



## General Installation and Operating Manual for Non Slam Air Valves.

### Table of Contents:

1. Introduction	2
2. Receiving, Handling & Storage	2
3. Installation A.R.I Air Valve	3
4. Appendix: A.R.I. Installation and Operation Manual	11

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# 1 Introduction

This manual will provide you with the information to properly install and maintain the air valve and ensure a long service life. A.R.I Non-Slam Air Valves have rugged construction to provide many years of trouble-free operation.

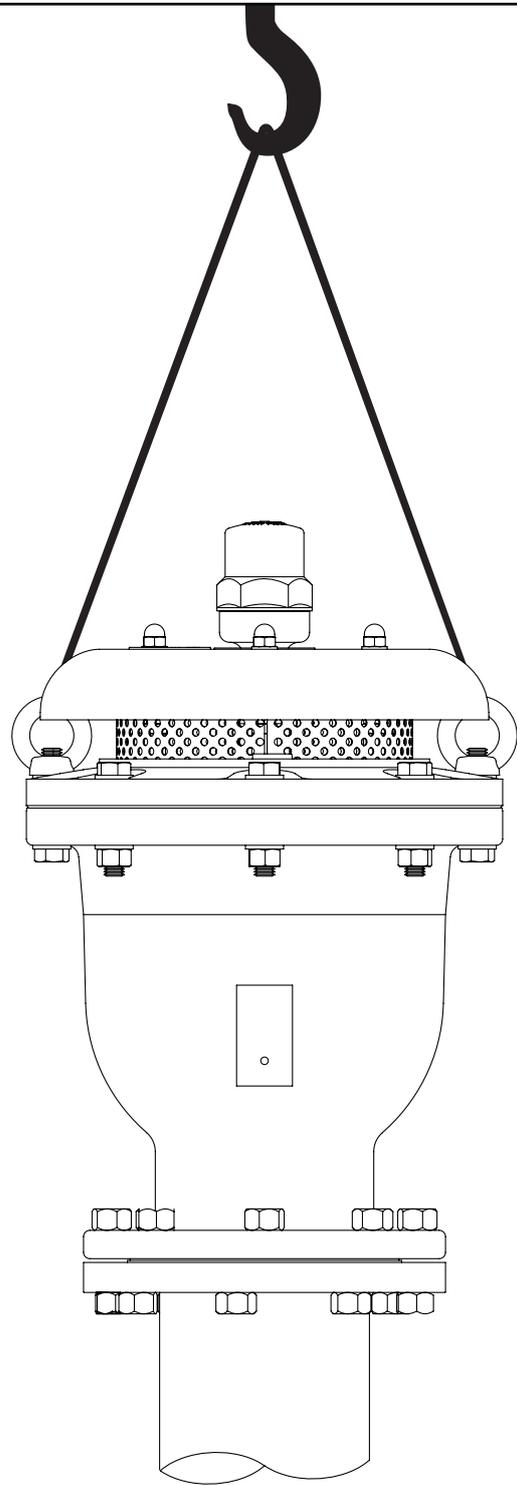
Non-Slam Air Valves have been designed to provide surge protection. The air valves are used to prevent water hammer in pumps or in piping system. The material type is indicated clearly on the casting inscription of the valve body. The air valve size and pressure class are clearly indicated on the ID tag attached to the air valve body.

## 2 Receiving, Handling & Storage

Inspect air valves upon receipt for damage in shipment. Carefully remove the air valve from the shipping package. Unload all air valves carefully to a sturdy level surface taking care not to drop them. Air valves should be lifted by using the eye bolts only and not by any other means. For small- sized air valves, they should be lifted by means of belts which are to be placed around the flange necks.

When the valves are to be stored for some time before being fitted, storage should be in the original delivery crates or cases. Storage should be off the ground in a clean, dry indoor area.

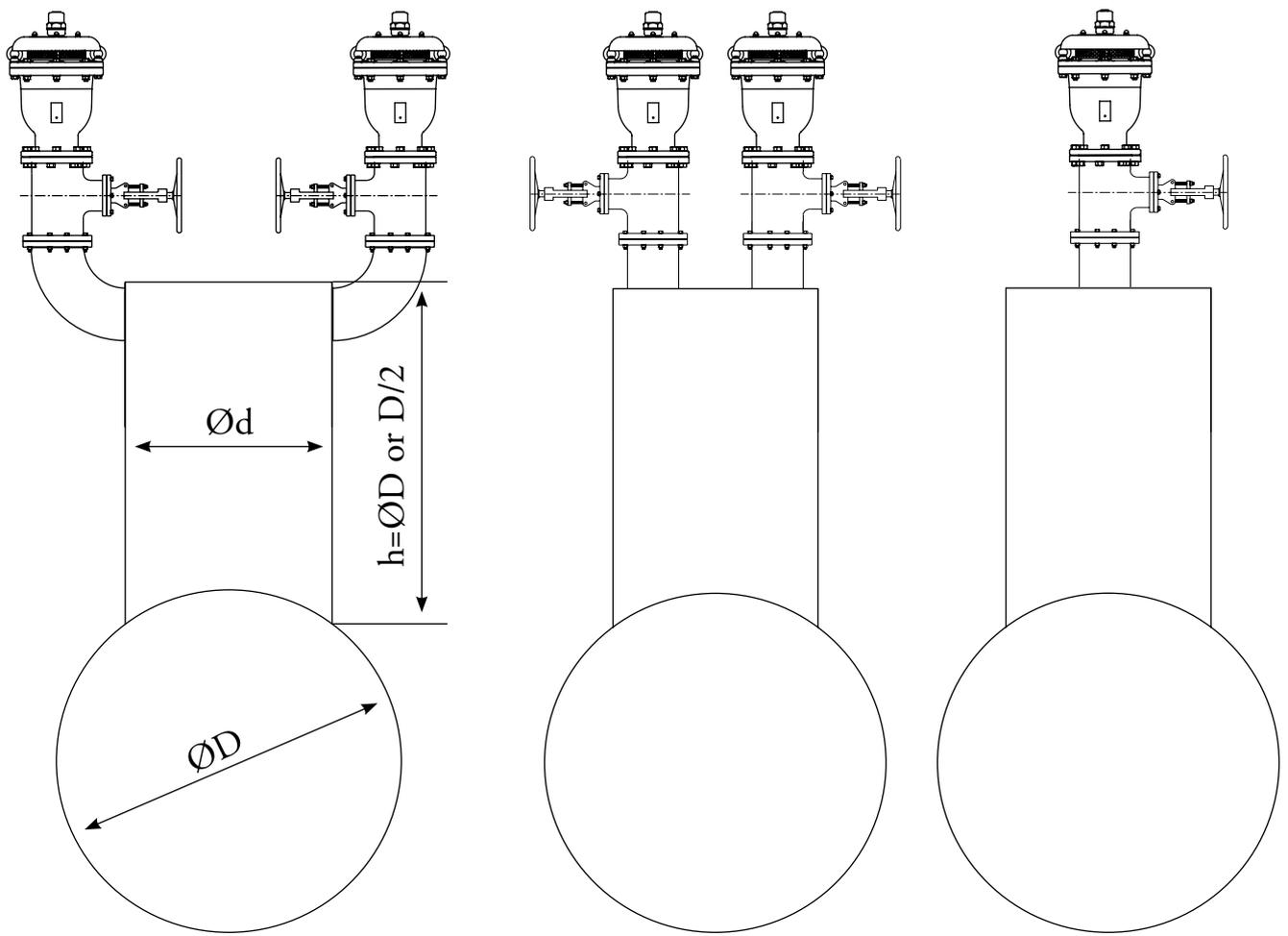
Illustration 1 : Lifting Option



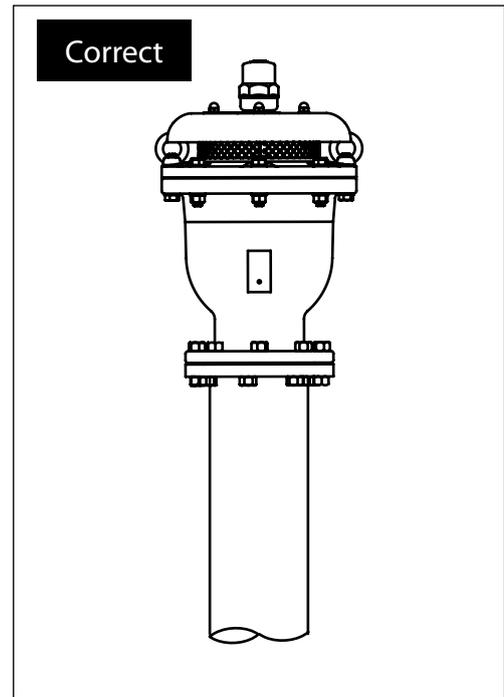
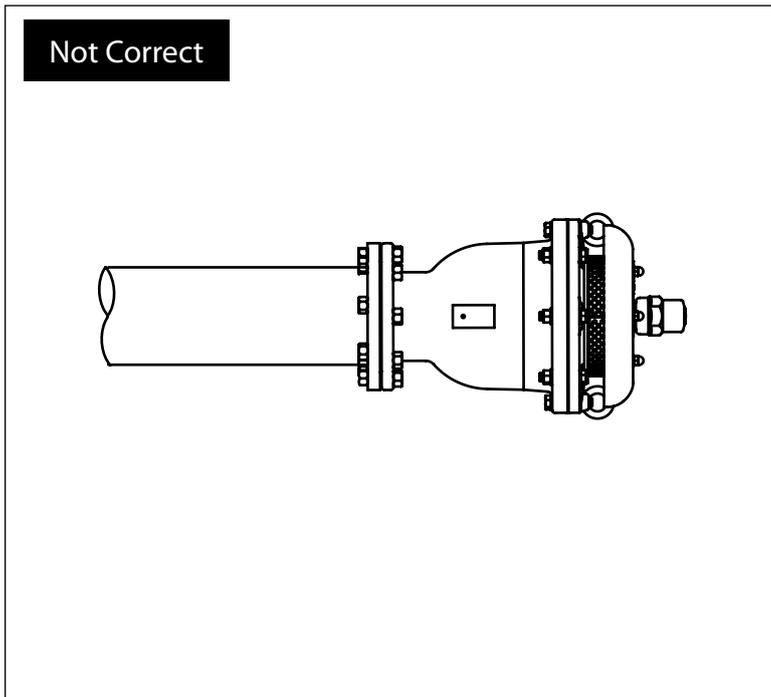
### 3 Installation A.R.I Air Valve

#### 1. Recommendation for Riser Dimensions

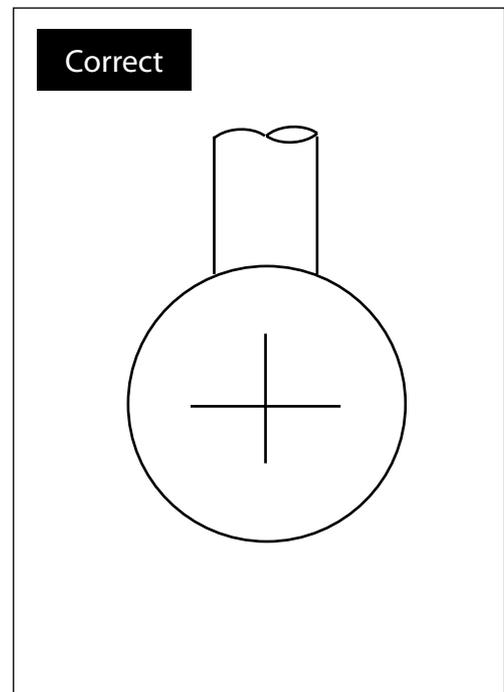
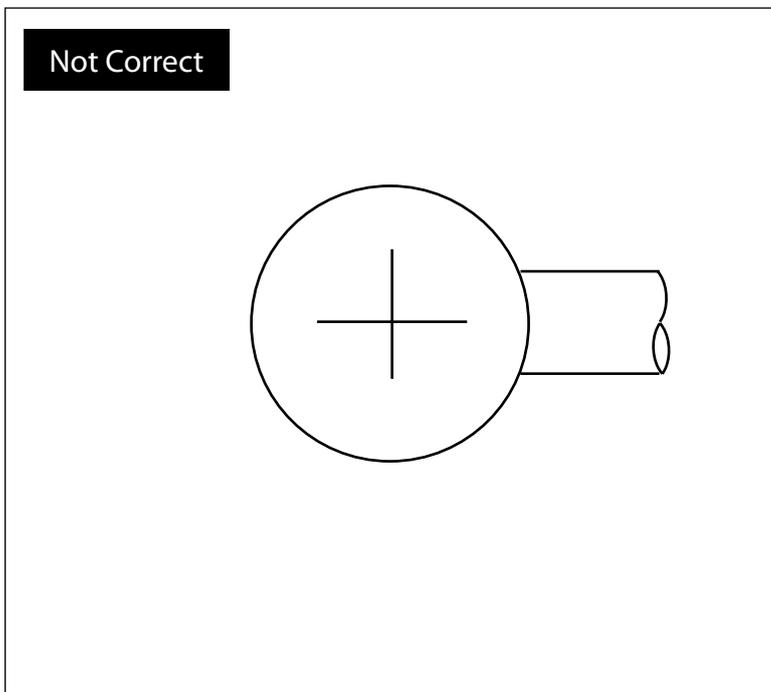
$d=D$	for	$D \leq 300 \text{ mm}$
$d=0.6 D$	for	$300 \text{ mm} < D \leq 1500 \text{ mm}$
$d \geq 0.35 D$	for	$D > 1500 \text{ mm}$
$h \geq D$ or $h=D/2$ and $h \geq 150 \text{ mm}$		



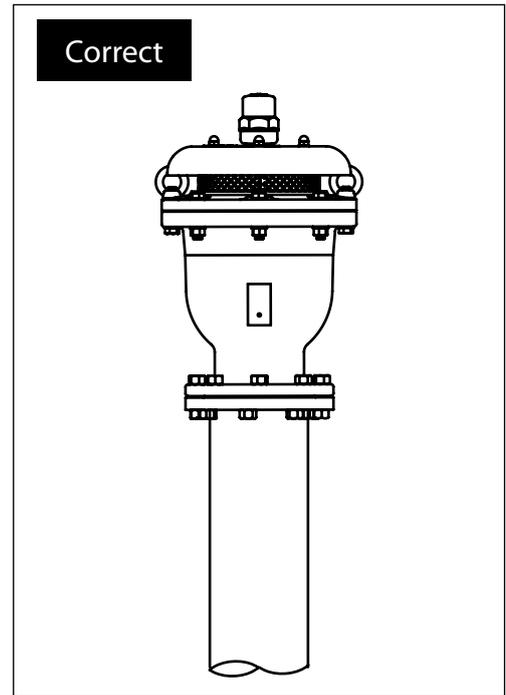
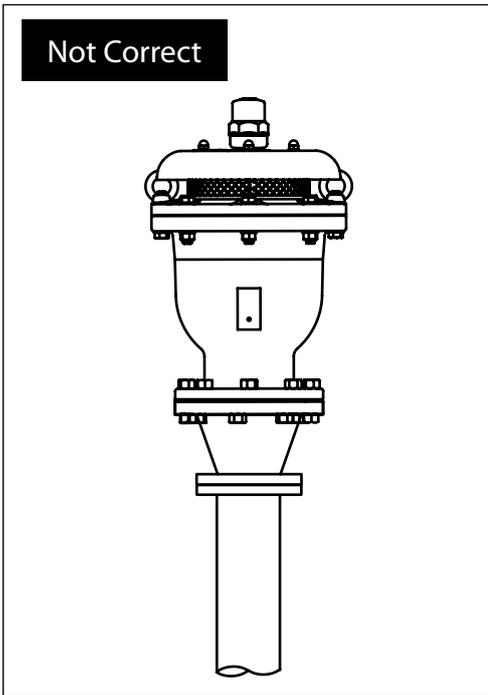
2. The air valve should be installed in a vertical position.



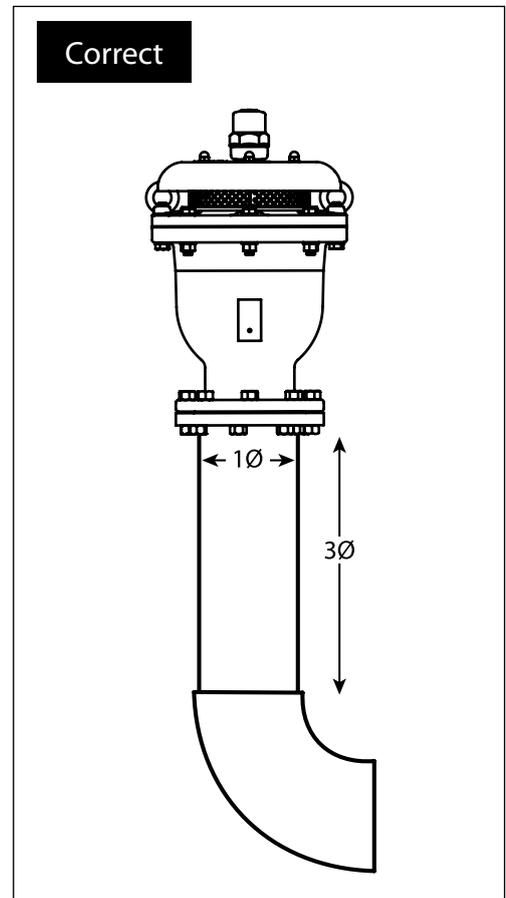
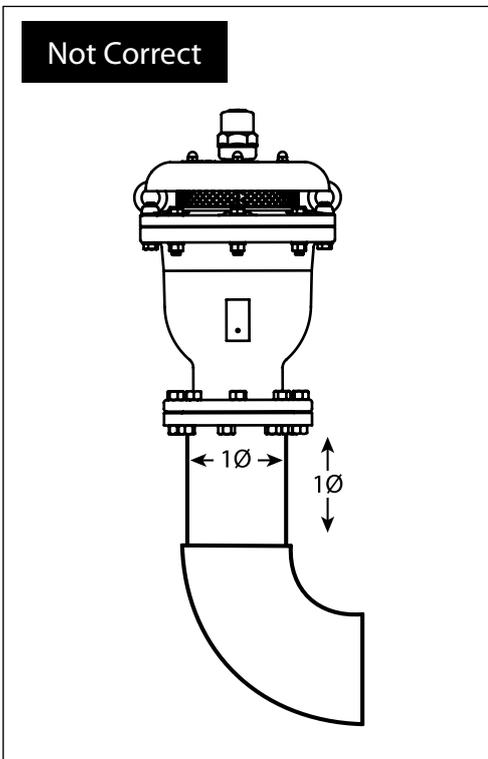
3. The standpipe should be attached to the crown of the pipe and not from the side of the pipe.



4. The standpipe should connect directly to the air valve and must be of an equal or greater diameter than the air valve.



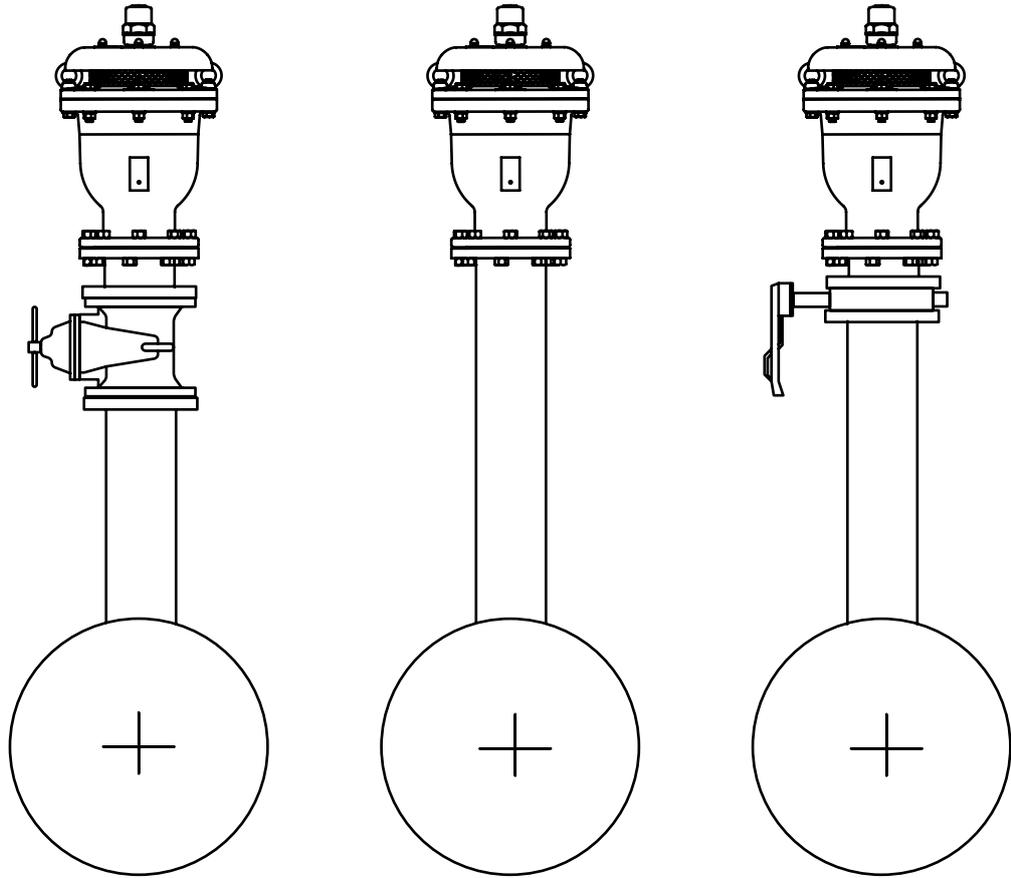
5. The standpipe under the air valve must have a minimum length of at least 3X its diameter.



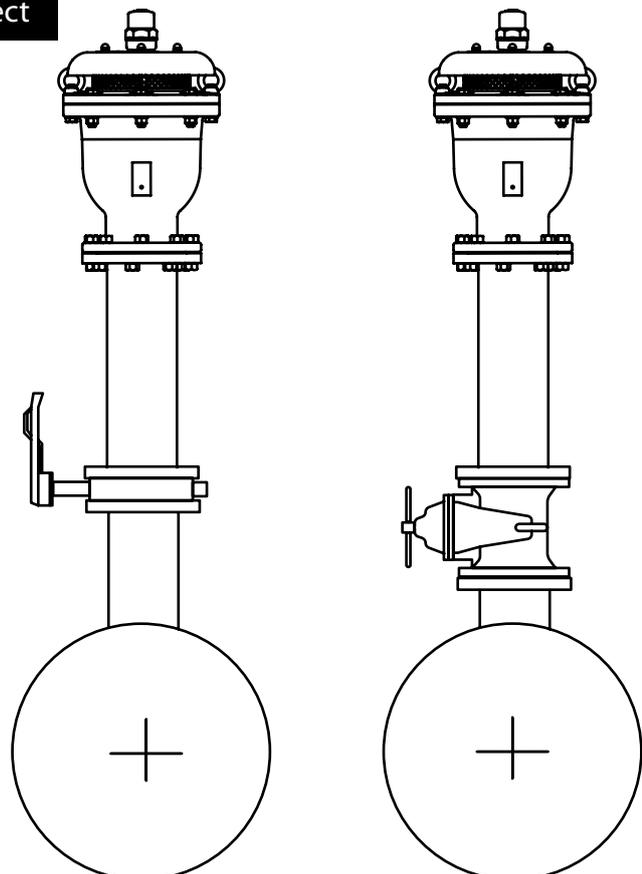
6. An isolation valve must be installed to allow for proper maintenance and should be positioned close to the main pipe.

A stand pipe will extend vertically from the isolation valve, its length at least 3X its diameter.

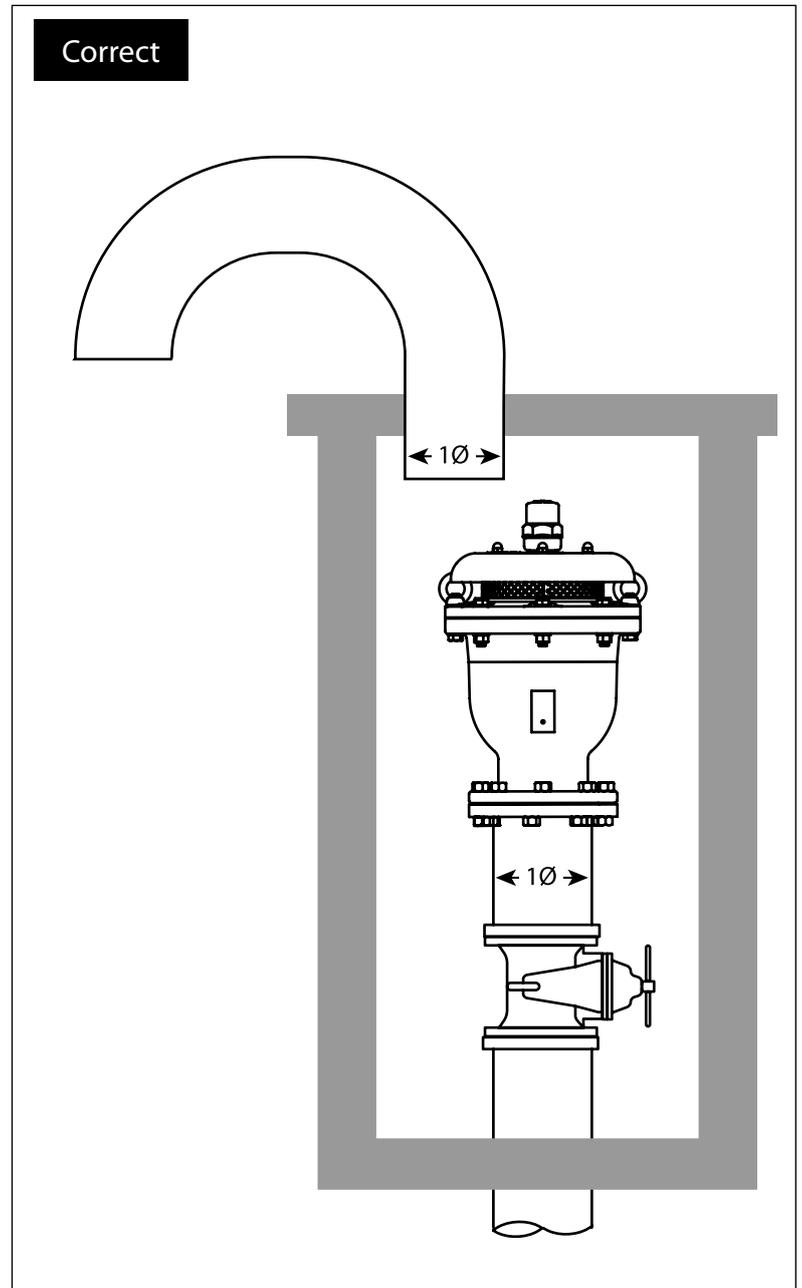
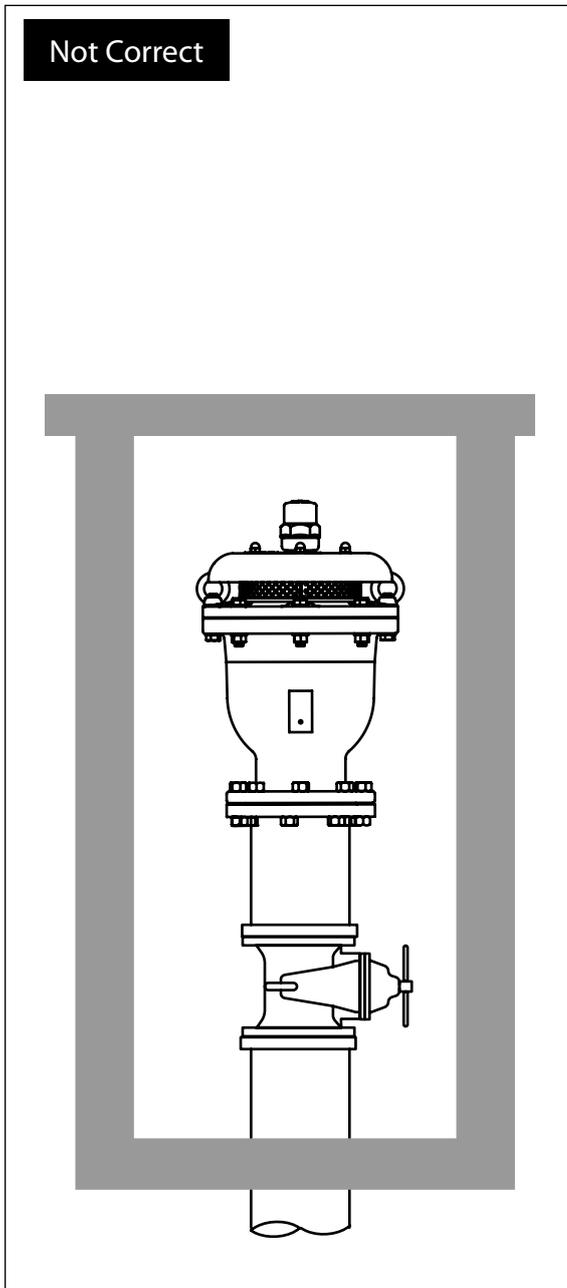
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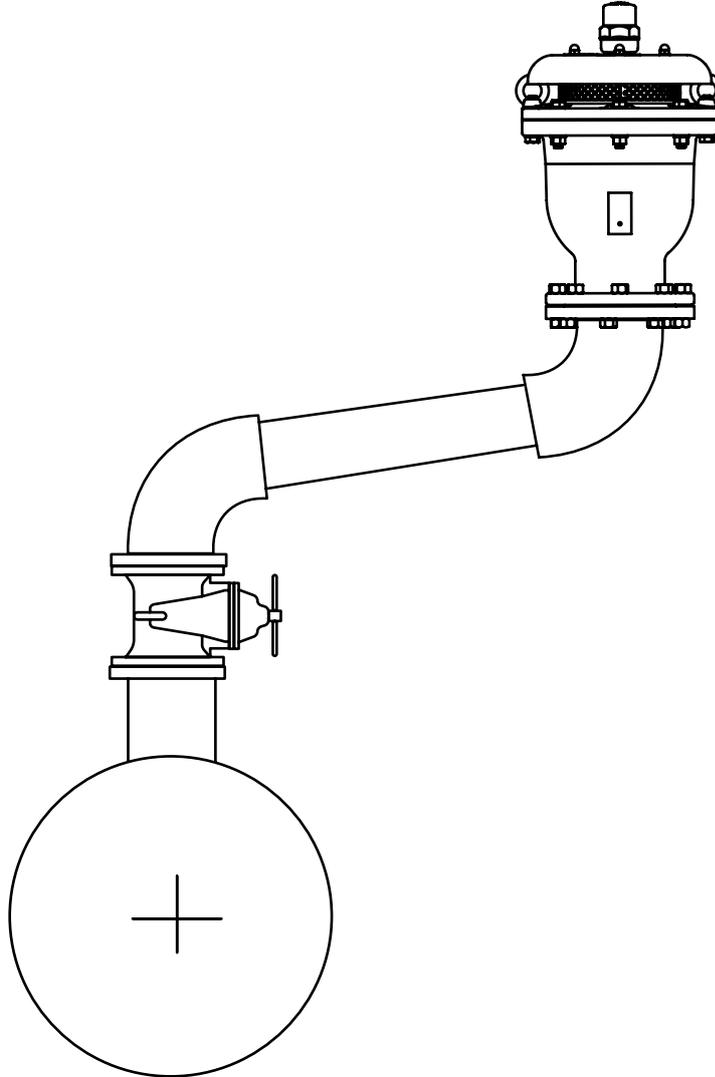
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7. In case of installation in an underground chamber, a vent pipe must be installed with a diameter equal to or greater than the air valve. The vent outlet must have a mesh screen to prevent entry of animals or objects.

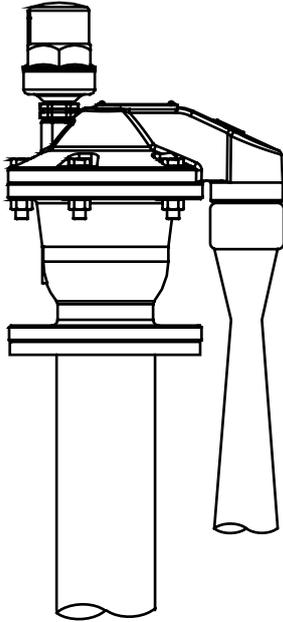


8. In installations, such as under a road, where the air valve must be displaced to the side, the connecting pipe after the isolation valve must be on a slight incline. The standpipe at this point can be connected vertically to the air valve.



9. If the event that a drain pipe needs to be attached to the air valve outlet, this pipe must be rigid and will have a diameter equal or greater than the outlet diameter of the air valve. AVOID USING COLLAPSIBLE FLEXIBLE HOSE.

Not Correct



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