

# delair facts<sup>®</sup>

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**Bry-Air**<sup>®</sup>

**DRI**<sup>™</sup>

**TDS**<sup>™</sup>

News on Compressed Air Treatment

Vol. 4

## Delair launches MICRO PROCESSOR based Ultima™ Series Refrigeration Dryer

- Available in 28 standard models.
- MIMIC display to read out dew point, operating status, faults indications.
- Provides pressure dew point down to 4°C
- Unique, foamed in heat exchanger (heat exchanger may vary from model to model)
- Aluminum Structure
- Eco-friendly Gas
- Energy Efficient



## DEALER MEET

Delair successfully organized Dealer's meet at Dalhousie which was fulfilled yet professional. The meeting energized the synergy of our dealers. It was attended by Delair team and Delair dealers from all over the country.



(left to right): Sarabjit Singh - Polyuno Venture, Rajeev Thapan - Delair - Service, D.Bhowmick - Delair - Sales - East, R.K.Guha - Delair - CEO, Naveen Zutshi - Delair - National Sales and Service head, P.K.Chauhan - Delair - Engineering, Rajinder Singh - PEC

Standing (left to right): Himanshu Chauhan- Delair - Marketing, Rohit Pandita - Delair - Sales, Partha Pramanik - Delair Sales - East, Kannan - Delair - Sales - South, Dhurba Paul - Deion Techno Optimizers, S.Sebastin - Delair - Sales - South, Praveen - Praveen Traders, S.R.Dhuri - Delair - Sales - West, Samson Moses - Huper Airo, Ashish Wardhe - Halward, Gurjit Singh - Punjab Engineering Company.

## EXHIBITION UPDATE

ACREX

Bangalore - February, 2012



NATIONAL EXPO

Raipur - December, 2011



PLASTINDIA

Delhi - February, 2012



ENGINEERING EXPO

Rudrapur - October, 2011



## NEWS FROM GROUP COMPANIES

### **Bry-Air**<sup>®</sup> Sets new benchmark in Gas Phase Filtration

Bry-Air, recently announced a yet another breakthrough in its 'in-situ' synthesized macro porous Honeycomb technology research by extending it to Gas phase filtration. This patent pending technology has been developed by Bry-Air's R&D group. This is one of the five patents filed by the group in the last 2 years in field of Air Treatment and moisture measurement technology.



DRI DOAS was selected for the project to supply primary air to chilled beams and cater to the latent load in the building. The Eco Commercial Building (ECB) maintains 30% additional outdoor air over benchmark set by ASHRAE Standard 62.1-2004 to enhance Indoor Air Quality (IAQ) and provide occupant comfort.

# MARUTI SUZUKI



## About Maruti

Maruti Suzuki India Limited (MSIL, formerly Maruti Udyog Limited), a subsidiary of Suzuki Motor Corporation of Japan, is India's largest passenger car company, accounting for over 50 per cent of the domestic car market

## Frequently Faced Problems (FFPs)

In MARUTI SUZUKI Bumper paint shop they use compressed air for spraying in two ways :

1. Manually - through electrostatic guns
2. Automatic - through painting robots

A major problem in compressed air systems is the presence of water, dust particles, oil (oils particles are introduced by lubricated air compressors) and solid contaminants which can adversely affect air quality. When compressed air mixes with paint before spray then all these pollutants found in compressed air lead to blisters in paint surfaces, water droplet marks in surface and low quality shining in bumpers which leads to low quality finish.

When spray painting is done through painting robots then contaminated compressed air causes low quality final finishing and rust / corrosion in painting robots. This leads to malfunctioning on pneumatic systems, high maintenance cost and decrease in durability of painting robots.

Also, there were rust and corrosion on compressed air pipe lines.

The shining quality of bumpers used to be increased by manually polishing them by cream.

## General Recommendation

Remove water, dust particles, oil (oils particles are introduced by lubricated air compressors) and solid contaminants from compressed air.

## Delair Solution

After reviewing the situation, engineers and management decided to overhaul the compressed air drying

system to increase efficiency.

We installed Refrigeration based Compressed Air Dryer FDI 1690 A, which removed water / moisture from compressed air through refrigeration. We also installed Pre Filters which removed dust particles and other types of solid contaminants present in compressed air. We also installed Oil filters which removed oil particles from compressed air which were caused by lubricated Air Compressor.

## Equipment Installed

We installed following equipment and accessories :

- |                                      |   |
|--------------------------------------|---|
| 2 Compressed air Refrigeration Dryer | It removed moisture                         |
| 2 oil filters                        | It removed dust particles up to 0.01 micron |
| 2 Pre filters                        | It removed oil particles up to 5 micron     |
| 7 pressure gauges                    | It indicates the online pressure.           |

## Benefits of Installation of Delair Dryer

- Pure and Refined dry air.
- Shining surface and high quality finishing
- No corrosion / rust in painting robots and in Electrostatic Guns
- Increased its durability
- No sluggish operation of pneumatic systems
- Low maintenance cost on painting robots and Electrostatic Guns
- No rust and corrosion in compressed air pipelines





## Use of Compressed Air in AUTOMOBILE INDUSTRY



### Use of Compressed Air in Automobile Industry

- Tool Powering
- Pneumatic control and actuators
- Powder Coating
- Changing and filling tyres
- Welding
- Powder coating operation
- Spray Painting
- Forming
- Conveying
- Stamping
- Molding

Compressed Air powered Pneumatic systems used in Automobile Industry:

- Pneumatic tools
- Pneumatic Nailgun
- Pressure Switch
- Pressure Regulator
- Pneumatic actuator
- Pressure Sensor
- Electro-Pneumatic action
- Tubular -Pneumatic action
- Pneumatic Air Guns
- Pneumatic Launchers
- Compressed-Air Engine
- Pneumatic Motor
- Gas-operated reloading
- Pneumatic Tyre
- Lego Pneumatics
- Pneumatic Cylinder

### Problems

Major problems in compressed air systems occurs due to presence of moisture / water, dust particles, oil (oil particles are introduced by lubricated air compressors) and solid contaminants

- Malfunctioning of pneumatic tools and machines
- Sluggish and inconsistent operation of valves and cylinder
- Corrosion in pipe lines, cylinder and other components

- Increase in downtime
- Increase in maintenance cost of pneumatic machines / tools / controls.
- Freezing in exposed lines during cold weather.

During spray painting manually as well as by painting robots, compressed air mixes with paint before spray then all these pollutants found in compressed air lead to blisters in paint surfaces, water droplet marks in surface and low quality shining in bumpers which leads to low quality finish. Moreover there will be rust / corrosion in painting robots. This leads to malfunctioning, high maintenance cost and decrease in durability of painting robots.

During the process of powder coating operation if there will be moisture in compressed air that there will be following problems:

- Lump of powder in pipe lines, this may lead to uneven spray of powder.
- Craters in the finish / surface
- Porosity in the coating

### General recommendation

Remove water, dust particles, oil (oils particles are introduced by lubricated air compressors) and solid contaminants from compressed air.

### The Delair Solution

Delair offers wide range of Refrigeration Dryer and Adsorption Dryers which removes water / moisture from compressed air.

**Delair Refrigeration Dryers** operate on the method of cooling the air to near freezing point to remove the moisture.

### Delair Adsorption dryer

The dryers is based on the principle of heatless regeneration and the physical properties of their desiccant to adsorb and desorb the water vapour.

### Filters

Delair also offers Pre Filters and Oil Filters which removes dust particles, oil particles and other types of solid contaminated present in dry air.



# Some Recent Big Projects :



## Andhra Sugars Ltd

Delair successfully manufactured Desiccant type Compressed Air Dryer of 1460 cfm for M/S Andhra Sugars Ltd, Andhra Pradesh.



## EC Railways

Delair successfully supplied 12 Refrigeration Dryers to Engineering Projects India Pvt Ltd (EPIL) for E C Railway workshop Project site at Harnaut, Nalanda, Bihar

## Why Delair ?

- Over 20 years of experience in compressed air drying solutions
- Widest range of compressed air dryers
- Over 50 years of research, development and experience in air and gas treatment
- Designed and manufactured as per international standard. Such as ASME section VIII, ASME section IX, IS2825 and TEMA-C
- Only Delair dryers have Volume Liquid accumulator and Liquid receivers
- Reliable and of high quality with very low maintenance cost
- User friendly and designed totally according to industrial specification and requirement, this dryer outclasses other dryers in terms of controls and performance
- Eco friendly
- CE certified

## Products & Accessories



Refrigeration Dryer



Adsorption Dryer



Customized / Engineered Adsorption Dryer



Air Filter



Air Receiver



Water Cooled - After Cooler



Air Cooled After Cooler



Moisture Separator



Auto Drain Valve ZL series



Auto Drain Valve EO series



Auto Drain Valve BF series

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