# Flushing System





### **Gate Flushing System Type KS**

Storm tanks or sewers require cleaning after operation during storms due to the sediment deposited on the tank or sewer floor once the storm has subsided. If the system is not cleaned the potential for blockages is increased and malodours will occur due to septicity.

The BIOGEST® Gate Flushing System Type KS is an ideal solution to the problem.

## **Flushing System**



### The operation

During a storm, the level in the storm tank / sewer will rise and the gate will be closed following a signal from the float switch. The hydraulic pump starts and drives the shaft, which in turn closes the gate. As soon as the gate is closed it is locked mechanically the hydraulic pump shuts off.



The flushing chamber fills as the level rises within the tank / sewer.

The storm subsides and the storage tank empties leaving sludge and other sewage related debris on the tank floor.

Once the tank is empty the flushing sequence starts automatically. The float switch sends a signal to the control panel. The hydraulic pump starts and solenoid valve then switches. The drive shaft reverses and release fast the retaining lock hooks, due to a special long hole construction in the piston rod. The gate swings open due to the pressure of the head in the flushing chamber releasing the flush water and cleaning with a long cleansing flush all the solids from the floor of the tank or sewer.

The sediments deposited on the floor are flushed into the flushing sump and discharged into the sewer.

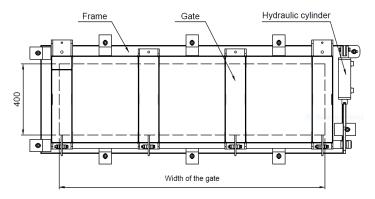


#### **Design parameters**

The gate width will depend on the width of the tank or sewer. Please see the table below.

width of the flushing lane	width of the gate
bis 1,75 m	500 mm
1,75 - 2,00 m	750 mm
2,00 - 2,50 m	1.000 mm
2,50 - 3,00 m	1.500 mm
3,00 - 3,50 m	2.000 mm
3,50 - 4,00 m	2.500 mm
4,00 - 5,00 m	2.800 mm
5,00 - 5,50 m	3.500 mm
5,50 - 6,00 m	4.000 mm

Tanks in excess of 6 meter width can be cleaned by using additional gates or so called doublegates. A small dividing wall has to be installed to



### The advantages

- Subsequent installation possible
- Suitable for use in storm tanks or sewers
- Minimal energy consumption
- Low Maintenance
- Flushing with rainwater and sewage water
- Delayed closing of the flap thanks to special damper function
- Repeated flushes possible
- Minimization of hydraulic loss using brake cylinders