HI-E DRY

THE HIGH-EFFICIENCY DEHUMIDIFIER

The solution to damaging moisture and humidity

- Indoor Pools
- Whirlpools and Spas
- Therapy Rooms
- Locker Rooms
- Health Clubs
- Skating Rinks
- Hospitals
- Allergy Control
- Gymnasiums
- Water Treatment Plants
- Pumping Stations
- Power Plants
- Sanitation Plants
- Well Houses
- Switching Stations
- Telecommunications Centers
- Museums
- Libraries
- Art Galleries
- Records Storage
- Film & Tape Storage
- Cheese Factories
- Bakeries
- Pharmaceutical Labs
- Food Drying
- Canning Plants
- Restaurants and Bars
- Supermarkets
- Meat Packaging
- Tool and Die Shops
- Paper & Pulp Production
- Powder Blending
- Packaging Areas
- Plastic Molding & Processing
- Clean Rooms
- Electronics Assembly
- Computer Rooms
- Printing
- Photo Labs
- Pre-Press Areas
- Silk Screening

Hi-E Dry Products

The first HI-E DRY dehumidifier **was developed** in the late 1980s. Utilizing the patented Revaporator process, this unit removed more than twice the amount of water per kilowatt hour of electricity than any other refrigerant dehumidifier.
HI-E DRY dehumidifiers are designed and built with emphasis on efficiency and durability. Today's HI-E Dry dehumidifiers remove up to seven pints of water per kilowatt hour, while the industry average remains at only two to three pints.

The high-efficiency design of HI-E DRY dehumidifiers offer more than just dramatically reduced utility costs. The larger water removal capacity from a smaller, more efficient refrigeration system eliminates the need for 220 volt circuits in many applications. The smaller refrigeration system allows HI-E DRY dehumidifiers to cost less than other commercial dehumidifiers of equal capacity.

Original HI-E DRY I.C.U. dehumidifier with patented "revaporator" technology.

HI-E DRY Models 100 and 195 high efficiency

dehumidifiers utilize refrigeration to cool the incoming air stream below its dew point as it passes through the dehumidification (evaporator) coil. This cooling results in the removal of moisture (latent heat) and reduction in temperature (sensible heat). The cooled and dried air is used to pre-cool the incoming air stream resulting in up to a 200 percent increase in overall efficiency. After the pre-cooling stage the processed air is reheated by passing through the condenser coil. The latent heat removed by the evaporator coil is returned to the air stream at this stage as sensible heat, resulting in an overall temperature increase from the incoming air.

Features:

- The 100 and 195 are controlled by a dehumidistat with settings from 20 to 80 percent relative humidity and a positive "on" and "off" setting.
- The 100 and 195 contain a blower switch that permits continuous blower operation independent of dehumidification.
- Portable and provided with four casters.
- The HI-E DRY 100 and HI-E DRY 195 contain an internal condensate pump capable of lifting condensate 17 feet and 20 feet of condensate hose.
- Wiring is through a factory installed six foot power cord; 115 volt with ground.

"There was an excess amount of humidity in the building...within 3 days, the humidity was under control"

Mark D. Simon,
Water Superintendent,
City of Brookfield, WI

"After fighting humidity problems in our water treatment facilities for many years, we purchased two HI-E DRY units. We placed one unit in the pipe basement and the other unit in the detention and filter room. These rooms were dry within two days and we were actually able to paint in these rooms in the middle of the summer."

Jerry D. Boyer, Field Manager
Southern Sioux County
Rural Water System

HI-E DRY
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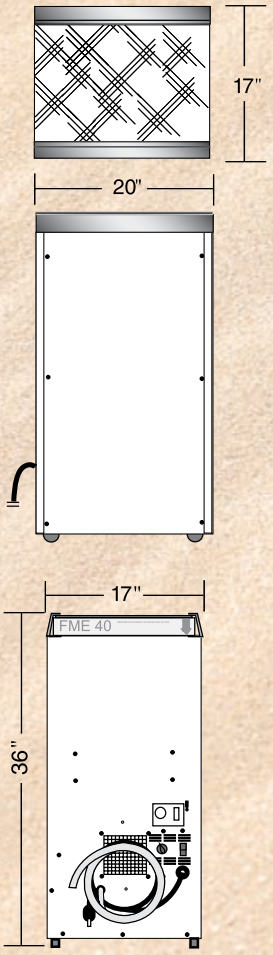
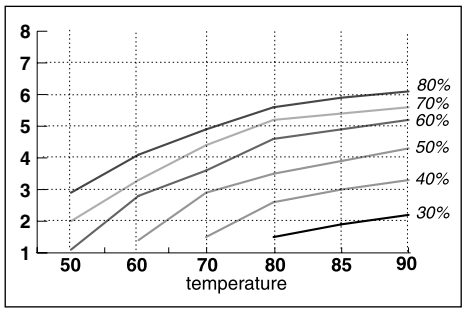
Model 100



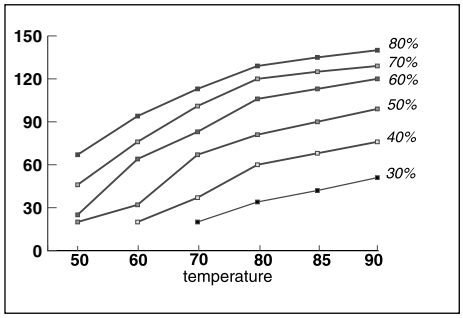
Lbs per Hour

Air temp \ Relative Humidity	30	40	50	60	70	80
50				1.1	2.0	2.9
60			1.4	2.8	3.3	4.1
70		1.5	2.9	3.6	4.4	4.9
80	1.5	2.6	3.5	4.6	5.2	5.6
85	1.9	3.0	3.9	4.9	5.4	5.9
90	2.2	3.3	4.3	5.2	5.6	6.1



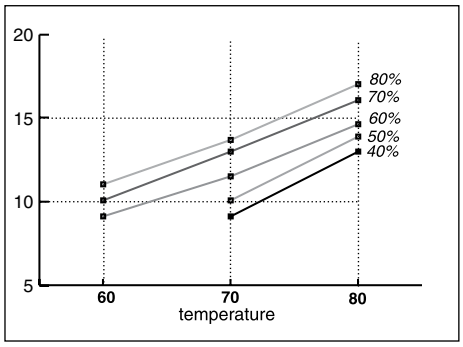
Capacity; Pints per Day

Air temp \ Relative Humidity	30	40	50	60	70	80
50				25	46	67
60			32	64	76	94
70		37	67	82.9	101	113
80	34	60	81	106	120	129
85	42	68	90	113	125	135
90	51	76	99	120	129	140



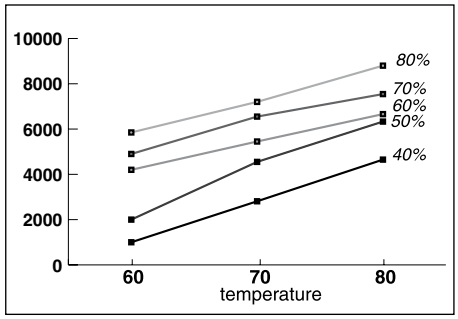
KWH per Day

Air temp \ Relative Humidity	40	50	60	70	80
60			0.91	10.1	11.0
70	9.1	10.1	11.5	13.0	13.7
80	13.0	13.9	14.7	16.1	17.0



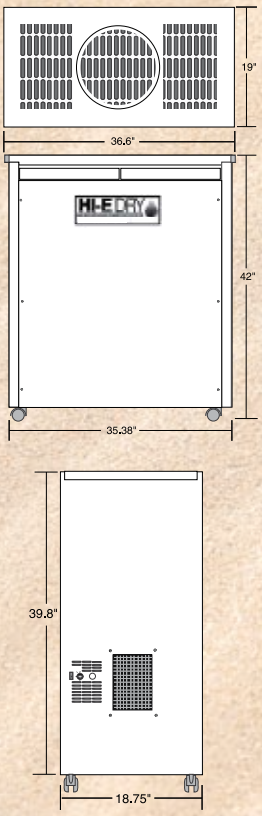
BTUs per Hour

Air temp \ Relative Humidity	40	50	60	70	80
60			4200	4900	5850
70	2810	4550	5450	6550	7200
80	4650	6330	6660	7545	8800



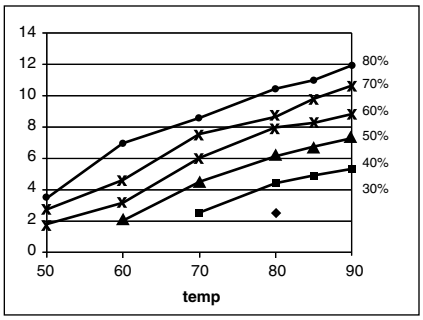
HI-E DRY
THE HIGH-EFFICIENCY DEHUMIDIFIER

Model 195



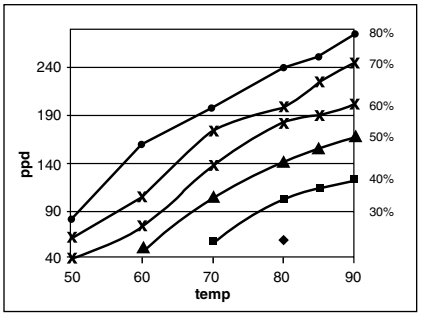
Lbs per Hour

Air temp	Relative Humidity					
	30	40	50	60	70	80
50				1.73*	2.68*	3.51*
60			2.04*	3.12*	4.55*	6.89
70		2.47*	4.46	5.94	7.50	8.54
80	2.56	4.42	6.11	7.93	8.58	10.36
85		4.85	6.72	8.23	9.75	10.92
90		5.29	7.28	8.80	10.62	11.92



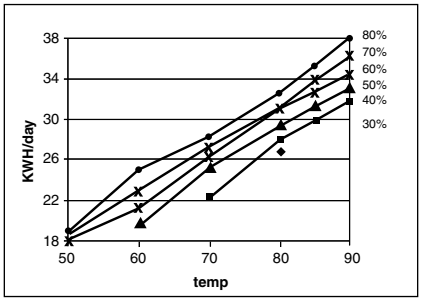
Capacity; Pints per Day

Air temp	Relative Humidity					
	30	40	50	60	70	80
50				40*	62*	81*
60			47*	72*	105*	159
70		57*	103	137	173	197
80	59	102	141	183	198	239
85		112	155	190	225	252
90		122	168	203	245	275



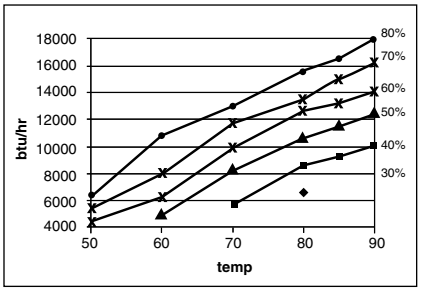
KWH per Day

Air temp	Relative Humidity					
	30	40	50	60	70	80
50				18.2*	18.5*	18.8*
60			19.7*	21.3*	22.8*	25.0
70		22.4*	25.5	27.2	27.2	28.1
80	26.9	28.0	29.2	31.2	31.2	32.5
85		29.9	31.3	33.7	33.7	35.2
90		31.7	33.3	34.5	36.2	37.9



BTUs per Hour

Air temp	Relative Humidity					
	30	40	50	60	70	80
50				4403*	5444*	6349*
60			4934*	6296*	8007*	10771
70		5772*	8300	9971	11719	12936
80	6502	8610	10551	12684	13422	15468
85		9334	11485	13272	15003	16442
90		10044	12359	14118	16266	17869



**Specifications subject to change without notice*

HI-E DRY
THE HIGH-EFFICIENCY DEHUMIDIFIER

Savings

Low Unit Cost
HI-E DRY dehumidifiers utilize heat transfer innovations that dramatically improve performance. This enables Therma-Stor Products to build higher capacity dehumidifiers with smaller refrigeration systems. That results in lower equipment cost.

Low Installation Cost
A smaller refrigeration system requires a smaller electrical load. The HI-E DRY model 195 removes over 183 pounds of water a day (80°F 60% RH) while drawing only twelve amps of electricity. The HI-E DRY 195 plugs into a 115 volt 15 amp outlet, and provides all the humidity control necessary for a 440 square foot pool. (82°F Air Temp., 80°F Water Temp. 60% Relative Humidity)

Low Operating Cost
HI-E DRY dehumidifiers remove two to three times more water per kilowatt hour of electricity than conventional dehumidifiers. Annual energy savings from controlling the humidity of a 440 square foot pool would be about 15,000 KWH., or $1,200.00 at $0.08 KWH.

Applications

HI-E DRY dehumidifiers control damaging moisture and humidity in a wide range of applications. Designed to operate in a variety of conditions, HI-E DRY dehumidifiers will reduce the relative humidity of inlet air with a dew point above 35°F. The ability to function effectively in lower temperatures is built into every HI-E DRY dehumidifier. Under all conditions, the lower operating cost, lower unit cost, and availability of high capacity “plug-in” installation on most models, make HI-E DRY dehumidifiers the right solution to most humidity problems.

HEALTH & FITNESS
Indoor Pools
Whirlpools and Spas
Therapy Rooms
Locker Rooms
Health Clubs
Skating Rinks
Hospitals
Allergy Control
Gymnasiums

UTILITIES
Water Treatment Plants
Pumping Stations
Power Plants
Sanitation Plants
Well Houses
Switching Stations
Telecommunications Centers

ARCHIVES
Museums
Libraries
Art Galleries
Records Storage
Film & Tape Storage

FOOD & DRUG
Cheese Factories
Bakeries
Pharmaceutical Labs
Food Drying
Canning Plants
Restaurants and Bars
Supermarkets
Meat Packaging

MANUFACTURING
Tool and Die Shops
Paper & Pulp Production
Powder Blending
Packaging Areas
Plastic Molding & Processing

COMPUTER & ELECTRONICS
Clean Rooms
Electronics Assembly
Computer Rooms

GRAPHICS
Printing
Photo Labs
Pre-Press Areas
Silk Screening

HI-E DRY Model 100

Water Removal Rates (Pints/Day)

90˚F, 90%	172 pints
80˚F, 80%	129 pints
80˚F, 60%	106 pints
70˚F, 80%	113 pints
70˚F, 60%	83 pints
60˚F, 80%	94 pints
60˚F, 60%	64 pints
50˚F, 80%	67 pints
50˚F, 60%	25 pints

Minimum Performance at Set Conditions

Intake Air	70° 60%	80° 60%
Water removal/day	86 Lbs	110 Lbs
Pints/KWH	6.0	6.8

Specifications

Power	115 VAC 7 amps
Kilowatts	0.61 (80° 60%)
Blower	255 CFM
Capacity (24 hrs.)	106 pints (80°, 60%)
Temp. Range	33°F–110°F
Warranty	5 Year Limited

Dimensions

	Unit	Shipping
Width:	20”	25”
Height:	36”	41”
Depth:	17”	24”
Weight:	110 lbs	125 lbs

HI-E DRY Model 195

Water Removal Rates (Pints/Day)

90˚F, 90%	312 pints
80˚F, 80%	239 pints
80˚F, 60%	183 pints
70˚F, 80%	197 pints
70˚F, 60%	105 pints
60˚F, 80%	159 pints
60˚F, 60%	72 pints
50˚F, 80%	81 pints
50˚F, 60%	40 pints

Minimum Performance at Set Conditions

Intake Air	70° 60%	80° 60%
Water removal/day	143 Lbs	190 Lbs
Pints/KWH	5.0	5.9

Specifications

Power	115 VAC 12 amps
Kilowatts	1.25 (80° 60%)
Blower	540 CFM
Capacity (24 hrs.)	183 pints (80°, 60%)
Temp. Range	33°F–110°F
Warranty	5 Year Limited

Dimensions

	Unit	Shipping
Width:	36.6”	39.25”
Height:	42”	48.75”
Depth:	19”	30”
Weight:	175 lbs	214 lbs