

## FlocFormer®

The optimized floc for dewatering and separation processes



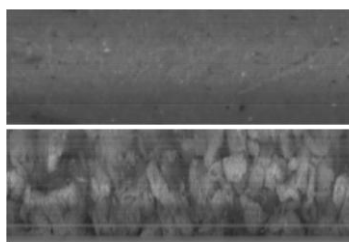


Best floc for every dewatering task



The standard procedure for preparing sewage sludge for dewatering is a chemical conditioning by polymers. The primary task for the conditioning is to optimize the floc structure in interconnection with highly variable sludge and process parameters.

Today's technique doesn't reach this aim. Different dewatering units demand for a specific flocculation process. Thus, the dewatering results are as good as the conditioning step.

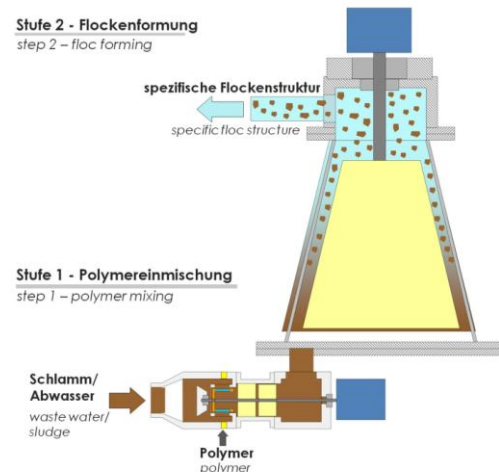


(Raw and mixed sludge, polymer consumption 5g/kg TS, common conditioning with static mixer equipment)

floc structure of common conditioning

floc structure of FlocFormer pelleting

### Scheme of FlocFormer process



conditioning process are floc pellets. The dewatering and separation efficiency of these pellets is very high. Additionally the polymer is mixed in the sludge extensively. The complete performance of the polymer can be activated this time, no overdosing is necessary anymore.

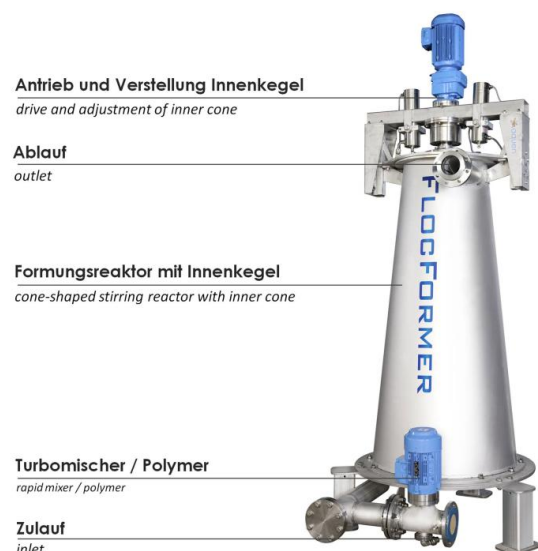
### Our solution

The international patent-protected flocculation unit FlocFormer can be adapted to various conditions and is tailor made for separation processes supported by polymers. Four adjustable system parameters enables the system to be used at different flow rates and meets a high flexibility towards changing sludge properties and dewatering machines.

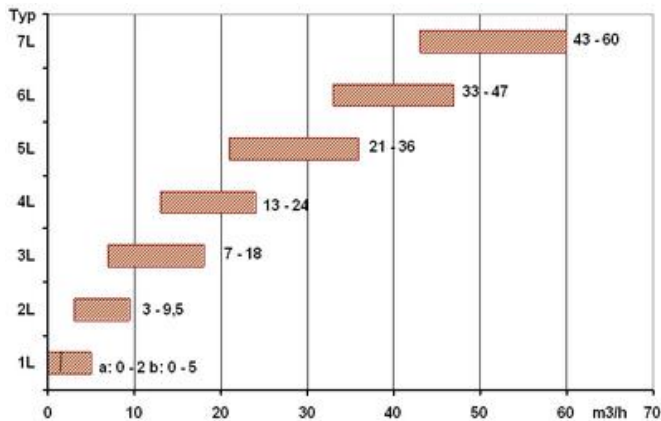
### An ingenious idea

The FlocFormer realizes a two step process; initially the flocculation agent is injected into a rapid mixer which results in high volume flocs with low shear stability. Then they are eroded and later compacted

### FlocFormer Schematic



### FlocFormer models (Throughput m³/h)



### Your Benefit

The application of FlocFormer improves your dewatering results for about 25%, irrespective of the mode of dewatering e.g. by chamber filter press, counter-current centrifuge, drum sieve or screw press. The higher dry solid content saves disposal costs or energy consumption in case of incineration.

The filtrate quality improves considerably and the reload of the waste water treatment plant declines. The consumption of polymer will diminish for about 30% and analogue the cost of operation will decrease. In the same way all polymer initiated separation processes can be significantly improved.

Of course, the FlocFormer system is applicable to industrial wastewater and sludge treatment, too. Within its four parameter settings all kinds of floc structure can be generated by the FlocFormer system.

### Advantages at a glance

-  **Reduced disposal costs due to reduced sludge amount and higher dry solid content**
-  **Much better separation efficiency**
-  **Decreasing polymer consumption, therefore reduced operation costs**
-  **Better filling level of sludge containers with dryer sludge**
-  **Improved filtrate quality, therefore less reload of the waste water treatment plant**
-  **Easy implementation in existing processes**
-  **Short amortization period**
-  **Combination with all established separation processes**
-  **For upgrade or extension of an existing plant: Easy set up and integration of the plant due to a compact application**



**FlocFormer 5L in operation**



## FlocFormer®

Sewage sludge conditioning for improving sludge dewatering



## FlocStirr®

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



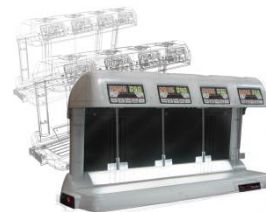
## FlocSens®

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

