

**Humidity Control for Falcon Breeding**

Falcons are predatory birds and have exceptional power of vision and diving speeds.

The birds of prey symbolize bravery and the cost of a Falcon ranges from US\$330 to US\$330,000. The price depends upon its strength, age clarity in vision and speed.

It is believed that the Arabs have hunted with Falcons for the past 2,000 years. Facing extinction, the Falcon is now an endangered species. Many projects have been initiated by the UAE government to support Arab falconry, which includes breeding pure lines of Saker Falcons.

In Falcon Breeding Areas, fresh air is introduced to offset the contaminants generated by the birds and their surrounding. Humidity present in the fresh air affects the mortality rate of Falcons during breeding.

**Effects of Uncontrolled Humidity**

The mortality rate of Falcons is affected due to high humidity.

During breeding fresh air is introduced, and the humidity in the air impacts the growth of the falcon.

**General Recommendation**

The Falcon Breeding Areas need to be maintained at a temperature of 3 °C to 4 °C @ 35±5% RH. Falcons.

**Bry-Air Solution****The Background:**

Falcon House in Al-Ain, UAE is a project involved in Falcon Conservation and Breeding. The President of UAE, Sheikh Zayed bin Sultan Al Nayhan, an avid environmentalist is financing this scientific program to ensure the survival of ancient art of Falconry. The breeding area is housed in a controlled environment of reduced oxygen, increased carbon dioxide and vapor content. Fresh air is introduced in the area @100cfm per room to offset the contaminants generated by the birds and their surrounding like methane, hydrogen sulfide and ammonia added by decomposing waste, animal activities, air movement and microscopic dust particle from feed, bedding, and fecal material.

The solution provided by Bry-Air was to install a customized desiccant dehumidifier with pre and post cooling, Model-MVB 10 B with fan coil units in each room to re-circulate the air to maintain the desired temperature.