

VALVE SYSTEM SPECIFICATION

ToggleBlok[®] is the preferred valve due to its proven reliability, effective sealing capabilities, and ability to minimise environmental risks, ensuring compliance with pollution control standards. No alternative valve types, such as penstocks, will be accepted, as these could compromise system integrity, leading to leakage and environmental harm.

➤ Automated System for Drain Closure

The system must automate the closure of drains effectively, ensuring reliable operation in emergency situations. Effective closure means achieving a complete seal within 10 seconds, preventing any leakage or back flow that could cause environmental harm.

➤ Battery-Powered System with Solar/Mains Power Supply

The valve must operate using a battery-powered system that is supported by either solar power mains connection to keep the battery charged.

➤ 7-Day Active Operation Without Charging

The system should remain functional for up to 7 days without any battery charging, ensuring continuous operation during power supply interruptions.

➤ Low Battery Alert via SIM

The system must include a SIM-based alert to notify operators of a low battery status, minimising risk of system failure.

➤ Closure Time of 10 Seconds

The valve must be capable of closing the drain within 10 seconds to respond swiftly to emergency situations.

➤ Robust Drop Seal Design

The valve must utilise a robust drop seal design to ensure a reliable and secure closure, minimise risk of leaks.

➤ Outlet or Inlet Chamber Installation

The valve must be fitted to the outlet or inlet of the chamber, ensuring an optimal position for effective drain isolation. Positioning at the outlet allows for complete control of flow exiting the chamber, preventing back flow and ensuring reliable isolation of contaminants.

➤ Valve Dimensions

The valve fitted must have the equivalent orifice as the drainage pipe it is fitted to, smaller orifice should not be fitted.

➤ Pneumatic Operation and Mechanical Locking

The valve must be pneumatically operated, or alternatively operated by another suitable method should remain mechanically locked once deployed to ensure that it cannot be accidentally reopened.

➤ Activation via Monitoring Equipment or Fire Alarm

The system should be capable of activation by other monitoring equipment, such as the fire alarm system, providing flexibility in how the drain closure is triggered.

➤ Remote Activation and Local Operation

Activation should be possible via remote call points, SMS, or radio, in addition to local operation, ensuring multiple methods of deployment in case of an emergency. Remote call points are ideal for manual activation at a secure location, SMS allows for convenient activation from any mobile device, and provides reliable activation when other communication methods might fail.

➤ Position Indication and SMS Reporting

The system should indicate the valve's position (open or closed) and provide remote reporting via SMS ensuring that all stakeholders are promptly informed of the valve status.