



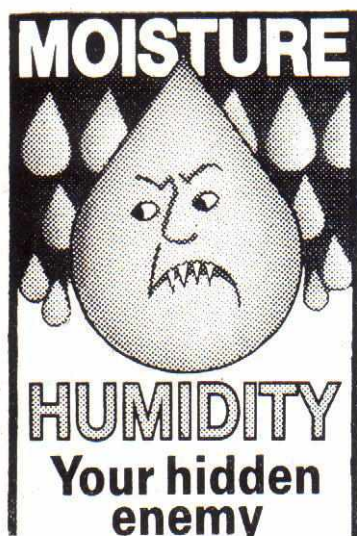
dry facts

...from Arctic India sales

April - May - June 1985

Vol. 5 No. 2

'MOISTURE MENACE' IS A SUCCESS



Most of you may be already familiar with this moisture devil and perhaps heeded our advice before he got to your product.

Of course, we are talking of our advertising message offering solutions to your humidity problems. You may not be in the pharmaceutical business or owning a computer but you could be any business where you have felt the devastating effects of corrosion or wastage due to high humidity and moisture.

So if the moisture or humidity devil is plaguing you, call for help.

BRY-AIR EXPORTS DOES IT AGAIN

Bry-Air has recently bagged an order from M/s. Oponin Chemical Industries for a dehumidification plant for the first soft Gelatine capsules manufacturing unit to be installed in Bangladesh. The equipment has been supplied in record time of six weeks.

Bry-Air is already associated with first soft gelatine capsule manufacturing unit in Thailand where Bry-Air Dehumidifier is being used for manufacturing of soft gelatine capsules by M/s. Mediacaps, Bangkok, Thailand.

In South East Asia Bry-Air has now established itself as the only reliable supplier of dehumidifier and has virtually monopolised the market for dehumidifier in the field of soft gelatine capsule manufacture.

UNIT FOR GELATINE DRYING



Picture shows a MVB 175 F loaded on the truck prior to delivery to Shaw Wallace Gelatine Ltd., Jabalpur. The unit is capable of maintaining humidity at 6.6°C dew point at 70°F in the gelatine manufacturing area. This is the second time that such a equipment has been engineered at Bry-Air for similar application.

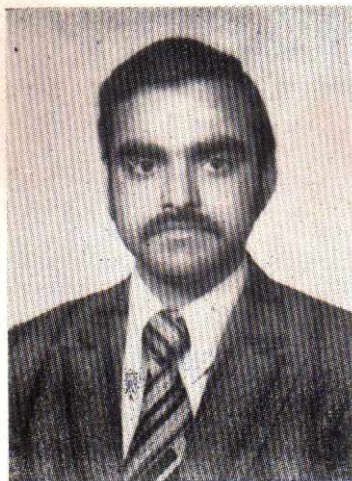
NEW TELEPHONE NO. AT BRY-AIR PLANT

Our new telephone number at the Bry-Air plant effective from 5th August 1985—

Old No.
3719

New No.
22481

Sushil Saxena—Vice President Operations



Mr. Sushil Saxena joined the Bry-Air family in March this year as Vice President Operations, at the Bry-Air plant at Gurgaon. An Electrical Engineer from B.H.U., he brings with him 17 years' experience in engineering, marketing and administration from Greaves Cotton. As Vice President Operations, he will be directly controlling all supporting departments at the plant and our customers can look forward to an even more efficient response in terms of engineering support, delivery, and product quality.

Seminar on "Modern Energy Conservation Equipments"

Petroleum conservation research association had organised a seminar on 'Modern Energy Conservation Equipments' at Maurya Sheraton, New Delhi on April 26th, 1985.

Mr. Vivek Raman, Heat Recovery Co-ordinator from Arctic India Sales presented a paper on the occasion on the Bry-Air air-to-air heat recovery systems, based on the concept of 'Heat Pipes'.

The unique waste heat recovery

systems for furnaces, ovens, kilns, dryers, dehumidifiers, airconditioning was initially used by NASA in nuclear reactors and space crafts. In fact the Bry-Air energy recovery systems are the most efficient and can recover up to 85% of exhausted thermal energy and are suitable for a temperature range of 50 °F to + 500 °F.

These exchangers are already operational in a number of installations recycling millions of escaping BTUs.

APPLICATIONS

Dry Air for Video Tape Rooms

Doordarshan Kendra, Calcutta and Madras are using table top models to maintain 45% RH at 77°F in their video film storage rooms.

Storage of Leather Goods

In presence of high humidity, leather becomes very susceptible to organic corrosion i.e. mold, mildew & fungus.

LEATHER GOODS HOUSE, BOMBAY—the manufacturer of famous 'Metropolitan' men's leather accessories have installed a Bry-Air dehumidifier in their storage area to overcome the moisture related problems.

KHIMJEE HANSRAJ, CALCUTTA also resorted to the same solution for similar application.

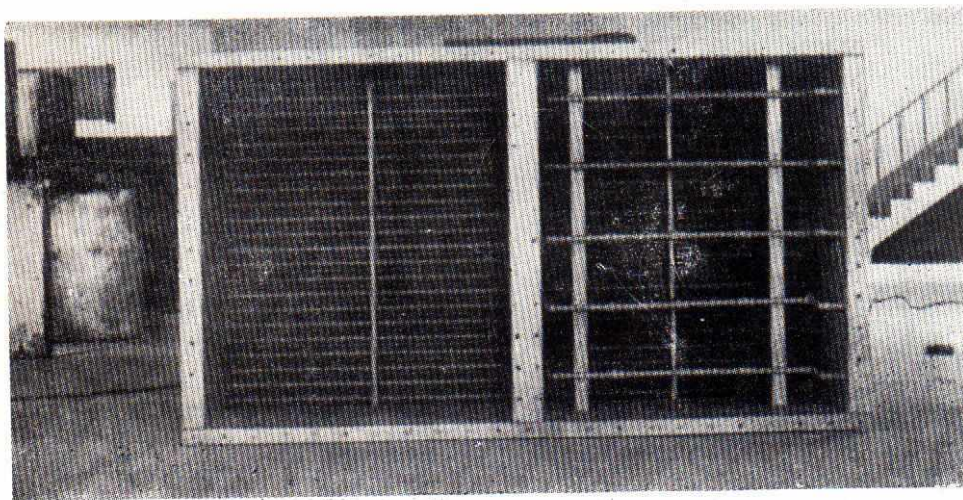
Printing Press

MEHTA OFFSET WORKS, DELHI, controls humidity in their colour plating section by using a table top Bry-Air.

Drying of Clay Roofing Tiles

KASARAGOTI TILE WORKS IN KERALA produces 14,500 tiles per day. Each tile contains 900 gms. of water by weight which needs to be dried.

For this they maintain 50% RH at 50°C in their drying chamber with a 300 cfm dehumidifier. The tiles are dried at the rate of 2000 nos. per hour.



The picture shows the heat exchanger recently supplied to Ram Bhadur Thakur Pvt. Ltd. Installed for recovery from waste heat from coal/wood fired heaters at temperatures 270°F. A built in cleaning system for clearing the heat pipes of the heavy soot from the exhaust is incorporated in the exchanger.



Dehumidification in the service of Defence

As among other industries dehumidification finds a major application in the defence industry. Most prestigious and important defence installations in Europe and U.S. have relied on the Bry-Air application engineering experience for successful dehumidification jobs in this field.

Summarised here is the accumulated experience by listing out the application areas where dehumidification is critical and essential. By no means is the list exhaustive as the uses of dry air are limitless; however a brief overview of these areas gives valuable insight into some of the important uses of dehumidification.

Ammunition Storage

All military equipment is highly valued and must be available for operation at any moment. Storage of steel or metal products presents major problems where air is humid and there is big variation in temperature during the 24 hours day causing at times condensation. In such circumstance corrosion sets in deteriorating the quality of metal.

To prevent corrosion, relative humidity should not exceed 35-40% in warehouses where such sensitive equipment is stored. Dehumidifier is used to obtain the R.H. without necessarily controlling temperature.

Missile Assembly and Storage

The Ashrae Guide and data book lists the standards for temperature and humidity as 80°F & 25% for missile assembly and as 35°F and 35% R. H. during purging & cooling. The critical relative humidity can be achieved by installing desiccant dehumidifier at the assembly and manufacturing areas and also separately for missile storage areas.

Explosives Storage

Ammonium Nitrate, Gun powder, solid fuels : storage of hygroscopic raw materials is critical. The temperature and humidity range may vary from 35-75°F and even ambient and 10-50% RH depending upon the material stored. If the humidity goes above 35% the raw material will absorb moisture causing them to stick together thus rendering the product useless.

Solid fuel power is calculated with consideration of time stored, at given conditions.

Substances like Ammonium Nitrate in presence of high humidity in contact with hydro-carbons becomes explosive.

Negative Film Storage

All documentation in microfilm must be stored at 70°F and 30% RH in fireproof vaults. Colour films must be stored at 10° to 0°F and 30% RH to prevent mildew formation.

Archival Storage

Storage of documents, engineering drawings, maps, libraries all have different requirements depending on the item stored. Libraries and map rooms must maintain under 50% RH to prevent mildew formation and yet prevent drying out and cracking.

Research Labs

Humidity and temperature control are standard operating procedures when using highly sophisticated electronic test and measuring instruments in R & D labs.

Also product testing, component reliability analysis and pilot operations all require simulation of a broad range of natural environmental conditions. Many types of machinery operation are tested in environmental chambers as part of R & D programmes or quality control procedures. Desiccant dehumidifiers are commonly used to simulate the very dry conditions in environmental chambers.

Food Research

The food research laboratories are engaged in R & D work involving standards in procurement, processing, packaging and supply of food items.

Dehumidification equipment is essential in (1) storage (2) production (3) packing and (4) processing of food products, due to the nature of certain food stuffs exhibiting an affinity for water when exposed to relatively high humid conditions.

Equipment Rooms

Electronic equipment in places like Radar Stations, Telephone Exchanges

are subject to loss of efficiency and high maintenance rates when exposed to humid conditions hence maintenance of dry enclosure is called for.

Mothballing of Naval Ships & Military Hardware Storage

Dehumidification equipment was initially put to commercial use in mothballing naval ships, after the war to keep them in constant readiness for operations.

Now dehumidification is used for mothballing and storage for military hardware like tanks etc.

Marine

When ships are in use, at sea or in port, Bry-Air dehumidifiers are used for cargo dehumidification, humidity control of hygroscopic materials, in shaft alleys and pipe galleries where moisture builds up, for humidity protection of sensitive instruments and electronic equipment, controlling humidity in containerized shipping and for general onboard dehumidification problems. In repair and renovation situations, Bry-Air dehumidifiers are useful in mothballing procedures, general control of humidity while in dry dock, and de-moisturizing specific high humidity areas. During sand-blasting operation, dehumidification is an almost international standard now.

Paint Shop

Paint spraying and lacquering requires a temperature of 80°F and 50% or less RH. Bry-Air dehumidifiers are very advantageous particularly for powder coating plants where the make up air to the spray booth is dehumidified; sometimes it is necessary to dehumidify the entire coating room.

Drying of Uniforms/Flying/Suits Parachutes

This has proved to be a major application area in the U.S. & European Defence.

The applications cited are but a few of the very many—uses of dry air and the specific needs keep changing with changes in technology. Bry-Air can always assist in solving any particular humidity problems.

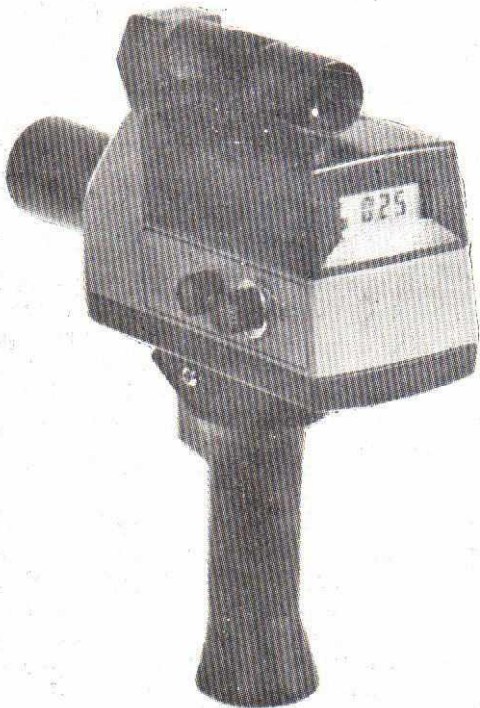
Introducing a new range of Temperature and Humidity measuring instruments from



THERMOPHIL INFRA

THERMOPHIL INFRA is the portable radiation thermometer for non contact temperature measurement.

- * Non contact and contact temperature measuring models available.
- * Models available for 0-900°C, 50-500°C, 200-1500°C, 600-1400°C, 800-2000°C.
- * Bright LCD display.
- * Memory for instant and maximum values.
- * Battery or plug in connection.



Advantages over other systems.

When other measuring systems fail or perform with difficulty, thermophil ensures optional measuring—

- * If measuring object is visible only for short duration.
- * If temperature range varies greatly.
- * If measuring spot is under current.
- * If exclusively maximum values are of importance.
- * If material is a poor conductor of heat.
- * If parts are moving or vibrate.
- * If object is made of aggressive material.
- * Very competitively priced.

HYGROPHIL

For the rapid & exact digital measurement of relative humidity and temperature and several parameters like—

- * dry temperature.
- * wet temperature.
- * relative humidity.
- * dew point temperature.
- * absolute humidity.
- * enthalpy.
- * specific humidity.
- * temperature range of from -30 to 150°C
- * R H range 1 to 99%.
- * microprocessor control.

The electronic air humidity measuring instrument HYGROPHIL for measuring the dry and wet temperature works according to the psychrometric principle and supplies reproducible values under all conditions.

Description

- (1) Consists of an indicator and choice of six psychrometric transmitter.
- (2) Bright LED display on the indicator.
- (3) Temperature range from -30.0°C to +150.0°C
- (4) Control of all measuring & computing procedure through a microprocessor.
- (5) Push button arrangement for operating (dry and wet temperature, RH and dew point temperature).



Application in all sectors of industry

Paper, textile and tobacco industry, offices, research rooms, storage rooms, greenhouses, climatic cabinets, museums.

For more details contact :—

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20, Rajpur Road, Delhi—110054.