

# TAD DEMIST

## Tad Demist

Tad Aircon a patented technology company presents to you “Tad Demist” an energy-efficient innovation for your commercial and industrial Humidity problems.

🌿 Tad Demist saves **80% of energy** against a conventional desiccant dehumidifier.

### High Humidity Commercial Application:

Air-conditioned restaurants | Indoor swimming pool

### Industrial Process Applications:

Fish or Meat processing tunnel freezer area | Food processing & packing

Snack foods confectionery | Spice, Ayurvedic medicines & Pharmaceutical Industry

Paper mills | Semiconductors, Cement, Leather, Fertilizer industries | Storage facilities

### Tad Demist-090L Key Features :

- High dehumidification capacity with **low power consumption**.
- Higher airflow to maintain **higher air change**.
- **R-410a refrigerant**, Japanese technology compressor.
- Casing made of hygienic food grade **stainless Steel**.
- Fasteners are made of stainless steel, **coated fan casing**.
- Cooling & re-heating coils are made of copper tube - aluminium fins and are **anti-corrosive heresite coated**.
- Washable nylon media air filter.
- Compact footprint, portable design, suitable for wall mounting.
- Easy to read **LCD display**, adjustable humidity setpoint.
- Performance tested to guarantee dehumidification capacity.



Dehumidification capacity of 90 litres per day  
@ +30°C & 80%RH & 1,100cmh airflow

**Tad-Active Air BPI™** boosts the dehumidification rate | **Available as a separate accessory kit**

Tad Active Air BPI™ (Bipolar Ionization) deactivate the virus, bacteria, fungus from air. This kit effectively eliminates smell, volatile organic compounds (VOC: benzene, methylene chloride, toluene, xylene, formaldehyde), and converts them to nontoxic neutral gases.

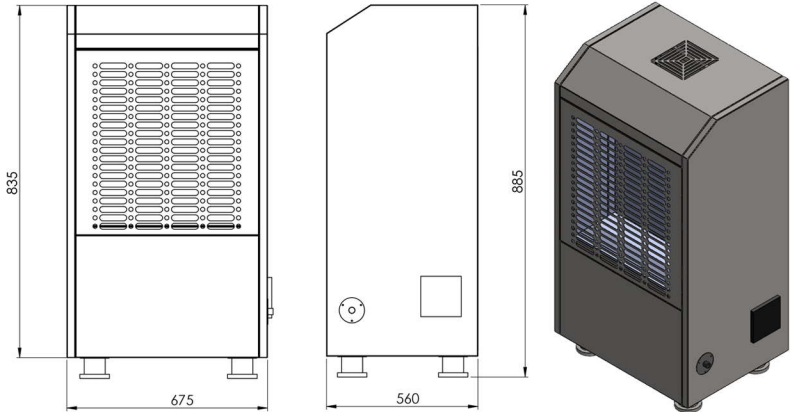
# Smart Solution for high humidity problems!

## Tad Demist

Dehumidifier eliminates moisture condensation on the ceiling and wall of an air-conditioned restaurant or a swimming pool. It helps to Improve process & cooling efficiency, eliminates ice formation in cold rooms. No more fog outside Tunnel Freezer, No more process delay. Maintain a healthy work environment for employees, by dehumidifying the air, making it easy to breathe & reduce the possible respiratory problem.

### Size

Height x Width x Depth  
835 mm x 675mm x 560mm



## Need a Hard way to learn?

Check the moisture drops on the ceiling & wall of an air-conditioned restaurant or an Indoor swim pool.



Steamy hot food served in the restaurant adds moisture to the restaurant dining area, Keeping the air conditioner at low temperature would cool the food fast.

Swim pool water mixed with water treatment chemicals releases moisture into the indoor pool deck.

If your snacks, chips & biscuits are not crispy, it's the moisture in the pack that made it soft.

Bread Pack in-store shelf with mold growth on it. During packing presence of higher moisture content is one of the causes.



High moisture will form Ice on the heat exchanger & Increase cold store power consumption, adding to it a delay in process operation time.

Air moisture In presence of a Tunnel freezer or Cryogenic freezer will create smog, resulting in operation delays, losing effective man-hours.



Humidity will also cause damage to the commodities & Corrosion to the Interior Structure of the plant.

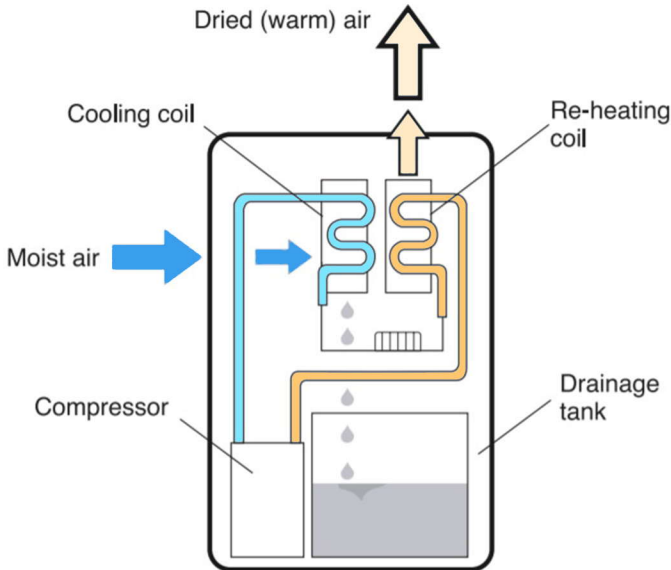
1902 Mr Willis Carrier commissioned World's First modern air conditioner, it was designed in response to an air **"humidity"** problem experienced at the Sackett & Wilhelms printing plant, In New York. This 1902 installation marked the birth of modern air conditioning because it could control humidity!

"Humidity" in simple words is called mist or moisture in Air.

In general Air conditioner helps to eliminate moisture to a certain extent.

However, Air conditioners cannot remove a large amount of Humidity produce as a result of a process.

## Working Principle of Dehumidifier



"Tad Demist" is a refrigerant based energy efficient dehumidifier. Fan blows moist air over a cold evaporator & reheat coil. The cold evaporator of the unit will dehumidify the moisture and then the air is heated by a reheat coil. The dehumidified, re-warmed air is then released into the room.

### Unit Technical Specification:

Brand Name	Tad Aircon
Model Number:	TAD- Demist 090L
Dehumidifying Technology	Refrigerant Compression Dehumidifier
Dehumidification capacity	90 Litres per day @ +30°C DB & 80% RH
Air Volume	1,100m <sup>3</sup> /h
Maximum Unit Power (W)	1,400
Working Temperature Range	+10 to +38°C
Humidity Setting	From 20% to 90% RH in the increment of 1%RH
Controller	LCD type display, Adjustable Humidistat
Compressors make	Hitachi   CRSS   GMCC
Cooling Coil protection	Anti-Corrosive Heresite Coated
Body Type	Stainless steel SS-304
Fan Type	Single Speed, SISW Forward curved
Refrigerant type / weight (kg)	R410a / 1.3
Unit Warranty	1 Year
Sound Level	60-70DbA
Testing Method	Factory Run Tested @ 30°C & 80%RH
Phase /Voltage/Hertz	1Ph/220V/50Hz
Dimensions (H x W x D (mm)	835x675x560
Weight (Kg)	45
Packing Types	Bubble wrap + Wooden packing
Place of Origin	Karnataka, India

## Accessories: To be included on request.

### • Tad-Active Air BPI™

Details on the Tad Active Air BPI™ kit are provided in a separate catalog.

- Wall mounting bracket for installation of the unit on the wall. This applies to the fish or meat processing tunnel freezer area.
- Floor stand with wheelbase kit for easy movement of the dehumidifier.
- Concealed ceiling suspended arrangement is available.

## Application of the Key Features

### 1. Stainless Steel 304 Material & Anti-corrosive Coating on Coil & Fan Casing:

- Stainless Steel 304 is also called Hygienic or food-grade steel.
- This commercial application dehumidifier is designed to withstand high humidity corrosive environment as well as withstand gases that are emitted as a result of the process.
- In swim pool application along with high humidity, a higher concentration of chlorine and other corrosive gas will be present.
- Fish or meat processing industry chemical & organic gases are released.
- Indian peninsula & gulf region cities are close to the sea & exposed to the salty corrosive environment.

### 2. Japanese Technology Compressor Reliable, No Maintenance, Low noise & Low Vibration Compressor technology.

### 3. R-410a refrigerant gas with zero ozone depletion potential.

### 4. Compact footprint, portable design, if required can be wall-mounted.

### 5. LCD Display is with clear visibility on temperature & humidity set points. The controller is with humidity(RH) setpoint range of 20% to 90% in the incremental precision of 1%. Indicative LED for Fan run status & Compressor run status.

### 6. A washable nylon media filter makes it easier to maintain & clean.

### 7. Tad Demist needs to be clubbed with Tad Active Air BPI™ (Bipolar Ionisation) kit to deactivate Virus, Bacteria, Fungus from the air. This kit effectively eliminates smell, Volatile organic compounds (VOC: Benzene, Ethylene glycol, Formaldehyde) and converts them to non-toxic neutral gases.

## Understanding Cost Saving & Energy Efficiency

**Tad Demist** Works on the principle of refrigerant compression technology. Compressor rejected heat is used to heat the reheat coil, resulting in 80% energy saving against an electrical heater.

Dehumidified air protects commodities from moisture-related, mold growth, loss of electrical power due to ice formation, damage to the interior, loss of work man-hour & employee health.

Parameters	Tad Demist	Air-Conditioner + Electrical Heater	Desiccant wheel-based dehumidifier
Cooling Electrical Power	1.4 kW	2.0 kW	0.0 kW
Electric Heater Power	0.0 kW	4.9 kW	6.4 kW
Heat Recovery Reheat Coil	0.0 kW (4.9kW Heat recovery)	0 kW	0.0 kW
Total Consumed Electricity	1.4 kW	6.9 kW	6.4 kW
<b>80 % Energy Saving with Tad Demist</b>			

Above calculation is based on 90L/days dehumidifier @ +30°C & 80%RH