

# VEGETABLE AND FRUIT TRADE

KELLER, RORBAS, SWITZERLAND



## Challenge

Prevention of quality and weight loss in vegetables and fruit in a cold storage warehouse.

## Solution

Air humidifying with a Defensor ABS3 adiabatic atomising humidifier.

## Results

Quality of warehouse stock enhanced, fresh vegetables did not lose any weight during storage and can be stored for a longer period without quality suffering. The adiabatic humidifier also performs an additional cooling function.

## QUALITY ENHANCEMENT WITH THE ABS3

The vegetable and fruit trader Keller is mainly involved in the trading of, preparation, order picking and distribution of vegetables, fruit and berries. Keller supplies its customers with a complete range over the course of the entire year. Customers include prestigious hotel chains, large kitchens in hospitals, catering firms for airlines, traders and ultimate consumers.

Keller is a medium-sized enterprise currently employing 30 full-time personnel. 18-20 tonnes of vegetable and fruit are handled on a daily basis. Keller distributes these goods nationwide with its own delivery fleet. 6-8 tonnes are prepared and conditioned every day.



## SHELF LIFE AND STORAGE OF VEGETABLE - THE KNOW-HOW!

**Given the high demands of its clientele, an important prerequisite for trader Keller is the optimum storage of vegetables and fruit to ensure market freshness, a promise which is honoured day for day and week for week.**



Defensor ABS3

«Humidifying of our cold storage warehouse has led to a clear reduction in vegetable and fruit shrinkage.»

Beat Keller, entrepreneur

### The challenge

The major disadvantage of cold storage cells is that they draw moisture out of the air and warehouse stock. This leads to quality impairment and not inconsiderable losses in weight which are ultimately reflected in reduced sales revenues. Correct vegetable storage is very important for long-term storage, and the warehouse storage period can be doubled immediately where provisions are made for suitable air conditioning. However, quality losses can be suffered after a few hours where storage conditions are unsuitable, leading to the undesired sale of goods.

Air humidifying with water atomisers represents a simple and cost-effective solution to these problems.

### Results

Keller humidifies a 600m<sup>3</sup> cold storage cell with the Defensor ABS3. Humidity is maintained stable at 85% r.h. and the temperature at 3°C. Beat Keller was astonished by the precision with which humidity could be maintained and the homogenous distribution of humidity within the entire warehouse. Visible and measurable results were already obtained within a few days and the investment has already paid for itself.

«CORRECT AIR CONDITIONING PRESERVES THE QUALITY OF VEGETABLES AND FRUIT»

### Defensor ABS3 performance data

Humidifying capacity:	6.5 l/h
Air circulation:	280m <sup>3</sup> /h
Power consumption 230V/PN	200W
Operating temperature:	1..35°C
optionally:	-2..35°C

### Accessories

Hygostat and humidity sensor / controller

Shelf life of vegetables			
Vegetables	Temperature	Humidity r.h.	Shelf life
Celery	1..5°C	85..90%	4 Weeks
Broccoli	1..3°C	90..95%	2 Weeks
Lettuce	1..4°C	85..95%	1 Week

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