

Technical Bulletin - TriDart Valve

E-PUB-04-0005 Version 42, 2016-06-03

Do you have these issues?

- Poor level control or spillage
- Difficult to access seats
- Excessive wear

- Misalignment of valve and actuator shaft
- Bouncing or vibration of valves, poor coupling.
- Maintenance problems

Then eDART internal valves will benefit you. eDART's self-contained TriDart valve fits into position, bolts down and has the distinct advantage of being pre-assembled and calibrated prior to shipment to site. This valve is recommended for tank depth of up to 2-3 metre

Features

- Self-contained, "drop in" style
- Control or On/Off applications
- Customisable design
- Full head guiding
- Anti-Rotation device
- Stroke indication

Standard Sizes

• 80 mm to 600 mm

Please enquire about customisation to suit your needs and plant layout.

Material of Construction

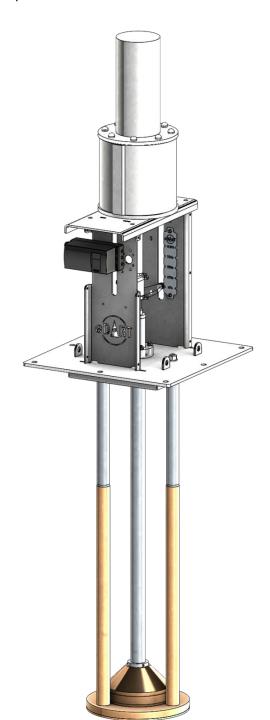
- Mild Steel bodywork
- · Poly urethane and mounting bars
- Internal components made from wear resistant poly urethane (PU) protected, wetted parts including seat, plug and valve guides
- Shaft either stainless steel or PU protected

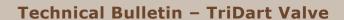
Options

- Supplied with or without an actuator
- Bias Spring Fail Closed, Fail Fixed or Double Acting Actuator Options
- Smart (HART, Profibus), Electro-Pneumatic (4-20mA),
 Pneumatic (20-100kPa) Positioner
- Safety Guards enclosing feedback mechanism

Applications

- Ideal for tanks up to 2–3 metre deep
- Smart splitter boxes
- Feed distribution boxes
- Small flotation machines
- Conditioner tanks







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Variations

The pedestal can supplied with a bellows for pressurised applications. The very large external valve product is essentially a sub-vessel with a number of sealed TriDarts.



Technical Data

Size	CV _{max}
100	176
150	429
200	840
250	1,400
300	1,830
350	2,650
400	3,320
450	4,310
500	5,060
600	6,950

Benefits

Large Actuators	Engineered Feedback	Finger Guards
The actuators are sized to provide stiff modulating capability, sufficient stroke and good resolution to improve control and stability.	The mechanical linkages are designed to provide accurate linear response and may be replaced with an internal electrical transducer within the actuator when size demands.	Full covers can be supplied to enclose all moving parts for safety reasons.
Seat Cage	Plug	Seat
The legs form a cage to guide the plug head where it matters and does away with troubles of slurry filled and sticky shafts guide blocks.	The conical plug has a linear flow characteristic while the concave plug shape is quick opening: the linear flow characteristic is better for the control system. The eDART cone shape is a good tradeoff between control complexity, flow characteristic and cost.	The clamped down seat means firstly that the complete valve can be factory or workshop calibrated before commissioning and secondly the valve can be removed/inserted from/in the process during operations.