ULTRA-CLIMA® VS VENLO

TECHNICAL SYSTEM COMPARISON

	ULTRA-CLIMA®	VENLO
VENTILATION	• **±90 m³/m²/h** • Air Handling Units/ Active ventilation • Air refresh of minimum 11x/hour of the total greenhouse air volume • Recirculation • Active crop activation	• Ventilation capacity less controllable • Roof vent driven • No active recirculation • Dependent on outside conditions
CLIMATE CONTROL	• Climate corridor • Heating block for dehumidification & heating • PAD façade cooling system • Full climate control via climate corridor • Even climate in the growing area	• Indirect temperature control • Significant horizontal & vertical variation • No integrated cooling
CO_2 STRATEGY	• Controlled distribution via AHUs • CO_2 recirculated • Higher CO_2 efficiency • Reduced CO_2 losses • Overpressure keeps higher CO_2 levels • Maintain ambient CO_2 levels	• CO_2 loss via roof vents • Uneven distribution • No CO_2 recirculation • Lower CO_2 efficiency
PEST PRESSURE	• **±80% fewer vents** • Overpressure possible • Integrated insect netting • Reduced biological control demand • Less humidity related disease pressure	• Many roof openings • No overpressure possible • Insect netting limits ventilation • Higher biological control demand
ENERGY & HEATING	• **45°C supply temperature is sufficient** • Heat recirculation • **20% lower energy use** • More efficient use of screens • Active humidity control via airmixing	• Heat loss via ventilation • Heat waste by crop cultivation / Airflow creation
PRODUCTIVITY	• Homogeneous climate • Higher plant density • Improved plant balance • Higher production potential • Higher CO_2 levels • Less diseases • Higher light penetration	• Climate fluctuations • Limited plant density • Uneaven climate spots in growing area • Cold drops • Disease pressure • Lower light transmission through the roof