



ELIQUO | HYDROK

ActuSlide

Powered Flow Regulators

level control discharge regulator for 5 - 3,500 L/s



ActuSlide Flow Regulator

Powered flow control regulator

THE ACTUSLIDE FLOW CONTROL DEVICE IS DESIGNED TO ACCURATELY REGULATE THE FLOW FROM A CHAMBER INTO A RECEIVING CHANNEL/WATER SYSTEM.

AN ALTERNATIVE TO CONVENTIONAL ELECTRIC FLOW REGULATOR SYSTEMS THAT REQUIRE EXPENSIVE FLOW MEASURING WITH LARGE SHAFT CONSTRUCTIONS AND WOULD NORMALLY BE CONTROLLING A STANDARD PENSTOCK OPENING.

The Actuslide system designed by the Eliquo Hydrok works in conjunction with ALPHEUS flow control regulators technology as an electrically powered flow control system that can be installed upstream or downstream to control the flow discharge rate throughout the impounding water head rate.

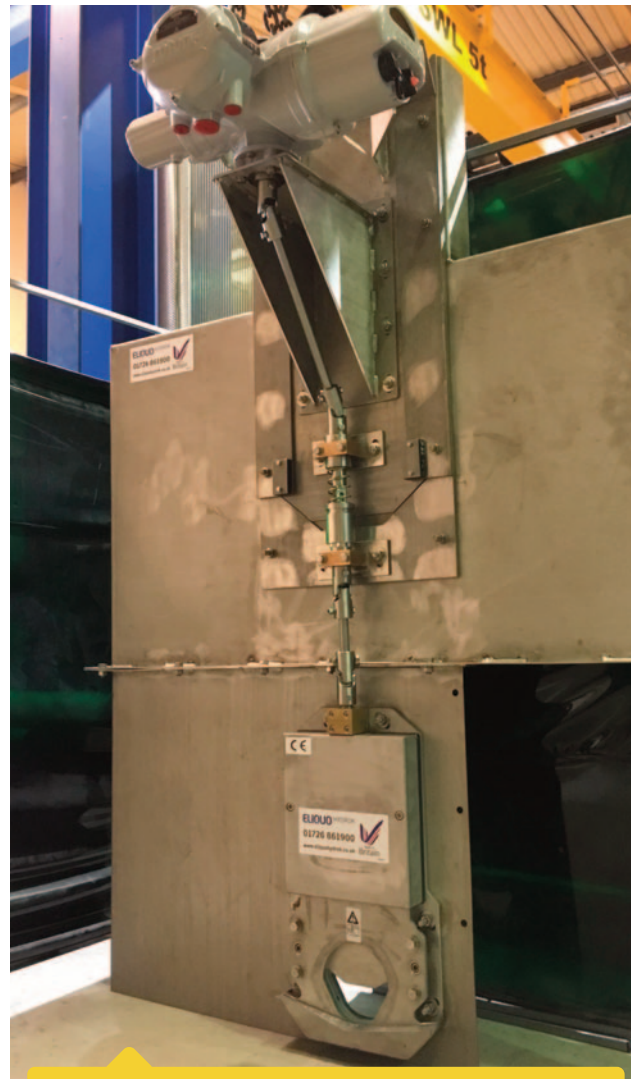
HOW IT WORKS

Where constant discharges, data logging and remote control are required but measuring of dry water flow is not necessary, investment costs of upto 50% can be saved. The **Actuslide** flow regulator is installed upstream or downstream within tanks or sewer manholes as a calibrated special flow control unit with an explosion-proof actuator.

The impounding upstream water level and continuation downstream water level are measured by two standard level sensors transmitting back to the control unit. From the impounding level the appropriate slide position for a constant discharge is precisely calculated. The desired discharge can then be continuously adjusted to control the flow discharge rate throughout the impounding water head rate.

The **Actuslide** orifice incorporates the same technology used for the ALPHEUS range of flow regulators. This can ensure a discharge accuracy of better than +/- 5% throughout the impounding head range. Various flow rates can also be designed to match storm return period discharge rates.

Automatic unblocking recognises when the flow is reduced and reacts with step-by-step opening of the special slide until the plugging is cleared. In dry weather periods, a flush wave for sewer flushing can also be created automatically.



Powered flow control regulators that can be adjusted remotely or in situ.

ADVANTAGES AND BENEFITS

Continuous and constant flow regulation

Blockage recognition and clearance

Exact flow control, even with surcharging backwater

Simple flow rate change

Terminals to remote control system included

Can be installed on upstream or downstream

Rigid, stainless steel

Low equipment costs

Easy to retrofit in existing tanks and shafts

Inexpensive installation with instruction

Flow measurement downstream as an option

The ACTUSLIDE works as an actuator system that eliminates the need for operation and maintenance teams to have to enter hazardous underground areas to carry out routine maintenance of electric motor driven actuators.

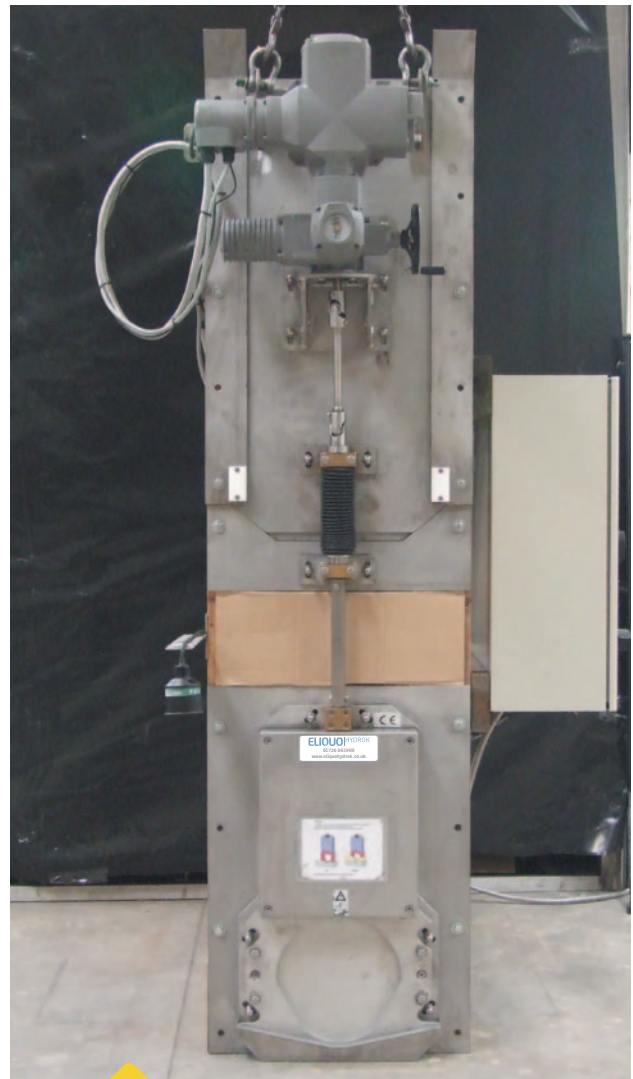
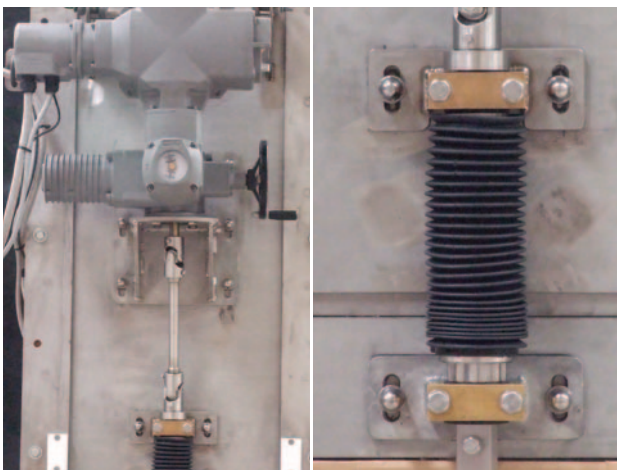
OPERATING PRINCIPLES

The design was developed and emerged after consideration of the Construction Design Management (CDM) regulations regarding the health and safety issues of working underground. The **ActuSlide** comprises of a removable plate with an actuator drive assembly mounted to it, a fixed plate with guides on which the removable plate locates, a means of connecting the drive when the plates are located together and a variable length final drive to the slide, valve or other device to be moved. The actuator is powered via an electric motor, hydraulic motor or by hand, using a manual control wheel.

The motor driven system is operated via a control box which is coupled with an ultrasonic level sensor to trigger movement of the slide/penstock etc.

The whole upper assembly is fastened to the chamber wall close to the manhole or entry point. The actuator assembly can then be lifted from the chamber by chains or other lifting means to allow for maintenance to be carried out above ground by a suitably qualified engineer. Once the work is completed the actuator can be lowered back into position with the self locating drive connection engaging with the final drive.

ActuSlide systems can be retrofitted to existing chambers where a fixed drive system is currently used.



Actuator control that can be adjusted electrically, hydraulically or manually.

ADVANTAGES AND BENEFITS

Eliminates the need for operator entry into the chamber

Complies with CDM guidelines

Can be retrofitted to existing systems

Versatile application

Robust, stainless steel design

Can also be used for:

- Flow control devices
- Penstocks, Sluice gates and Knife gates
- Bar rakes
- Adaptable for other opening and closing valve systems



ActuSlide can be designed and provided with a complete control centre package

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ELIQUO HYDROK LTD

Indian Queens Ind Estate, St. Columb | Cornwall, England | TR9 6TL

T +44 1726 861 900

sales@eliquohydrok.co.uk | www.eliquohydrok.co.uk

MEMBER OF **ELIQUO WATER GROUP**