

GRAIN STORAGE SILOS



- Decrease in grain spoilage, due to moisture control
- Increased grain storage time
- Reduction in insect infestation potential

Silos serve the purpose of providing bulk storage for various industries such as storing grain in the agricultural sector. However, grains are susceptible to spoilage due to mold growth, insect activity and grain deterioration. All of which are problems which can be solved by using the right dehumidifier in connection with the silos. It will serve to regulate the moisture content and temperature of the stored grain and thereby reducing the rate of mold growth, rate of grain deterioration and insect activity. Reasons for storing these commodities range from capturing higher prices to food security. As such, during the storage period, it is paramount that the quality of the commodity is preserved and loss of commodity, due to spoilage, is prevented.

Control moisture with dehumidification

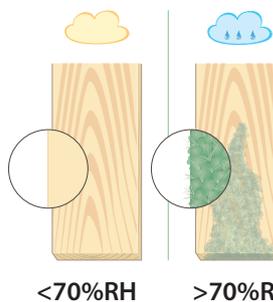
Conventionally, aeration is a common way to cool the grains in a silo and thereby reducing moisture migration and condensation potential near the top of the grain pile. In addition, the allowable storage time for the grain increases with reduction in grain temperature. But this type of aeration process is highly dependent on prevailing climatic conditions since ambient air from cool night and morning times with a relative humidity (RH) $\leq 85\%$ is used. Thus, aeration during rainy seasons and in humid tropical areas is very difficult.

By using a desiccant dehumidifier incorporating cooling coils, the relative humidity within the silo, the grain moisture content and the grain temperature can be controlled, ensuring that the grain is stored for longer periods with maintained quality, irrespective of the prevailing weather conditions.



Condensation

If the dew point of the aeration air is kept below the surface temperature of a cool grain, there will be no condensation, thus, no increase in the moisture content of the grain



Mold

Mold and fungus formation is prevented if the aeration air is kept below 70% RH

World leaders in dehumidification.

