



Centrifugal Separators Type 120

with the Directional Blade™

Remove liquids and solid particles from
Gas • Air • Steam



*Refining • Petrochemical • Power
Gas Plants*

Protect Compressors, Turbines, Meters,
Mechanical Equipment

WINSTON / ROYAL GUARD CORPORATION



Centrifugal Separators Type 120

with the Directional Blade™

2-phase separators for removal of liquids from natural gas, process gas, and steam

The Winston/Royal Guard Type 120 Centrifugal Separator with the Directional Blade™ Internal removes 99.9% of 8-10 microns and larger liquid and solid particles such as condensate, oil, water, pipe scale, rust, and dust from gas, air, or steam. The separator provides maintenance-free and efficient removal of contaminants for protection of downstream equipment in natural gas, power, refining, petrochemical, and chemical plant processes. The design of our internal element allows for a more compact vessel, providing an excellent choice for applications where space is limited.

Principle of operation: Vapor in the form of gas, steam, or air, along with entrained liquid and solid contaminant, enters the separator and passes through the Directional Blade™ internal. With velocity control, the Directional Blade™ with fixed, non-moving blades imparts a spin to the flow, directing entrained liquids and solids to the interior vessel wall through the process of centrifugal force. Liquids coalesce on the interior surface of the vessel and, with any solid contaminants, continue to move along the wall with the spinning flow toward the end of the vessel and the drain. Clean, moisture-free vapor exits the separator outlet.

Gas and air applications include:

- Removal of liquids, rust, dust, and pipe scale to protect valves and compressors.
- Removal of oil and other hydrocarbons to extend the life of desiccants in desiccant gas dryers.
- Removal of solids to extend the life of downstream filtration.

Steam applications – Providing moisture-free steam for:

- Stripping, steam distillation, and other plant processes.
- Steam-driven pumps and steam turbines.
- Heat tracing lines.
- Steam-jacketing.
- Prevention of water hammer.

Options:

- Split-body or hand-hole for inspection and cleaning access.
- Available in Carbon Steel and other materials.
- Boot for liquid and contaminant collection.
- Lifting eyes.
- Valve and control packages.

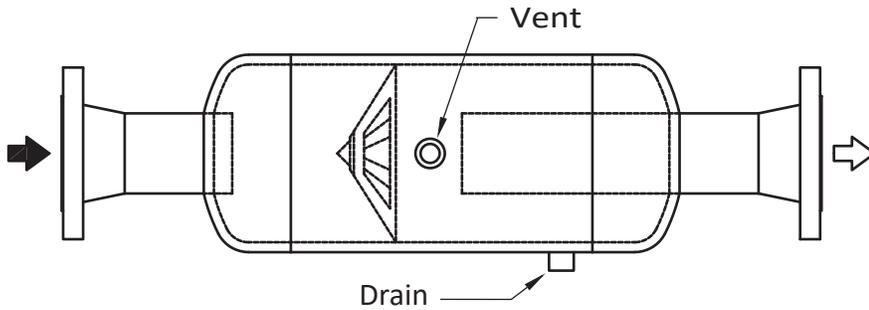
ASME Code Certified: Winston/Royal Guard is an ASME Section VIII, Division 1 Code certified manufacturing facility with National Board certification. Capabilities include all types of non-destructive testing with a rigidly controlled Quality Control system.

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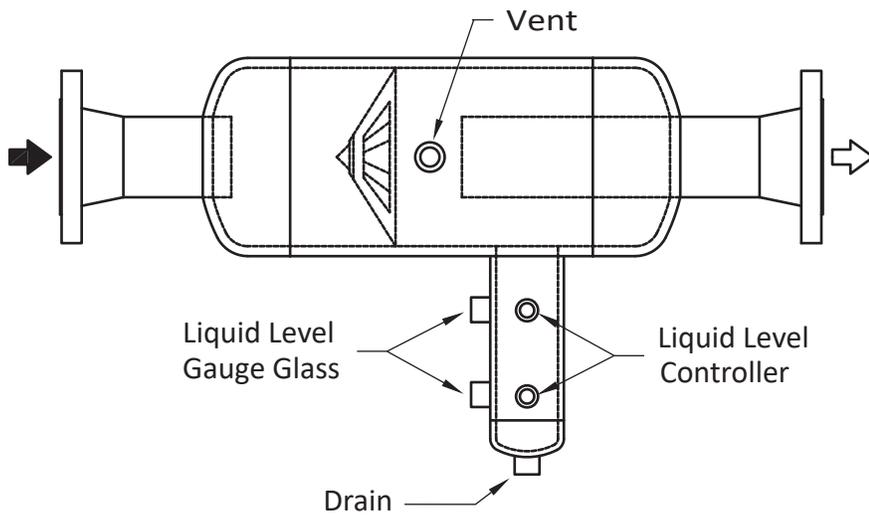


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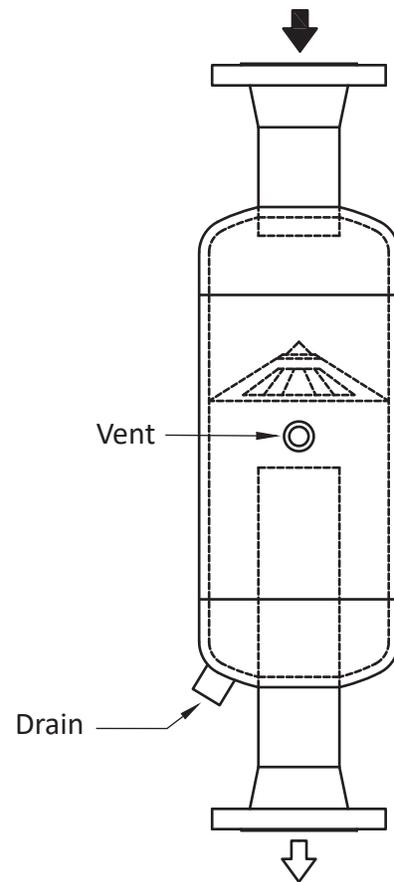
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Type 120H Horizontal Flow



Type 120H-B Horizontal Flow
With Boot for Liquid Collection



Type 120D Downflow

Specifications are subject to change without notice. 7-12-2021 (supersedes 3-20-2020)

WINSTON / ROYAL GUARD CORPORATION

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