DOUBLE WALL CONDENSER COILS SELECTION PROCEDURE

1. Calculate total heat rejection, THR, requirements in Mbtu/hr: THR = 15 x cooling capacity in tons.
2. Calculate temperature difference, TD, between condensing temperature, CTP, and Entering water temperature, EWT: TD = CTP – EWT.
3. Establish the nominal system capacity.
4. Enter thermal performance charts for unit size of step 3 with THR of step 1 and TD of step 2 and determine required water flow rate in gpm. Note: Peak heat of rejections are obtained with water flow rates of 3 gpm per nominal ton.
5. Enter water pressure drop data chart at gpm and unit size of step 4 and read water side pressure drop. If value is lower or higher than desired, select next smaller or larger size unit and repeat steps 1 thru 4.

Example:

Given:

(a). Nominal cooling capacity = 1 Ton
(b). Entering Water Temp., EWT, °F = 85°F
(c). Condensing Temp., CTP, °F = 105°F

Find:

(a). Water flow rate (GPM)
(b). Water side pressure drop (PSIG)

Procedure:

(a). Enter the performance curve for nominal 1 ton capacity at 15 Mbtu/hr and 20°F TD. The required water flow rate is 3.0 gpm.
(b). Entering water pressure drop chart at 3.0 gpm for CDAX-6100: water pressure drop = 3.0 psi.

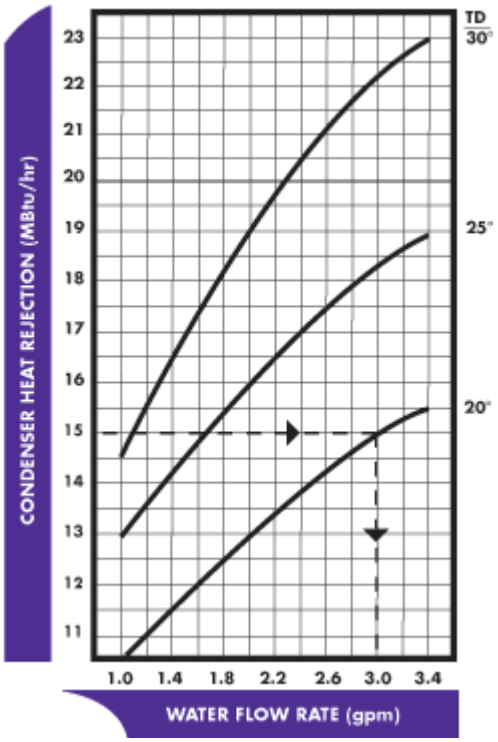
WATER-SIDE PRESSURE DROP DATA

GPM = WATER FLOW RATE
PSI = WATER-SIDE PRESSURE DROP

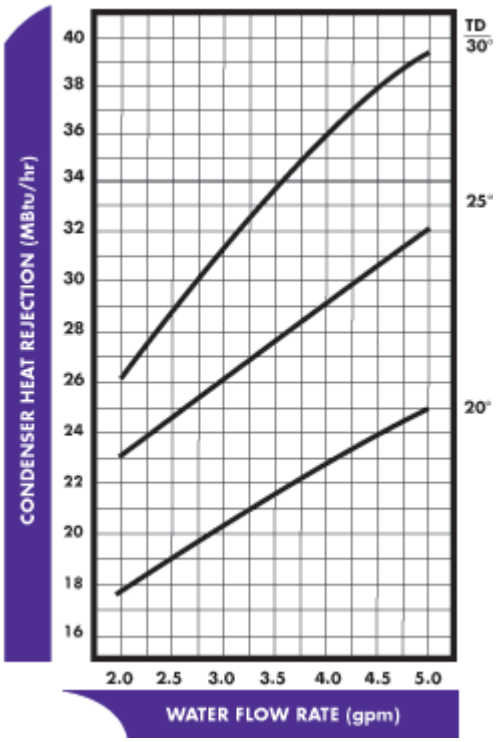
COAX-6100-H	GPM	1.0	1.4	1.8	2.2	2.6	3.0	3.4
	PSI	0.9	1.2	1.5	1.9	2.4	3.0	3.5
COAX-6150-H	GPM	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	PSI	1.1	1.7	2.4	3.1	3.9	4.8	5.9
COAX-6200-H	GPM	1	2	3	4	5	6	7
	PSI	0.5	1.2	2.4	4.0	6.0	8.3	10.8
COAX-6250-H	GPM	3	4	5	6	7	8	9
	PSI	0.4	0.8	1.4	1.9	2.6	3.3	4.1
COAX-6300-H	GPM	4	5	6	7	8	9	10
	PSI	0.9	1.6	2.2	3.0	3.8	4.2	5.7

PERFORMANCE DATA

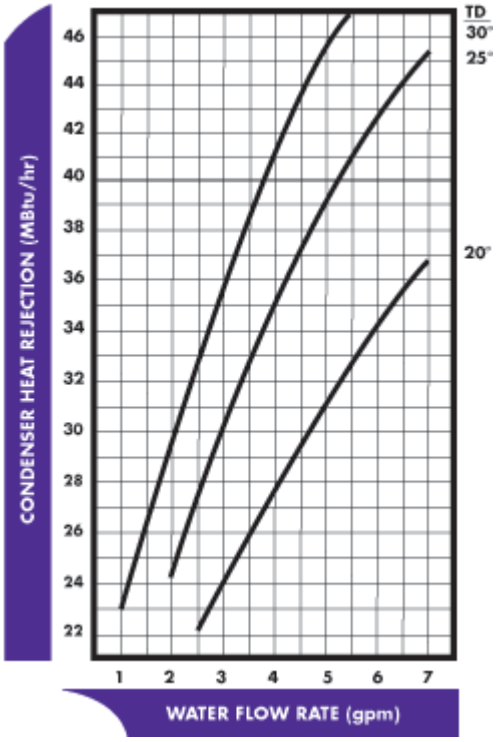
Nominal 1 Ton



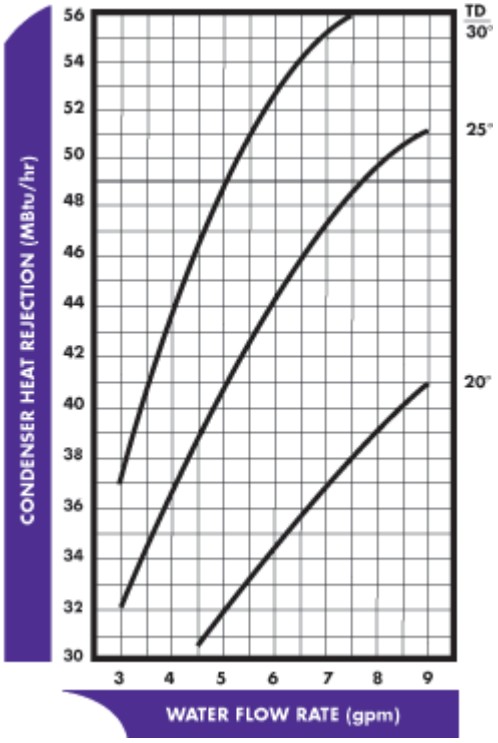
Nominal 1-1/2 Ton



Nominal 2 Ton



Nominal 2-1/2 Ton



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Nominal 3 Ton