



Vane Separators Type 110V Vertical In-line

Separation of entrained liquids from
gases, steam, and air

Refining • Petrochemical • Gas



- Provides moisture-free steam and clean air or gas
- Vane separator element for a wide range of flow
- Removes 99.9% of liquids 8-10 microns
- Compact design for smaller spaces

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Vertical In-line Vane Separators Winston/Royal Guard Type 110V

2-phase separators for the removal of liquids from process gases, steam, and air

The Type 110V Vertical In-line Vane Separator is designed to remove mist and entrained liquids from gas, steam, or air. The design of the vane separator provides a high efficiency over a wide range of flow. Removal of 99.9% of 8-10 micron and larger liquid particles and small entrained solids can be expected for clean, dry gas or moisture-free steam. The compact separator is ideal for placement in limited spaces in refineries, gas plants, and petrochemical facilities, and the in-line nozzle orientation allows for easy installation. Where paraffins or sticky solids are expected and occasional cleaning is required, a flanged top with removable vanes can be provided.

Principle of operation: Mist and entrained liquids are separated from the gas due to changes in flow direction as the gas passes through the tortuous path of the corrugated vane plates. Gas flowing through the vane is able to follow the changes in direction, however, inertial impaction causes liquid particles to separate as they are heavier and cannot easily change direction with the gas. Impinging on the vane surfaces, liquid particles coalesce as they travel along these surfaces and collect in the vane's hooks. The hooks are installed vertically and are strategically placed at turns in the vane so as to intercept the liquid. The collected liquid moves down these hooks and into the bottom of the separator to drain out. Clean, dry gas exits the separator's outlet.

Benefits:

- Removes 99.9% of liquid particles 8-10 micron size and larger.
- High turndown ratio - effective operation over a wide range of flow.
- Vertical design offers a small footprint for limited space applications.
- Stainless Steel vane construction for a long operating life.
- Small solid contaminants suspended in the liquids will also be removed.

Along with specific customer requirements some of the many options available are:

- Custom nozzle orientation
- Clean out ports
- Steel base mounting
- Lifting eyes
- Valve and control packages

ASME Code Certified: Winston/Royal Guard is an ASME Section VIII, Division 1 Code certified manufacturing facility with National Board certification. Capabilities include all types of nondestructive testing with a rigidly controlled Quality Control system.

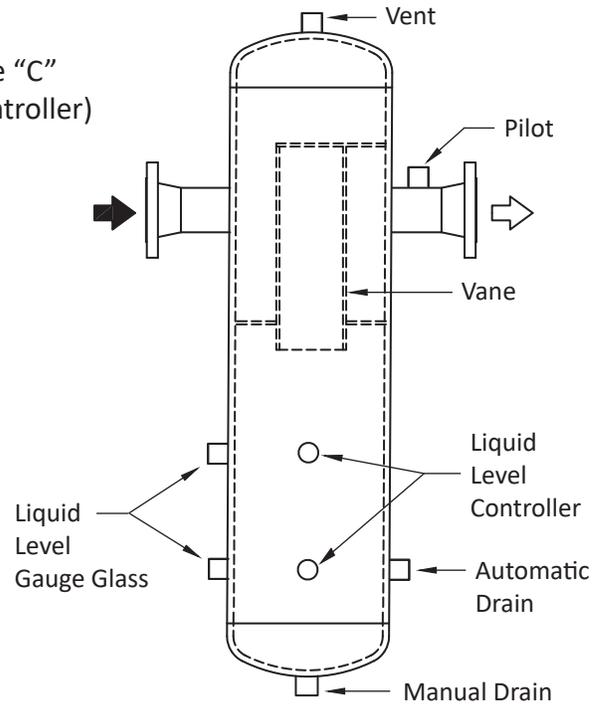
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Vertical In-line Vane Separators Winston/Royal Guard Type 110V



Style "C"
(for Controller)

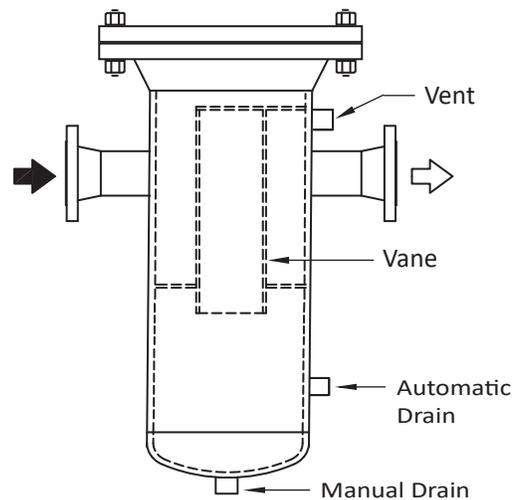


Typical Vane Section

Note: The connections shown here are typical for gas service and will vary with customer requirements. Steam service will typically have steam trap and vent connections only.

Type 110V-RV with Removable Vane

Style "T"
(for Trap)



Specifications are subject to change without notice. 6-3-2022 (supersedes 8-10-2021)

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