



# DAF TECHNOLOGY FOR WATER SUPPLY PLANTS



KWI Group is considered one of the pioneers of Dissolved Air Flotation (DAF) technology and is one of the oldest existing DAF unit manufacturers in the world.

Our DAF range includes **11 standard models**, as well as custom designs, to meet all customer requirements.

With nearly **70 years'** experience and the supply of **7000 DAF units** for **4700 references** globally, our Group is strategically qualified to bid for large water supply plants.



We highly recommend for water purification, 3 models :

- Unicell® BF
- Flotofilter®
- Klaricell®

Our innovative DAF process is easy to operate and very efficient. Even start-up and shut-down phases do not disrupt its high performance. It is perfectly suitable for treating algae and turbidity.

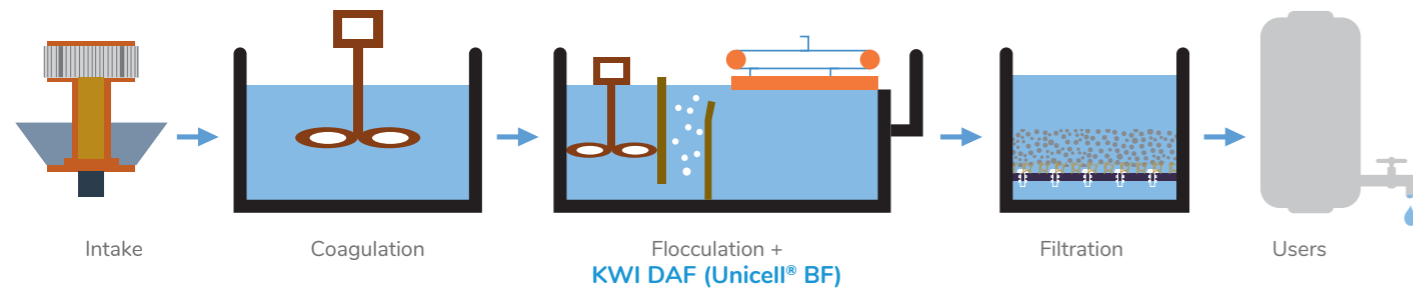
For fresh water production, the rising velocity of DAF is around 25 m/h.

The combined KWI DAF process with integrated filtration technology, **Flotofilter®** and **Klaricell®**, are the ideal solutions for water purification!

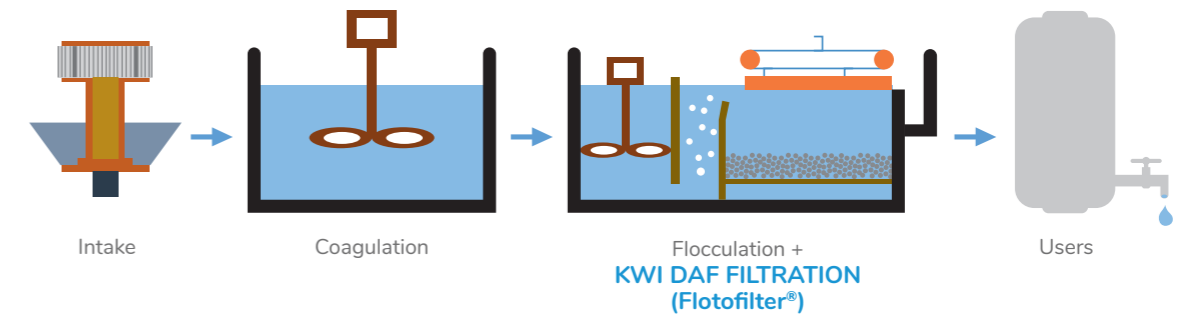
## KEY FEATURES AND BENEFITS

- Stable effluent water quality and turbidity less than 1 NTU
- Turbidity less than 0.5 NTU with DAF-filtration process
- High hydraulic load: maximum 25 m<sup>3</sup>/(m<sup>2</sup>.h)
- Highly efficient algae removal: up to 98%
- High sludge concentration (max. 3% of solid content) with low chemical consumption
- Small footprint

## Typical water supply treatment process with Unicell® BF

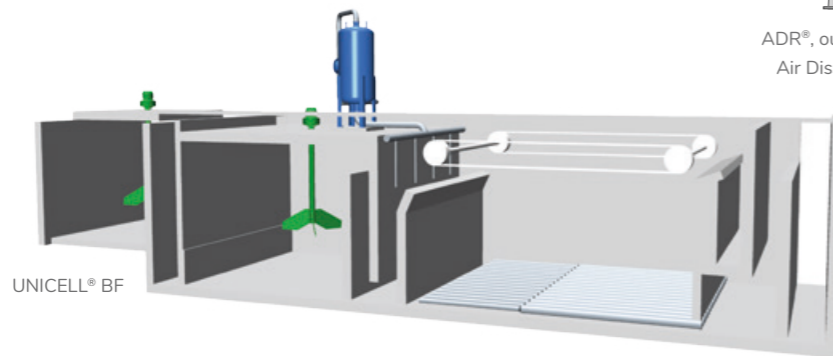
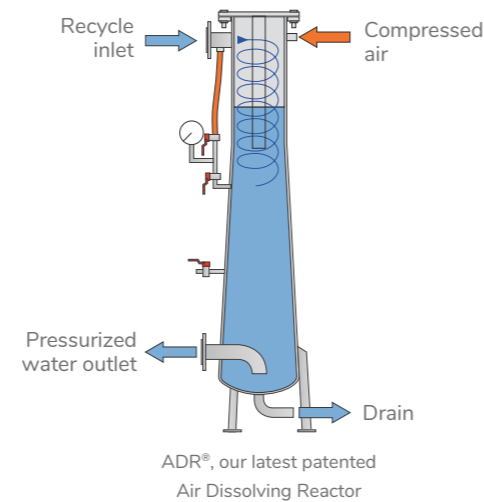


## Typical water supply treatment process with Flotofilter®



### Performance & Operating Parameters

Effluent water turbidity:	<1 NTU
Algae removal efficiency:	up to 98%
Sludge concentration:	maxi 3%
Recirculation ratio:	15%-20%
Air dissolving rate:	>80%



### Unicell® BF range

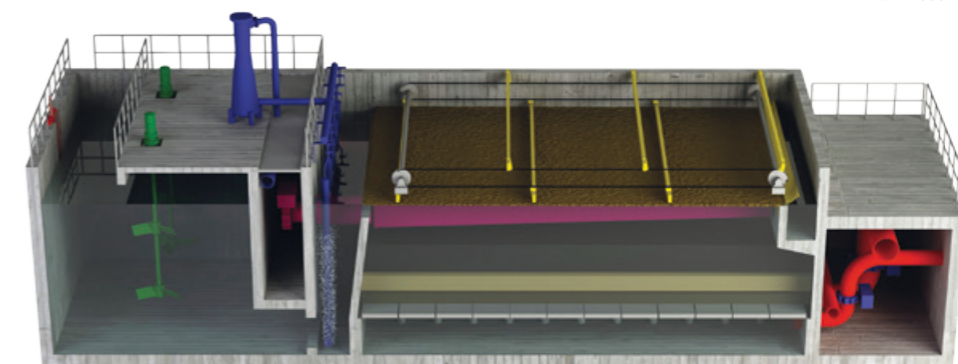
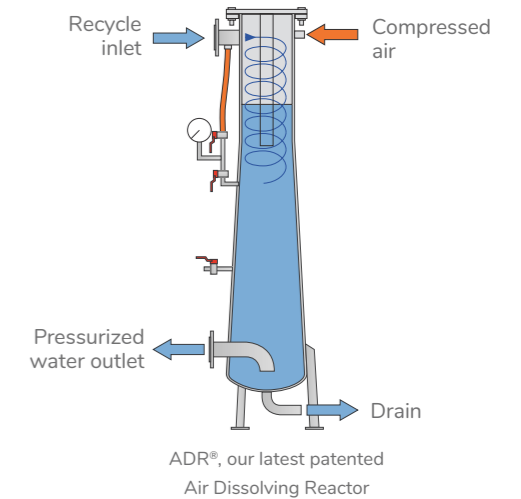
TYPE	MAXIMUM INLET FLOW* (m³/hour)	SCRAPER POWER (kW)	FLOTATION AREA SIZE** LxW (m)
UNC BF30	750	0.25	6.71 x 5.5
UNC BF40	1000	0.25	7.9 x 6
UNC BF50	1250	0.25	9 x 6.5
UNC BF60	1500	0.25	9.9 x 7
UNC BF70	1750	0.25	10.2 x 8
UNC BF80	2000	0.25	10.2 x 9
UNC BF90	2250	0.25	11.2 x 9
UNC BF100	2500	0.25	11.5 x 10
UNC BF110	2750	0.25	12.2 x 10
UNC BF120	3000	0.25	13.4 x 10

\*The maximum flow includes recycle flow and depends on SS loading and on the application. \*\*Including flocculated water / pressurized water mixing zone.

Optional items: Sludge discharge using a scraper device or gravity.

### Performance & Operating Parameters

Effluent water turbidity:	<0.5 NTU
Algae removal efficiency:	up to 98%
Recirculation ratio:	15%-20%
Air dissolving rate:	>80%

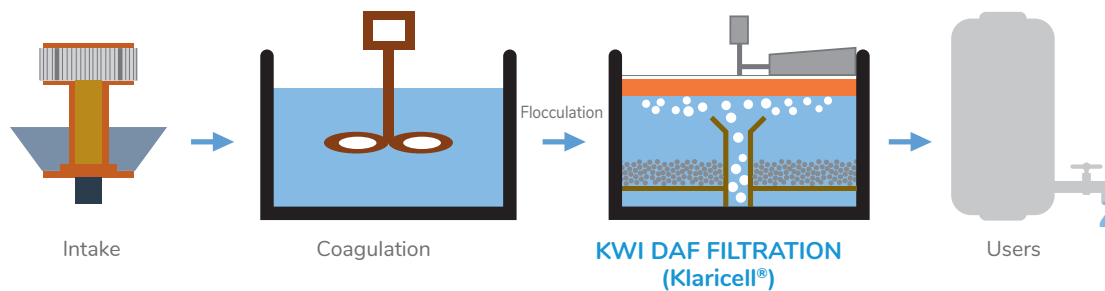


### Flotofilter® range

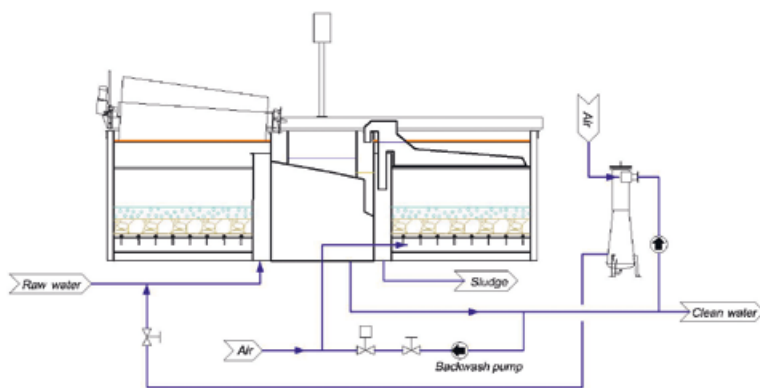
TYPE	MAXIMUM INLET FLOW* (m³/hour)	SCRAPER POWER (kW)	FILTRATION AREA SIZE LxW (m)
FF 70	730	0.25	11 x 6
FF 80	860	0.25	12 x 6.5
FF 90	1030	0.25	12 x 7.8
FF 100	1080	0.25	12 x 8.2
FF 110	1190	0.25	12 x 9

\*The maximum flow includes recycle flow and depends on SS loading and on the application.

## ■ Typical water supply treatment process with Klaricell®



## ■ Performance & Operating Parameters

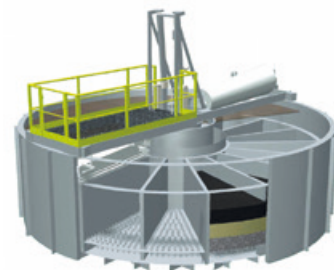


Effluent water turbidity: **< 0.5 NTU**

Algae removal efficiency: **up to 98%**

Recirculation ratio: **15%-20%**

Air dissolving rate: **>80%**



## ■ Klaricell® range

TYPE	MAXIMUM INLET FLOW* (m <sup>3</sup> /hour)	POWER (kW) scoop engine + carriage motor	FLOTATION AREA SIZE** Ø x H (m)
KLC 20	200	0.37+0.37	6.1x2.3
KLC 22	235	0.37+0.37	6.7x2.4
KLC 24	280	0.37+0.37	7.3x2.4
KLC 27	360	1.1+1.1	8.3x2.4
KLC 30	440	0.75+0.75	9.2x2.4
KLC 33	520	0.75+0.75	10.0x2.4
KLC 36	630	1.1+1.1	11.0x2.4
KLC 40	770	1.1+1.1	12.2x2.5
KLC 44	920	1.1+1.1	13.4x2.5
KLC 49	1170	4+4	15.0x2.5
KLC 55	1480	4+4	16.8x2.5

\*The maximum flow includes recycle flow and depends on SS loading and on the application. \*\*Including flocculated water / pressurized water mixing zone.

KWI specialists have vast expertise and experience ranging from engineering to building and commissioning, and from investment to operation.

**Let's work together to make your project a success!**



Member of the **SafBon** Group

