



FlexiFlow Expand Gate

About the product

FlexiFlow is a product designed, manufactured, and installed by Floecksmühle. FlexiFlow is in operation worldwide, helping to protect lakes and rivers from untreated sewage discharge by creating temporary in-pipe storage during heavy rainfall and peak inflow conditions.

FlexiFlow

FlexiFlow gates are specifically designed for sewage pipes in combined sewer systems, where rainwater and wastewater are conveyed together to a wastewater treatment plant. Because both the collector duct and the treatment plant have limited capacity, heavy rainfall can lead to system overload unless excess sewage is temporarily stored.

By installing FlexiFlow, existing sewer ducts can be used as intermediate storage reservoirs. The gate regulates the flow rate through the pipe, ensuring that the treatment plant's maximum capacity is not exceeded during peak inflow conditions. Depending on the design, FlexiFlow—typically manufactured from air-filled rubber—can partially restrict or completely shut off the flow.

FlexiFlow can be installed in all types of tunnel systems and retrofitted into existing sewer pipes. The gates are operated via a SCADA-compatible control system, and both the regulation and control systems are manufactured entirely in the USA or the EU. Their operation requires low maintenance: The gates are corrosion-resistant, have no moving parts, and only need annual cleaning.

Advantages



FlexiFlow gates can be retrofitted into existing systems and installed through manholes, minimizing disruption.



The rubber bladder offers high resistance to wear and abrasion, ensuring a long operational lifetime.



Engineered for safety and reliability, the gate features a fail-safe deflated default state and a manual valve for controlled deflation during power outages.

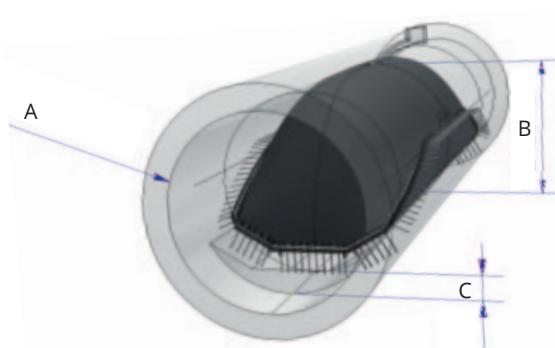
Tunnel Profiles

FlexiFlow can accommodate square and rectangular as well as round and arched tunnel profiles. The rounded cross-sections can be completely sealed off.



Sizes

	Min. size	Max. size
Duct diameter [A]	5 ft (1,5 m)	15.5 ft (4,72 m)
Bladder height [B]	3.5 ft (1,05 m)	14 ft (4,27 m)
Concrete pad [C]	1.5 ft (0,45 m)	1.5 ft (0,45 m)



FLEXIFLOW

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