

NOVEL-ICE

ENERGY EFFICIENT ICE RINK DEHUMIDIFIERS

The **NOVEL-ICE** series of small desiccant based dehumidifiers provide an economical way for energy efficient ice rink dew point control. They are particularly suitable for replacing defogger type units.



- Designed for smaller arenas, curling rinks
- Desiccant/DX based, gas not required
- Defogger replacement ease
- Can achieve 35F dp – optimum for ice quality
- No defrost cycle required
- Desiccant regeneration by waste condenser heat
- Available in 3,5, and 10 ton units
- Indoor or outdoor service

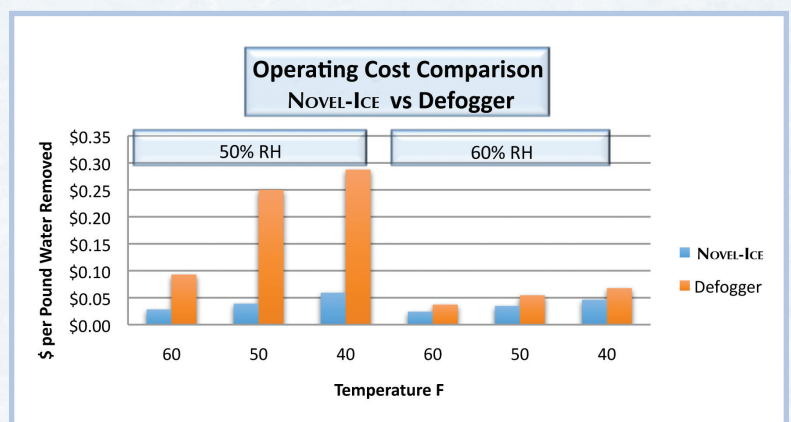
NOVEL-ICE VS DEFOGGER

Coil frosting limits the dew point performance of typical defoggers while frequent defrost cycles increases the energy required and the capacity to remove moisture. Not so with the desiccant based **NOVEL-ICE** units. The desiccant wheel integrated with the DX system eliminates coil frosting and allows the unit to deliver below freezing dewpoints with above freezing evaporator temperatures. Consequently, operating costs are much lower and capacities are significantly higher (up to 60% higher) when compared to refrigerant only defogger systems.

Capacity Comparison (lb/h)- 5 Ton Units				
	50%RH		60%RH	
	NOVEL-ICE	Defogger	NOVEL-ICE	Defogger
40F	5.8	1.6	8.0	6.8
50F	12.3	2.0	15.0	9.2
60F	17.3	5.6	20.6	14.0

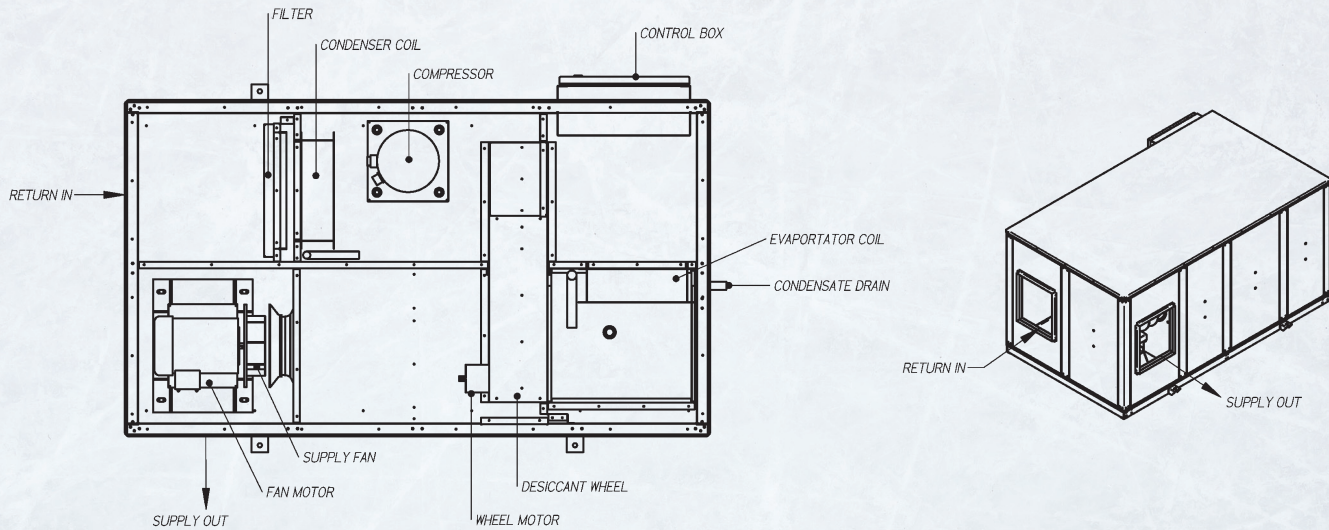
As the above table shows, the capacity difference between a 5 ton defogger and a 5 ton **NOVEL-ICE** unit expands even further as the relative humidity drops. In fact, at 60F/50%RH a 3 ton (**NOVEL-ICE** 1000) has a capacity of 10.1 lb/h – almost double the 5 ton defogger capacity.

Similarly, the operating cost advantage for the **NOVEL-ICE** unit is significant particularly as the relative humidity drops in the arena. At the optimum arena conditions of 55F/50%, the **NOVEL-ICE** unit requires 80% less energy than a defogger to remove a lb of moisture.



SMALL UNIT SPECIFICATIONS

Model	Dimensions (in) L x W x H	Weight lb	Compressor (tons)	Unit KW	FLA		FLA	
					220/3/60	460/3/60	575/3/60	220/1/60
Novel-Ice 1000	60 x 40 x 36	860	3	3.6	23.9	12.6	11.2	36
Novel-Ice 2000	90 x 55 x 52	1720	5	5.6	33.1	16.7	13.7	NA
Novel-Ice 4000	102 x 65 x 73	3600	10	11.8	70.3	33.3	27.3	NA



PERFORMANCE

	50% RH			60% RH			70% RH	
	Inlet DB F	lb/h	LV DP F	lb/h	LV DP F	lb/h	LV DP F	
NOVEL-ICE 1000	40	4.7	13.2	6.0	16.2	7.2	18.9	
	50	7.4	19.9	9.0	23.6	10.5	27.0	
	60	10.1	28.5	12.0	32.8	13.7	37.1	
	70	12.4	38.8	14.1	44.6	15.4	49.5	
NOVEL-ICE 2000	40	5.8	17.9	8.0	20.6	10.2	23.1	
	50	12.3	22.4	15.0	26.1	17.6	29.4	
	60	17.3	30.5	20.6	35.1	23.7	39.2	
	70	21.9	40.6	25.2	46.0	28.0	50.6	
NOVEL-ICE 4000	40	12.3	17.4	17.0	20.0	21.5	22.5	
	50	24.7	22.4	30.0	26.1	35.2	29.5	
	60	34.0	30.8	40.5	35.3	46.5	39.4	
	70	42.4	41.0	48.3	46.4	52.9	51.2	

NOVELAIRE® TECHNOLOGIES

Creating the Great Indoors®

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