005E | 5 | 0,2 | 2470 | 968 | 2089 | 700 - 1750 | 4,2 |
| IPF 010E | 10 | 0,4 | 2470 | 1468 | 2089 | 850 - 2950 | 4,2 |
| IPF 015E | 15 | 0,6 | 2470 | 2027 | 2089 | 1130 - 4300 | 5,7 |
| IPF 020E | 20 | 0,9 | 2470 | 2527 | 2089 | 1950 - 7800 | 5,7 |
| IPF 030E | 30 | 1,0 | 4838 | 1537 | 3386 | 1950 - 7800 | 5,7 |
| IPF 045E | 45 | 1,0 | 4838 | 1537 | 3595 | 2000 - 9600 | 7,7 |
| IPF 090E | 90 | 2,0 | 4838 | 2590 | 3595 | 2800 - 17600 | 7,7 |
| IPF 135E | 135 | 3,0 | 4868 | 3644 | 3595 | 3700 - 25900 | 11,2 |

