

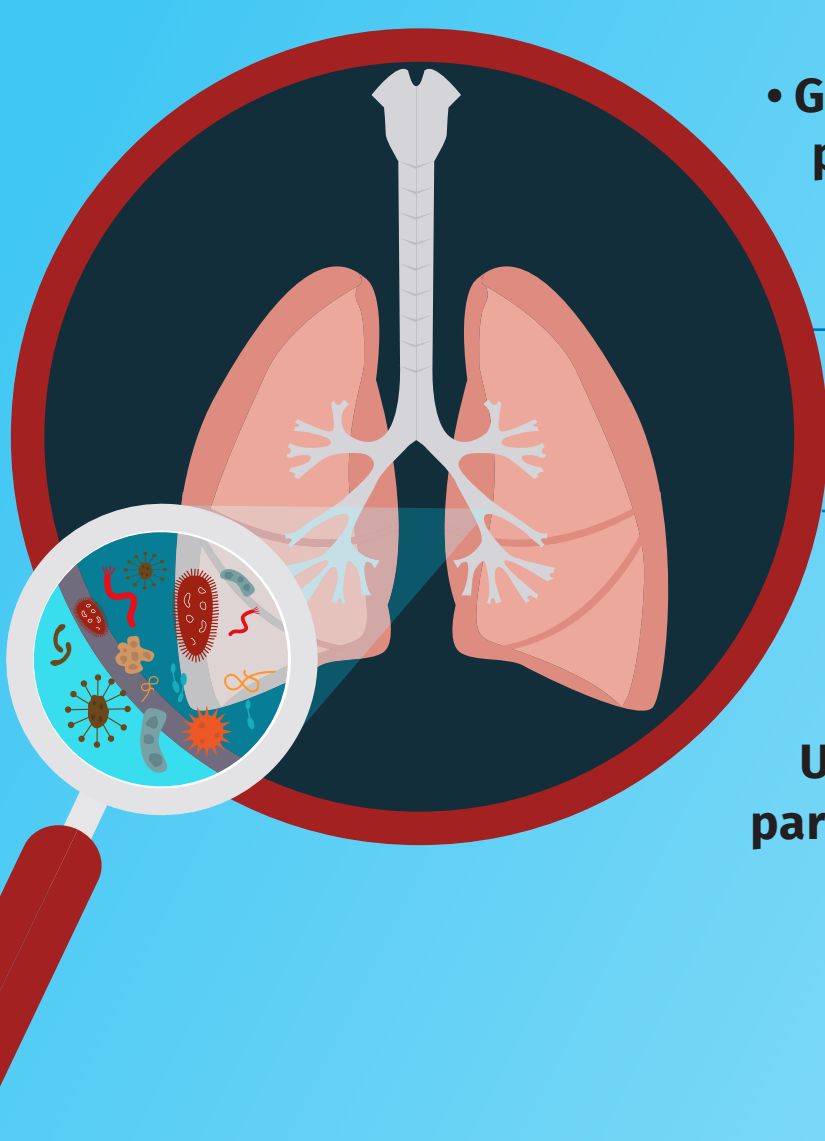
# Mitigate Ventilator Acquired Pneumonia (VAP) with safer ventilator tubing

## Key considerations for materials selection

Ventilator tubing is a bacterial breeding ground, increasing the risk of VAP

- Accumulating bacterial load in microdroplets is a root cause of VAP.
- The microdroplets travel to the lungs via endotracheal tube.

Many patients on ventilators in ICUs suffer from VAP

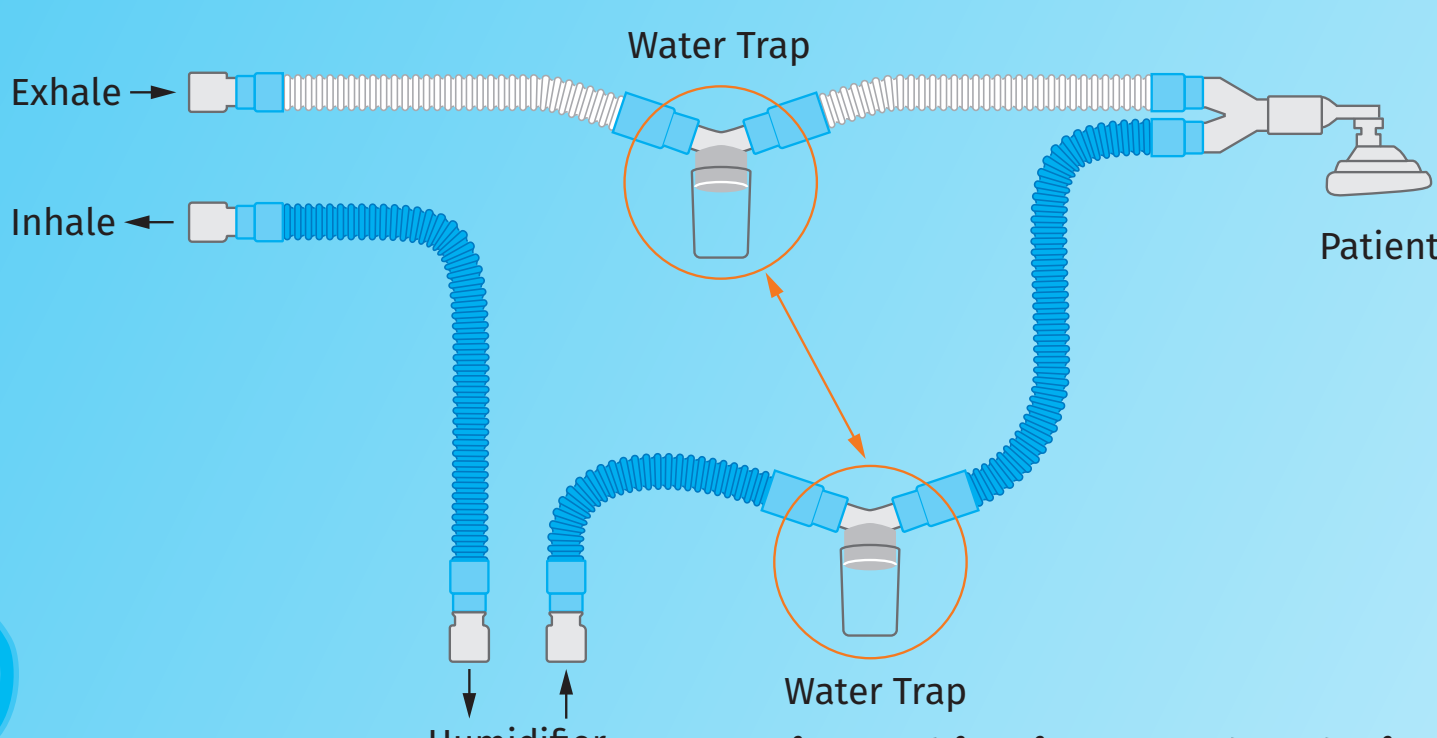


• Globally 20 million people per year will be admitted to ICUs and placed on mechanical ventilation.

• 2 million people (10%) will develop VAP

• The mortality rate of VAP is thought to be between 9% -13% in the U.S. and higher in other parts of the world.

Current breathing circuits are made of non-breathable materials

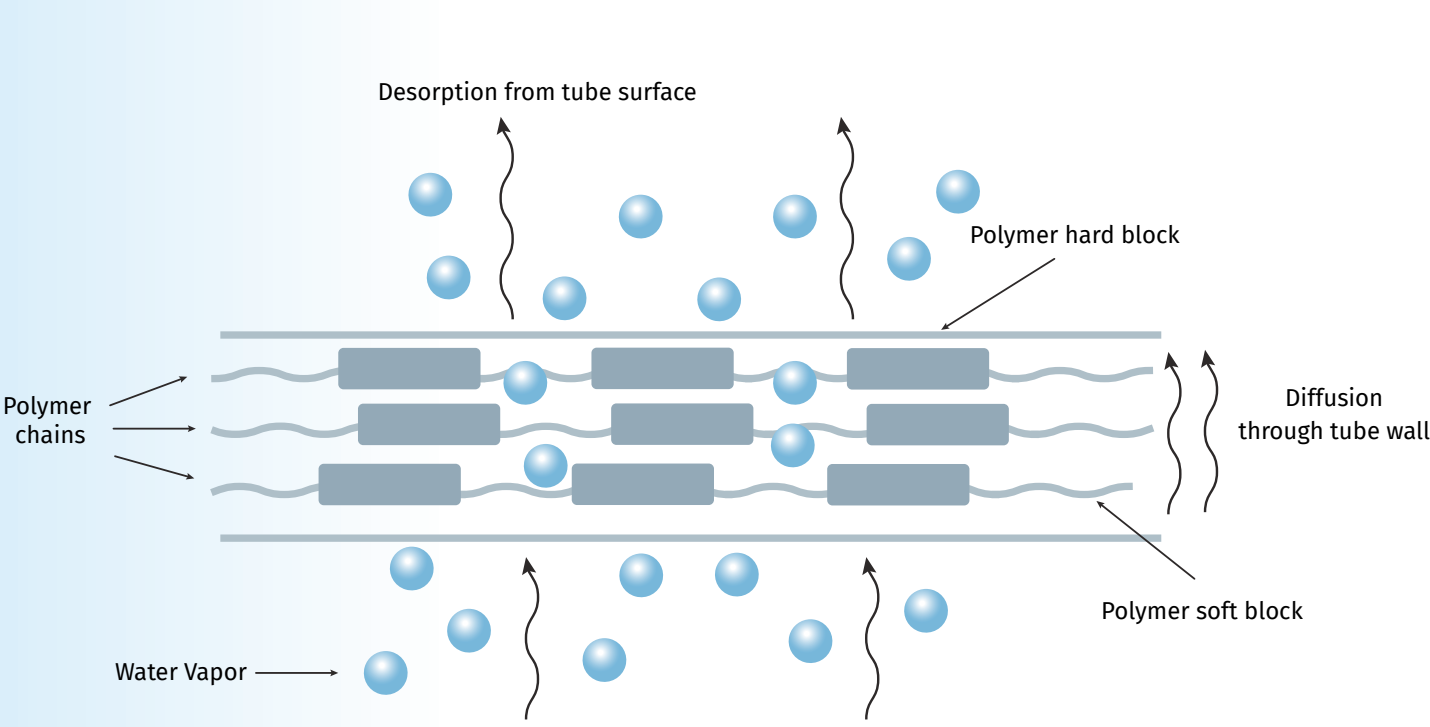


Every time tubing is opened to drain the moisture condensate trap there is a risk of the patient acquiring VAP.

Imagine a material that enables permeation of moisture directly out through tubing walls

Very high Moisture Vapor Transmission Rate (MVTR) materials can eliminate the moisture trap

A simplified design mitigates VAP, improving patient outcomes

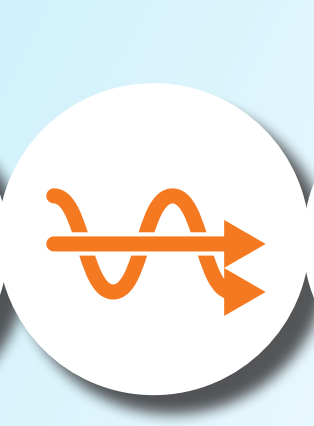


Arnitel® offers a superior materials solution with ultra high MVTRs

We can help you...



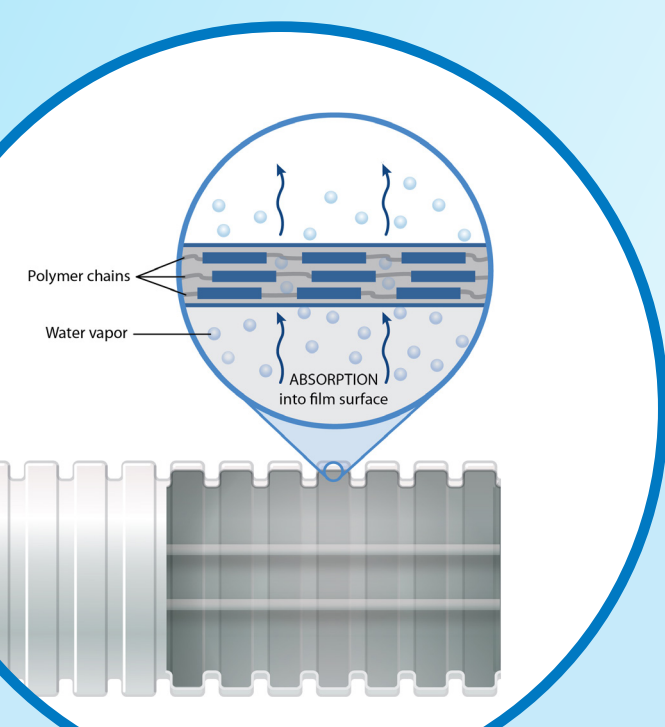
Save lives



Simplify Designs



Save on system costs



## Arnitel® VT

is designed for breathable applications with high moisture absorption and meets requirements for properties and processability.



### VT3104

Excellent balance of all properties – film and tube extrusion



### VT3108

High MVTR, high moisture absorption – film and tube extrusion



### VT3118

High MVTR, blown film version of VT3108



VT3112 – Very high MVTR and moisture absorption. Optimized for cast film and tube extrusion



Learn more about respiratory tubing material solutions at [DSM.com/respiratory-tubing](https://www.dsm.com/respiratory-tubing)



**DSM**

BRIGHT SCIENCE. BRIGHTER LIVING

\* Steven M. Koenig and Jonathon D. Truitt "Ventilator-Associated Pneumonia: Diagnosis, Treatment, and Prevention", Clin Microbiol Reviews. 2006 Oct; 19(4): 637-657