



# eDart General Catalogue



[www.edart.co.za](http://www.edart.co.za)

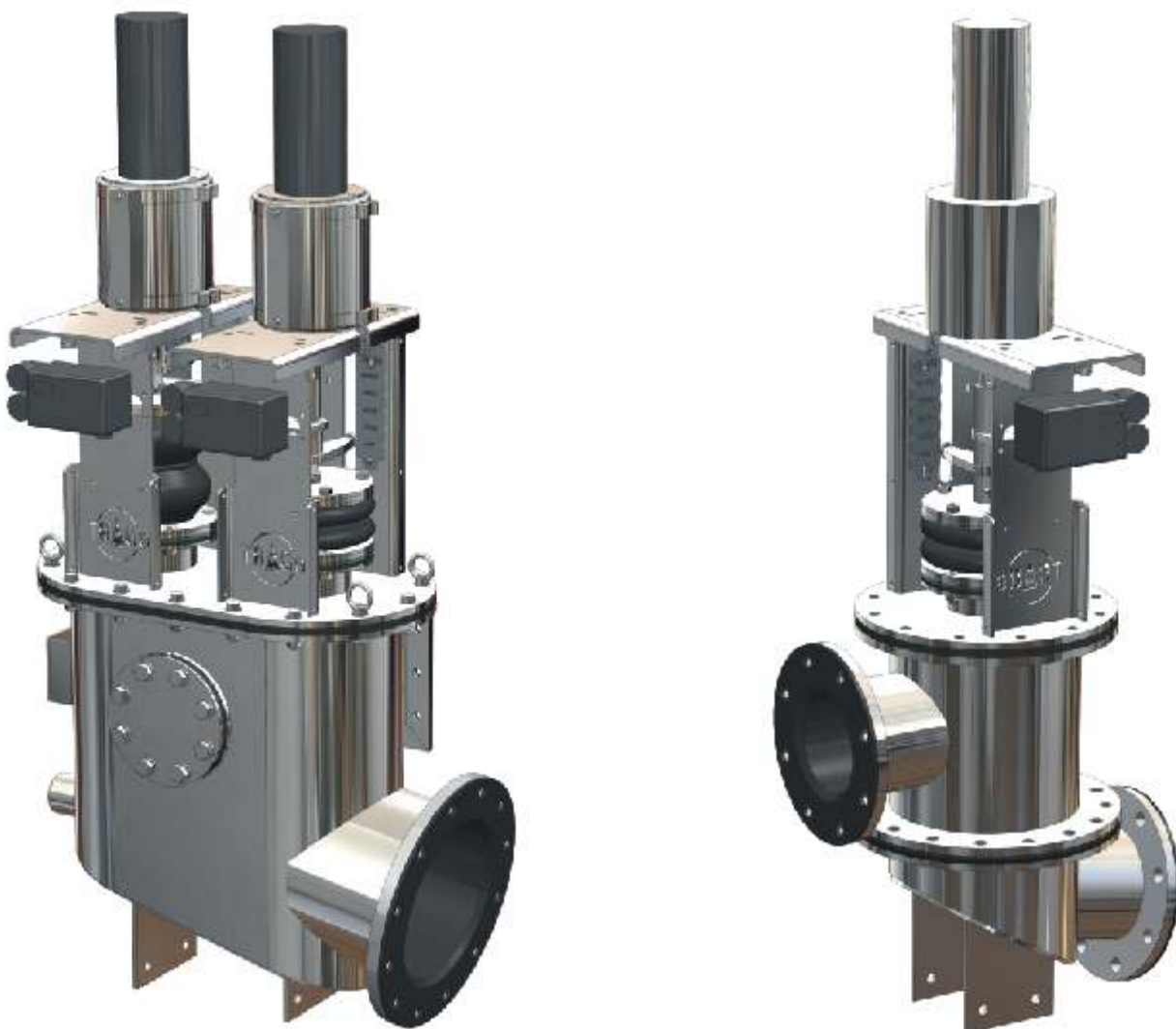
The single and dual eDart valves are optimised for fine control of slurry flow specifically designed with the flotation market in mind.

### *Features*

- Linear Flow Characteristic for tight control
- Polyurethane plug, seat and guides for long life
- Body fully customised to plant layout
- Rubberlined Body
- Cage guided plug to minimise vibration and eliminate shaft guides
- Simple maintenance: All internal wearing parts can be inspected and/or replaced without removing the valve body from the process line
- Anti-Rotation Device on pedestal
- Visual Stroke Indication
- Simplified installation on site - valves are assembled, calibrated and inspected in the factory before dispatch.

### *Applications*

- Flotation level control
- Plant retrofit - due to flexible valve orientation



## – Standard (Single Actuator) or Flash (Double Actuator)

eDart's pinch valves are value engineered to give a simple, robust and low cost valve with good flow control capabilities. They can be operated either with a single (called Standard Pinch) or double (called Flash Pinch) pneumatic actuator or with a handwheel. Both configurations are offered with reduced or full bore pre-pinch sleeves.

eDart's Pinch Valves are designed for high wear applications particularly where control is required.

### **Features**

- Standard Pinch Valve pinches from both the top and the bottom of the sleeve
- The oval constriction of the Flash Pinch Valve is orientated vertically so that the solids in suspension do not have to ride up over the rubber "weir" in the pinched sleeve
- Both actuators of the Flash Pinch Valve are rigidly attached to the frame that is bolted to the pipeline providing a more stable valve
- Reduced bore sleeve for better control
- Sleeves available in natural rubber and polyurethane
- Sizes: 80 NB to 300NB; Pressure Rating: PN10

### **Applications**

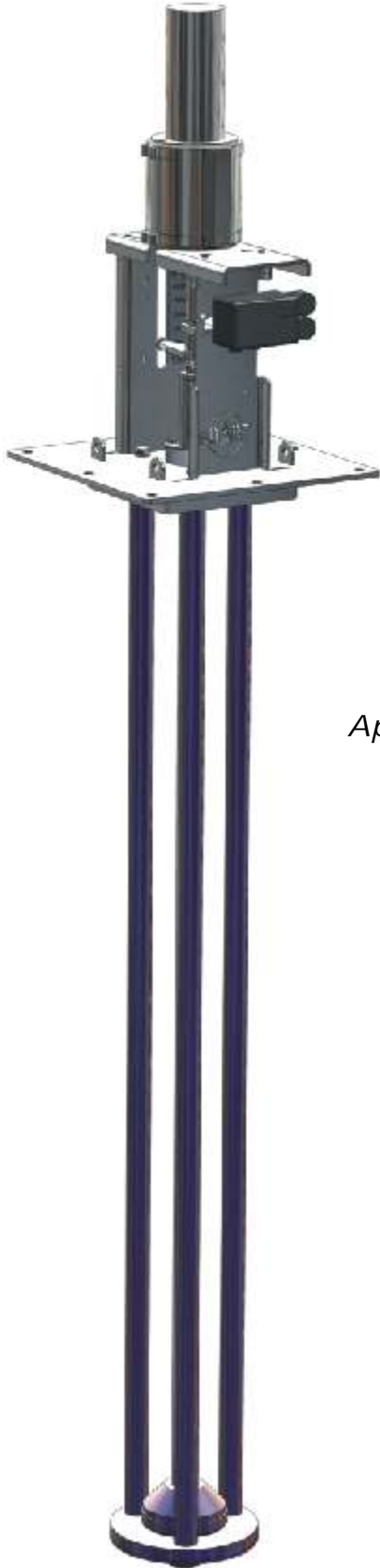
- Coarse abrasive slurries
- Slurry flow control
- Column Cells
- Flash Roughers
- Thickener discharge



eDart offers the popular self contained internal iDart and triDart valves which can be dropped into an installation and installed with minimal effort. The valve does not require additional internal guide plates as the guiding and stability is done on the plug head.

### *Features*

- Self contained
- Modulating Control or On/Off applications
- Fully customisable design
- Anti Rotation Device
- Stroke Indication
- Polyurethane plug, seat and guide bars
- Sealed option to prevent froth spillage



### *Applications*

- Large flotation machines
- Deep distribution boxes: Integral head guiding
- Splitter boxes
- Distribution boxes
- Conditioner tanks
- Conventional Flotation Cells



eDart offers an in-line slurry control valve with compact design and fine control due to the use of a plug and seat.

### Features

- Compact design
- Fine control
- Linear characteristic
- Flow-Over the plug (important to reduce wear)
- Bellows sealing arrangement on shaft
- Pneumatic piston actuator with double O-Ring seal
- Removable bonnet for easy maintenance; valve body remains in the process line
- Anti-Rotation Device
- Stroke Indication
- Fail Closed Option

### Applications

- Flotation Tank level control
- In line slurry control valve



## Dosing Valves

eDart's Self Flushing Inline 3-Way Dosing valve is used to neutralise tailings or to control the PH of the medium.

Typically, rock lime (alkaline) in a ring main is continuously pumped around the circuit because it tends to settle and separate. Normally a T piece is inserted into the line (called a take off line) and the flow is controlled with a standard valve i.e. Diaphragm or pinch. When the valve is closed the line is filled up with the stagnant lime solution and the solids settle. The dosing valve eliminates this by being located directly in the ring main. As the valve opens the vertical take off line fills up. When closed the take off line empties eliminating the chance of blocking.

### Features

- Self Flushing
- Fine Control
- Rubber lined body
- Polyurethane Plug and Seat for long life

### Applications

- Lime dosing on lime slaker
- Reagent dosing



## T-Poppet Sampler

The eDart T-poppet sampler is very simple and compact in design, highly robust and inexpensive. These samplers have been successfully used for sampling of slurries for many years. The unit is specifically designed to meet composite or shift sampler requirements.

### Features

- Eliminates product spillage
- Compact design
- Line Pressure not exposed to atmosphere
- Water flushing if required
- Low and Easy Maintenance
- Locally Manufactured
- Moving parts fully removed from the line in the non-sampling position
- Extend the sampler life
- Simple and Robust



### Applications

- Composite sampling
- Daily shift sample or composite sample
- Grab samples
- Sampling campaigns

## Thief Sampler TS125

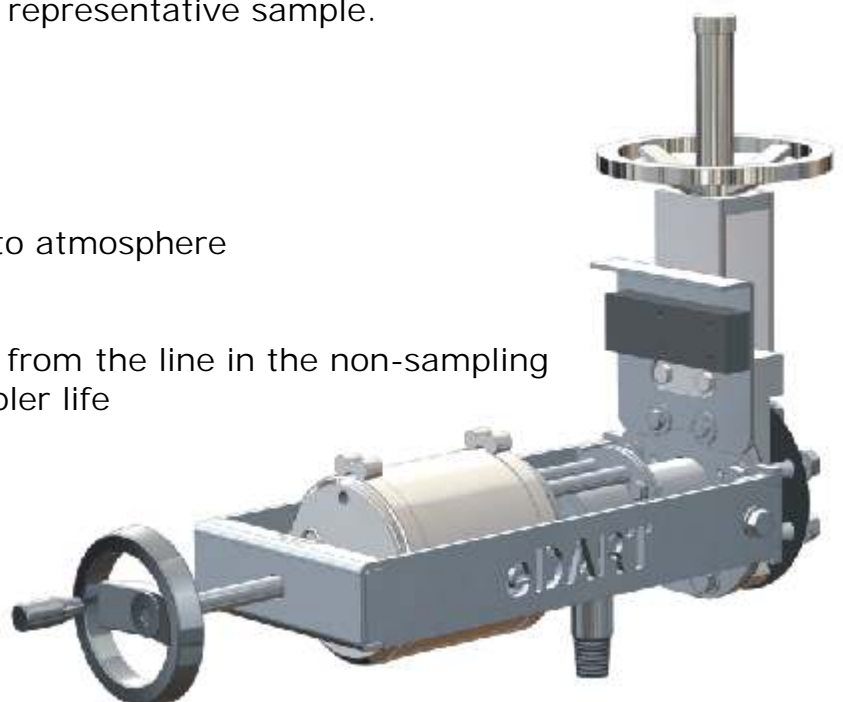
The eDart Thief Sampler unit is specifically designed to sample slurry and be installed and removed from the process stream on-line. It is also designed to fit onto the Dual eDart body where valve turbulence provides a good representative sample.

### Features

- Eliminates product spillage
- Compact design
- Line Pressure not exposed to atmosphere
- Low and Easy Maintenance
- Locally Manufactured
- Moving parts fully removed from the line in the non-sampling position to extend the sampler life
- Simple and Robust

### Applications

- Grab samples
- Sampling campaigns
- Plant commissioning
- Composite/shift sampling



The eDart dual valve controller (DVC) is designed to control two valves working in parallel. It can also be used to control two plugs within a valve or tank cell.

The DVC intelligently splits the single 4-20mA signal from the PLC. These signals are fed to each positioner of the valve pair. The DVC simplifies the control of dual valves as no special PLC modification need to be made in order to operate a dual valve configuration. To the PLC the two valves are then treated as one valve. The control loop can still be tuned using classic PID controllers. The DVC often leads to improved control as the two valves are prevented from interacting with each other.

### Features

- The characteristic of the two valves and the desired characteristic of the combined unit can be programmed
- The Master and Slave output can be reversed periodically if the application requires this to prevent sanding
- The time between reversals and the time to complete a reversal is programmable to prevent any surges to the plant
- The DVC will produce a calibration certificate, including serial number, and date for each calibration
- One DVC can drive another DVC to control a third valve if required
- The control algorithm is designed to prevent one valve operating close to the seat whilst the other valve is fully open
- The DVC requires a 24 VDC power source

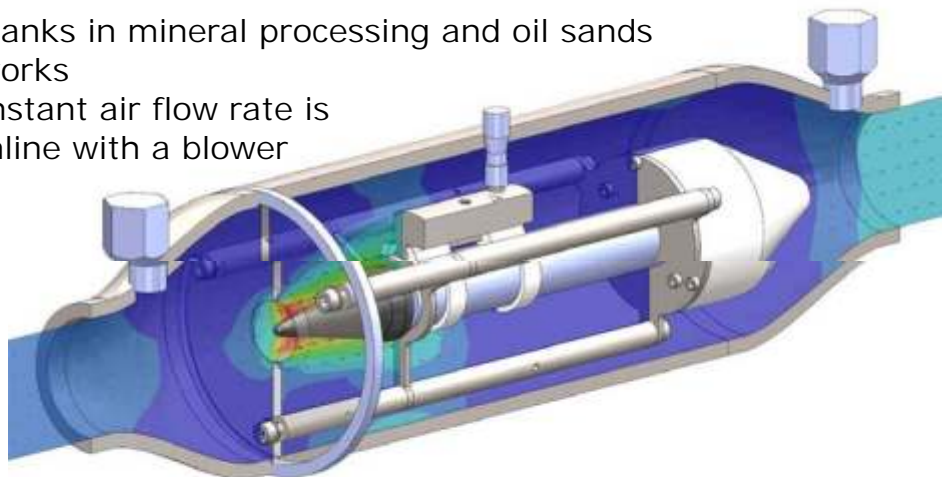


## Air Valve

eDart's Smart AirValve is an inline variable orifice that uses microprocessor technology to control volumetric flow rate. The result is that for varying upstream pressure (from the blower) and downstream pressure (by the process) the delivered flow rate is held constant. No instrument air is consumed.

### Applications

- Forced air flotation tanks in mineral processing and oil sands
- Fisheries, Sewage works
- Anywhere that a constant air flow rate is required, typically inline with a blower



eDart Actuators have proven themselves over the years as an effective, reliable and cost effective actuator. Our unique design eliminates the use of tiebars which reduce the size and weight of the actuator. Our biased spring options allow for fail action but are piped Double Acting for superior control – specifically designed to be used on modulating control applications. On actuator mounting the feedback system is modelled to give linear response to the valve position.

### *Features*

- GRP Barrel and Stainless Steel Cover
- Double piston seal and PTFE wear strip for reliably long service and reduced wear
- Variety of stroke lengths available
- Compact and robust design
- Self contained bias spring pack - welded pre-compressed safe design
- Anti-rotation device
- Stroke indicator
- Sizes: 160mm to 400mm Bore

### *Applications*

- Pinch Valves
- Dart Valves
- Diaphragm Valves
- Knife Gate Valves
- Y-pattern Valves
- eDart Valves
- Dosing Valves
- Third party valves



Local Contact Details: