



dry facts

...from Arctic India Sales

October-November-December-1985

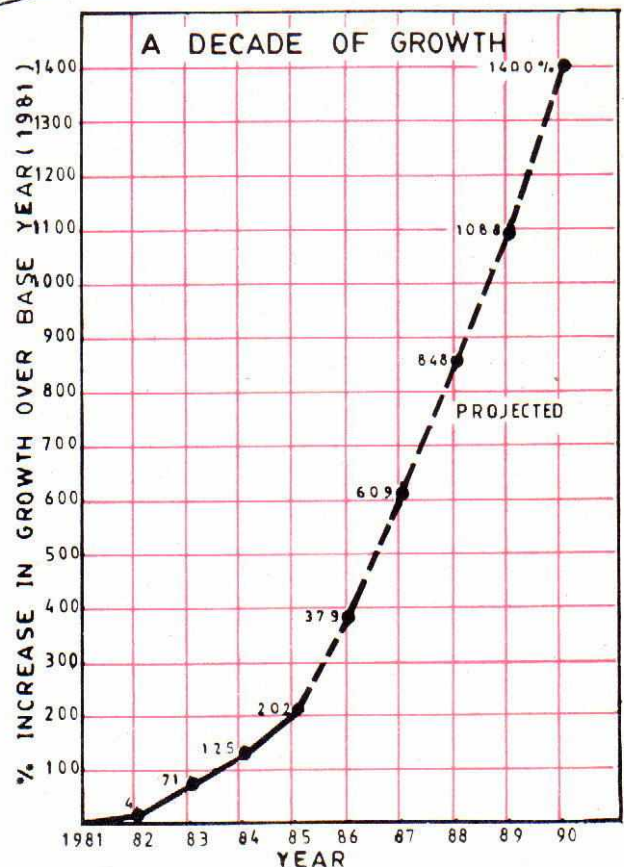
Vol. 5 No. 4

CHARTING GROWTH

At the recently concluded annual sales meet of the company, forecasts and projections for the next five years pointed towards a compounded growth rate of 40% per annum. A comparison to the performance over the last five years, when presented, charted a decade of impressive growth.

Milestones in the growth chart have been—

- A humble beginning in 1980 as a marketing organisation.
- Representing well known overseas companies like Brasch U.S.A., Barber Coleman & M.C.C. Powers for some of their specialised quality products.
- Entry into the field of dehumidification—the hitherto neglected field of environmental control industry in India.
- Indigenous manufacture of dehumidification equipment by promoting Bry-Air (India) a joint venture with Bry-Air Inc. U.S.A.
- Apart from meeting the needs of the Indian industry the same quality product was exported to South East Asia through Bry-Air (India).
- Major contribution to the energy conservation programme of India by introducing the first indigenous air-to-air waste heat recovery system based on the heat pipe technology.
- 'DRY FACTS'—Our quarterly newsletter introduced to keep in touch with the direct users and decision makers of related equipment. Fueled by customer appreciation and response we have a mailing list of over 6000.
- Bringing to India world class Ultrakust temperature and humidity measuring instruments and Vista Scientific automatic liquid filling machines and climatic chambers through representation.
- Introducing the most current in technology in Plastics Drying—the Bry-Air Plastic Dryer.
- At the end of 1985 Arctic India Sales positioned for growth as diversified multiproduct, multilocation company with trained and dynamic manpower to meet the challenges of today's competitive business climate.



INSIDE

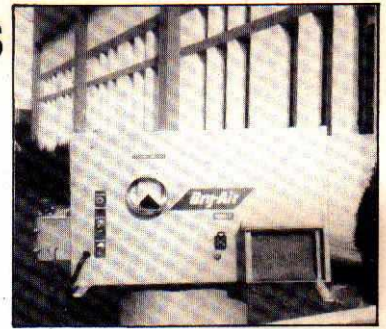
- ★ 1986 Introductions
- ★ Moisture Control in the food industry

**Introducing
THE NEW
IMPROVED**

1986 Introductions

'ENERGY SAVER' MARK II

1986 shipments of compact dehumidifiers will be of Mark II which have the additional feature of a modulating timer to considerably improve the performance, consuming less energy and all this without any extra cost. This truly versatile equipment gives trouble free performance in the field and will soon be available ex-stock for the coming high humidity season.



**THE
Current
TECHNOLOGY
FROM THE U.S.**

BRY-AIR PLASTIC DRYERS

Bry-Air has been instrumental in bringing the latest and most current technology based products to India. After revolutionising dessicant demudification in the country, it has introduced for the first time air to air heat recovery systems based on the heat pipe technology.

Now comes another state of the art technology from the U.S.—the dehumidifying plastic dryers.

The proper drying of many plastic resins is the first critical step towards obtaining optimum per quality of moulded parts and minimizing possibilities of degradation.

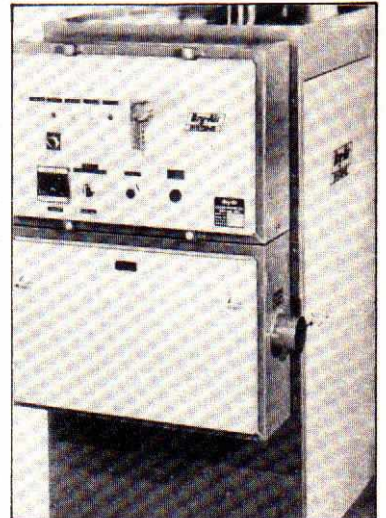
Common problems of many resins including ABS, polyetherimide, polysulphone, polycarbonate and nylon due to improper drying have splash-type defects (splay), silver streaking, internal bubbles and surface defects (craters).

Another common problem associated with improper drying is loss of impact strength. For resins such as polycarbonate and polyester where impact strength is a critical property, dry resin is a must.

Improper drying may also lead to loss of tensile strength and elongation, and poorer melt flow (particularly true of Polyester). This can result in overpacking, parts and runners sticking, and flash. Therefore, proper drying can result in tougher parts and more stability during moulding.

The Bry-Air plastic dryers are designed to handle the toughest of thermoplastic materials. These dryers provide 40°F (or lower) dewpoint air round the year, regardless of ambient conditions.

Available indigenously now, their drying capacities vary from 15 lbs/hr to 100 lbs/hr. Also available are drying hoppers and loaders to make plastics handling easier.

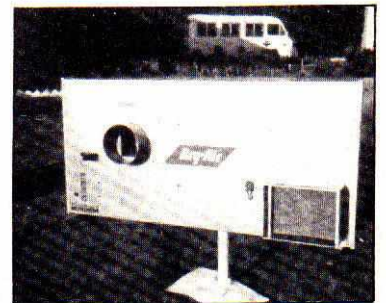


RM Series Dehumidifying Dryers

Announcing

THE BRY-AIR '222' WORKHORSE

In 1986, a new model, the '222' has been added to the existing range of compact series of 50 cfm, 100, 150 and 300 cfm. The new model will deliver 225 cfm of dry air. This model will fill a very important gap between the 150 cfm and 300 cfm model and will be ideal for dehumidifying small and medium sized rooms. Deliveries of the model commence in March 1986.



WHEN MOISTURE IS TORTURE!!!!

'Moisture Control'—A food for thought

India's mission to the Antarctica, entry into space, changing consumer tastes have all focussed attention on to advanced and improved quality of food products.

Keeping the quality of food product under varied climatic conditions is of paramount importance. Among them moisture control has proven itself essential in every segment of the food industry in the spheres of (1) Storage (2) Production (3) Packing and (4) Processing.

We list below the various application areas in each of the following industries:—



Breweries and Distilleries

Mold and mildew formation on tanks, grain and hops due to high humidity are common problems.

Dehumidification keeps relative humidity levels low and retards or prevents spoilage from organic corrosion. The international standards laid down for temperature and humidity to reduce mold growth in the breweries and distilleries are as follow:—

	Temperature	Humidity
Hops storage	35°F	60% rh.
Fermentation rooms		45% rh.
Filter rooms		45% rh.
Grain Storage	60°F	40% rh.
Molasses grinding		less than 25% rh.

Biscuits and Confectionary

Due to the highly hygroscopic nature of all biscuits when exposed to moisture even for a short while, they lose their crispness. Although the quality is not affected, they become soggy and rubbery and in general not very appetising.

In the manufacturing process the biscuits are at high temperature. However, before the cooled biscuits can be packed they often have to be stored and being exposed to humidity, they tend to regain moisture. Therefore, it becomes essential that humidity in the 'Hot Room' be controlled so that quality of the biscuit is not spoiled.

In candy operations dry air is critical in hardening surface coatings.

Dry air is also essential in candy storage and packing. Desiccant dehumidifiers are being effectively used by most world renowned candy manufactures to effectively maintain the desired environment.

The international standards laid down for desired environment in bakeries and confectioneries for different operation area:

	Temperature	Humidity
Sugar Storage	80	35% rh.
Icing & Glazing	80	35% rh.
Cooking drying	65	20% rh.
Filled cooky setting	20-30	
Chocolate	90	13% rh.
Hard candy making & packing	75	35% rh.
Caramel cooling	60	40% rh.
Potato chips	75-80	20% rh.

All these condition can be effectively maintained by using a chemical dehumidifier.

Concentrates Processing:

In processing powdery foods such as cocoa, gelatines, dehydrated soft drink concentrates, instant coffee powders and milk powders, the presence of moisture in the surrounding air can cause lumping or caking causing the tiny particles to stick or cluster together, thus inhibiting their free flow in the manufacturing or packaging process.

Many granular or powdered materials are transferred to packaging via high velocity airstreams. This process is commonly referred to as pneumatic conveying or just airveying. For food handling, the efficiency of transporting powdered, granulated or flaked materials by high velocity airstreams is significantly improved by drying the air. Highly hygroscopic sugar, flour, starches, and beverage and food powders make humidity control a crucial element of materials handling systems.

In addition, the presence of moisture in the air may interfere with the operation of the processing machine and obstruct the free and easy movement of the foodstuff. Obviously, if moisture affects the food and the machinery in this fashion the solution to the problem lies in surrounding the processing and manufacturing area with dry air.

During packing, in many instances, low rh has to be maintained so as to prevent moisture regain by the product to be packed. Different products may require different conditions like instant coffee packing requires 20% rh at 80°F. Milk powder must be packed under controlled rh of 30%.

Dehydration of Foods:

Dehumidification plays a very important role in dehydration of foods. Many substances requiring drying are temperature sensitive. Oven drying using high temperature impairs the quality of the product.

One such example of product drying where dehumidification has been successfully employed is dehydration of onions. The conditions maintained are 10% rh at 88°F.

The same principle can be applied to garlic powder drying, vegetable drying, cardamom drying etc.

Frozen Food Packing & Canning:

Condensation is a serious problem in many parts of the food industry. Due to differences in temperature when using hot water and steam condensation on pipes and other cooler surfaces leads to dripping and possible product contamination. The solution lies in keeping the dew point below the surface temperature in the work area. In this case dehumidification equipment is used to pretreat incoming air and also to dry the recirculated air. Moisture condensation on cans may also result in rusting and spoilage of product.

As Indian food industry is incorporating more and more sophisticated technologies to produce world class products, Bry-Air dehumidification systems which are dependable, efficient and versatile will provide the key to the success of a new technology.

It's Show Time

Ultrakust of West Germany, the manufacturers of the finest in temperature and humidity measuring instruments, participated at the India International Trade Fair in Delhi in November.

The large range of instruments on display included Thermophil, Thermophil-infra, Hygrophil, Stor and also display and control units.

However the greatest draw was for the Thermophil-infra the portable contactless temperature measurement instruments and Hygrophil instruments for combined humidity and temperature measurement.

Arctic India Sales offers this complete product range in India. Some of the instrument displayed at the exhibition are available against rupee payment for a limited period.

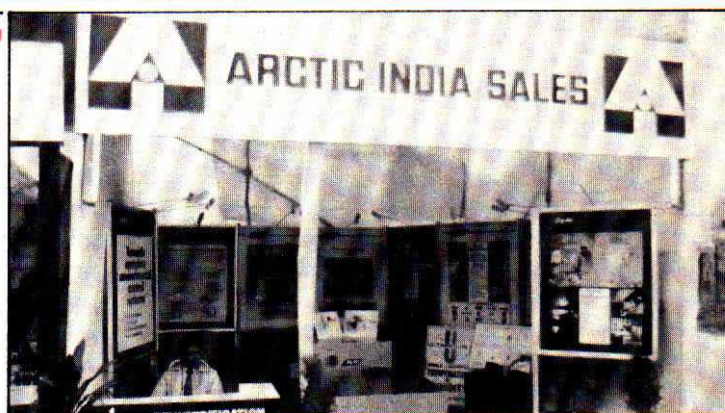
So, avail of this opportunity and write to us for detailed information.



Ultrakust stall at the India International Trade Fair

37th Pharmaceutical Congress

During the 37th Indian Pharmaceutical Congress held in Delhi between December 26-28th, an exhibition Pharm Expo '85 was held which gave the participants a view of the recent developments of the pharmaceutical industry. Arctic India Sales exhibited its range of dehumidification equipment, heat recovery systems, automatic liquid filling machines and ultrakust temperature and humidity measuring instruments.



Pharm Expo '85 at the 37th Pharmaceutical Congress

BOMBAY BRANCH IS STRENGTHENED



Mr. Prem Sagar, Regional Manager, Bombay

With Arctic India Sales adding many new product lines to its range of existing activities, the branch at Bombay has been further strengthened to handle the expanding activity. Effective from November 1985 we have Mr. Prem Sagar, leading our Bombay branch as Regional Manager, Bombay.

He is well known in the airconditioning and refrigeration industry and has 29 years of rich experience of management and marketing in this field.

With the able support of Sales Engineers Mr. V.N. Asathy and Mr. Sharad Khandekar, the Bombay office is geared to give an even more effective support to our customers.