



EGG^{PLAST}™

• Drying • Conveying • Blending



Our Plastics division is now **Bry-Air** Systems . . .

Our Plastics division is now Bry-Air Systems. The underlying vision remains the same - to be the single source for meeting the individual needs of the discerning plastic processors of today. Considering the fact that the needs and challenges of plastic processors whether it is a captive operation, a custom job shop, or large volume production such as automobile plastics are different, it is essential to provide customised solutions for each segment. In the competitive world of plastic processing a moulder can be a winner only if they can manage to save material, time and energy.

Bry-Air celebrates the "Be a Winner" theme at upcoming Plastivision.

Bry-Air Systems are designed to meet all these individual challenges.

We have over 50 years of job proven experience in providing superior equipment to meet the drying, conveying, mould dehumidification, blending, heating and cooling requirements. With Bry-Air Systems solutions, plastic processing becomes easier and more convenient.

Drying

Conveying

Blending

Introducing
new

Gravimetric Blender
200 kg/hr to 2150 kg/hr

Chiller
3.5 TR, 7.5 TR
and 10.5 TR

Mould Temperature
Controller
150°C with oil and 90°C
with water



8th Plastivision India 2011

International Plastics Exhibition & conference

20-24 January 2011

Bombay Exhibition Centre, Goregaon, Mumbai, India

Meet our experts and witness Gen-X technology at
Plastivision 2011 Hall 1, Row C3, C4 Booth No. 7
Bombay Exhibition Centre, Mumbai January 20-24, 2011



Don't let moisture affect quality in PET processing . . .



Moisture is a major menace while processing Polyethylene terephthalate or PET. PET is one of the most popular packaging materials today but is extremely Hygroscopic.

So it is very important to dry it thoroughly and properly to ensure quality finish.

It is estimated that more than 80% of the problems associated with PET manufacturing is because of improper and inaccurate drying. Improper and inaccurate drying leads to loss of structural strength, impact strength, tensile strength, cosmetic defects and many other moisture related defects and deficiencies.

Proper drying of the PET resin is the first critical step towards the final required quality of the moulded product. The resin must be dried so that it may contain less than 0.003% moisture prior to moulding. In the presence of moisture hydrolysis occurs causing reduction of molecular weight. This is responsible for several defects in PET preform like decrease in clarity and haziness.

Parameters for PET Resin Drying

Temperature	–	160°-180°C
Time of drying	–	4-5 hrs
Air Flow	–	2.25CMH/Kg
Dew Point	–	-40°C and below



Of these parameters, dew point plays the most critical role. Dew point plays a very critical role in creating a lower vapor pressure around the surface of the resin. This lower vapor pressure forces the moisture in the molecular chain of the resin to dissipate out to its surface. The PET resins dried at -20°C dewpoint retain 10 times more moisture than PET resins dried at -40°C dewpoint.

Only Bry-Air Honeycomb Resin Dryers can guarantee -40°C to -65°C as consistent dewpoint.

Methods of drying

The dehumidified drying can be done through honeycomb wheel technology and molecular bead technology. Due to the advantage of honeycomb wheel technology on energy saving (25%), better dew point

(up to -65°C), less maintenance, no contamination and lower cycle cost, generally they are preferred over molecular bead technology.

For more information on Bry-Air solution to the problems while drying, moulding and conveying visit our PET application page after logging on to www.bryair.com

Moisture must be less than 0.003% prior to moulding





Don't let moisture affect your productivity . . .

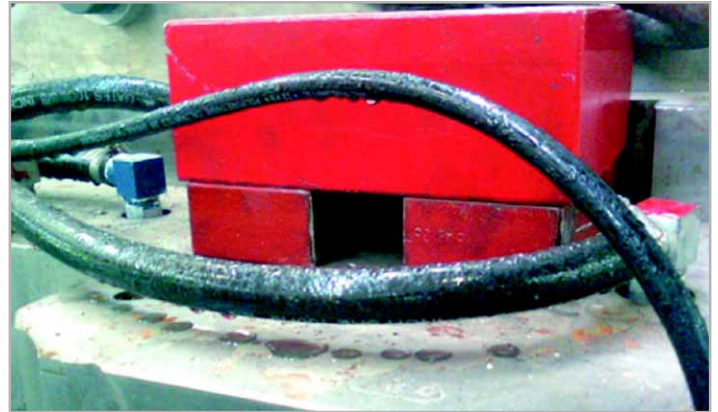
Mould Sweating

The biggest challenge that moulders face today is to produce the moulded component at better cycle time. The most time consuming step in moulding cycle is cooling time. To bring the cooling time down, as close as possible to refilling time (dosing time), the mould needs to be cooled with chilled water as low as possible. During this process of bringing down the temperature of the mould, due to higher grains surrounding the mould, condensation occurs. This is defined as mould sweating. Mould sweating can lead to rusting of mould, water marks on moulded component and moulded component not getting ejected out properly.

Bry-Air solution to mould sweating

To eliminate the condensation, the area around the mould needs to be maintained with Dry-Air at the dewpoint of -5°C to -10°C . Bry-Air offers the solution through Mould Dehumidification Systems – MDS and PMD.

The Mould Dehumidification System functions by blanketing the mould surface with a constant supply of dehumidified air at an appropriate dewpoint below that of the chilled water in the mould.



Water condensation on hose & mould

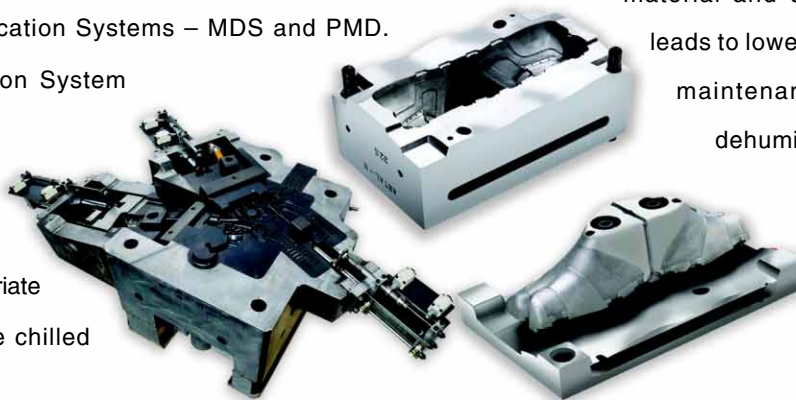
The Bry-Air MDS is a very sturdy and energy efficient unit which provides a constant supply of dry air around the mould at precisely controlled dewpoint.

Maintaining a mould while offline.

Moulds are expensive and need to be stored properly. Slipshod maintenance/ management and other agents could damage expensive mould. It has been noticed that moisture causes large scale damage to the mould when it is not stored properly. Damaged mould leads to surface defects on the

material and dimensional inaccuracy. Also it leads to lower life time of the mould and higher maintenance cost. Proper storage under dehumidified condition could ensure that

expensive moulds lasts several life cycles with no maintenance. Bry-Air mould dehumidifiers ensures protection of precious mould during storage.



Plastics Information . . .

**Plastics protect trees
and saves fuel . . .**

How ??

- Plastics are 100% recyclable.
- It has been estimated that plastic reduces fuel consumption. Using lightweight plastic instead of conventional material decreases the weight of the automobile which in turn reduces fuel consumption and emission. Plastic makes automobiles lighter and safer.
- If plastics in packaging is replaced by traditional materials, world energy consumption would double. Similarly if plastic in packaging were replaced by traditional materials, CO₂ emissions would increase 7 times over.
- Deforestation would be doubled in the absence of plastics.

Use plastics sensibly & do not litter

Bry-Air
Participated in



Plastics Philippines



3P Malaysia



Plast India 2009

Bry-Air

Plastics Auxiliary Equipment

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