



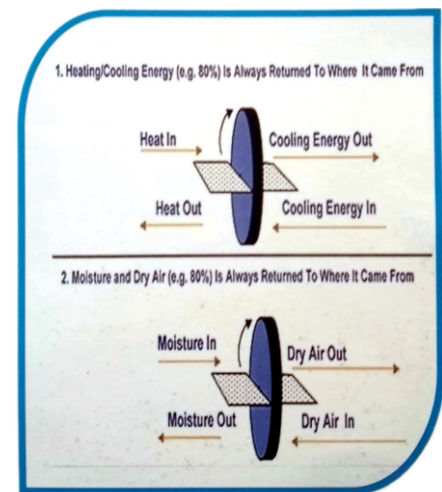
COLD STORAGE

VENTILATION PRODUCTS

- Ventilation
- Temperature
- Humidification
- CO₂ concentration
- Refrigeration
- Recirculation

FOR GOOD QUALITY POTATOES, IT IS IMPORTANT THAT THE BEST POSSIBLE CONDITIONS ARE CREATED IN YOUR STORAGE BUILDING. WITH GOOD AIR DISTRIBUTION AND THE CORRECT AND SUFFICIENT TEMPERATURE MEASUREMENTS, WE CAN HOMOGENISE THE PRODUCT. THE WEIGHT LOSS OF YOUR POTATOES WILL BE KEPT TO A MINIMUM, AND YOUR POTATOES WILL RETAIN HOMOGENEOUS QUALITY. THIS ENSURES THAT YOUR CUSTOMERS CAN BUY LARGE LOTS OF POTATOES OF THE SAME QUALITY.

CO₂ Reduction and Energy Recovery In Cold Storages



National Horticulture Board Standards and Guideline for Cold Storages :

- ☛ **CO₂ Level** : Not more than 4000 ppm during loading and 2000 ppm during holding.
- ☛ **Ventilation requirements in Cold Storage Chamber** : It may range between 2 to 6 air changes per day to maintain CO₂ within permissible limits.
- ☛ **Energy Recovery System** : Heat Exchanger with Energy Recovery Wheel shall be used for cooling the incoming air from the exhaust air.

(Source : National Horticulture Board's Technical Standards {NHB-CS-Types 01-2010 & NHB-CS-Type 02-2010} and Guidelines for Cold Storages).

DRI TFA and ERV with next generation Energy Recovery Wheels help to ventilate your cold storage chambers at low energy costs.

Advantages with DRI TFA / ERV :

- ☛ Lower energy costs by reduction in fresh air ventilation loads by approx. 80%
- ☛ Reduced CO₂ levels in cold storages.
- ☛ Elimination of bad storage smell.
- ☛ Proper ventilation all-through the storage area without raising energy costs.
- ☛ Enhanced product quality and shelf life.
- ☛ **Meet NHB ventilation requirements.**

Automation & Monitoring



- Highly intuitive controller for operators of all ages and levels of expertise
- Personalized screens
- Effortless operating
- Optimizer controls all storage equipment
- Multilingual
- Easy access by smart phone, tablet or PC

- Indication of CO2 level.
- Indicate of Ammonial/Ethylene level.
- Temperature controller.
- Alarm system on any fault related to temperature, CO2 Humidity or gas leakage.
- Alarm system to controller compressor, lighting, Fan or other Instrument.
- Display on screen of PLC, or on your Computer/Laptop/Mobile by the help of data logger and internet connection.



Air Ventilation & Humidification



Axial flow fan

- Variable fan speed energy saving with EC Motor
- High efficiency
- Low noise level

- Easy access in air mix chamber
- Safe for the operator

- Different motor types, EC and AC
- Variable fan speed
- High air capacity
- Low noise level



The theory behind dehydration is that potatoes are kept in an environment with a relative humidity less than 95%, will release moisture to the direct environment.

If the RH can be kept above the 95%, the potatoes will release less moisture with result in better quality (less pressure bruises) and higher product weight. An increase from 94% to 98% RH at constant temperature causes a decrease in moisture release by a factor of 3.

In addition, it is true that by the cooling effect of the evaporation of water there will be fewer running hours of external or mechanical cooling. Both external ventilation and mechanical cooling, cause dehydration and therefore a decrease of the product weight.

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