



eDART Installation and Maintenance Manual - Dosing Valve

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Document eDART Installation and Maintenance Manual
- Dosing Valve

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WARNING

eDART Slurry Valves (PTY) LTD will in no way be liable for any loss or injury or death caused to any person or persons or property following this installation and maintenance manual.



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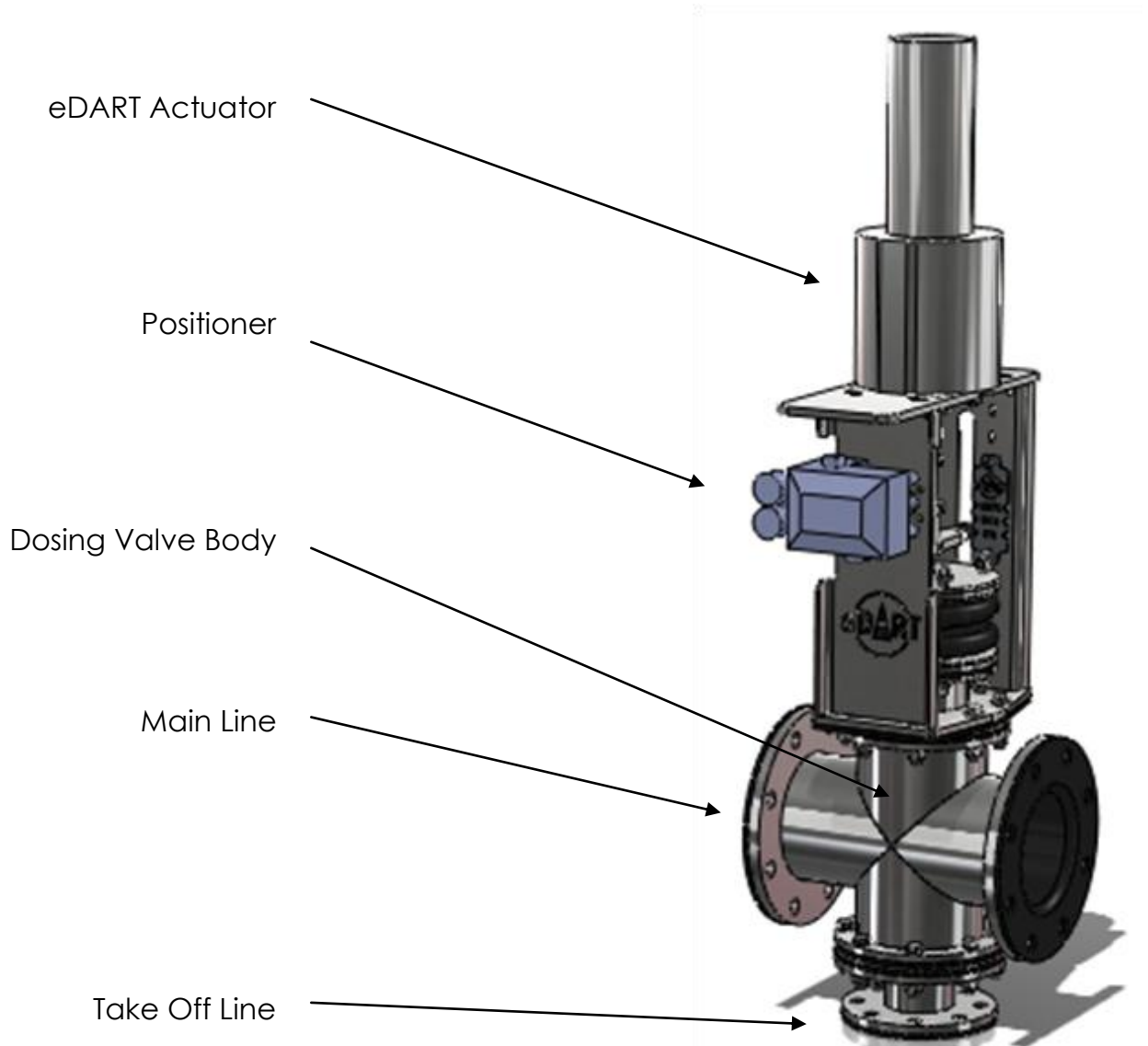
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1. INTRODUCTION

This installation and maintenance manual covers the eDART Dosing Valve range

2. GENERAL OVERVIEW



3. INSTALLATION GUIDELINES

1. The eDART Dosing Valve is to be bolted into the line in the vertical orientation with the actuator on the top. This means that the flushing port is orientated correctly
2. Connect the air and signal to the positioner.
3. Sufficient clearance above and below the valve is to be left clear for stripping, maintenance and removal.

4. RIGGING AND LIFTING

1. The eDART dosing valve is to be lifted using a soft sling through the top of the frame
2. Care must be taken to avoid damage to the actuator, positioner and especially the positioner feedback mechanism



WARNING

Utmost care should be taken to avoid damage to the feedback mechanism when lifting the eDART dosing valve!

5. EXPECTED WEAR ITEMS

There are five items that are located in the wetted area of the valve which are subject to the line material abrasion and therefore damage. These should be visually inspected.

We advise that these parts are stocked on site

1. **Seat** – Polyurethane coated
2. **Plug** – Polyurethane. Either as a single item or moulded onto the shaft depending on valve size
3. **Shaft** – StSt tungsten Carbide coated.
4. **Shaft Guide** – HDPE
5. **Bellow Seal** – Rubber



WARNING

If any other components appear to be damaged or worn please contact eDART immediately.

6. REPLACING OF COMPONENTS



WARNING

Only suitably trained personnel are to work on the eDART Valve. Before any maintenance is done the valve must be safely isolated from the line

1. Remove air lines and signal to the positioner
2. Remove valve from the line
3. Remove Feedback Arm
4. Loosen and remove the stem clamp collars and stem clamp barrel. Take note of the distance between the actuator shaft and the valve shaft. This accounts for the required pre-compression for the plug and seat.



Note

It is important to measure the distance between the actuator shaft and the valve shaft at this point.

5. Loosen the bolts and nuts holding the pedestal onto the valve body.
6. Lift off the actuator and the pedestal as one unit from the valve body. This will leave behind the valve body and the seat.
7. If the actuator requires replacing, remove the 4 off nuts holding it onto the pedestal and follow the directions stipulated in the actuator maintenance manual.
8. Loosen the nut on the valve shaft holding the bellows down. Remove nut and top plate.
9. Bellows can be removed by loosening the nuts holding it onto the pedestal.
10. Ensure that the shaft o-ring is not damaged when removing the bellows.
11. The guide can now be extracted from the body of the valve.
12. Remove and replace the HDPE guide on the guide plate
13. The valve plug can now be extracted from the body. Replace with new component.
14. The seat can be replaced by removing the body bolts at the bottom of the outlet.
15. Rebuild the valve in the reverse order.
16. During re assembly ensure that not too much pre-compression is applied to the plug and seat. See Point 4 for required measurement.
17. See positioner manual for calibration of the positioner.
18. Take care not to over tighten any of the fasteners.



7. eDART SAFETY

1. The eDART Dosing Valve is to be lifted using a soft sling under the body, taking care to support the actuator so as not to damage the actuator or positioner or positioner feedback mechanism.
2. Due consideration is to be given to the weight of the components before dismantling.
3. Rigging equipment and procedures are to be followed to service the eDart.
4. Safety procedures for the use of compressed air are to be followed.
5. Only suitably qualified persons to work on or maintain eDART valves.
6. All local safety rules and regulations with respect to safety clothes applicable, tools and equipment used and methods of operation are to be adhered to.

8. PROBLEMS

For any problems please contact eDART Slurry Valves directly on –

**Tel. +27. (0) 11. 823. 6620, or
email: maintenance@edart.co.za**

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