



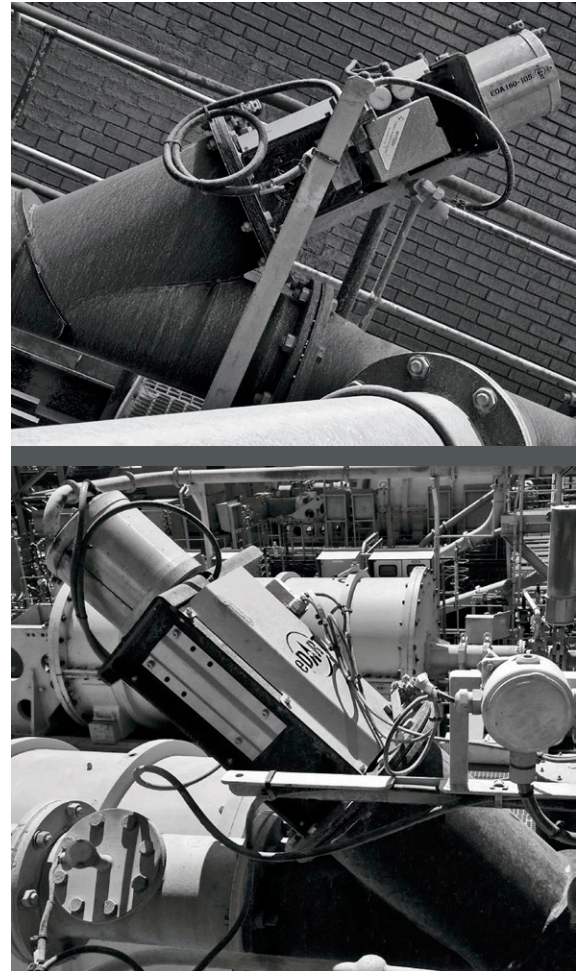
eDART
INLINE
DART VALVES

eDART INLINE DART VALVE OPTIONS

In certain pipeline applications, the need for a slurry control valve arises. While a pinch valve can be considered, the dart valve offers superior control and rangeability, making it the preferred choice. Specifically developed to address these requirements, our inline dart valves, such as the yDart and its variations, have been meticulously designed.

These inline dart valves feature the same polyurethane plug and seat as our standard iDart, triDart, single eDart, and dual eDart configurations. As a result, they deliver the same exceptional level of slurry flow control. The incorporation of the polyurethane plug and seat ensures reliable performance and optimal control, allowing for precise adjustment of slurry flow as needed.

Choose our inline dart valves for enhanced slurry control in your pipeline applications, and experience the superior control and rangeability they offer over pinch valves. Enjoy the benefits of our proven polyurethane plug and seat technology for efficient and reliable slurry flow control.



Use an eDART inline dart valve when you need the control and robustness of a dart valve in a slurry line



DO YOU HAVE ANY THESE ISSUES?



- Pinch valve sleeve flapping (a vacuum breaker after the valve is required)
- Poor control – large flow variations with small increments of stroke/opening
- Catastrophic failure of open frame pinch valves
- Difficult fail closure action on pinch valves
- Pinch valve on a gradient line (the free-floating actuator strains the valve guides)
- Reduced sleeve or valve life
- Shuddering on pinch valve guide bars
- Backlash on a rotary valve (Butterfly)
- Poor control range (small area of linearity)
- Oversized valve
- Sleeve or disc wears out quickly when not sized correctly or has a large turndown
- Vulnerable to wear at low flow rates



***The installation
of the appropriate eDART
inline dart valve will eliminate
all of these issues.***



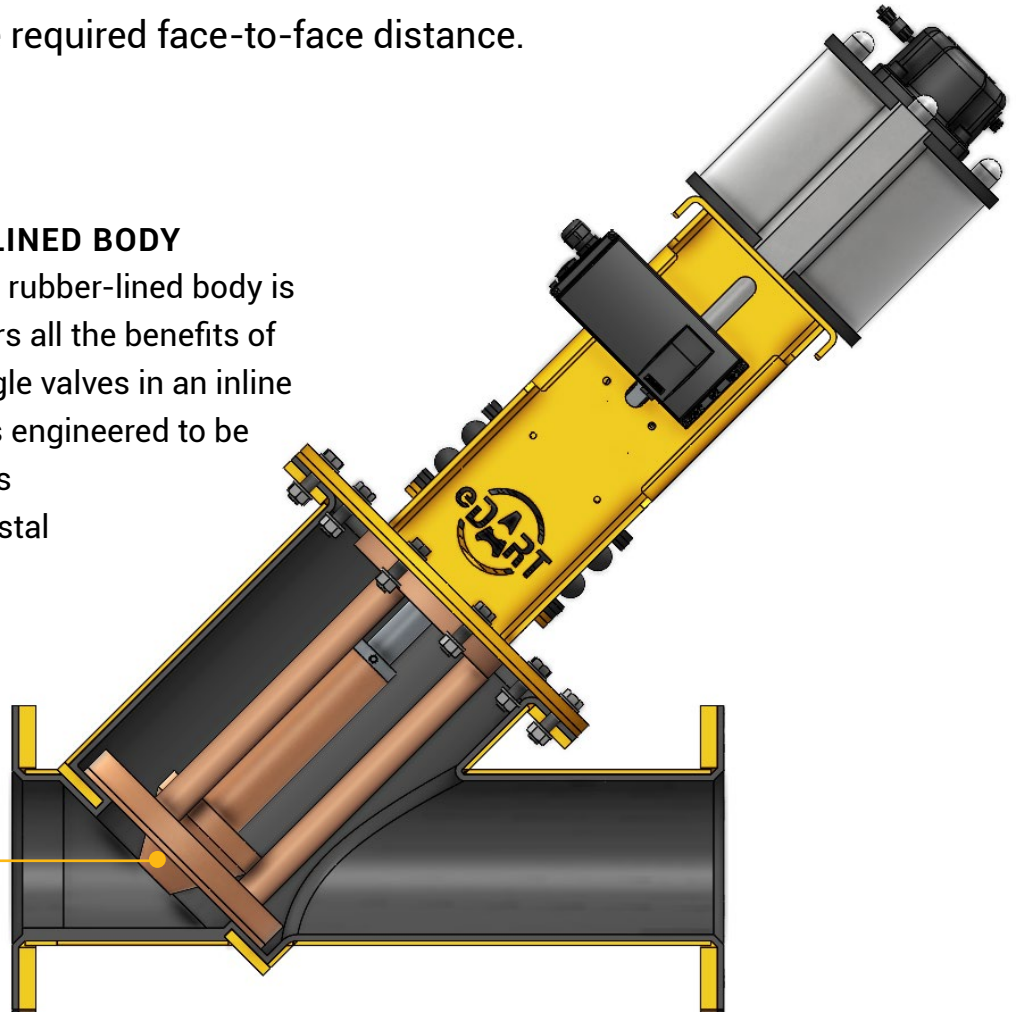
eDART | YDART

The eDART yDart is designed with the shaft, plug, seat, bonnet, and actuator inclined at a 45° angle to the longitudinal axis of the pipeline. This inclination allows for the compact arrangement of the plug and seat within the valve body, minimizing the required face-to-face distance.

STANDARD RUBBER-LINED BODY

For most applications, a rubber-lined body is suitable. This valve offers all the benefits of the eDART dual and single valves in an inline version. The feedback is engineered to be linear and the actuator is mounted on a stiff pedestal

PLUG
The plug has a linear flow characteristic to offer good control



To ensure excellent resistance to abrasion, the eDART yDart is equipped with a rubber lining. This rubber lining provides enhanced protection against wear caused by abrasive slurry, prolonging the valve's lifespan and maintaining its performance over time.

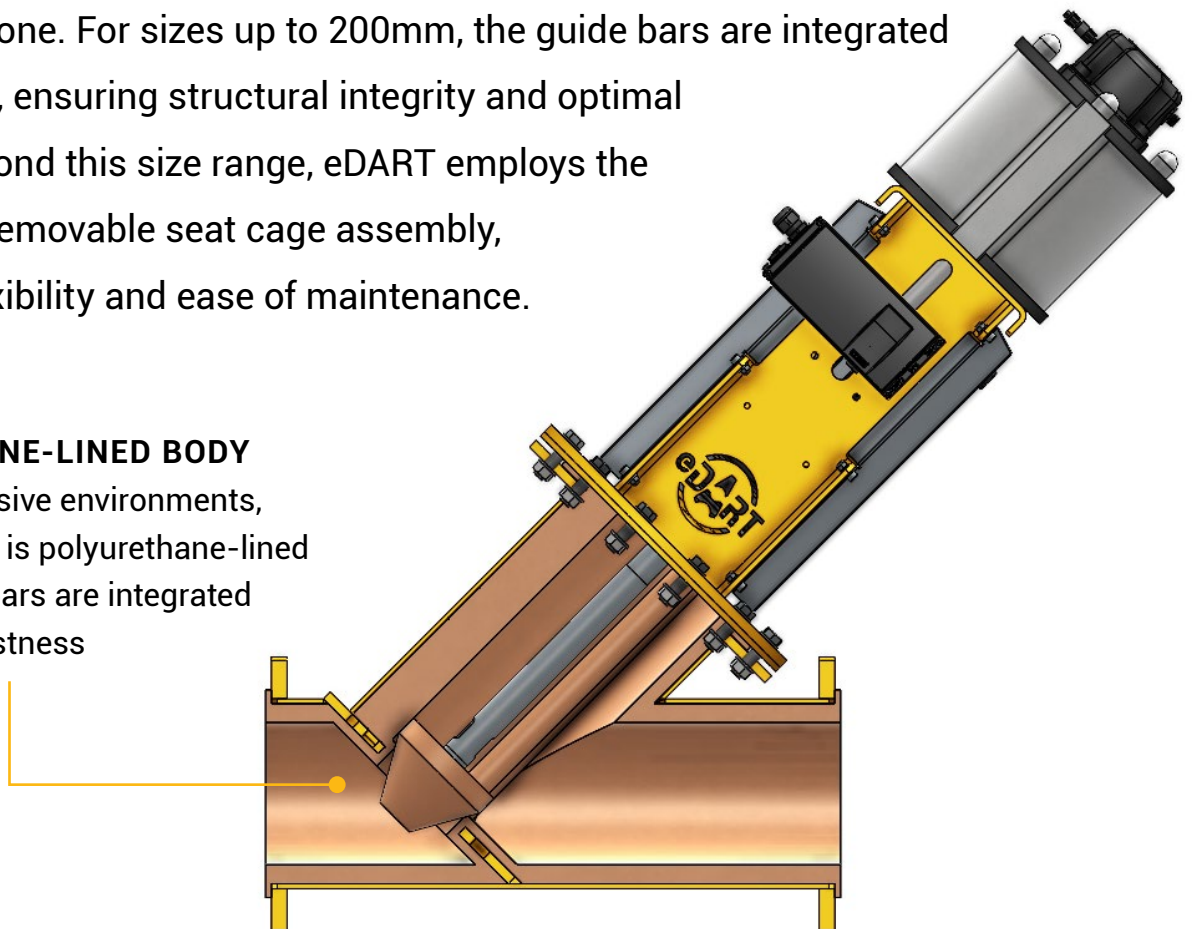
Experience the benefits of the eDART yDart's innovative design, with its inclined components and rubber lining, delivering efficient slurry control while optimizing space utilization and offering exceptional abrasion resistance.

eDART | POLY YDART

To address highly demanding applications, eDART has introduced the Poly-yDart valve, specifically designed for severe conditions where a polyurethane-lined body offers superior performance compared to a rubber-lined one. For sizes up to 200mm, the guide bars are integrated into the body, ensuring structural integrity and optimal support. Beyond this size range, eDART employs the well-known removable seat cage assembly, providing flexibility and ease of maintenance.

POLYURETHANE-LINED BODY

In more aggressive environments, the whole body is polyurethane-lined and the guide bars are integrated for added robustness



The Poly-yDart configuration is not limited to large sizes alone. It is also available in very small sizes, starting at 25 mm. This compact option has been successfully utilized in pilot plants, showcasing its effectiveness and adaptability across various applications.

Choose the eDART Poly-yDart for severe applications that demand a polyurethane-lined body, offering enhanced durability and performance. Benefit from the integrated guide bars or removable seat cage assembly, depending on the valve size, and experience the flexibility and proven success of this configuration even in small sizes.



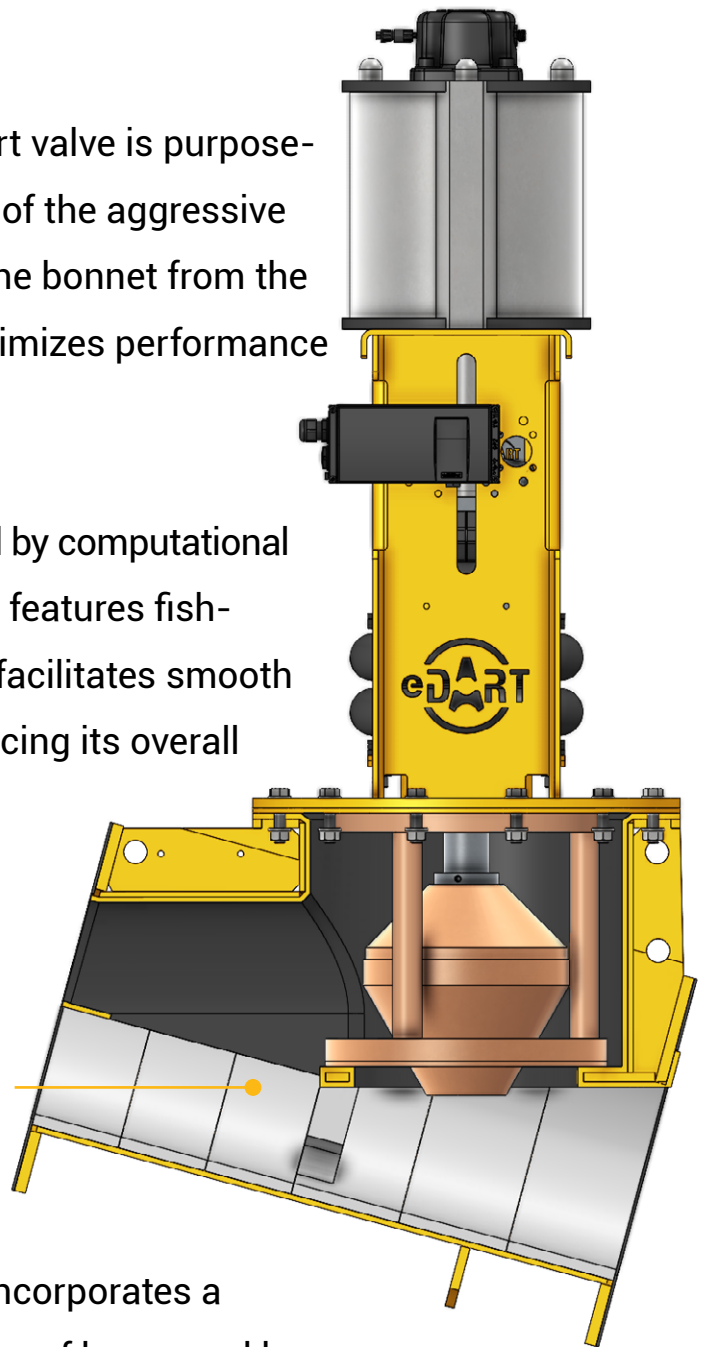
eDART | FLASH DART

The eDART FlashFloat variation of the yDart valve is purpose-built to meet the demanding requirements of the aggressive flash float market. With a slight 15° tilt of the bonnet from the pipeline's longitudinal axis, this design optimizes performance for flash flotation applications.

To ensure optimal flow patterns as predicted by computational fluid dynamics (CFD), the body of the valve features fish-jaw-like openings at the inlet. This design facilitates smooth and efficient flow through the valve, enhancing its overall performance.

COARSE PARTICLE BYPASS

For the most aggressive slurry flows and the ability to pass expelled mill balls, a bypass is built into the valve under the seat. These valves are good for flash float under flow control



Additionally, the FlashFloat configuration incorporates a secondary port that allows unrestricted flow of heavy and large particles directly beneath the seat. This ingenious design feature minimizes the risk of choking and ensures the smooth passage of such particles through the valve.

Experience the exceptional capabilities of the eDART FlashFloat variation, purposefully developed to address the aggressive nature of the flash float market. Benefit from its optimized bonnet tilt, fish-jaw-like body openings, and the inclusion of a secondary port, all working in unison to deliver superior performance and minimize flow disruptions caused by heavy particles.





Pair of eDART Poly yDart valves and actuator, with wire drawn pots





Ydart on site



On site maintenance



Ydarts for shipment



eDART Poly yDart in operation on site



THE BENEFITS OF eDART INLINE DART VALVES

eDART inline dart valves offer a range of significant benefits, making them a preferred choice in various applications:

- **Best cost-to-performance ratio:** Compared to butterfly, ball, pinch, and diaphragm valves, eDART inline dart valves provide an excellent balance between cost and performance. They deliver exceptional performance at a competitive price point.
- **De facto standard for flotation level control:** eDART inline dart valves have become the industry standard for flotation level control. Their reliable and precise operation makes them widely recognized and trusted in flotation applications.
- **Near-linear control curve response:** These valves offer a near-linear control curve response, ensuring accurate and predictable control over the process variables. This facilitates optimal process optimization and efficient control loop tuning.
- **Finer control and faster tuning:** eDART inline dart valves allow for finer control and faster tuning of level control and bank loops. Their responsive and precise performance enables operators to achieve desired process targets with increased efficiency.
- **Effective management of high-wear zones:** By design, eDART inline dart valves effectively manage high-wear zones. Their robust construction and materials ensure longevity and reliability in demanding applications, reducing maintenance requirements and downtime.
- **Installed on top-performing plants and concentrators:** eDART inline dart valves have been installed and proven their effectiveness on the best-performing flotation plants and concentrators. Their track record in delivering superior performance has made them a trusted choice in the industry.
- **Experience the numerous benefits of eDART inline dart valves,** including their cost-effectiveness, industry-leading performance in flotation level control, precise control curve response, enhanced tuning capabilities, durability in high wear zones, customization options, and proven success in demanding applications.





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?

eDART GROUP SA (PTY) LTD

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***ISO 9001 is the internationally recognised standard
for the quality management of businesses.***