SHELF LIFE DRY MISTING vs. WET MISTING SYSTEMS *DISGUISED* AS FOG

True Ultrasonic Dry Misting — Built for the Refrigerated Produce Case

WHAT MATTERS AT THE CASE	SHELF LIFE DRY MISTING	WET MISTING *DISGUISED* AS FOG
Misting Technology	✓ True ultrasonic transducers — 2–3 micron "dry" fog, never wets the product	✗ Pressurized air/water nozzles — 6–8 micron droplets
Droplet Size vs. Stomata (Respiration)	✓ 2–3 micron mist is finer than a stomatal pore, which opens through roughly 5 microns during active gas exchange[1] — hydrates the leaf without blocking respiration	✗ 6–8 micron droplets exceed a typical open stomatal pore[1] — can occlude it, choking gas exchange and pushing produce toward anaerobic respiration that burns stored nutrients and speeds decay
Long-Term Performance Consistency	✓ Delivers the same fine, consistent mist on Day 365 as Day 1 — no nozzles to wear, so output does not degrade over the life of the system	✗ Performs well when new, but pressurized nozzles are prone to clogging and dripping over time, degrading mist quality and case performance
Nozzles & Wear Parts	✓ Zero nozzles or spray heads — nothing to clog, clean, or replace	✗ 8 - 16 pressurized nozzles with individual shut-offs to service
Air Compressor Required	✓ None — transducers run on line power alone	✗ Yes — dedicated double-headed air compressor (20A draw)
Water Filtration	✓ Single RO-500 reverse-osmosis feed — pure, mineral-free mist to every unit	✗ Separate 5-micron water + 5-micron air filters; antiscalant add-on needed for mineral buildup
Self-Cleaning / Sanitizing	✓ Automatic hourly flush cycle; optional inline Electrolytic Ozone Generation (EOG)	✗ No automatic flush or sanitization cycle published
Material Construction	✓ Chemically-polished 316 stainless steel throughout	✗ Plastic components and poly tubing throughout
Ambient Display / Ethylene Control	✓ Suppresses ripening ethylene to extend ambient produce sets	✗ Not addressed in published literature for this category
Proven Field Results	✓ Single-store test: the same 24-ft case section, switched from wet misting to dry misting, cut shrink 83% — $11,567 in projected annualized savings	✗ No published case study or shrink data

PROVEN IN THE FIELD — *New Seasons Market, University Park (Portland, OR), observed May–Sept 2025*

24 ft	$268 → $45	83%	$11,567	+10%
Case section switched from wet misting to dry misting	Average weekly produce shrink, before vs. after	Shrink reduction on the dry-misted section	Projected annualized shrink savings	Produce sales growth at University Park after install

Sources: Shelf Life Inc. Dry Misting Sales Brochure and New Seasons Market case study (University Park, Portland, OR store, observed May–Sept 2025) — a single-store, before/after test in which an existing 24-ft wet-misted case section was retrofitted with dry misting; the $11,567 figure is an annualized projection based on that before/after comparison, not a measured full-year result; the +10% produce sales growth reflects the top end of the year-over-year range reported for the chain's dry misting rollout. Specifications shown for pressurized, nozzle-based wet misting systems marketed as "fog" systems are drawn from publicly published manufacturer literature (accessed Sept 2026). [1]Stomatal aperture: Outlaw, W.H. Jr. & De Vlieghere-He, X., "Transpiration rate...," Plant Physiology, Aug 2001, 126(4):1716-24 — broad bean (Vicia faba) aperture measured at 2.0±1.6 microns (6:00 AM) widening to 7.4±2.3 microns (11:00 AM) and 6.2±2.1 microns (1:00 PM), passing through ~5 microns as the pore opens; aperture varies by species, cultivar, and time of day. Confirm current competitor specs and technical claims before citing in a formal bid response.

Don't let a nozzle-and-compressor system win on price alone. Ask us for a side-by-side, case-side demo before you finalize your purchase decision.

Derek Larson — Director, Sales & Operations • Office (888) 888-1763 • Sales@ShelfLifeInc.com
Shelf Life Inc. • Fresher Longer • www.ShelfLifeInc.com