

DEFINITION OF TERMS:

EAT - Entering Air Temperature (°F)

LAT - Leaving Air Temperature (°F)

EWT - Entering Water Temperature (°F)

WTD - Leaving Water Temperature (°F)

LWT - Leaving Water Temperature (°F)

MBH - 1,000 BTUH

ATR - Air Temperature Rise (°F)

BTUH - Coil Heating Capacity
(British Thermal Units Per Hour)

CFM - Air Volume (Cubic Feet Per Minute)

SELECTION:

SDR-WC Hot Water Coil Performance Tables (see drawing 01-80064) are based upon a temperature difference of 125°F between entering water and entering air. If this ΔT is suitable, proceed directly to tables for selection. All pertinent performance data is tabulated. FOR VARIABLE AIR VOLUME APPLICATION, THE AIR STATIC PRESSURE DROP MUST BE BASED ON THE MAXIMUM AIR VOLUME.

ENTERING WATER - AIR TEMPERATURE DIFFERENTIAL (ΔT) CORRECTION FACTORS															
ΔT	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
FACTOR	0.15	0.19	0.23	0.27	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.67	0.71
ΔT	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165
FACTOR	0.75	0.79	0.83	0.88	0.92	0.96	1.00	1.04	1.08	1.13	1.17	1.21	1.25	1.29	1.33

The table above gives correction factors for various entering ΔT 's (difference between entering water temperature and entering air temperature). Multiply MBH values obtained from selection tables by the appropriate correction factor above to obtain the actual MBH value. Air and water pressure drop can be read directly from the selection table. The leaving air temperature and leaving water temperature can be calculated from the following fundamental formulas:

$$LAT = EAT + \frac{BTUH}{1.085 \times CFM}$$

$$LWT = EWT - \frac{BTUH}{500 \times GPM}$$



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TITLE: MODEL SDR-WC, HOT WATER COIL SELECTION PROCEDURE AT ΔT CORRECTION FACTORS			
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