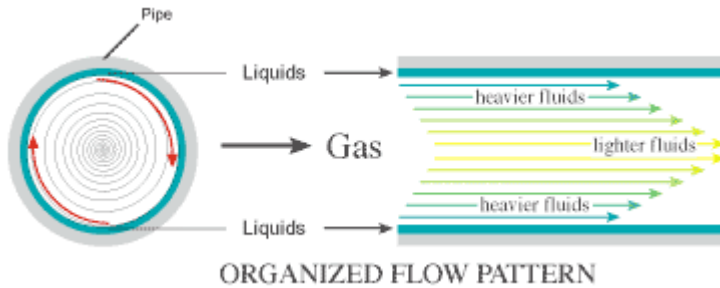


Oil & Gas Technology Applications: Overview

Ecotech's patented technology presents a dramatic breakthrough in fluids handling for the gas and oil industry. The Vortex unit is designed with a tangential inlet to fit a 90-degree bend in a pipeline, flow line or gathering line to convert turbulent flow into laminar flow with a slow moving boundary layer, closest to the pipe wall.

In the case of a typical gas pipeline with a two-phase flow (gas and liquid), the device creates two distinct flows within the overall laminar flow.



First, an annular or "spiral" flow is established and travels along the outer wall of the pipe. This Vortex flow looks much like a stretched "Slinky". This spiral flow carries most or all of the liquid phase of the pipe flow.

In the center of the spiral, a strong laminar flow is created where the gas phase of the Vortex flow is conveyed. The fluids remain entrained in the laminar flow, reducing drop out and this flow can be maintained over long distances and dramatic elevation and directional changes. This boundary layer provides a cushioning effect that reduces pressure drop over the length of the line, as compared to turbulent flow.

Without Vortex

