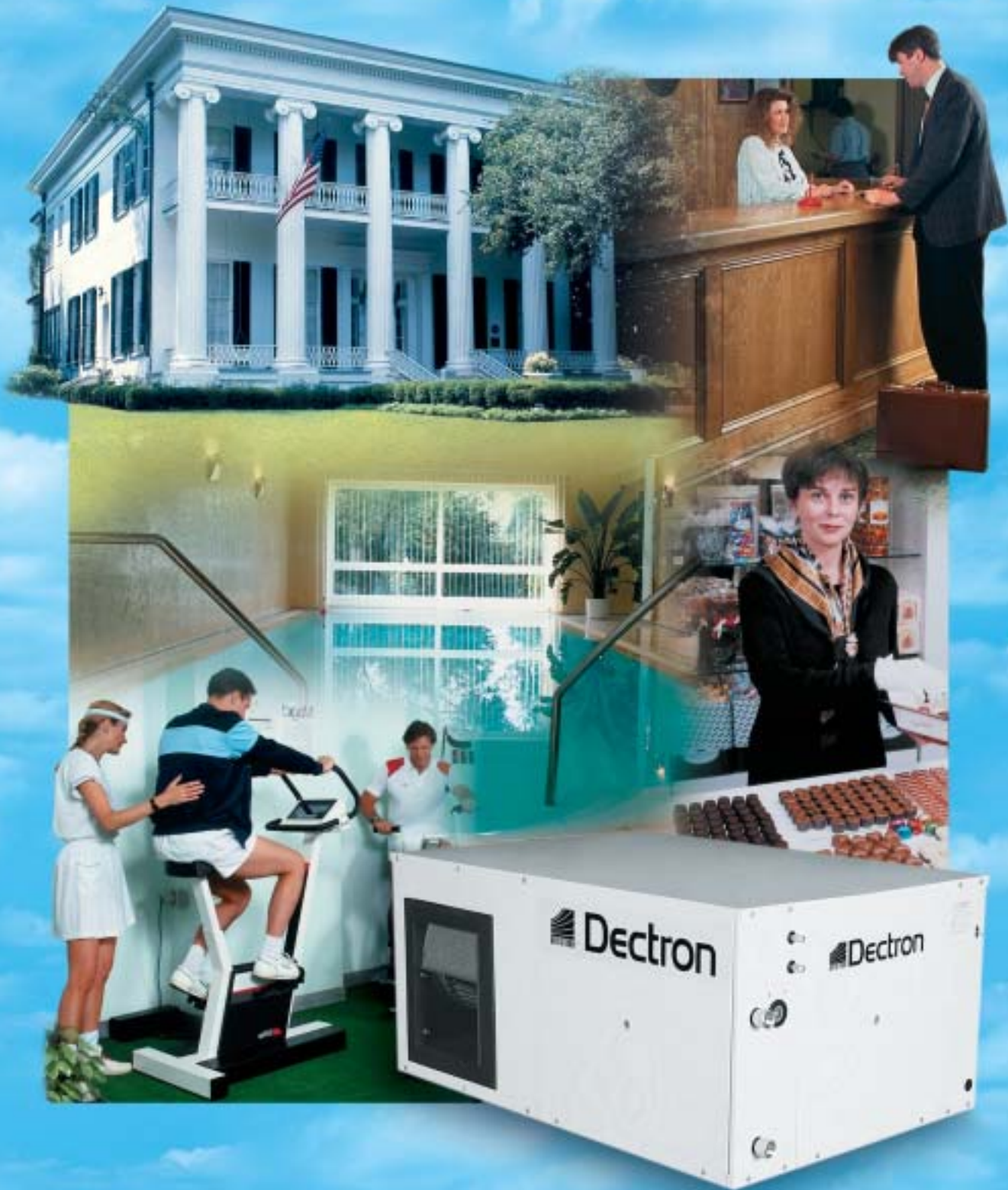


DRY-O-TRON®

Residential & Light Commercial Dehumidifiers & Air Conditioners



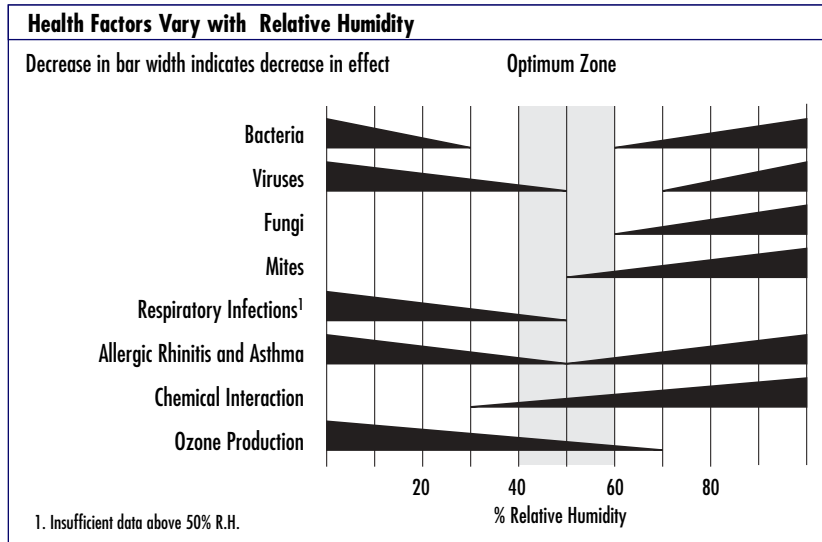
for better air...

INTRODUCTION

Why Dehumidify Air? ...for Health & Comfort

Human health and comfort levels are very sensitive to the relative humidity in the air. Fluctuation of relative humidity outside the 40%-60% RH range can result in increased human susceptibility to bacteria, viruses, fungi and other factors which reduce the indoor air quality and lead to respiratory problems.

In order to ensure that indoor relative humidity levels do not rise above the 60% RH level, a MAM Series DRY-O-TRON[®] dehumidification system can be tailored to any specific application.



Study by Theodore Sterling Ltd., A. Arundel Research Associates and Simon Fraser University

The MAM Advantage Over Traditional Air Conditioners:

If the room is to be maintained at 75°F DB and 50% RH (62.5°F WB) then the indoor air has a dew point of 55°F. This dew point is very difficult for conventional air conditioning equipment to deliver. In an attempt to dehumidify, conventional air conditioners will overcool the supply air causing the indoor space to get too cold. This in turn can lead to condensation on indoor walls and furnishings, and subsequent growth of mold and mildew.

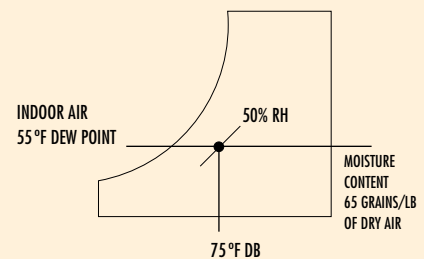
The MAM advantage is that in addition to a dehumidification coil specifically designed to remove moisture, it also has a refrigerant hot gas reheat coil. The compressor hot gas is free reheat which is used to bring the

dehumidified air temperature back up to a comfortable room temperature.

Moisture can be removed without overcooling the space.

On a cool rainy day there may not be an air conditioning demand, but there will be a dehumidification requirement. An ordinary air conditioner is helpless. The MAM Series goes to work under these conditions supplying dehumidified, comfortable air. When air conditioning is required, the reheat coil is turned off and the MAM Series supplies dehumidified, cool air. Optionally, the MAM Series can be equipped with a full-size reheat coil which can actually contribute to space heating.

INDOOR COMFORT



How Free Reheat Works:

Room air passes through the dehumidifying coil and is cooled below its dew point, thereby releasing moisture. The dehumidified air is cool. When cool air is not desired in the room, part of the compressor heat can be used to reheat the air when it passes through the hot gas reheat coil. The balance is rejected to an outdoor air-cooled (or packaged water-cooled) condenser.

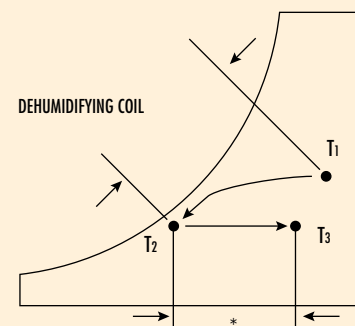
Example:

T₁ = Room air entering 75°F DB/50% RH

T₂ = Air leaving dehumidifying coil 50°F DP

T₃ = Supply air reheated to 75°F DB

HOT GAS REHEAT



* FREE REHEAT FROM THE HOT GAS REHEAT COIL

General Purpose Residential and Light Commercial Dehumidifiers & Air Conditioners

- Reheat from compressor hot gas allows year round dehumidification without overcooling the space
- Full cooling mode
- Replaces small commercial and residential air conditioners
- Air-cooled A/C with remote condenser
- Packaged water-cooled A/C available, no refrigerant piping to install
- HyPoxy® coated coils
- Controls both humidity and temperature
- Full reheat available for contribution to space heating
- Low profile, easy indoor installation



MAM Series (packaged water-cooled A/C)



QUALITY FEATURES INCLUDE:

- Scroll compressor for reliability and efficiency
- Baked alkyd powder paint internal and external
- Thermostatic expansion valve
- High and low pressure cut-outs
- Compressor short cycle protection
- Freeze protection
- Thermally-protected motor
- Air-cooled model has only two refrigerant lines to install to outdoor air-cooled condenser
- Voltages available:
208/230V single phase
60 Hz 208/230V, 460V, 575V
three-phase 60 Hz (some models)

OPTIONS AVAILABLE INCLUDE:

- Full size reheat for maximum heat rejection to the space
- Packaged water-cooled air conditioning
- Top air discharge
- 50 Hz operation

OPERATING RANGE*

Air on temperature 70°F to 100°F DB
Air on relative humidity 40% to 70% RH

* For conditions outside this range, consult your DRY-O-TRON® representative or the factory for assistance.

PERFORMANCE and DIMENSIONAL DATA



Model	Moisture Removal ¹	Air Volume	Total Energy Consumption ¹	DX Coil Sensible Cooling ¹	External Static Pressure	Dimensions	Net Weight
MAM	lb/h	CFM	kW	Btu/h	in WC	L x W x H in	lb
016	4.1	400	1.1	8,360	0.5	38 x 27 x 18	140
024	8.9	485	1.6	14,440	0.5	38 x 27 x 18	175
030	11.2	600	2.3	18,010	0.5	38 x 27 x 18	195
036	13.2	745	2.7	22,040	0.5	39 x 30 x 22	230
042	15.3	850	3.3	25,430	0.5	43 x 30 x 22	240
048	19.5	960	4.0	30,840	0.5	43 x 30 x 22	250
060	25.8	1230	5.1	39,630	0.5	48 x 36 x 22	320

1. At air on 72°F and 60% RH

OTHER INNOVATIVE DRY-O-TRON® PRODUCTS...

INDOOR POOL & WHIRLPOOL APPLICATIONS



DSV Series



RS Series

DS/DSV Series (Indoor Pool/Whirlpool Light Commercial and Residential Dehumidifiers)

- 5 models from 1 thru 46.2 lb/h moisture removal and 1,000 thru 3,800 CFM
- Horizontal and vertical configurations, indoor installation
- Heats pool water with recycled energy, patented features

- Pool Guard corrosion resistant construction including HyPoxy® coated coils
- Optional A/C for year-round comfort control
- Advanced microprocessor control
- Gas auxiliary air and water heating available

DS/RS DB/RB Series (Indoor Pool/Whirlpool Commercial and Institutional Dehumidifiers)

- 12 models from 45.5 thru 680 lb/h moisture removal and 3,300 thru 50,000 CFM
- Horizontal and vertical (models 040 thru 100) configurations
- Outdoor rooftop and indoor installation
- Purge mode, Econosaver, Economizer and Smart Saver Heat Recovery configurations

- Heats pool water with recycled energy, patented features
- Pool Guard corrosion resistant construction including HyPoxy® coated coils
- Optional A/C for year-round comfort control
- Advanced microprocessor control
- Gas auxiliary air and water heating available

100% OUTDOOR AIR APPLICATIONS



RK Series

DK/RK Series (IAQ 100% Outdoor Air Dehumidifiers)

DKH/RKH Series (IAQ 100% Outdoor Air Dehumidifiers with Heat Pump)



- 14 models from 21.0 thru 550.0 lb/h moisture removal and 480 thru 30,000 CFM
- Treat 100% outdoor air entering as high as 80°F wet bulb
- Supply treated air as per ASHRAE 62-1999
- Dehumidifies even when space cooling is not required (off-peak)

- Outdoor rooftop and indoor installation
- Gas auxiliary air heating available
- Available with exhaust energy recovery using enthalpy wheels or heat pipes
- Also in Heat Pump configuration

GENERAL PURPOSE APPLICATIONS



MAM Series



RB5 Series

MAM Series (Residential and Light Commercial Dehumidifiers)

- 7 models from 4.1 thru 25.8 lb/h moisture removal and 400 thru 1230 CFM
- Replaces small commercial and residential air conditioners
- Full cooling mode, controls both humidity and temperature

- Air-cooled, packaged water cooled available
- Year-round dehumidification without overcooling the space

DA5/DV5/RAS DB5/RB5 (General Purpose Commercial and Industrial Dehumidifiers)

- 17 models from 11.0 thru 680.0 lb/h moisture removal and 1,000 thru 50,000 CFM
- Controls humidity
- Outdoor rooftop and indoor installation
- Economizer models

- Horizontal and vertical (models 010 thru 100) configurations
- Optional A/C for year-round comfort
- Heat recovery available
- Gas auxiliary air heating available
- Advanced microprocessor control

LOW TEMPERATURE APPLICATIONS



DA2 Series

DA2 Series (Ice Rink and Curling Rink Dehumidifiers)

DA4 Series (Low Temperature Dehumidifiers)

DA6 Series (Water Treatment Plant and Pumping Station Dehumidifiers)

- 6 models from 7.0 thru 46.4 lb/h moisture removal and 1,000 thru 10,400 CFM
- Built-in automatic reverse cycle defrost

- Unit mounted or remote controlled
- Packaged unit, remote condenser not required

Dectron
A DIVISION OF DECTRON INTERNATIONALE

DRY-O-TRON®



USA 10935 Crabapple Rd, Suite 202-B
Roswell, Georgia 30075
Tel.: (770) 649-0102
1 800 676 2566
Fax: (770) 649-0243

CANADA 3999 Côte-Vertu
Montreal, Quebec
Canada H4R 1R2
Tel.: (514) 336-3330
Fax: (514) 337-3336

1 888 DECTRON
www.dectron.com
e-mail: info@dectron.com

This information is accurate at the time of printing. Dectron Inc. reserves the right to change designs and specifications without notice.