



DuHandling Series (DH)

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

Superior economics

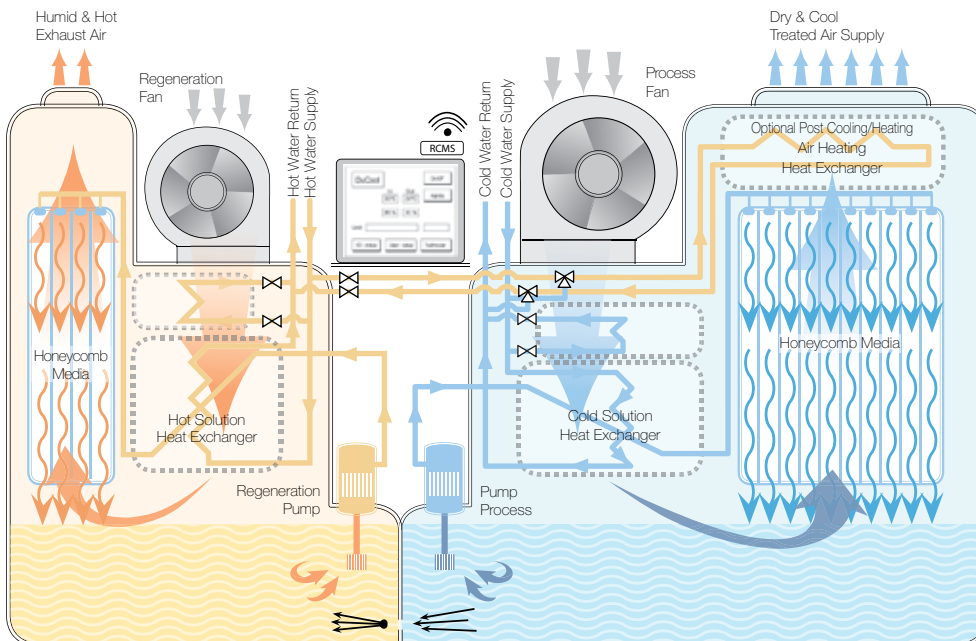
- Upfront cost is comparable to, or in many cases less expensive than, alternative air handling equipment
- Reduces system power requirements by ~40%:
 - Shifts costly latent load from chiller to free latent load at DuHandling unit
 - Lower sensible load due to relaxed temperature requirements
 - Relaxed 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
Air Flow Capacities			
Supply (Treated) Air	300 CFM	500 CFM	800 CFM
Regeneration Air	270 CFM	450 CFM	700 CFM
Hot Water	130°F to 200°F Maximum flow 66 gpm		
Cold Water / Glycol	50°F to 95°F Maximum flow 66 gpm		
Minimum T between Cold & Hot water	45°F		
Desiccant Solution LiCl (40% Concentration)	14.5 Gallons		
Operation Temperature Range	14°F - 122°F		
Operation Abs. Humidity Range	7 gr/lb - 210 gr/lb		
Electrical System ⁽¹⁾	208V-230V, 1Ph, 60Hz	208V-230V, 1Ph, 60Hz	208V-230V, 1Ph, 60Hz
Line Current	Amp. 4	Amp. 4	Amp. 6.1
Breaker Size	Amp. 16	Amp. 16	Amp. 16

Thermal (Renewable) Capacity Data

Outdoor conditions at 86°F; 80 % R.H.

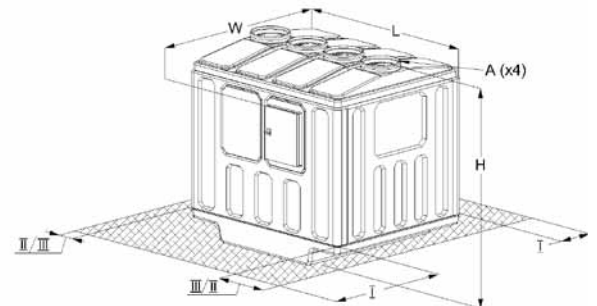
Hot water at 194°F, 26 gpm flow, Cold water at 42.8°F, 35 gpm flow, 6 rows hot coil and 6 rows cold coil.⁽⁵⁾

Sensible Cooling	11,100 Btu/h	3.25 kW	17,000 Btu/h	4.98 kW	24,600 Btu/h	7.20 kW
Latent Cooling	21,500 Btu/h	6.30 kW	33,200 Btu/h	9.73 kW	47,400 Btu/h	13.9 kW
Total Cooling	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	
Moisture Extraction	2.38 Gal./h		3.67 Gal./h		5.23 Gal./h	
Temperature Reduction	35.0°F		32.2°F		29.0°F	
Efficiency Rating ⁽³⁾	17.4 COP	59.3 EER	26.7 COP	91 EER	26.2 COP	90 EER

Physical Data

Weights	Lb	Lb	Lb
Net	419	430	452
Operating (including LiCl)	617	628	650

Dimensions	Inch	Clearances	Inch
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 units 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.