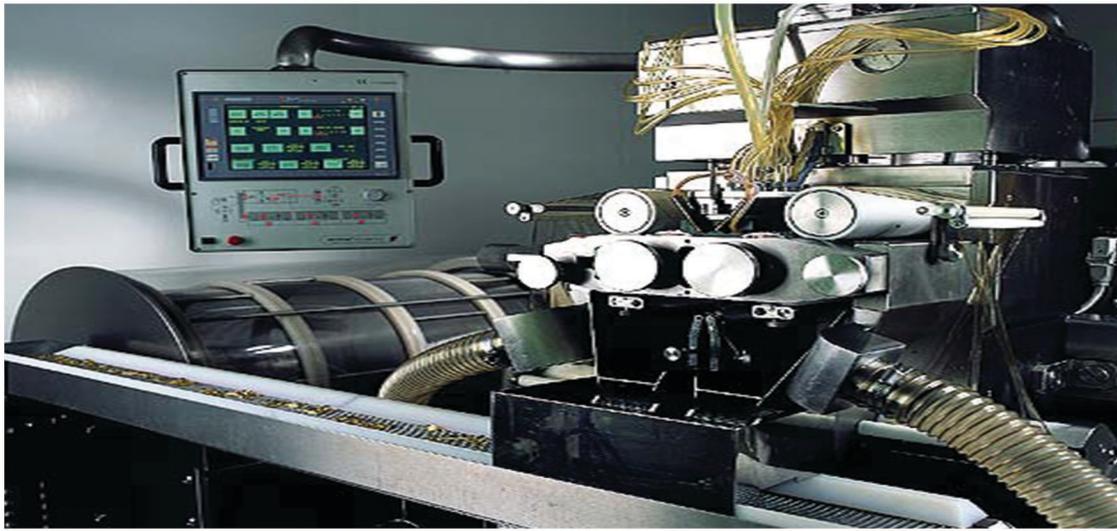


## Case Study

### Geltec Private Limited



#### Geltec replaces conventional dehumidification system with DuCool's revolutionary liquid desiccant system.

Geltec, manufacturing softgelatin needed a simple and cost-effective alternative to conventional dehumidifier to manage its humidity. Ducool Systems provided that solution with its revolutionary liquid desiccant dehumidification systems. As a result, the company has been able to control humidity, reduce energy consumption, and save money on operating expenses.

#### Background

Geltec replaces conventional dehumidification system by DuCool's revolutionary liquid desiccant system.

Geltec Private Limited has been a pioneer in the field of Soft gelatin Capsules for more than 4 decades and they are Asia's largest manufacturers of customized Soft gelatin Capsules. Located in Bengaluru, Geltec faced excessive problems during the manufacturing of soft gelatin due to uncontrolled humidity. Frequent rainfalls and thunderstorms owed to uneven humidity in this region.

#### Challenge

Encapsulation is the manufacturing process that brings the gelatin shell and the fill material together to form Soft-gel capsules. It takes place in a closed environment called clean room where low relative humidity is required. After the softgels are formed through the die rolls, they contain around 20 percent water. This amount of water content is needed to keep the gel flexible enough to form the capsules.

This process is followed by drying process which contains tumble drying followed by drying in a room or a tunnel where the moisture content is decreased to create a hard and durable finished softgel capsules ready for packaging. Drying process requires an environment with low relative humidity in the air but not hot air

The Improper control of moisture in the encapsulation and tumble drying area hindered the quality of the soft gelatin capsules causing decline in productivity. However, Geltec could not compromise on the quality of the product as it is supplied to Healthcare industries across the globe.

#### DuCool Advantage

Geltec needed to maintain a temperature of 23-25° C and RH of 35% for both the tumble drying and encapsulation rooms. Ducool proposed identical systems for both rooms installing a DT large 3400/9 machine each capable of removing 100 pounds per hour of moisture without requiring additional utilities like steam and chilled water for dehumidification which was required by previous dehumidification systems. Savings of around 30% were observed while avoiding monitoring of additional utilities.

