

FlocStirr®

Efficient and optimally effective
admixture of polymers



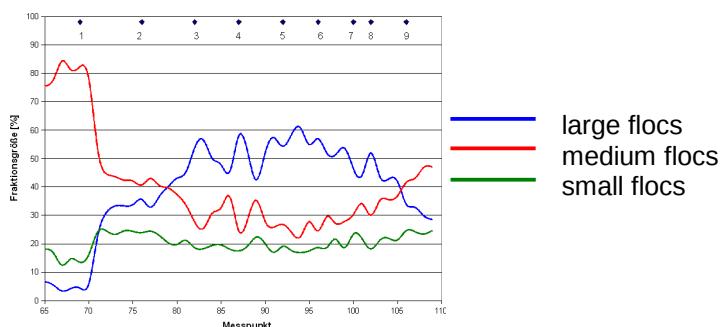
The floc formation is a critical part of polymer-initiated flocculation processes. The floc quality and formation are significantly influenced by the flowing aspects:

- ◆ The quantity, mixing type and quality of the flocculation agent
- ◆ The reaction period of the flocculation agent in the sewage sludge until the following dewatering phase (both too short and too long are detrimental)
- ◆ The sludge type (consistency and contents)

It is generally accepted that a high floc quality has a significant influence on the dewatering performance.

The mixing unit, where the plant component contacts the sludge with the polymer, controls the flocculation and quality significant. The size of the flocs is (additionally to the quality of the polymer) dependent to the level of mixture.

The diagram below shows a comparison between two mixing units (A and B) by using the same polymer. The result is clear (measurement method: FlocSens). The content of large flocs rose up to over 50% in the total mass, the content of middle and small flocs decreased rapidly. The result: Ideal dewatering conditions for downstream dewatering aggregates (decanter or filter press).



Our mixers are also integrated in our FlocFormer, thus leading to optimal flocculation (pelleting) when used in combination with this peerless mechanical floc treatment process. The dewatering results are extremely impressive as a result.

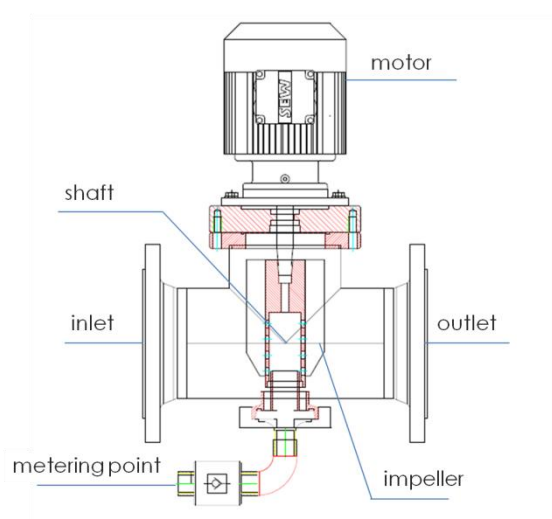
The FlocStirr is suitable for intensive mixing in exposure time.

For example:

- ◆ Paper industry
- ◆ Fruit juice production
- ◆ Sewage treatment
- ◆ Sludge treatment

Operating mode

The special function of FlocStirr is the radial feed stream of polymer in a rotating shaft of the motor. Liquid admixture (especially polymer) is inserted in the medium by the perforated and rotating shaft under

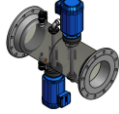


pressure and rotation. In addition to the selection of proper polymer, the optimal mixture can be reached by handling the pressure settings (inputted mass/time unit respectively kg/TS) and rotation speed (motor).

Models (also special-purpose solutions)

By using the motor-speed-controlled drive mechanism it is possible to put in the optimal mixing energy for every process. In consequence of setting a too high number of rotations, the flocs can be damaged otherwise by using a too low number of rotations, the medium cannot be totally stirred.

Our dynamic inline mixer can be realized in several types and materials for every case of operation. The control electronics are delivered in a separate control box for installation on the wall or in your switch cabinet. Furthermore, it is possible to control it directly by a fixed frequency converter on the motor.

FlocStirr model	Micro	65	80	100	125	150	300 DH	400 DH	L-FlocStirr 100
									
Flow rate (max.)	2m³/h	20 m³/h	30 m³/h	50m³/h	75m³/h	100m³/h	350m³/h	600m³/h	50m³/h
Speed (max.) rpm	2000 rpm	3000 U/min	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Pressure (max.) incl. Pressure sensor connection	6 bar (PN6)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)	16 bar (PN16)
Power consumption	3 x 400V, 50 Hz, max 87 Hz								
Motor	0,37 kW	1,5 kW	1,5 kW	1,5 kW	1,5 kW	2,1 kW	2 x 2,1 kW	2 x 3 kW	1,5 kW
Material	PP/PE 1.4571	1.4571 AISI 316Ti	1.4571	1.4571 AISI 316Ti	1.4571 AISI 316Ti	1.4571 AISI 316Ti	1.4571 AISI 316Ti	1.4571 AISI 316Ti	1.4571 AISI 316Ti
Main connection	DN50	DN65	DN80	DN100	DN125	DN150	DN300	DN400	DN100

Advantages at a glance

-  Decreasing polymer consumption (up to 25% possible savings)
-  Reduction of thinning water
-  Better flocculation; therefore better dewatering performance
-  installation und integration in existing processes





FlocFormer®

Sewage sludge conditioning for improving sludge dewatering



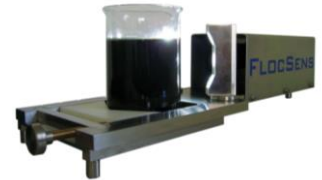
FlocStirr®

Best practice inline polymer mixer for optimal flocculation and high degrees of dewatering



FlocSens®

Measurement method for evaluating the flocculation properties in dewatering (in the process and laboratory)



JarTester®

Reproducible and scalable flocculation control and optimization in the laboratory



geoCLEAN®

Mobile dewatering system for the quick, efficient dewatering and disposal of drill cuttings



DeSiFloc®

Optimal, environmentally friendly separation of pollutants from landfill leachate

