



eDART
EXTERNAL
DART VALVES



eDART EXTERNAL DART VALVES OPTIONS

The two eDART External valve options are:

- suitable for retrofitting when you need to upgrade and increase your throughput
- safe for maintenance since work is not done in a confined space
- used in a bypass system to isolate individual tanks from the stream for complete maintenance without taking the bank down
- optimised for fine control of slurry and can use intelligent signal splitting to simplify the control and reduce wear and thus increase the maintenance period
- easy to maintain since the bolt-down seat is eliminated by a clamped seat cage arrangement



Bolted to the outside of the tank, Dual and Single eDart valves control the level of flotation machines



DO YOU HAVE ANY THESE ISSUES?

- Bouncing or vibration of valves
- Excessive wear on the valve
- Tank outlet sanding
- Valve saturating and flotation machine sliming
- Valve operating close to the seat
- Maintenance problems
- Not controlling within 2.5% of set point

As a result, you have a poor level of control.

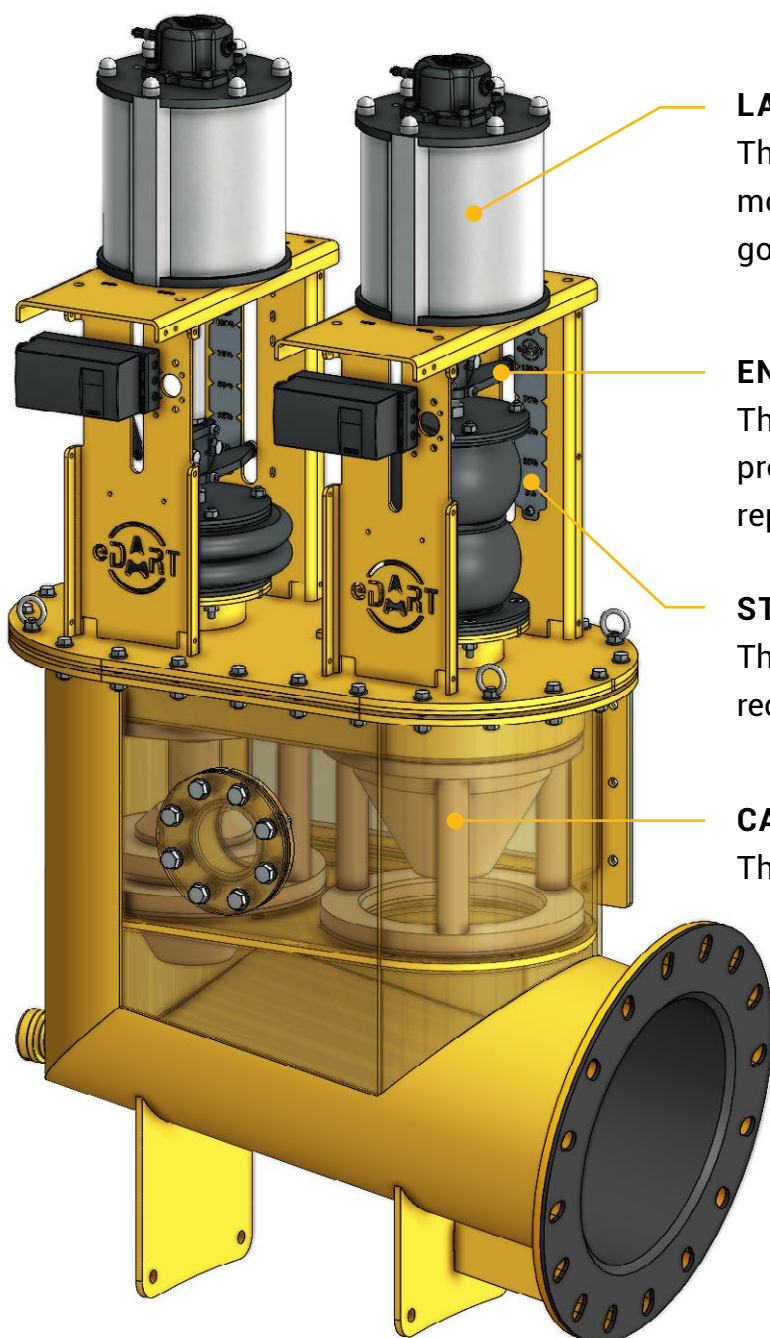


The installation of a Dual eDart or a Single eDart will eliminate all of these issues.



eDART | DUAL EDART

The Dual eDart is an external dart valve mounted on the side of a flotation cell. It has been optimised for variable slurry flow by having two plugs and seats within the body. This gives the valve a high rangeability and fine control. Because the valve is external to the vessel it is well suited to upgrade projects and where safety is a concern. In conjunction with knife gate valves, the valve may be isolated and easily maintained.



LARGE ACTUATORS

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

ENGINEERED FEEDBACK

The mechanical linkages are designed to provide an accurate linear response and can be replaced with an internal electrical transducer

STROKE INDICATION

The valve position can easily be noticed and recorded

CAGE GUIDED PLUGS

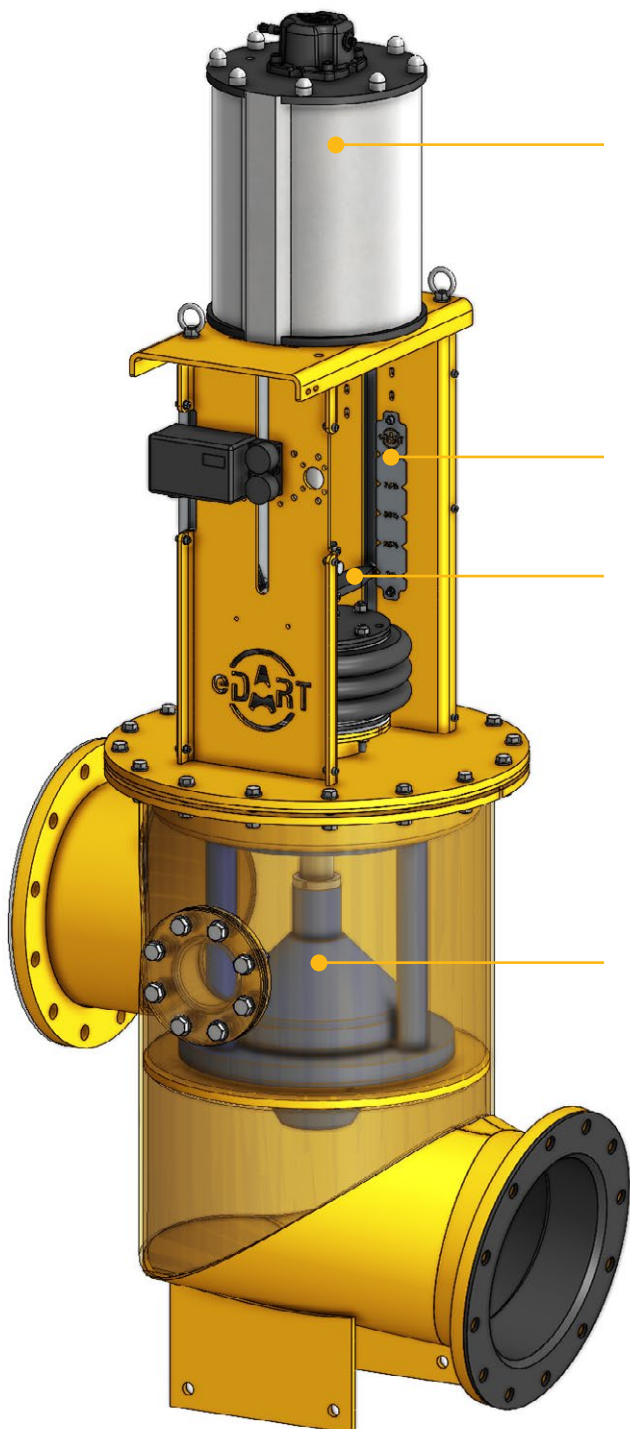
The plugs are guided on the head, not the shaft, for higher stability and vibration reduction

The body can be customized to suit multiple outlet configurations both on the front and side



eDART | SINGLE EDART

The Single eDart is optimised for fine-level control of slurry typically on flotation banks. There is a single plug and seat in this valve body. Due to the valve's flexible orientation, it is ideal for plant retrofits. It is mounted externally to the vessel meaning that it may be maintained easily in a safe and accessible manner using the walkway next to the tank.



LARGE ACTUATORS

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

STROKE INDICATION

The valve position can easily be noticed and recorded

ENGINEERED FEEDBACK

The mechanical linkages are designed to provide an accurate linear response and can be replaced with an internal electrical transducer

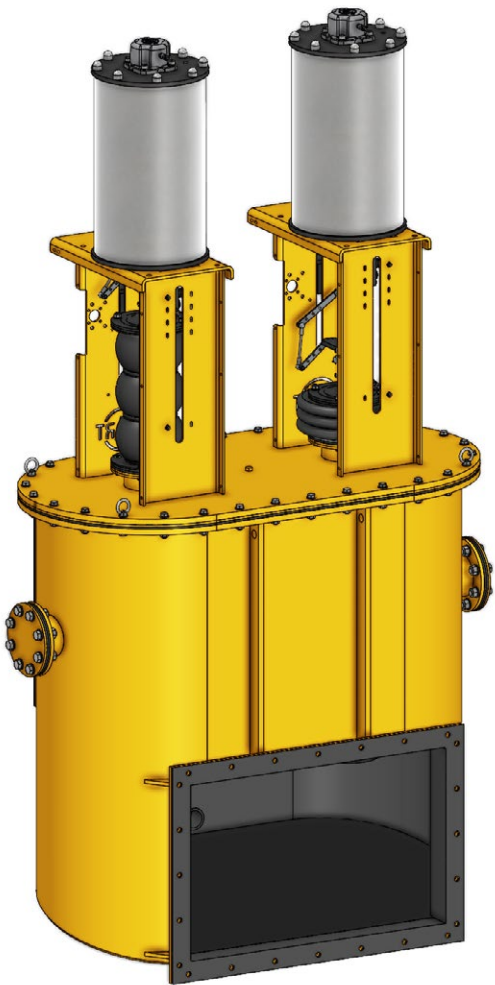
PLUG AND SEAT

The plug has a conical shape to give a linear flow characteristic. The seat is precision moulded to reduce the sealing force and match the plug shape

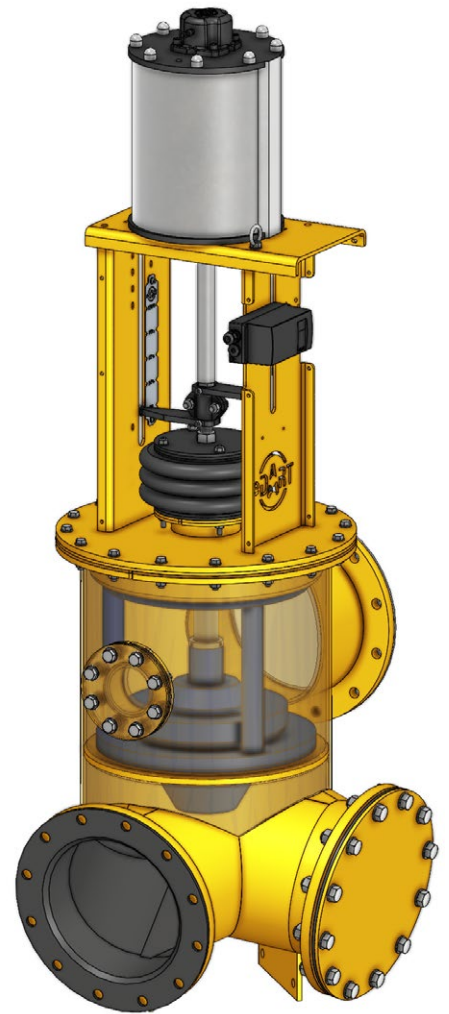
The body can be customized to suit multiple outlet configurations both on the front and side



eDART | OTHER EDART VALVE VERSIONS



Cartridge - for tight connection between flotation machine upgrades



Single Edart Valve with second outlet port to be bypass ready



Vertical Outlet Single Edart Valve - for tight piping configurations



eDART | EXTERNAL DART VALVES IN OPERATION

eDART External Dart valves provide exceptional performance and reliability for various industrial requirements. With a strong emphasis on safety, efficiency, and precise control, these valves are engineered to address even the most challenging operational demands. Choosing eDART for slurry equipment needs offers numerous advantages, making it a preferred solution in the industry.



External eDART Dual eDart Valves. Note the wire-drawn pot housings on top of the actuators. These offer a robust alternative to large and cumbersome mechanical feedback mechanisms





- ▶ ***eDART Dual eDart Valve with a front outlet and a Dual Valve Controller (DVC).***

The DVC takes a single input signal from the control room and splits it intelligently between the two plugs of the valve, in this way the valve's rangeability is increased without the accelerated wear often associated with small valve openings. Additionally, the valve here feeds a back pressure pipe



- ▶ ***eDART Single eDart Valve with vertical outlet. In this configuration, the valve replaces the elbow in the line***





eDART Duel and Single eDart Valves in the factory ready for order

THE BENEFITS OF EXTERNAL DART VALVES

- Improved safety - no more working inside vessels for valve maintenance
- eDart's are pre-calibrated & pre-compressed (plug 'n play) = much quicker installation & commissioning in the field
- Process - Shorter, lighter connecting shaft = quicker response time for Advanced Process Control (APC)
- Process - External dart "valve seating" options offer process flexibility (increase/decrease flowrates)





TALK TO US ABOUT SOLVING YOUR SLURRY-RELATED CHALLENGES

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?

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