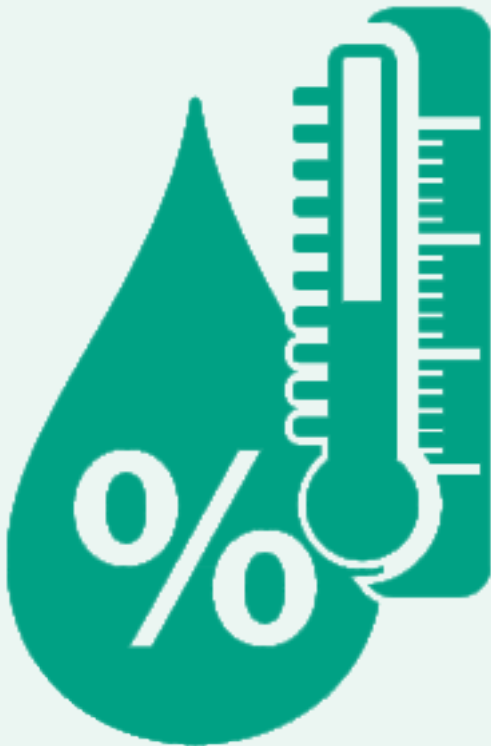


# DEHUMIDIFICATION

ON RENT

A newsletter on short term humidity/temperature control and drying services

www.tdsasia.net



## Get Set Ready For Monsoon

It isn't the **heat!** It is the **HUMIDITY!**

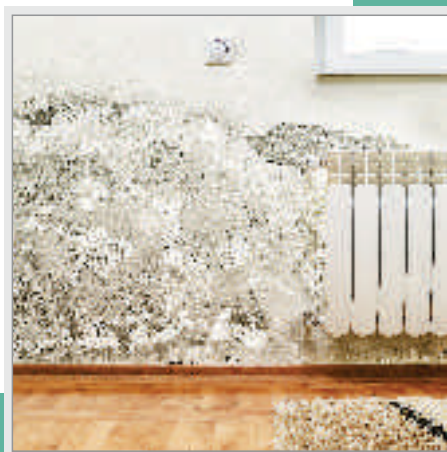
The monsoon brings down the impact of heat, but raises humidity level to over 75% in most industrial processes. With the rise in humidity level, corrosion, mould and mildew progresses rapidly. To countermeasure this temporary or short term increased humidity control needs, you might need additional dehumidification system.

For handling seasonal humidity problems, TDS provides rental services to multiple segments for dealing short term humidity related problems.

High humidity affects various industries

- Food
- Power
- Defence
- Pharmaceutical
- Electronics
- Spice
- Leather
- Data Centre & IT
- and many more

## Do You Know?



## Moisture seeps and traps inside the walls even after water removal

Water damage can originate through different sources like rains, floods, pipe leakage or firefighting operations, etc. Even after pumping out the accumulated water, the moisture remains trapped some space in the walls. It is visible in the form of flaking paint, curling wallpaper and patches.

The moisture in damp walls develops the unhealthy mould, releases musty smell and makes the wall weak and less load bearing.

## Quick tips to treat damp walls

- Allow fresh air by opening windows and doors
- Switch on fans to move air around the wet wall
- Remove paintings, portraits and all other objects that are hanging on the wall
- Remove the wallpaper
- **Call TDS** team to install dehumidifier on rental basis

## Get Monsoon Ready !

Heavy rainfall causes flood which damages the asset, plant, machinery, electrical & electromechanical equipment and furniture etc. Business houses have to shut for an extended period and takes longer time to return to normal.

### TDS helped restoring assets damaged by monsoon flood

When, the incessant rains had flooded Chennai and deeply impacted the Indian economy. As the city drowned in a deluge of water, the business units remained closed for days due to flooding. The flood caused huge losses to small and micro industrial units.

The unprecedented deluge leaving a trail of destruction and damaged the physical infrastructure, including important documents, agreements, electronics, laptops, raw materials etc.

Using Bry-Air technology, TDS offered its **Water Damage Restoration Services** to restore assets and their physical infrastructure rather than replacing them.

## Coping Effectively with Floods

TDS came to the rescue of some of the biggest corporate houses across diversified industries. The disastrous flood had wet the important agreements and contracts of **L&T**. This could have had become the irreversible loss for the company, however, TDS acted round the clock for 15 days and remove moisture from the wet documents and restored them.

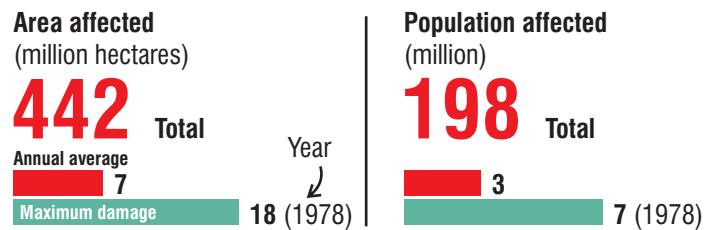
Similarly, when the flood hit the **National Institute of Ocean Technology**, the flood water damaged their electronic instruments. TDS responded to the large losses and put it back in working condition and restored them within 2 days with WDR services.

Another incident, where the water damaged the mobile phones stocked in the warehouse of reputed supplier. TDS acted quickly and removed the moisture from over 20,000 mobile phones as per customer satisfaction.

The TDS team also helped **Miot Hospital** in minimizing their losses, when the flood damaged all electronic control panels and DG sets. TDS removed and restored their assets.



### Damage due to floods/heavy rains (1953 to 2015)



### The devastation caused by rains

|  | Total      | Annual average | Year             |
|--|------------|----------------|------------------|
| Building damaged (lakhs)               | 759        | 12             | 35 (1978)        |
| Value (₹ '000 Cr)                      | 105        | 2              | 15 (2009)        |
| Damage to public utilities (₹ '000 Cr) | 300        | 5              | 24 (2009)        |
| <b>Total economic loss (₹ '000 Cr)</b> | <b>698</b> | <b>11</b>      | <b>45 (2009)</b> |

Source: Ministry of Water Resources, River Development & Ganga Rejuvenation, prices at 2016 level adjusted for inflation; Research: Atul Thakur

## ANNUAL LOSS

### India's Average Annual Loss by Disasters

|         |       |
|---------|-------|
| Tsunami | 1,160 |
| Flood   | 7,472 |

Note: Figures in million \$  
Source: Global Assessment Report 2015 of UN office for Disaster Risk Reduction

# WHEN MOISTURE IS TEMPORARILY TORTURE !

## Humidity Ruins Quality of Powdered Food

Food powder like fruit powder, soup powder, whey powder, flour, cocoa powder etc. are highly hygroscopic in nature. These products absorb moisture rapidly as they have affinity for water due to humidity in surrounding environment. They can easily obstruct the free flow and easy movement during conveying. Moreover, it spoils the taste, flavour and aroma

### Powder Food sits on the hopper

During monsoon, at the processing stage, these powdered foods absorb moisture from the ambient environment and cause lumping or caking. This affects the free and easy movement of the powder in the processing machine and pneumatic conveyors. Due to high humidity, powdered food tends to stick to the hopper conveyors and packing machine, leading to frequent breakdowns in the conveyor drive mechanism.

Moreover, during monsoon, fungi and bacteria multiply and infect powdered food items. Thus, the uncontrolled humidity and bacteria absorb the nutrients from the powdered food.



### Word of advice to avoid lumping and sticking

To ensure quality and the free flow of powder and avoid sticking of the powder on the chain conveyor and the other machine parts, the Relative Humidity and temperature in the packing area has to be maintained at recommended level.

#### Recommended RH for Powdered Food

| Food Powder                        | Temperature (°C ) | RH (%)       |
|------------------------------------|-------------------|--------------|
| Instant Coffee Processing          | 26°C              | 20% RH       |
| Fruit Powder Handling              | 20°C – 22°C       | 35% RH       |
| Tomato Powder Production           | 19°C – 23°C       | 25% - 35% RH |
| Dry Soup Packaging                 | 21°C              | 20% RH       |
| Powdered Drink Mix Packaging       | 21°C              | 20% RH       |
| Cooling of Spray Dried Milk Powder | 10°C              | 35%- 40% RH  |
| Milk Powder Packaging              | 22°C– 25°C        | 35% - 40% RH |
| Whey Powder Manufacturing/Storage  | 21°C – 26°C       | 15% - 30% RH |

Before the arrival of monsoon, install Dehumidification unit. TDS installs Bry-Air dehumidifier and controls the relative humidity in the processing unit to avoid lumping and caking of powdered food. It also prevents the sticking of the powder on packing machines, hoppers, and other parts. Moreover, it ensures an easy, free flow of powder through the packing machine into containers.

TDS installs Bry-Air Desiccant Dehumidifiers to overcome quality issues, sticking, caking, lumping and clogging.

### Benefits of Renting Dehumidification Service

- Tackle **seasonal humidity** and temperature
- Try and **test** the benefits of dehumidifier
- **Postpone** capital expenses
- **Expansion** and process modification
- **Temporary cooling** services during AHU shutdown or maintenance



# Recently Concluded Events and Exhibition



Wilayah Persekutuan, Malaysia



L&T, Kachipuram, Tamil Nadu



Windy India 2017, Delhi



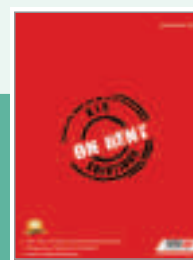
Power-Gen India & Central Asia 2017, Delhi



NTPC, Kayakulam, Kerala



Hyderabad



To order **FREE** copy of  
TDS Application Handbook  
write to us at [tdsmarketing@pahwa.com](mailto:tdsmarketing@pahwa.com)



For more information on any service covered in this issue please write to Marketing: **Technical Drying Services (Asia) Pvt. Ltd.**

Plot No. 2274/3, Rajiv Nagar, Shiv Vihar, Near Old CRPF Camp,  
Behind Birla White Cement Godown, Bus Stand Road,  
Gurugram-122001, Haryana  
Tel : +91-124-4012851, 2973048/49  
E-Mail : [tdsmarketing@pahwa.com](mailto:tdsmarketing@pahwa.com)  
Website : [www.tdsasia.net](http://www.tdsasia.net)

Technical Drying Services (Asia) Pvt. Ltd.  
HO: 20, Rajpur Road, Delhi-110 054