

ARID-Dry™ **Advanced Reactive Drying**

MS-600 DESICCANT DEHUMIDIFIER

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS



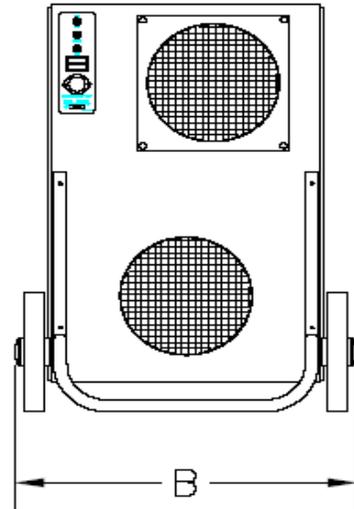
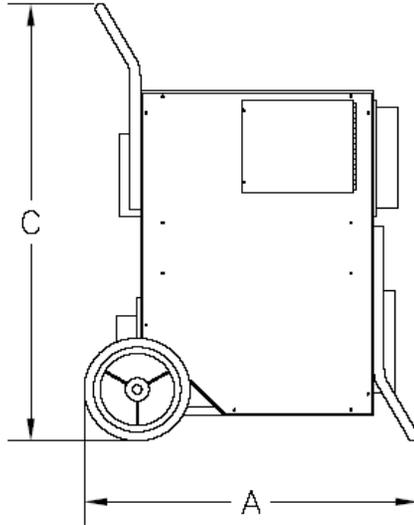
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MS-600-ARID-Dry Desiccant Dehumidifier

<u>Model</u>	<u>CFM</u>	<u>Fuel Type</u>	<u>“A” Dim.</u>	<u>“B” Dim.</u>	<u>“C” Dim.</u>	<u>Weight</u>
MS-600	600	Electric	31 1/2”	25 1/2”	42 1/2”	140 lbs



		Moisture Removal	Moisture Removal	Moisture Removal	Moisture Removal	Electric Reactivation	Electric Reactivation
	Static Pressure	Lbs/Hr	Pints/Day	Lbs/Hr	Pints/Day	FLA Load	MCA Load
Air Volume	External	80°/60% RH	80°/60% RH	55°/80% RH	55°/80% RH	220/1/60	220/1/60
600	.5” w.c.	7.84	180.7	6.35	146.5	23.5	30



- (2) Fixed Castors
- Remote Humidistat Connection
- 10” Round Connections
- 30% Pleated Efficiency Filters
- 304 Stainless Construction
- Power Cord Kits Available

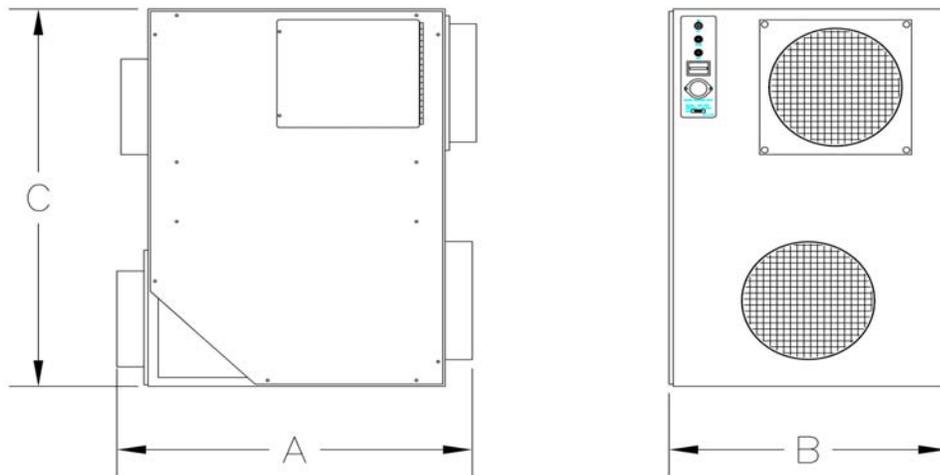
Weights and Dimension subject to change without notice



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MS-600 Stationary-ARID-Dry Desiccant Dehumidifier

<u>Model</u>	<u>CFM</u>	<u>Fuel Type</u>	<u>"A" Dim.</u>	<u>"B" Dim.</u>	<u>"C" Dim.</u>	<u>Weight</u>
MS-600	600	Electric	26 1/2"	20 3/4"	31 1/2"	130 lbs



Air Volume	Static Pressure External	Moisture Removal Lbs/Hr 80°/60% RH	Moisture Removal Pints/Day 80°/60% RH	Moisture Removal Lbs/Hr 55°/80% RH	Moisture Removal Pints/Day 55°/80% RH	Electric Reactivation FLA Load 220/1/60	Electric Reactivation MCA Load 220/1/60
600	.5" w.c.	7.84	180.7	6.35	146.5	23.5	30



- Remote Humidistat Connection
- 10" Round Connections
- 30% Pleated Efficiency Filters
- 304 Stainless Construction
- Power Cord Kits Available

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READ THIS MANUAL

This manual is provided for the MS-600 dehumidifier so the user can gain a thorough understanding of the proper set-up, operation, and maintenance. This dehumidifier is built around tested engineering principles and has passed a thorough inspection for quality of workmanship and function. A thorough understanding of the set-up, operation, and maintenance of this equipment will allow it to provide maximum performance and reliability.

PRINCIPLES OF OPERATION

The MS-600 is a self-contained desiccant dehumidifier designed to efficiently remove water vapor from the air. A portion of the desiccant rotor is exposed to the “process” air effectively adsorbing moisture while the second portion of the rotor is exposed to heated “reactivation” air effectively removing the adsorbed moisture. This process is done on a continuous basis, providing constant dehumidified process air.

MACHINE SET-UP

- Carefully **remove** the machine from its shipping carton.
- Thoroughly **inspect** the machine for shipping damage. Should any damage be found, report the damage to the freight company immediately.
- Carefully **place** the machine on a level surface within the space to be dried.
- Connect** 10” hoses to the process inlet and outlet as required for the drying project.
- Connect** 10” hoses to the reactivation inlet and outlet as required for the drying project.

CAUTION-Do not pinch or kink the hoses. Blockage of the hoses will result in reduced airflow and moisture removal capacity.

- Check** to ensure the machine is turned “off” prior to connecting power. Circuit breakers are provided in the control enclosure. Check that they are switched “on” once power is applied.
- Connect** an appropriate power cord and locking connector to the flanged inlet receptacle provided at the rear of the machine. The cord should be connected to 220vac power with 30a breaker or fuse with proper grounding.
- Unit is intended for indoor operation and needs to be protected from the weather

OPERATION

Machine operation is fully automatic and requires no adjustments to airflow or other primary functions.



A "POWER ON" lamp is provided to indicate that power is applied to the machine.

A "RUN" lamp is provided to indicate that the unit is operational. This lamp will be illuminated when the "ON-OFF" switch is in the "ON" position.

Switch the "ON-OFF" to the "**ON**" position. The machine will start operating. At this point, both fans, reactivation heaters, and rotor drive will be operational.

If **humidity control** is desired to prevent over drying, a flanged receptacle is provided for a remote humidity sensor. Connect the appropriate plug and humidity sensor with dry contacts only-**DO NOT APPLY VOLTAGE TO THIS CIRCUIT**. Open the control enclosure door and switch the "AUTO/MAN" switch to the "AUTO" position. The reactivation fan, heater, and drive circuit will now cycle on and off from the humidistat input.

An hour meter is provided to track time of operation for to aid in scheduling inspection and maintenance.



CONTROLS/ELECTRICAL



The controls in this machine are UL listed and provide for automatic operation and all required protection of the machine components. Access to the control panel is via a hinged access cover.

Air flow is accomplished using internal motorized impellers for process and reactivation air. The process fan will operate any time the "ON-OFF" switch is in the "ON" position.

A fractional hp gear motor drives the desiccant rotor.

Self-regulating PTC heater elements provide the "heat source" for reactivation.

MAINTENANCE

This machine is designed for minimal maintenance and years of trouble free service.

Clean the exterior of the machine with a damp cloth and mild soap if necessary.
DO NOT use a garden hose or pressure washer to clean this machine !

Occasionally inspect internal components for loose fasteners or damage from handling.

Inspect the flanged power inlet, connector, and cord for damage.

Check to ensure all access panels are in place and secure.

Air Inlet Filters (2 ea. 10x10x2" pleated)

Filter access is accomplished by removing the inlet collar plates for the process (10" collar, top) and reactivation filter (10" collar, bottom).



Inspect filters regularly and replace if dirty. Regular air filter maintenance is critical to extending the life of the desiccant rotor and moisture removal efficiency.

Keeping filters clean is the most important long term maintenance on this machine !

In dusty or dirty environments, the filter replacement interval will be greatly reduced. The hour meter provided can be used to establish a filter replacement interval.

Motorized Impellers (blowers)

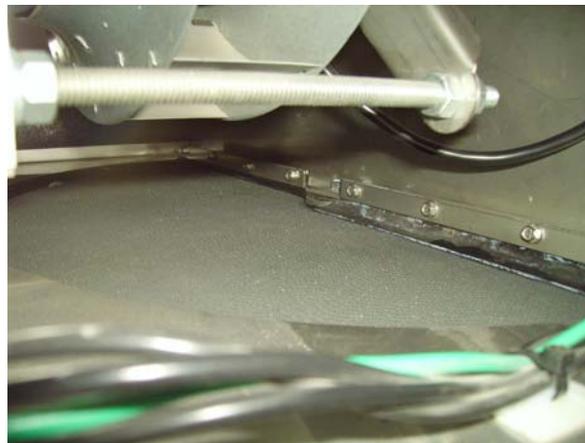
The motorized impeller motors provided in this machine require no maintenance. They are sealed and permanently lubricated.

Desiccant rotor drive system



The rotor drive system consists of a fractional hp gear motor, timing pulley, timing belt, and spring tensioner. The gear motor is sealed and permanently lubricated. Check the motor fasteners and timing pulley to be secure. Inspect the timing belt for cracks, tears, or abrasion. The tensioner should keep slack form the belt with light tension.

Rotor Seals



Periodically inspect the rotor seals for damage, tears, or gaps.

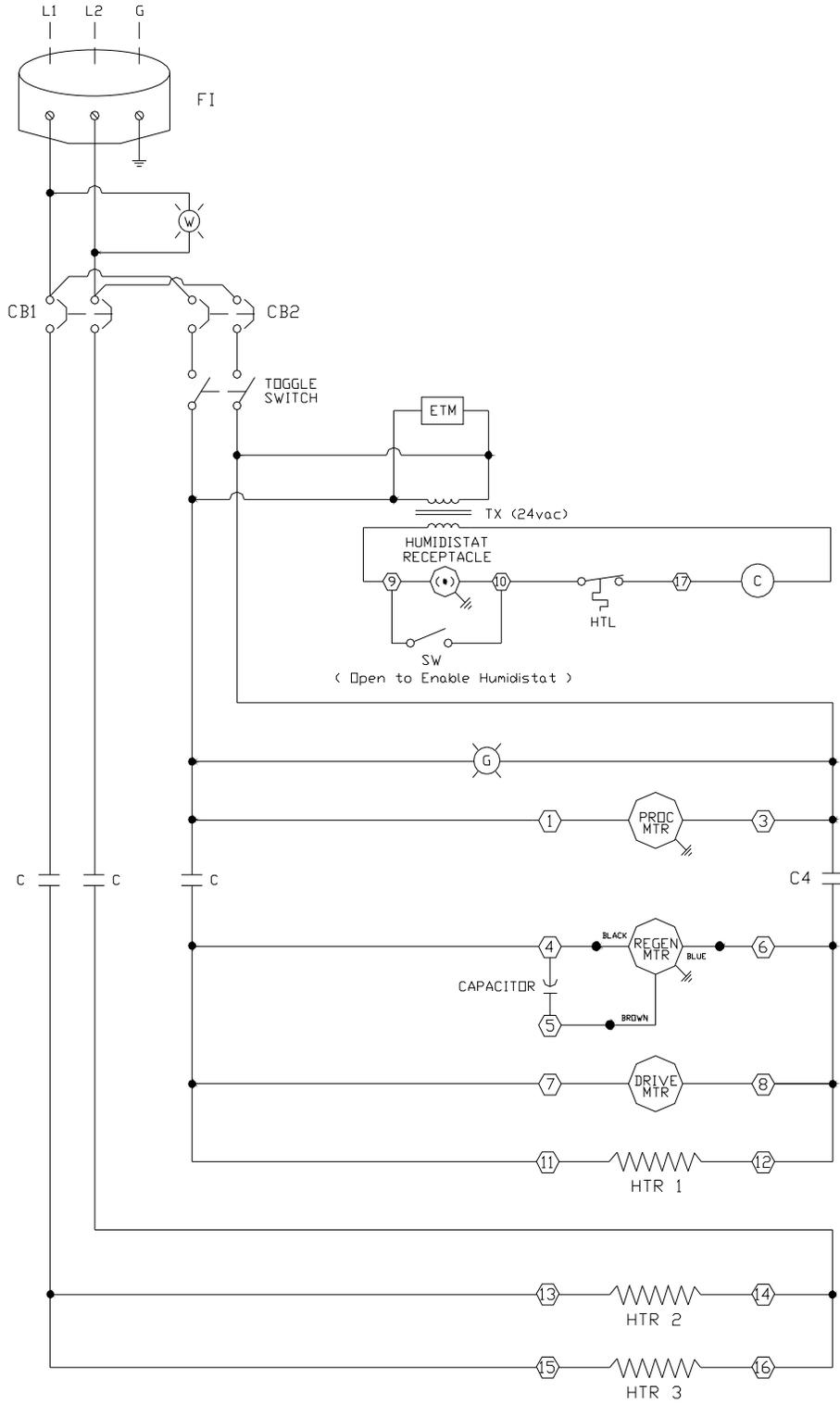
Reactivation Electrical Heaters

The heating elements are self regulating PTC type and require no maintenance. Heating surfaces of element are “live” conductors.

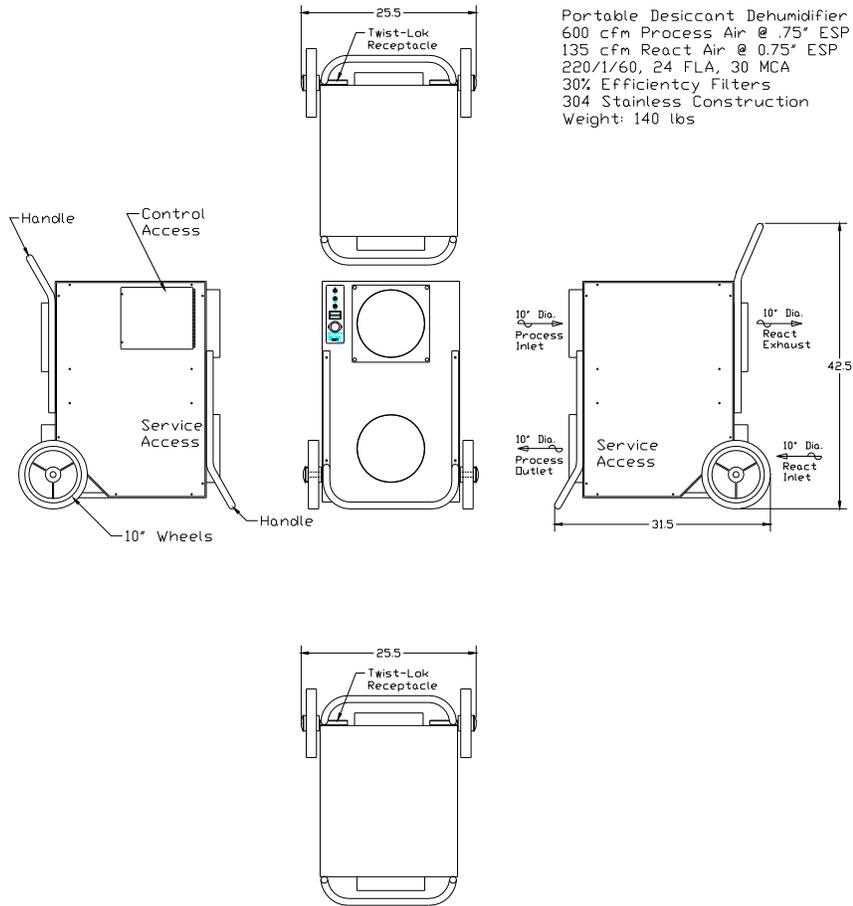
DO NOT TOUCH ELEMENTS WITH POWER APPLIED !



230/1/60
24 FLA



MS-600 XXCP-2552 R1



Portable Desiccant Dehumidifier
 600 cfm Process Air @ .75" ESP
 135 cfm React Air @ 0.75" ESP
 220/1/60, 24 FLA, 30 MCA
 30% Efficiency Filters
 304 Stainless Construction
 Weight: 140 lbs



ARID-Dry™

Advanced Reactive Drying

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MS-600 Spare Parts List

PPSR-440-100	Desiccant rotor assembly	1	ea.
28XL037-6FA4	Drive Pulley	1	ea.
608XL037NG	Drive Belt	1	ea.
BT-100	Belt Tensioner Assembly	1	ea.
HG-001	Heater Gasket	3	ea.
5W977	Filter, 10x10x2 Pleated	2	ea.
VSS-01	Viton Seal Strip, 1" x .040"	13.1	ft.
92196A194	#8-32 x 1/2" Socket Cap Screw, 18-8 SS	8	ea.
94052A025	Plastic Press Fit Thumb Screw Head	8	ea.
WHL522	Wheel with Tire and Hub Cap	2	ea.
MS-600 OM	Operators Manual	1	ea.

MS-600 Electrical B/M

CB1	QOU220	Circuit Breaker, 20a, 2P	1	ea.
CB2	QUO215	Circuit Breaker, 15a, 2P	1	ea.
ETM	1878T42	Elapsed Time Meter	1	ea.
MTR1	R3G 250-AK29-71	Centrifugal Fan, 200-277vac, 485w	1	ea.
MTR2	XR225-2B35-12	Motorized impeller, 9", 230/1/60	1	ea.
CAP	MO-CAP04M-500V	Capacitor	1	ea.
MTR3	V7O2-2512-BXXX	Drive Motor 2 rpm, 220vac	1	ea.
HTR 1,2,3	HF214U44F2	1500 Watt Heater	3	ea.
TX	6WU91	Transformer, 230v/24vac	1	ea.
C	A16-30-10-81	Contact, 24vac coil, 4P	1	ea.
W	679-0069	White Pilot Lamp	1	ea.
G	679-9792	Green Pilot Lamp	1	ea.
TS	1-89652-1E	Toggle Switch, DPDT	1	ea.
SW	18159	Toggle Switch, SPST	1	ea.
HR	3D271	Humidistat Receptacle	1	ea.
FI	7162K13	Flanged Inlet, L6-32R	1	ea.
HTL	STO-160	High Temp Limit Switch	1	ea.

Accessories

10"	10"MYLAR	10" X 25' Mylar Ducting	2	ea.
	Power Cord Kit	Power Cord Kit	1	ea.

STANDARD WARRANTY AND

LIMITATION OF REMEDIES FOR BREACH OF WARRANTY

CDIMS warrants all products to be free of defects in material and workmanship for twelve (12) months from the date of shipment. CDIMS shall only be liable under this warranty if the product is installed and used according to the directions furnished by CDIMS.

CDIMS' obligation shall be limited to the replacement of new parts of the products for those returned to CDIMS' factory at the purchaser's expense and found to be defective by CDIMS. Replacement parts will be shipped F.O.B. CDIMS' factory. Replacement of parts shall not extend the original warranty period of the original total product, including replacement parts supplied.

This warranty does not cover corrosion; normal deterioration; misapplication; labor charges paid for parts replacement, adjustments, repairs or other work; loss of refrigerant or natural gas, oil, or other fuel; components supplied by others; defects in parts resulting from neglect, negligence, accident, fire, explosion, high or low voltage, jampering or jamming controls, shorting out of components; improper or contaminated fuel, excessive or inadequate fuel pressure; frozen heating coils; or any acts of nature.

This warranty does not cover failure of the purchaser to provide normal maintenance, lubrication, adjustments, cleaning or service on the heating system; improper repairs or alterations; or misapplication of the equipment.

It is expressly understood that this warranty is made IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WHETHER ARISING FROM STATUTE, COMMON LAW, CUSTOM, OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE, QUALITY, DESIGN, CONDITION, DURABILITY OR SUITABILITY, and in consideration of the express warranty herein contained, BUYER EXPRESSLY WAIVES ANY RIGHT TO CLAIM OTHER WARRANTIES, EXPRESSED OR IMPLIED.

It is further understood that CDIMS' liability for breach of warranty shall be limited to terms of this warranty and buyer agrees that CDIMS SHALL NOT, IN ANY EVENT, BE LIABLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR DELAY. The buyer's remedies are exclusive, and shall be limited to those provided herein.

CDIMS neither assumes and does not authorize any person to assume any obligation or warranty other than those stated herein.

Any suggestion to the contrary notwithstanding, CDIMS shall not, in any event, have any liability under this warranty unless and until it has been paid in full for the products. The warranty period shall begin as described above, whether or not payment has been made.

WARRANTY CLAIMS

Defective material may be repaired or replaced at our option. If replaced, full credit will be issued in the amount of the original purchase price, plus freight, for the returned material in the event the material is found to be not defective, or to be damaged or abused, we reserve the right to return the material "as is" to the sender and at his freight cost. If CDIMS agrees to keep such material, credit will be issued minus the cost of repair and reconditioning, less freight for the return and less restocking charges.

REPLACEMENT PARTS

When writing or calling to CDIMS for service parts, provide the serial number of the unit as stamped on the unit plate attached to the electrical door. For questions regarding wiring diagrams, it will be necessary to provide the number on the specific diagram. If replacement parts are required, include the date of installation, the date of failure, an explanation of the malfunction, and a description or part number of the replacement parts required.