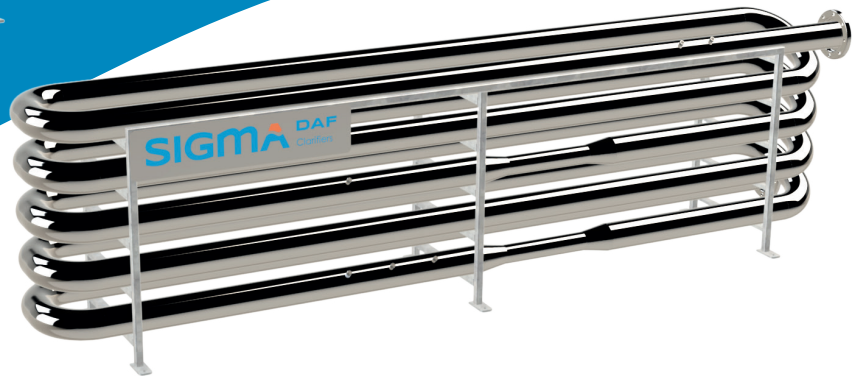
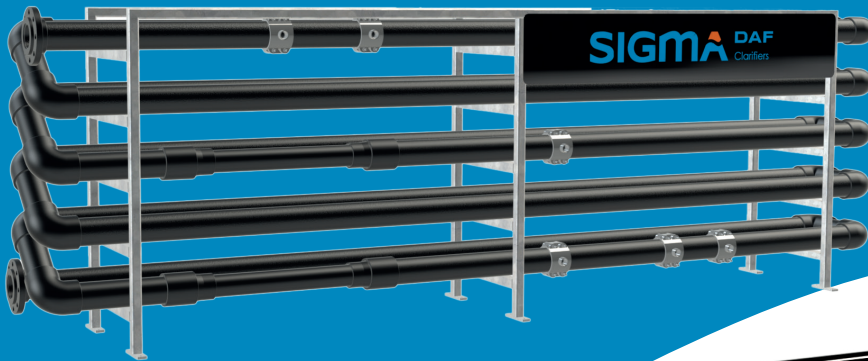


# PFL FLOCCULATOR



## Description

The PFL-flocculator is characterised by the plug flow principle. The processes in the pipe flocculator, such as coagulation, flocculation, de-emulsification, precipitation and pH control, can take place under highly controlled and well-defined conditions.

The retention time in the pipe flocculator is almost uniform and the mixing energy is constant in the pipe cross-section. In this way, all particles will be subject to the same amount of mixing energy and for the same period. This will result in a highly uniform floc with excellent separation characteristics.

A coagulant is usually dosed to the raw water at the inlet-side of the flocculator. Coagulation is the destabilisation of the polluting matter in the influent. Immediately after the dosing point, a mixing unit is installed for the mixing of coagulant and water. Fine particles are now formed. Most of the time these particles are not ideal for separation. If this is the case, flocculent has to be dosed to obtain separable sized particles.

In the pipe following the mixing unit is a flocculent dosed. Mixing of water and flocculent takes place in a second mixing unit. Floc growth will be completed in the pipe

following the mixing unit. In this way an ideal uniform floc, with excellent separation characteristics will be formed.

The flocs and the water can now be separated in a separator.

The flocculator can be provided with additional fittings, which makes it possible to dose chemicals for pH-correction and pH-measurement.

## Advantages

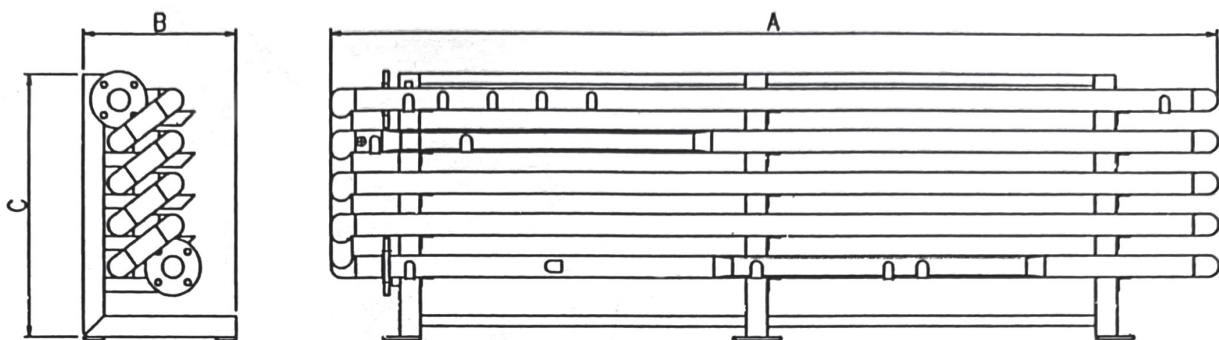
- No moving parts, no additional mixers needed.
- No maintenance and operation costs.
- High quality durable materials such as PVC, HDPE or AISI316 pipes, standard supports of AISI304.
- No short-circuiting.
- Completely predictable and controlled mixing environment.
- No additional energy source needed.
- Uniform floc growth.
- Compact, little installation space required.
- All required process conditions and chemical additions in a single unit.
- Custom build.

# PFLFLOCCULATOR



Type	Capacity* $Q_{min}$ (m <sup>3</sup> /hr)	Capacity* $Q_{max}$ (m <sup>3</sup> /hr)	Connection inlet/outlet (DN)	Length A (mm)	Width B (mm)	Height C (m <sup>3</sup> /hr)	Weight Empty (Kg)	Weight Full (Kg)
PFL 002	1.2	1.8	25	2650	340	750	35	65
PFL 003	2.0	3.5	32	2650	380	750	45	72
PFL 004	3.5	6.0	40	2650	400	750	60	102
PFL 010	6.0	10.0	50	2700	450	800	75	160
PFL 015	10.0	15.0	65	4100	495	750	90	205
PFL 020	15.0	25.0	80	4100	540	850	120	290
PFL 030	25.0	37.0	100	4150	600	950	135	375
PFL 045	35.0	50.0	100	4150	640	1000	170	495
PFL 060	45.0	65.0	125	4450	695	1100	210	650
PFL 080	65.0	90.0	150	4500	760	1200	255	835
PFL 100	85.0	120.0	150	4700	830	1250	340	1110
PFL 140	105.0	160.0	200	4600	900	1350	390	1320
PFL 180	140.0	210.0	200	5550	970	1450	510	1920
PFL 240	180.0	270.0	250	5550	1090	1700	735	2505
PFL 300	240.0	350.0	250	5600	1160	1700	855	3090

(\* Capacity = hydraulic capacity.



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