

Virgin Pulp	Graphic/ Speciality	Raw Material Handling	Pulping	Screening	Centrifugal Cleaning	Deinking	Washing Dewatering	Fiber treatment	Approach Flow System	Water, Sludge, Reject
Recovered Paper	Board & Packaging									
Broke + Approach Flow System	Tissue									
ProEnergy ++		ProQuality +++		ProCapacity ++		ProYield ++		ProSpace ++		ProEnvironment ++++

DELTAPURGE NG®

The next generation of DAF technology

The unique clarifier design, combines flocculation technology and state-of-the-art dissolved air flotation technology in one system. The flocculation, as well as, the generation of micro air bubbles takes place directly in the clarifier unit. As a consequence, the separation efficiency is improved and the chemical consumption is reduced.

The DELTAPURGE NG® is a circular dissolved air flotation system (DAF), used for many different applications in water treatment. Flocculation with suitable chemicals converts the suspended solids into flocs, which makes them accessible for separation from the water. Micro bubbles are added in order to float the flocs to the surface of the clarifier where they are removed by a skimming device. The micro bubbles are created by super saturation of water with air under pressure and subsequent expansion into the clarifier tank.

The eccentric raw water inlet generates smooth vortex inflow for better flocculation and mixing. The Vortex Reaction Chamber allows flocculation under ideal conditions. It provides a soft-mixing and defined retention time for the flocculants without exposing the maturing flocs to undesired shear forces. It ensures the best possible efficiency of the applied chemicals.

Customer benefits

- + Quick-exchange mechanical components reduces service time
- + Easy operation, high process flexibility
- + Reduced operational cost
- + Self-cleaning unit
- + Several tank versions available

The Direct Expansion System creates micro bubbles directly where needed. The air-saturated water is introduced at the bottom of the reaction chamber.

1+2 Deltapurge NG installations



1



2

Areas of application

- + Save-all applications for fiber recovery in paper machine water loops
- + Filtrate and loop clarification for removal of colloidal dissolved contaminants, and micro-stickies to improve operation ability and product quality
- + White water treatment and washer filtrate clarification
- + Filtrate thickening for removal of fines and ash
- + Closing of water loops and reduction of fresh water consumption
- + Clarification of primary and secondary mill effluent
- + Removal of anionic trash and pitch
- + Thickening of biological activated sludge in effluent treatment plants
- + Other industrial applications for food, oil or chemical industry – please ask for details

Dimensions

Tank diameter: 2.5 – 25 m

Throughput: 20 – 2,500 m³/h

Options and possible combinations

- + Maximum flexibility through different tank versions in stainless steel and concrete
- + UDS – Universal Dissolving System for the super saturation of water with air at highest possible efficiency
- + Chemical preparation with POLYMERI

Services and Service interval

- + Reduced number of moving parts
- + Only direct drives used
- + Important mechanical components designed as quick exchange sub-assemblies, replaceable within minutes

References

Several hundred installations worldwide for numerous applications and for all paper grades.

Further Information

- Link to product finder:
www.voith.com/paper