PEERLESS AIR INTAKE SYSTEMS FOR MARINE APPLICATIONS

SINGLE AND TWO-STAGE MOISTURE SEPARATORS

Our Intake Moisture Separator Systems are designed to handle visible moisture entrainment and heavy sprays from air streams entering ships' engine rooms, ventilation air intakes and similar marine and offshore applications.

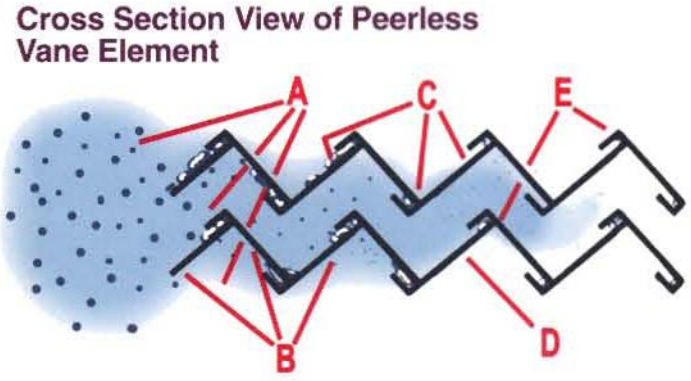
Single-Stage systems are compact, easy to install and maintain, and provide superior separation performance. Our vanes have been developed over the years with our in-house CFD analysis and tested extensively in our in-house R&D lab.

Two-Stage systems incorporate filter coalescer panels in addition to a vane separator for better performance in the removal of small particles.

Also see our Three-Stage systems, System 200 Turbine Inlet systems, or contact us for other solutions to your separation needs.

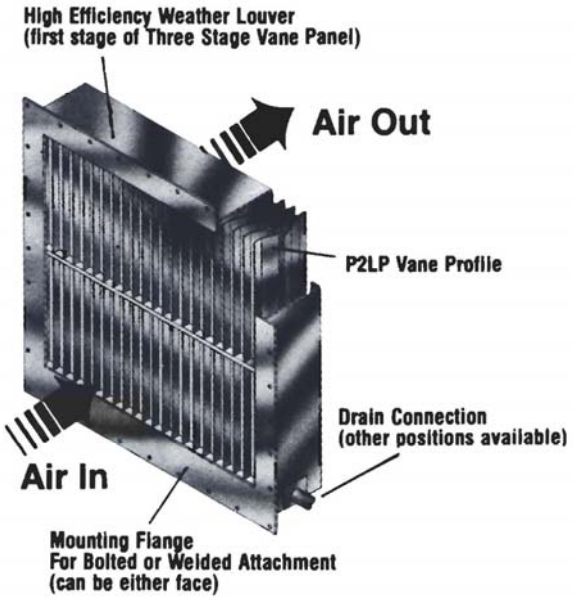
Our engineers at Peerless have over 50 years of application experience creating separation alternatives for customers requiring greater operating efficiency.

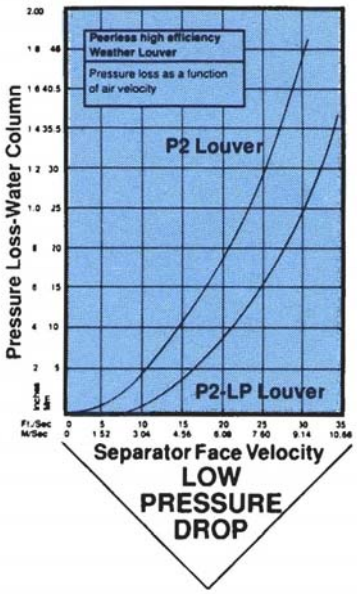
Principle of operation

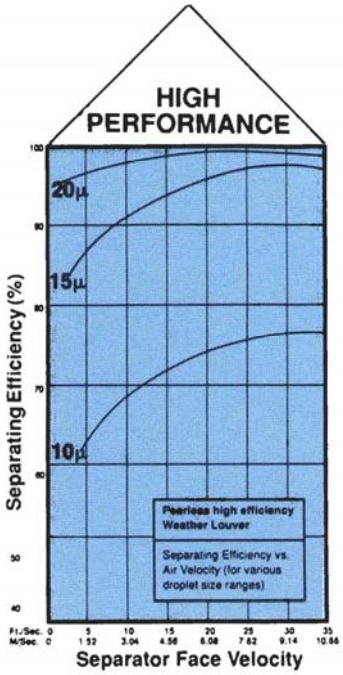


The Peerless Vane is the heart of the separator. As the gas enters the vane unit, it is divided into many vertical ribbons (A). Each ribbon of gas is subjected to multiple changes in direction (B) as it follows its path through the vane passages. This causes a semi-turbulence and a rolling of the gas against the vane (C). Centrifugal force aids by hurling heavier liquid droplets out of the main gas stream and impinging them onto the vane surfaces. The entrained liquid, after coming into contact with the vane surface and other liquid droplets on the vane element, is coalesced and remains on the vane surface (D) by utilizing the forces of surface tension. Gravity and the impact of the gas stream drive the droplets into the pockets (E) provided at each turn of the vane where they roll down out of the gas stream and into the liquid reservoir at the bottom of the assembly. The liquid-free gas stream exits the vane unit.

Single-Stage Moisture Separator







Two-Stage Moisture Separator