



CONTROLLED ATMOSPHERE

Smart atmosphere control for longer freshness.

Controlled Atmosphere (CA) Technology optimises oxygen, carbon dioxide, and ethylene levels inside the container to slow ripening and preserve cargo freshness throughout transit.



O₂ REDUCED
Lower respiration and metabolic activity.

CO₂ CONTROLLED
Slows ripening and maintains product stability during transit.

ETHYLENE REDUCED
Prevents natural senescence and mold growth safely.

BUSINESS VALUE

Enable Air to Sea conversion with Controlled Atmosphere



TRADITIONAL LOGISTICS

High cost and higher CO₂ emissions.



CONTROLLED ATMOSPHERE

Stable conditions during transit.



OCEAN FREIGHT

Lower cost with much lower CO₂.



FRESH ARRIVAL

Premium quality at destination.

LOWER CARBON EMISSIONS
Up to 70% CO₂ vs. air freight

LOWER COSTS
Significant savings on freight cost

KEY BENEFITS OF CONTROLLED ATMOSPHERE



LONGER SHELF LIFE

Extend product freshness and reduce spoilage.



BETTER PREMIUM QUALITY

Preserve taste, color, and texture.



EXTENDED MARKET REACH

Access more markets with confidence.



REDUCED CARGO LOSS

Minimize spoilage and protect product value.

CA performance may vary depending on commodity type, maturity, and origin. Consult your specialist for optimised CA recommendations.

POWERED BY

BhumSmart

COLD CHAIN INTELLIGENCE



PRESERVING FRESHNESS FROM ORIGIN TO DESTINATION

Real-time intelligence across your reefer shipments from anywhere at anytime.



DIGITAL TWIN MONITORING

Smarter Reefer. Better Cargo.

REAL-TIME CARGO INTELLIGENCE

LOCATION	RX FRONT (°C)	RETURN (°C)	HUMIDITY
In Transit from Bangkok to Singapore (SG)	-18.3°C	-17.8°C	85%
	SETTING: -18.0°C	SETTING: -18.0°C	IN RANGE
	PRESSURE	CO ₂ LEVEL	O ₂ LEVEL
	2.1%	0.3%	2.1%
	IN RANGE	IN RANGE	24H
	SHOCK		
	✓		



KEY FEATURES OF BhumSmart



REAL-TIME VISIBILITY

Monitor your cargo anywhere in the world at anytime.



SECURE & RELIABLE SYSTEM

Encryption to keep your data safe and goods protected.



PROACTIVE ALERTS

Instant notifications for temperature, power, or odor anomalies.



PERFORMANCE ANALYTICS

Data insights to optimise performance and reduce cargo risks.