



## DuHandling Series (DH)

### THE ADVANTAGES ARE BUILT IN: BETTER, CLEANER AND MORE EFFICIENT COOLING SYSTEMS

#### Superior economics

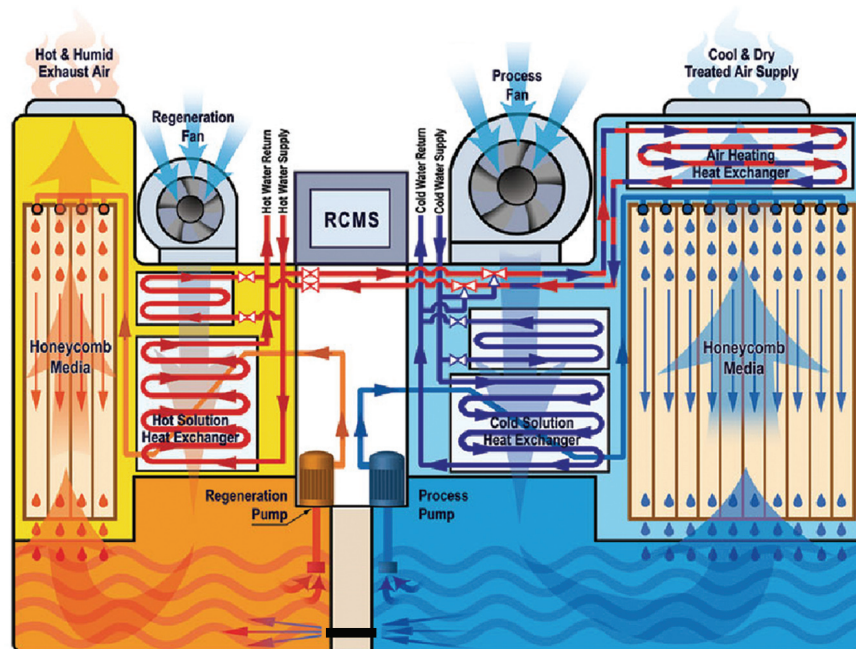
- Upfront cost is comparable to, or in many cases less expensive than, alternative air handling equipment
- Reduces system power requirements by ~40%:
  - Shifts costly latent load from chiller to free latent load at DuHandling unit
  - Lower sensible load due to relaxed temperature requirements
  - Relaxed temperature requirement (higher LWT) also increases chiller COP

#### Functional benefits

- More precise control of indoor environment through the ability to directly control humidity and temperature independently
- Greater comfort due to eliminating overcooling of outdoor air
- Improved indoor air quality (IAQ) through removal of airborne particulates and organisms
- Eliminates opportunities for mold formation by eliminating all points of condensation in the system

#### Utilization of renewable energy

- Low-quality waste heat or solar thermal energy can easily be utilized as low as 130°F to power dehumidification
- Geothermal cooling can often be used to dramatically reduce or eliminate chiller or cooling tower load



Schematic Process Diagram

# Technical Specifications

## DuHandling (DH) Small

### General Data

Unit Model	DH – 300	DH – 500	DH – 800
<b>Air Flow Capacities</b>			
Supply (Treated) Air	300 CFM	500 CFM	800 CFM
Regeneration Air	270 CFM	450 CFM	700 CFM
<b>Hot Water</b>	130°F to 200°F Maximum flow 66 gpm		
<b>Cold Water / Glycol</b>	50°F to 95°F Maximum flow 66 gpm		
<b>Minimum <math>\Delta T</math> between Cold &amp; Hot water</b>	45°F		
<b>Desiccant Solution LiCl (40% Concentration)</b>	14.5 Gallons		
<b>Operation Temperature Range</b>	14°F - 122°F		
<b>Operation Abs. Humidity Range</b>	7 gr/lb - 210 gr/lb		
<b>Electrical System <sup>(1)</sup></b>	208V, 1Ph, 60Hz	208V, 1Ph, 60Hz	208V, 1Ph, 60Hz
Line Current	4	4	6.1
Breaker Size	16	16	16

### Thermal (Renewable) Capacity Data

Outdoor conditions at 86°F; 80 % R.H.

Hot water at 194°F, 26 gpm flow, Cold water at 42.8°F, 35 gpm flow, 6 rows hot coil and 6 rows cold coil. <sup>(5)</sup>

<b>Sensible Cooling</b>	11,100 Btu/h	3.25 kW	17,000 Btu/h	4.98 kW	24,600 Btu/h	7.20 kW
<b>Latent Cooling</b>	21,500 Btu/h	6.30 kW	33,200 Btu/h	9.73 kW	47,400 Btu/h	13.9 kW
<b>Total Cooling</b>	32,600 Btu/h	9.55 kW	50,200 Btu/h	14.71 kW	72,000 Btu/h	21.1 kW
	2.72 TR		4.18 TR		6.0 TR	
<b>Moisture Extraction</b>	2.38 Gal./h		3.67 Gal./h		5.23 Gal./h	
<b>Temperature Reduction</b>	35.0°F		32.2°F		29.0°F	
<b>Efficiency Rating <sup>(3)</sup></b>	17.4 COP	59.3 EER	26.7 COP	91 EER	26.2 COP	90 EER

### Physical Data

<b>Weights</b>	<b>Lb</b>	<b>Lb</b>	<b>Lb</b>
Net	419	430	452
Operating (including LiCl)	617	628	650

<b>Dimensions</b>	<b>Inch</b>	<b>Clearances</b>	<b>Inch</b>
L	45	I	40
W	39	II	20
H	43	III	4

#### Notes:

- Units are available in different voltages with 50 Hz.
- For a different climate and/or hot and cold water conditions please send data to manufacturer.
- COP/EER ratings are calculated without the unit's process fan. At hot water at 194°F, cold water at 42.8°F data includes electrical energy consumption only.
- At lower freezing point no pre cooling coil should be used. Post cooling coils should be carefully selected.
- Deviations for the above data (+/-) 5%.
- Specifications are subject to changes without prior notice.

