

# OTS Wind Tunnels

- 2 temperature & humidity-controlled wind-tunnels for testing air-to-refrigerant heat exchangers
- Hot water, chilled water, glycol and/or refrigerant

- Confirm performance data from manufacturers or for new designs
- Validate heat exchanger models



# HX Testing Capabilities

Parameter	Cooling Coils			Heating Coils	
	Volatile Refrigerant	Cold Water	Cold/Hot Propylene Glycol Solution	Volatile Refrigerant	Hot Water
<b>Dimensions</b>					
Face area	Up to 3' x 3' [914mm x 914mm]		Up to 2' x 2' [610mm x 610mm]	Up to 3' x 3' [914mm x 914mm]	
Depth*	Up to 6" [152mm]		Up to 6" [152 mm]	Up to 6" [152mm]	
<b>Air-Side Conditions</b>					
Standard air flow rate, ft <sup>3</sup> /min [std. m <sup>3</sup> /hr]	300 to 4,100 [500 to 6,900]		150 to 1,600 [255 to 2,700]	300 to 4,100 [500 to 6,900]	
Entering air dry-bulb temperature, °F [°C]	54 to 122 [12 to 50]	59 to 122 [15 to 50]	30 to 122 [-1.1 to 50]	54 to 122 [12 to 50]	
Entering air wet-bulb temperature, °F [°C]	50 to 102 [10 to 39]	55 to 102 [13 to 39]	28.5 to 102 [-1.9 to 39]	--	
Moisture / Humidity Control, lbs/hr [kg/hr]	Up to 57.7 [26.2]	Up to 57.7 [26.2]	Up to 10.0 [4.5]	--	
<b>Tube-Side Conditions</b>					
Fluid flow rate, lb/hr [kg/hr]	80 to 1,300 [36 to 594]	400 to 20,000 [180 to 9,070]	400 to 4,000 [180 to 1,800]	80 to 1,300 [36 to 594]	400 to 20,000 [180 to 9,070]
Entering fluid temperature, °F [°C]	--	50 to 113 [10 to 45]	24 to 113 [-4.5 to 45]	--	68 to 149 [20 to 65]
Saturated suction temperature at coil outlet, °F [°C]	34 to 111 [1 to 44]	--		64 to 140 [18 to 60]	--
<b>Capacity</b>					
Capacity, kW [tons]	36 [10.2]	18 [5.1]	6 [1.5]	36 [10.2]	36 [10.2]

\*Large coil depths will impact maximum achievable air flow rates.