



eDART **LIME DOSING** **VALVES**

eDART LIME DOSING VALVES

The **eDART Inline Lime Dosing Valve** is a self-flushing dart valve that accurately adds set doses of the lime slurry without any of the complications of conventional valves in this application.

A lime ring main is used to neutralise tailings or to control the PH of a medium. Typically, lime is continuously pumped around the ring mainly because it tends to settle and harden when standing still. A Tee-piece is inserted into the line (called a take-off line) and the lime dosing is controlled with a dart valve.

As the dart valve opens the vertical take-off line fills up. When closed the line gravity flushes and therefore does not leave a pocket in the pipe to solidify. The frequency and volume of lime addition can be set within your PLC to ensure over or under-dosing doesn't take place.



Dosing valve on the lime ring main



DO YOU HAVE ANY THESE ISSUES?



- Do you experience blockages in your take-off lines on your dosing circuit?
- Are you overdosing on the lime?

eDART INLINE LIME DOSING VALVE SOLUTION



eDART has been engineering and manufacturing slurry equipment for the mineral processing industry for many years. At eDART, we are proud to say that our dosing valve solution has been a reliable and effective way to handle slaked lime in ring mains.

eDART understand that low flow or dead zones in lime dosing systems will lead to settling, causing blockages and other operational challenges. eDART have developed the dosing valve as an industry-leading solution to combat this.

eDART Dosing Valves are installed in a ring main line, directly above the dosing point. A pump is used to ensure that the lime flows continuously through the ring main line and that there are no flow dead zones where lime can accumulate, solidify and choke the line. Each dosing valve controls lime flow downwards under gravity into the vessel. If the dosing at any one point is required to stop, this valve may close to allow the dosing line to self-drain into the vessel and thus prevent a choke in the line. This action does not affect the function of the ring main line flow.

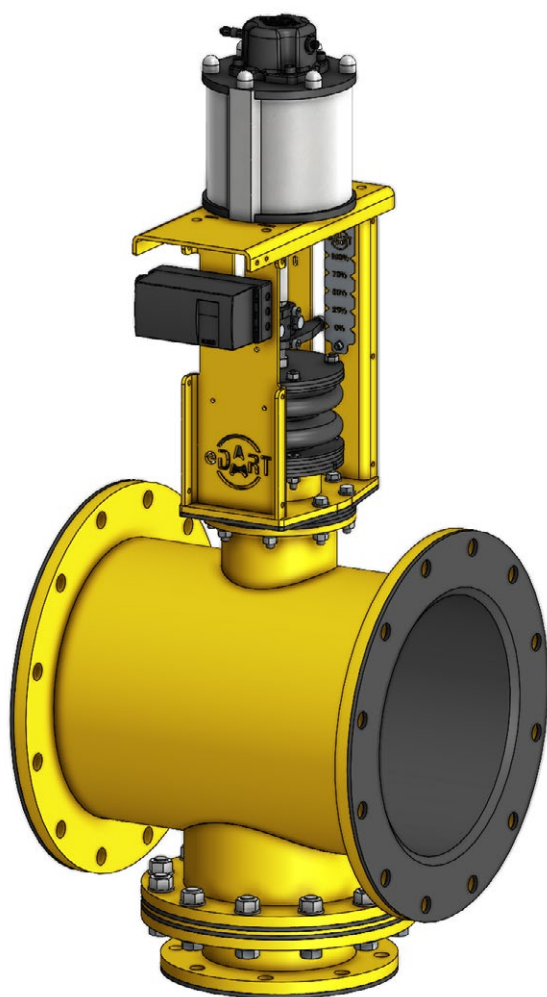




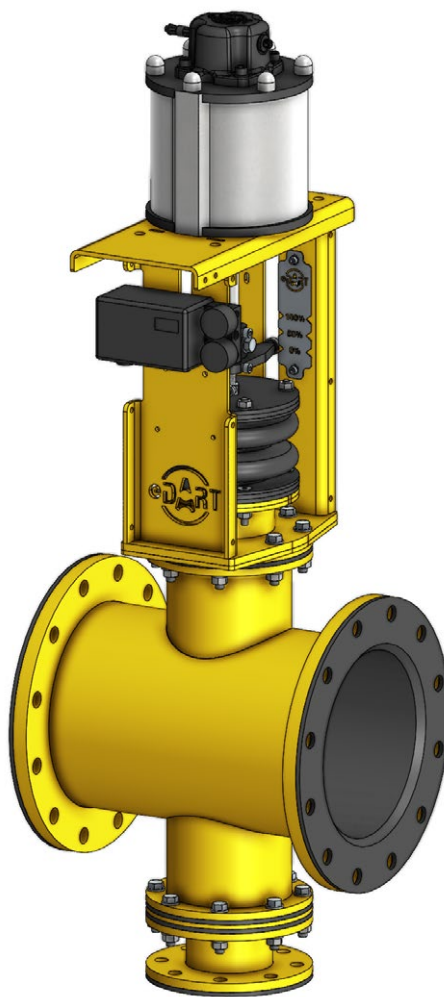
An eDART inline Dosing Valve installed in a ring main line

eDART | INLINE LIME DOSING VALVES

The eDART Inline Lime Dosing Valve is a self-flushing dart valve that accurately adds set doses of the lime slurry without any of the complications of conventional valves in this application.



400NB



250NB



80NB

eDART Dosing Valves are manufactured to fit inline requirements

The correct sizing of the valves guarantees a long lifespan and avoids overdosing.

APPLICATIONS

- Rock-lime dosing
- PH control

LARGE ACTUATORS

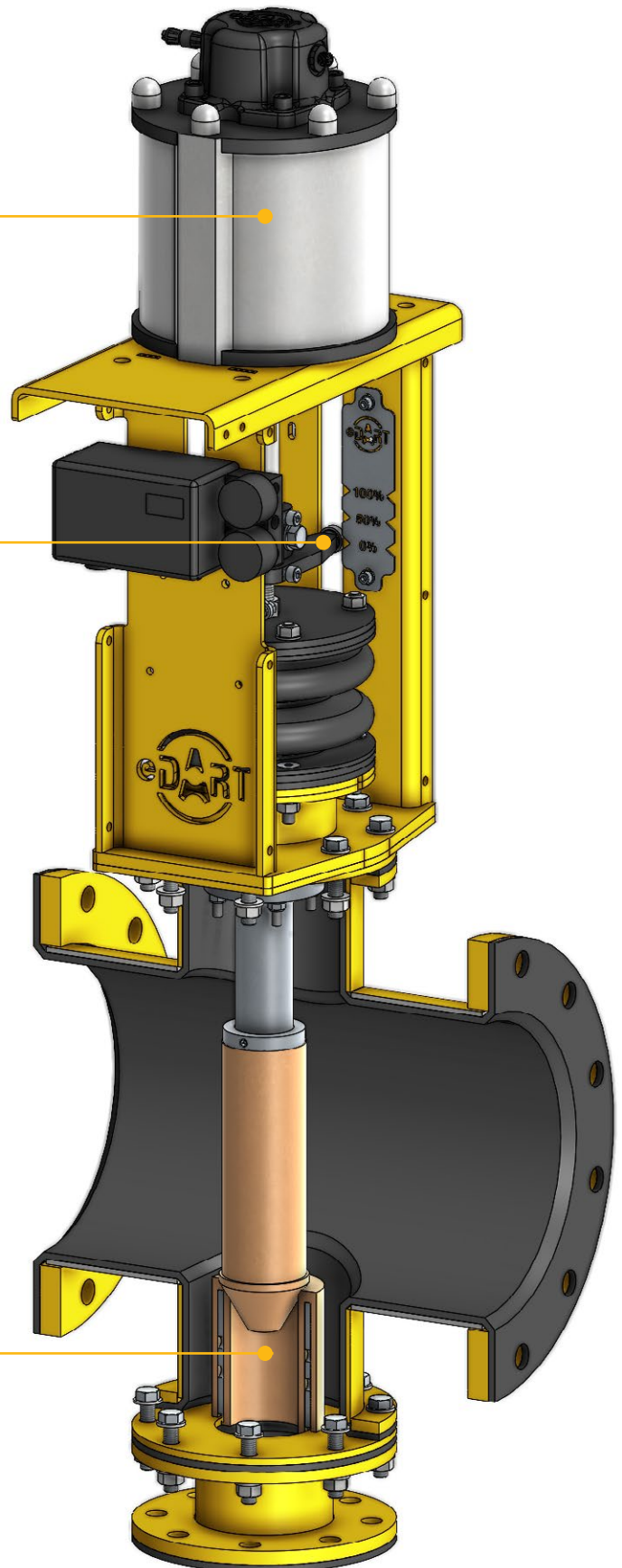
The actuators are sized to provide stiff modulating capability and sufficient stroke good resolution to improve control and stability

ENGINEERED FEEDBACK

The mechanical linkages are designed to provide an accurate linear response and may be replaced with an internal electrical transducer within the actuator when size demands

SEAT CAGE

The replaceable cage guides the plug head where it matters and does away with the troubles of slurry-filled and sticky shafts guide blocks



eDART INLINE LIME DOSING VALVE **FEATURES**

- Self-flushing
- Compact design
- Removable bonnet for easy maintenance; valve body remains in the process line
- Anti-Rotation device
- Stroke indication

Standard mainline pipe sizes

- 50 mm to 400 mm

Materials of construction

- Mild steel body
- Lining
 - Rubber
 - Ceramics
 - Polyurethane
- Two-coat phenoline-painted body
- StSt valve shaft and positioner mounting
- Polyurethane-coated plug and seat

Pulse Width Modulator

A Pulse Width Modulator (PWM) is an electronic device or technique used to control the average amount of power delivered to a load, typically in applications where precise control of voltage or current is required. It works by varying the width of a series of electrical pulses while keeping the frequency constant. Adjusting the pulse width can control the effective power delivered to the load. PWM is commonly used in various applications, including motor speed control, dimming LED lights, and voltage regulation.

eDART uses this device in the lime dosing valve when the dosing flow rates are small and it is better to pulse an on-off valve so that the valve very precisely stays open just long enough to result in the desired dosing.



Pulse width modulator on eDART Dosing Valve



eDART Dosing Valves ready for shipment

There are numerous design considerations when engineering a dosing solution to obtain the best performance of the dosing solution. The correct sizing of the valves guarantees a long lifespan and avoids overdosing.

For many years, eDART customers have benefited from improved operational efficiency and uninterrupted material flow thanks to the dosing valve solution. eDART takes pride in providing cutting-edge technology that meets the evolving needs of the mining industry.

The components are compatible across the eDART range for ease of spares



TALK TO US ABOUT SOLVING YOUR SLURRY-RELATED PROBLEMS

eDART designs and manufactures slurry equipment to improve recovery rates for metallurgical plants. We combine our Computational Fluid Dynamics (CFD) expertise with extensive site experience to reliably solve your complex slurry challenges.

How can we help you?

eDART GROUP SA (PTY) LTD

7 Industrial Road, Kya Sand, Gauteng, South Africa.

OFFICE HOURS: Mon to Fri - 08.00 - 17.00 | Sat to Sun - Closed

E: info@edart.group | T: +27 11 791 1411

www.edart.group



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for the quality management of businesses.***