Bry-Air

dry facts

...from BRY-AIR

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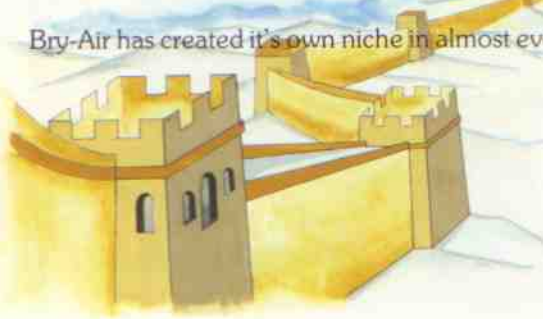
TOWARDS A BORDERLESS WORLD

-from the great wall to the rain forest...



Bry-Air has created it's own niche in almost every corner of the world. Bry-Air has done it all whether it was maintaining a sensitive equipment high up in the mountains or keeping a pump house dry below the sea!

Every day the Bry-World grows a little bigger bringing us to a truly borderless world.

However there is still a lot of room to grow!

BRY WORLD WINS THE ABCI AWARD

Bry World, the International Newsletter of Bry-Air World wide was selected as the best publication of it's category by the Assciation of Business Communicators. A matter of great pride indeed for all of us at Bry-Air!.

THE GROWING FAMILY

...Getting to know each other and Bry-Air better

Bry-Air Reps from the Indian sub-continent and West Asia were in India to attend a week long induction programme on **'solution to humidity problems through dehumidification — Bry-Air style'.** For some of them it was the first time while for others it was a refresher course. **At Bry Air, education never ends!**

Globally, Bry-Air maintains **customer satisfaction** as it's **key operating philosophy.** To support it's customer better Bry-Air has a network of over 100 sales offices in over 35 countries supported by plant location in **USA, Netherlands, India** and **Malaysia.**

BRY-AIR

Declares war ..... on moisture !!

Like in other industries, Moisture or Humidity, is the single major cause of damage of **equipments** and **materials** while in **storage, production** or **operation** in the **defence.**

Continuing with it's war against moisture, Bry Air organised a series of seminars on **'Dehumidification for safe preservation of equipment and material in the Defence'** in Malaysia, Singapore and Vietnam. The seminars focused on the need for humidity control for safe preservation and application of dehumidification application in the defence. The seminars were extremely well received by officers from the defence services of all the three countries.

Dehumidification is being widely used by the defence in preservation of equipment and active status material in storage. Bry-Air's experience applications over the years has given it the capability to provide complete engineered solution for protection and preservation of all types of military stores hard as well as soft - outdoor as well as indoor.

If you want a seminar at your base or a copy of the seminar material, write to us.

PLASTICS

PLASTICS ..... AND PLASTICS'

'Plastics' is emerging as one of the foremost and fastest growing industry world wide. Keeping pace with needs of the industry, **Bry-Air** has geared itself to solve all plastics handling problems of today's plastic processor – whether it is **drying, conveying colouring** or **any other support system.**

Bry Air has incorporated into it's range,auxiliary equipments which makes **processing easier, improves productivity, decreases rejects ... in other words better quality! More profits for the processor!**

To create a better awareness of the availability, usage and benefits of auxiliary equipments, Bry Air is arranging a **series of seminars** in **Kuala Lumpur, Jakarta, Madras, Bombay** and **Delhi.** The seminars will be presented by our **expert in plastics** from **Bry-Air USA – Mr. Graydon Griesse.**

So if you want to attend the seminar at any of the listed venues, please write to the Advertising Department, Bry-Air for more details.

Did you know?

Heat pipes can extract heat from hot Plastic molds!!

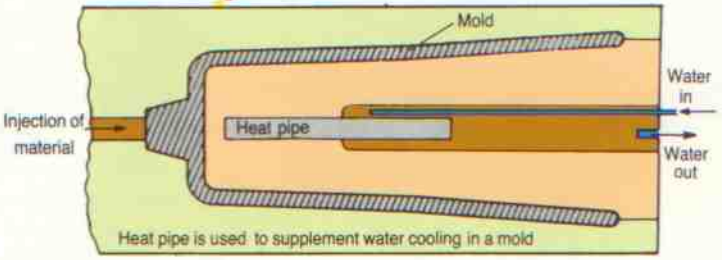
Injection Molding involves pouring of plastic in molten form into the mold and rapid cooling to produce the component. Removal of heat during the solidification process is imprerative.

Invariably the molds are water cooled. This method, however, has some inherent problems like –

- **inaccessibility of certain remote areas of the mold.**
- **possibility of thermal shock.**
- **inaccurate cooling.**
- **excessive wear and tear of mold.**

The **heat pipe** due to it's property of high effective **conductance** and **isothermal nature** can be effectively used to **cool** the mold by **extracting heat** from them.

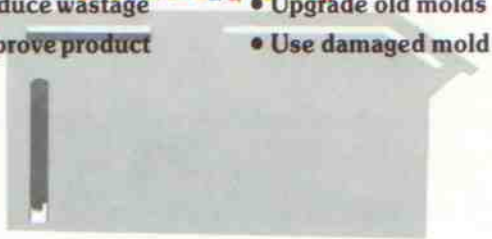
The heat pipe is used to even out the temperature gradients in the molds by inserting it into the main mold without connecting it to water cooling circuits. This minimises temperature gradients aiding in the continous flow of material in the mold. Heat pipes inserted in the mold assist in heat transfer



between the mold face and water cooling path without any thermal shocks and without causing any hot spots. This not only increases the production by reducing cycle times but also increases the life of the molds and dies.

Heat pipes for Plastics molding

- **Reduce cycle time**
- **Eliminate hot spots**
- **Reduce wastage**
- **Improve product**
- **Eliminate core clogging**
- **Increase mold life**
- **Upgrade old molds**
- **Use damaged mold**



WHEN MOISTURE IS TORTURE!!

In this column we will share with you regularly our experiences on major application areas where usage of dehumidification is both and essential.

PET DRYING

PET... the most popular 'plastic' today. –

Polyethylene terephthalate or PET, as it is commonly known is one of the most popular packaging material today. Produced by biaxilly oriented blow molding process, PET combines outstanding performance and aesthetic qualities. It has the superb crystal clarity needed to show any product to advantage. PET also has excellent carbonation retention properties, is a good barrier to oxygen and is extremely resistant to breakage light to handle and transport and safe to health and environment.

All these qualitites make PET a great favourite with the **packaging** industries specially in **food** and **beverage** industry.

For PET to have all the qualities, for which it is well known, the PET resins have to be absolutely moisture free before being processed.

Drying PET....

PET resins are highly hygroscopic, i.e. they absorb moisture very easily and comparatively more quickly than other plastic resins. **This affinity of PET resin to moisture** makes it one of the **most difficult resins to dry.** Even traces **of moisture present in the resin can result in splay, internal bubbles, loss of clarity and strength in the finished part/product.**

Hence proper drying of PET resins is the first critical step towards the final required quantity of the molded product.

Drying PET requires **stringent control over** dewpoint, drying temperature, residence time and air flows.

....With the Bry-Air dryer

Drawing on it's long experience in drying of various types of plastics resins, specially PET, Bry Air has been able to design a complete package for PET drying, which ensures delivery of the PET resin to the molding machine at a moisture content of less than .003% or less.

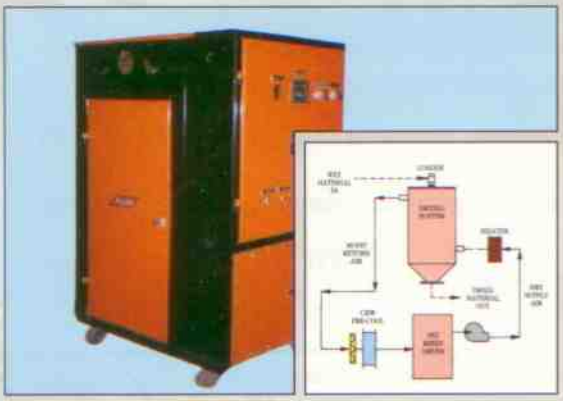
The Bry Air 'PET Drying System incorporates

- A *multiple bed,* desiccant dehumidifying dryer designed and guaranteed to maintain (–) 40° F dewpoint or lower, year round, regardless of of ambient conditions.
- Special *Dewpoint Energy Control* System designed to reduce the energy consumption up to 50 %.
- Unique *closed loop cool-down* cycle introduces no ambient air into the regenerated bed. Thus, the bed enters the process air stream fully regenerated, cool and ready to dry.
- A standard *after cooling coil* to ensure maximum adsorption capacity of the desiccant.
- *Insulated hose* designed to minimize heat loss to the drying hopper, as well as reduce energy consumption.
- Standard *digital dewpoint monitor* and *standard day timer.*
- Double skin, *insulated drying hopper* to further reduce heat loss.
- Specially designed *air distribution system* ensures first in – first out plug flow of material for thorough and efficient drying.
- *Serviceability* – The entire system is designed for ease of maintenance.

  Filters and desiccant bed configuration designed for quick and easy maintenance or replacement.

  Full length access doors on either side of the dehumidifier assure easy accessability to all internal components.

  Removable air-distribution cone for easy cleaning. Hoppers provided with clean-out door for easy access.



The drying system is further supported by the Bry-Air Vacuum sequencing system for conveying and Mold Temperature Controller for maintaining required mold temperature.

Bry-Air The One Stop Solution to all your Plastics Handling Problems.

Bry-Air provides the complete single source responsiblity for all plastics auxiliary equipment with guaranteed results for drying, conveying, colouring, mold temperature control, mold dehumidification system.

TAKE A CLOSER LOOK AT OUR RANGE

Hot Air Dryers – HAD Series
for drying of non-hygroscopic resins. Capacities ranging from 13 kg/hr to 400 kg/hr. (29 lbs/hr to 880 lbs/hr.)

Drying Hopper –
Ideal companion to dehumidifying dryers. Capacities ranging from 36 kg to 1360 kg. (80 lbs to 3000 lbs)

Mold Temperature Controller
for automatic temperature control of all types of molds. Can meet the demand of processing temperature of 150°C and more.

Microprocessor Controlled Dehumidifying dryers-RD Series
for thorough drying of hygroscopic resins. Capacities ranging from 9 kg/hr to 285 kg/hr (20 lbs/hr to 625 lbs/hr) Assured constant of (–) 40°F dewpoint or lower.

Material Conveying Systems
Automatic, stand alone, single loaders – VLS Series lifting capacities of 136 kg/hr (300 lbs/hr) to a height of 15 m.

Granulators
to regrind scrap for effective reuse of scrap.

Large Volume Dryers-LVD Series
Central systems which can supply dry air to several hoppers adding flexibility to your system. Capacities from 340 kg/hr to 2724 kg/hr (750 lbs/hr to 6000 lbs/hr.)

Central Conveying Systems –
VSS Series for multi station, multi variety centralised conveying of plastic resins.

- **Mold Dehumidification System**
- **Powder Dryer • Crystallizer**
- **Chiller • Dewpointer**
- **Dosers. • Compressed Air Dryer**
- **Heat pipes for mold.**

For a glimpse of the A to Z of Plastics auxiliary equipment visit our booth – 4M/7 at the Plastindia'94 in February.

Everything We Make, Makes Plastics Handling Easier.

Bry-Air

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