

TRIPTI

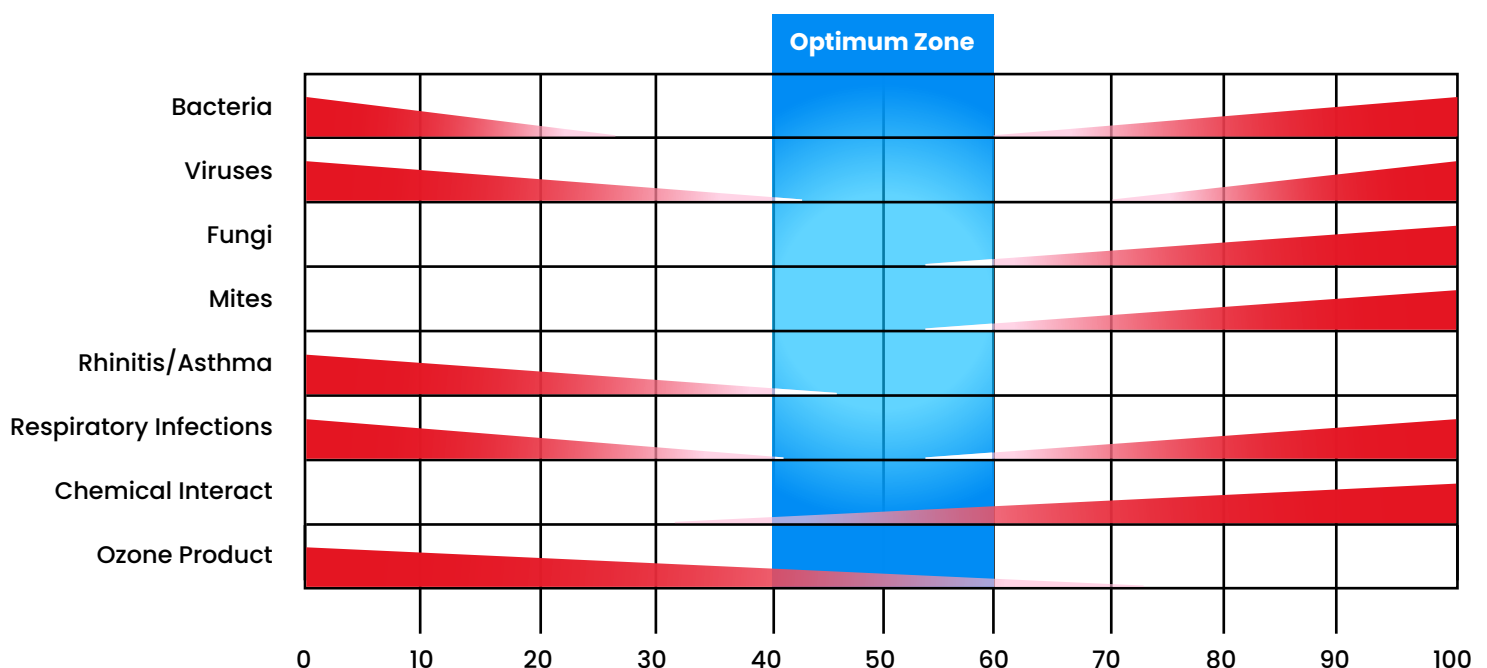
DEHUMIDIFIERS



Acceleratiing
Growth
With
**More
Innovation**

Where humidity control is vital?

- Pharmaceutical Laboratories
- Punch card storage rooms
- Capsule, Strip packing, Tablet Section
- Photographic Industries
- Coating Dept.
- Communication Equipments Cabins
- Spectrophotometer & Instrument Rooms
- Computer and data storage rooms
- Library
- Electrodes Storage
- Pharmaceutical Laboratories
- Packing Rooms
- Locker Rooms
- Processing Industries
- Textile wrapping & Quiling rooms
- Printing & Lithography
- Wood Seasoning
- Painting Booths & Painting Industry
- Food Storage
- Powdered sugar users
- Banes



The problems related to product drying are typically: Quality of drying & Speed of drying conventionally, products are dried with hot air. However most products which require drying are temperature sensitive.



moisture is present in the products as:

- Free moisture in form of surface moisture generated due to washing or mixing the product with water prior to drying.
- Hygroscopic moisture which is held within the product.
- Combination of both.

Drying operations involve the removal of all moisture to the required level. Surface moisture (and it is often assumed that it is only type of moisture present) is conventionally removed by raising the product temperature by using hot air to vaporize the moisture. However this can result in product spoilage as many products like cocoa, gelatin, coffee etc are temperature sensitive and need to be dried at low temperature. Proper removal of the hygroscopic moisture depends on the difference between the relative humidity of the air surrounding the product and of the product's equilibrium condition. If the RH of surrounding air is lower, then the product will give up its hygroscopic moisture to the drier air to be in equilibrium with its surrounding. The velocity of the air over the product has little or no bearing on the drying speed.

Product Drying applications are typically:

- Bulk (Batch) drying when material is loaded into a compartment and entire load is dried as a batch.
- Continuous drying is when the wet material continuously is fed into the drying room/chamber and it leaves the chamber, dried to the desired result.

As every material has different physical characteristics, which determine how it holds or gives up moisture, and published data on their drying is generally not available, selecting appropriate air-drying equipment must be done experimentally. Usually the sudden change in drying rate (at the critical point) denotes where the initial drying via removal of free moisture ends, and hygroscopic drying takes place over. In other words, the product has lost its free moisture but is still hygroscopically saturated. However the net effective drying surface and hygroscopic properties cannot be determined in any other way.

Advantages of using Dehumidification over other methods:

Dehumidification is the most cost effective and easy method to ensure drying without spoilage as the drying is based on the difference in vapor pressures of water in the product and the surrounding air. By physically removing the moisture from air, through the condensation the evaporative potential of the air is maximized.

- Better quality drying with more uniform drying
- Faster drying rate without the risk of product spoilage
- Reduction in speed for drying
- Low power consumption
- No consumable required as compared to desiccant type in which the costly wheel needs to be replaced



Specification

Model	TDV20	TDV30	TDV50	TDV75	TDV100	TDV150	TDV200
Dehumidification capacity (Ltrs/Day)	10	20	30	50	60	90	120
Dehumidifying capacity (Ltr/hr)	0.416	0.833	1.25	1.66	2.08	3.75	5
Air flow (cfm)	200	175	200	200	375	375	400
Humidity Setting %	30%-90%	30%-90%	30%-90%	30%-90%	30%-90%	30%-90%	30%-90%
Working Temp. (Deg. C)	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C
220v	230V	230V	230V	230V	230V	230V	230V
No. Fan	1	1	1	1	1	1	1
Power Consumption (w)	800	920	920	1495	2000	2500	3000
Compressor Type	Reciprocating	Reciprocating	Reciprocating	Reciprocating	Reciprocating	Reciprocating	Reciprocating
Noise level (db)	55-69	55-69	55-69	55-69	55-69	55-69	55-70
Refrigerant	R-134A	R-134A	R-134A	R-134A	R-22	R-22/R407/ R404/R134A	R-22/R407/ R404/R134A
Net Weight (kgs) appx	25	35	40	45	65	70	80
Gross Weight (kgs) appx	30	490	45	55	70	75	85
Max Product Dimensions (LXDXH)	25 X 13 X25	25 X 13 X25	27 X 13 X 31	27 X 13 X 31	27 x 19 x 35	27 x 19 x 35	27 x 19 x 35
Quality / Safety Approval	as per factory test report	as per factory test report	as per factory test report	as per factory test report	as per factory test report	as per factory test report	as per factory test report
Model	TDV250	TDV300	TDV400	TDV500	TDV600	TDV800	
Dehumidification capacity (Ltrs/Day)	150	180	240	300	360	480	
Dehumidifying capacity (Ltr/hr)	6.25	7.5	10	12.5	15	20	
Air flow (cfm)	450	600	800	900	1000	1600	
Humidity Setting %	30%-90%	30%-90%	30%-90%	30%-90%	30%-90%	30%-90%	
Working Temp. (Deg. C)	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	20-40 Deg C	
220v	230V	400V	400V	400v	400V	400V	
No. Fan	1	1	1 or 2	1 or 2	2	2	
Power Consumption (w)	3500	4000	4200	4400	4500	5900	
Compressor Type	Reciprocating	Reciprocating/ Scroll	Reciprocating/ Scroll	Reciprocating/ Scroll	Reciprocating/ Scroll	Reciprocating/ Scroll	
Noise level (db)	55-74	55-74	55-74	55-74	55-74	55-74	
Refrigerant	R-22/R407/ R404/R134A	R-22/R407/ R404/R134A	R-22/R407/ R404/R134A	R-22/R-407	R-22/R-407	R-22/R-407	
Net Weight (kgs) appx	90	130	150	180	200	250	
Gross Weight (kgs) appx	95	150	180	200	220	240	
Max Product Dimensions (LXDXH)	27 x 19 x 35	53 x 25 x 25	37 x 25 x 47	68 x 26 x 51	68 x 26 x 51	68 x 30 x 57	
Quality / Safety Approval	as per factory test report	as per factory test report	as per factory test report	as per factory test report	as per factory test report	as per factory test report	



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