

# FLOW METER ACCESSORIES



## BULK AIR SEPERATOR (BAS)

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Air Separators efficiently separate and release air or entrained gas from liquid products before they are metered. This is an essential requirement of any volume metering system for achieving a high measurement accuracy. It is available in vertical mounting designs.

### DESIGN FEATURES

- Rugged construction
- High venting capacity air eliminator
- Large liquid settling volume with internal baffles
- Custom suited design codes (ASME, DIN)



### PRINCIPLE OF OPERATION

An Air Separator consists of a mild steel cylindrical tank supported on a stand. The unit has a large cross-sectional area, which slows down the flow of liquid. An internal baffle plate arrangement assists any entrained air or gas to coalesce and separate to the top of the tank, where a high venting capacity air eliminator is fitted.

The air eliminator consists of a stainless-steel float connected to a pilot valve via multiple linkages. When air collects in the air eliminator, the buoyant force acting on the float reduces, the float drops down along with the pilot valve connected to the linkage and the air escapes through the main valve. As liquid rises in the air eliminator, the float rises to lift the pilot valve, thereby closing the air release opening of main valve.



## APPLICATION

Removal of entrained bulk air or vapor from the metering system pipeline

## SPECIFICATIONS:

### ○ AIR SEPARATOR

Type : Baffle plate design  
Sizes : 40 mm, 50 mm, 80 mm, 100 mm, 200 mm, 250 mm, (Choice of higher range is available)

Maximum Working:

Pressure : 10.54 kg/cm<sup>2</sup>

Temperature : Upto 70 Deg C

Mounting : Upstream of Flowmeter



### ○ AIR ELIMINATOR

Type : Float Actuate Pilot Operated

Maximum Working:

Pressure : 10.54 kg/cm<sup>2</sup>

Temperature : Upto 70 Deg C

## MATERIAL OF CONSTRUCTION

Body : Carbon Steel  
(Different Grades)  
Stainless Steel 316/  
304

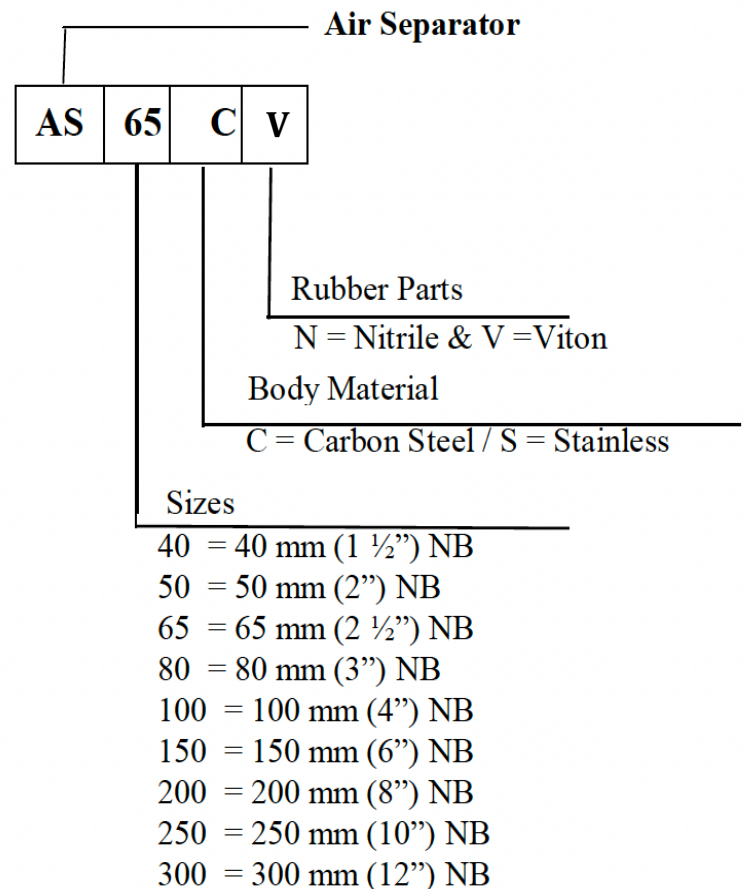
Float : SS 304

Linkages : Aluminium/ Special

Built

Seals : Nitril (Buna-N) Viton

## MODEL DESIGNATION



*\*Higher sizes: Consult Vermont Flow Application Team*

# AIR ELIMINATOR (STAND ALONE UNIT)

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## APPLICATION

Elimination of excess air bubbles Installation

## INSTALLATION

Before the Flow meter

## WORKING PRINCIPLE

This following accessory works on the Buoyancy Law - When service product enters into the elimination chamber, liquid pressure increases gradually which further carries the bubbles upward toward the vent, this process shall continue till air pressure supersedes fluid pressure and then push the float assembly down when fluid level decreases this results into the opening of the vent assembly and excess trapped air will be removed from the chamber, this process will continue throughout the operation.

Selection of the air eliminator depends upon the flow rate and the pipeline sizes. Available in various material of construction based upon the service media being used. These eliminators are used in Petroleum, Aviation, defense, railways, terminals & depots, RO, Unloading, Tanker to tanks transfers etc.

## MAIN COMPONENTS

- 1) Float Assembly
- 2) Float
- 3) Seat Rings & O'ring
- 4) End Cover & AE Bracket
- 5) Linkages assembly



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