

Heat Pump Coil Selection Procedure

Condenser Selection

Condenser performance charts for R-410A are based on 180 °F entering refrigerant temperature and 10 °F subcooling. Please contact the factory for significantly different operating condition. A condenser selection tool is also available on the Packless website (www.packless.com).

STEP 1

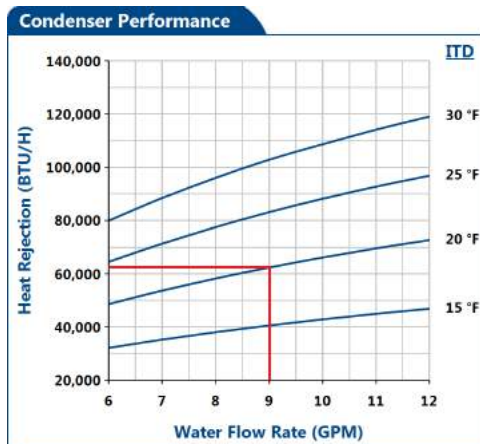
Determine the initial temperature difference (ITD) between the refrigerant condensing temperature (CDT) and the entering water temperature (EWT).

Example: EWT = 85 °F CDT = 105 °F ITD = 105 - 85 = 20 °F

STEP 2

Use the performance chart for a given coil to determine the heat rejection at the desired water flow rate in gallons per minute (GPM) and initial temperature difference calculated in the previous step.

Example: Coil = COAX-7350 IDT = 20 F GPM = 9



A COAX-7350 will provide a heat rejection of about 62,000 BTU/h at 9 GPM and 20 F °F ITD

Evaporator Selection

Evaporator performance charts for R-410A are based on 100 °F at the TXV and 8 °F superheat. Please contact the factory for significantly different operating condition. A evaporator selection tool is also available on the Packless website (www.packless.com).

STEP 1

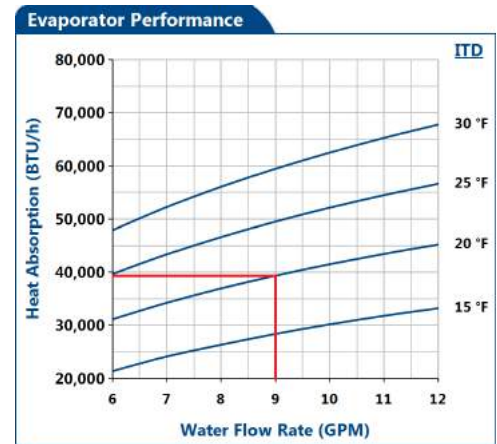
Determine the initial temperature difference (ITD) between the entering water temperature (EWT) and the refrigerant saturated suction temperature (SST).

Example: EWT = 65 °F SST = 45 °F ITD = 65 - 45 = 20 °F

STEP 2

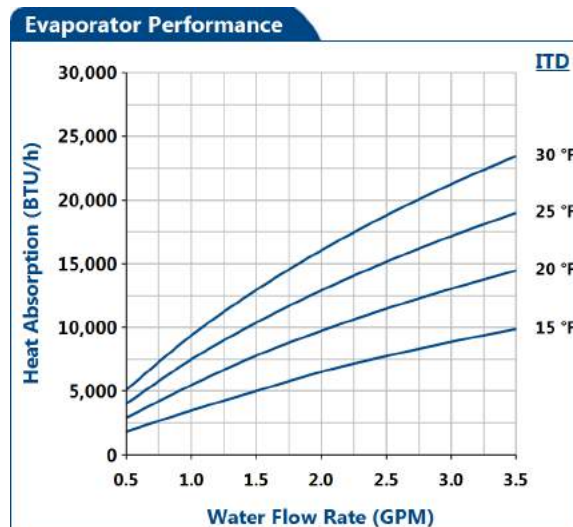
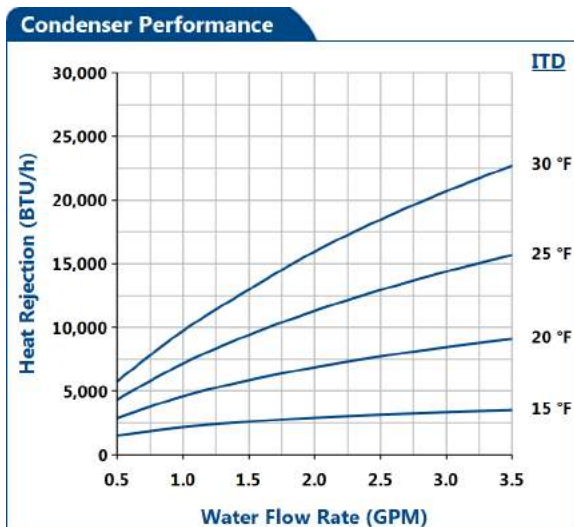
Use the performance chart for a given coil to determine the heat absorption at the desired water flow rate in gallons per minute (GPM) and initial temperature difference calculated in the previous step.

Example: Coil = COAX-7350 IDT = 20 °F GPM = 9



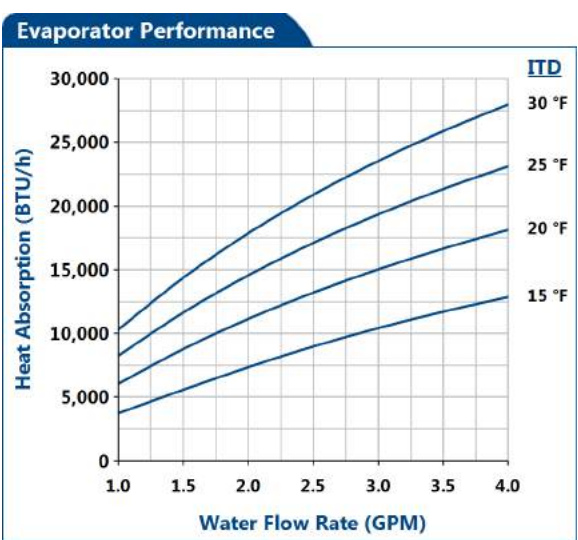
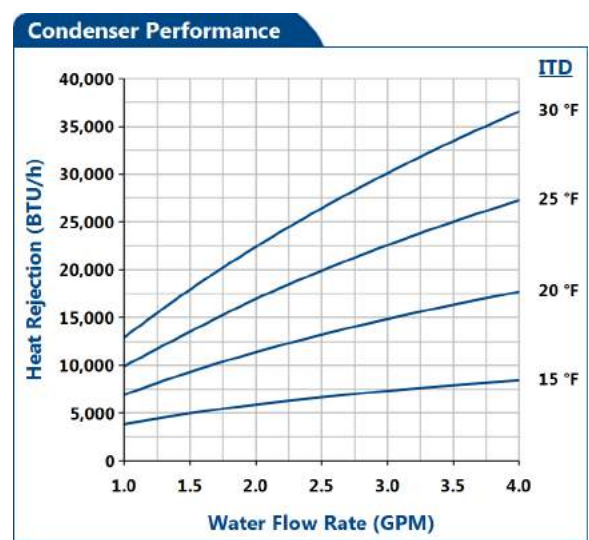
A COAX-7350 will provide a heat absorption of about 39,000 BTU/h at 9 GPM and 20 F °F ITD

COAX-7050



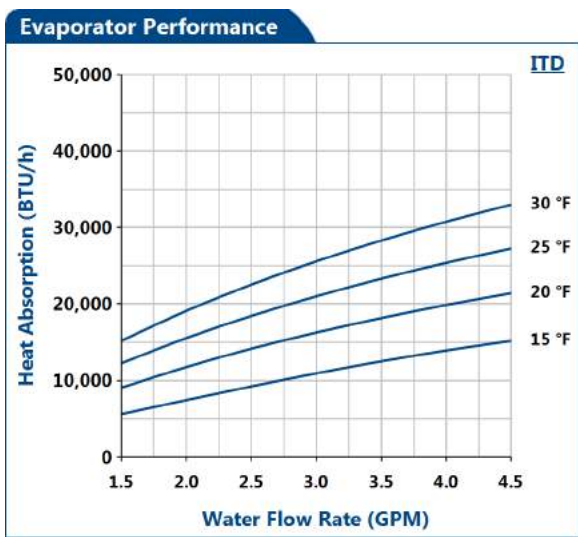
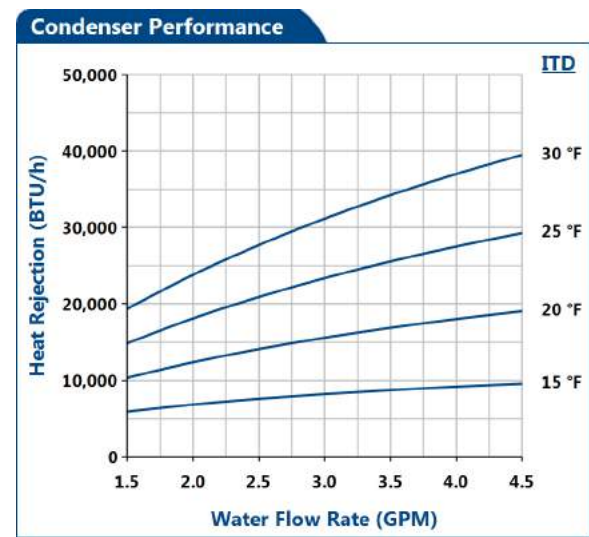
COAX-7050	GPM	0.5	1.0	1.5	2.0	2.5	3.0	3.5
	PSI	0.1	0.3	0.6	1.1	1.6	2.3	3.0

COAX-7075



COAX-7075	GPM	1.0	1.5	2.0	2.5	3.0	3.5	4.0
	PSI	0.4	0.8	1.3	2.0	2.8	3.8	4.8

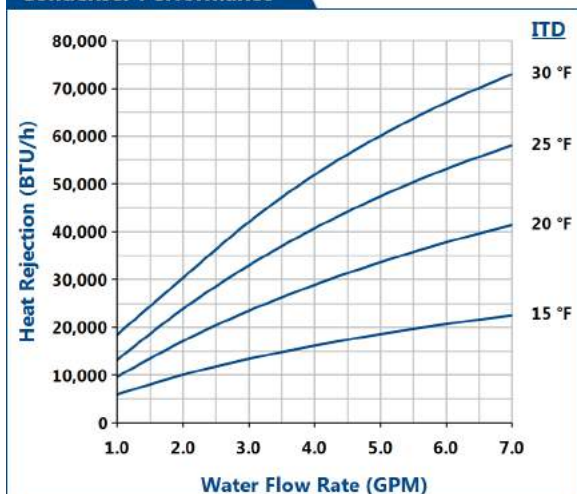
COAX-7100



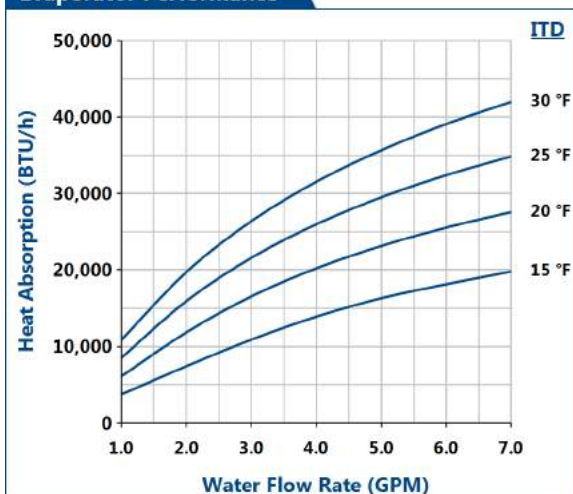
COAX-7100	GPM	1.5	2.0	2.5	3.0	3.5	4.0	4.5
	PSI	1.0	1.9	2.7	3.9	5.1	6.5	8.1

COAX-7150

Condenser Performance



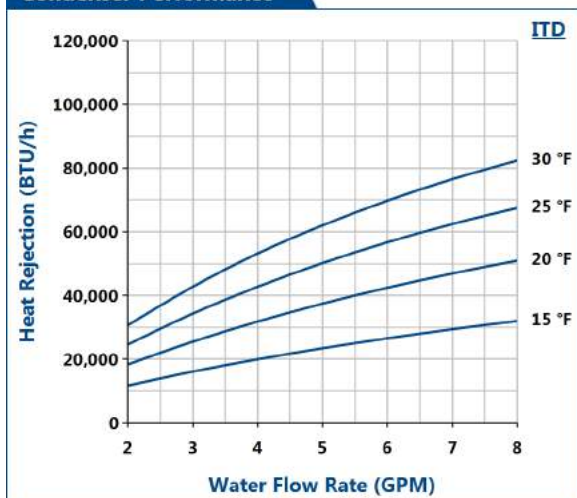
Evaporator Performance



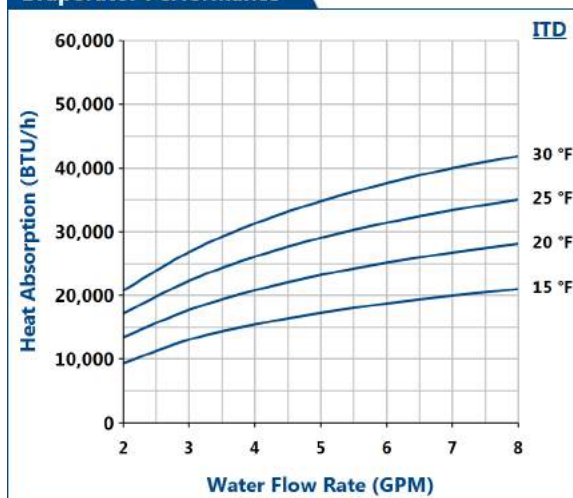
COAX-7150	GPM	1.0	2.0	3.0	4.0	5.0	6.0	7.0
	PSI	0.2	0.9	1.9	3.0	4.5	6.3	8.2

COAX-7200

Condenser Performance



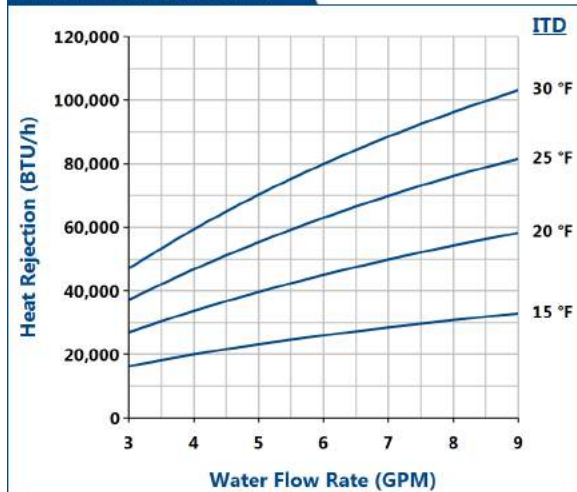
Evaporator Performance



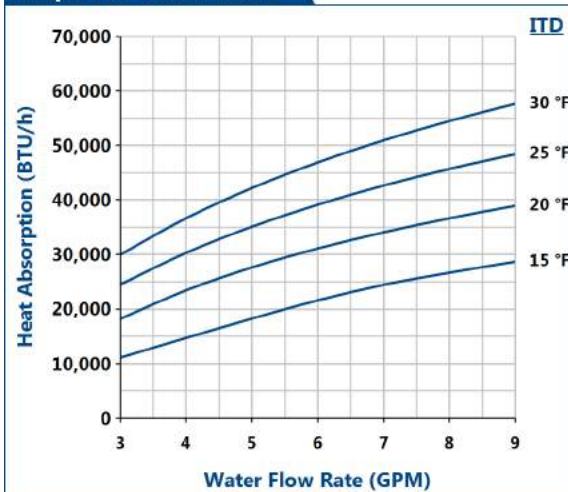
COAX-7200	GPM	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	PSI	1.0	2.0	3.3	4.8	6.6	8.7	10.9

COAX-7250

Condenser Performance



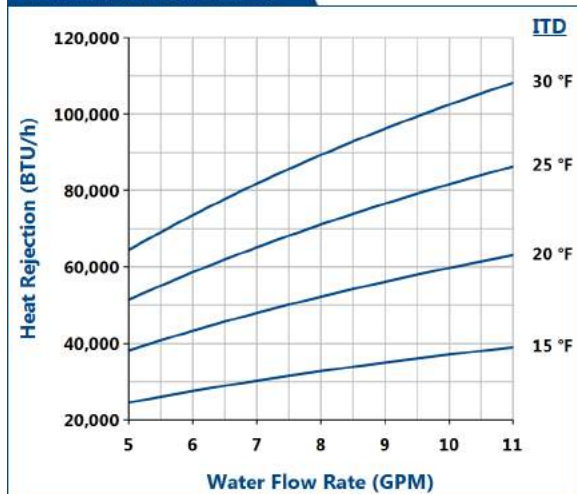
Evaporator Performance



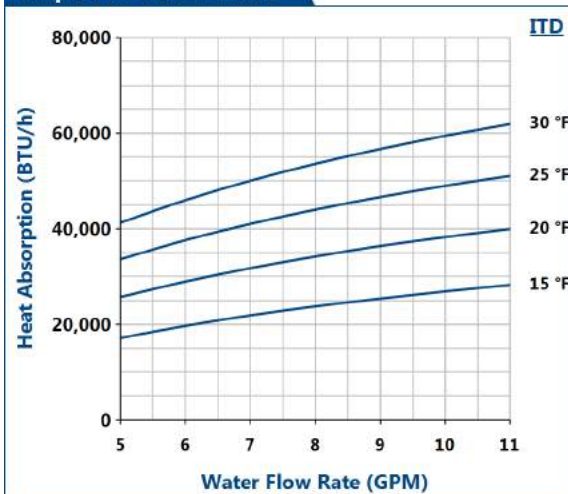
COAX-7250	GPM	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	PSI	1.1	1.9	2.9	4.0	5.3	6.7	8.3

COAX-7300

Condenser Performance



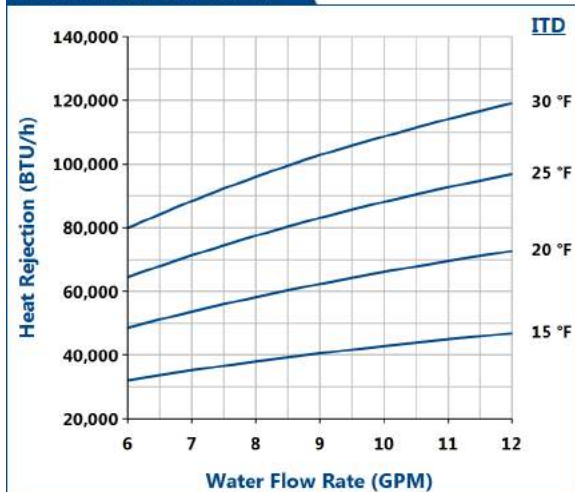
Evaporator Performance



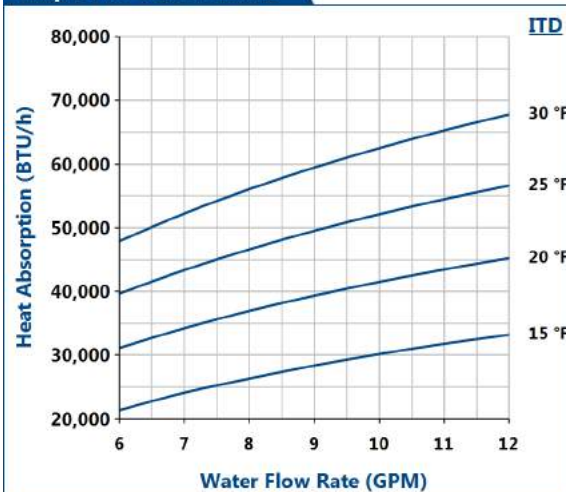
COAX-7300	GPM	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	PSI	1.4	2.0	2.6	3.3	4.1	5.0	6.0

COAX-7350

Condenser Performance



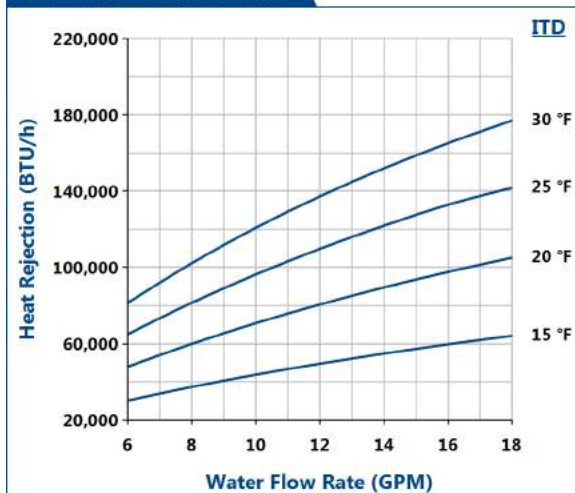
Evaporator Performance



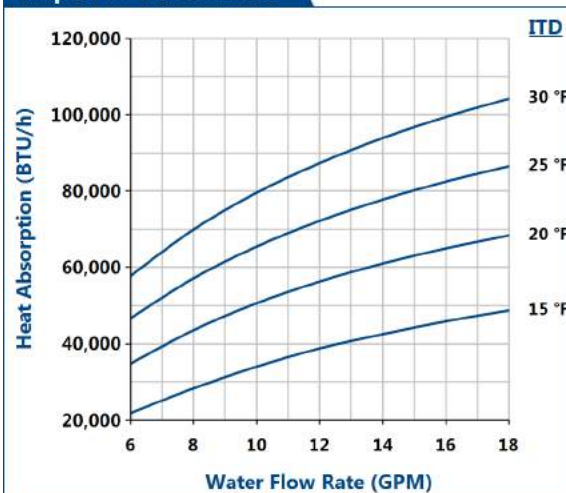
COAX-7350	GPM	6.0	7.0	8.0	9.0	10.0	11.0	12.0
	PSI	2.3	3.0	3.9	4.8	5.8	6.9	8.0

COAX-7400

Condenser Performance



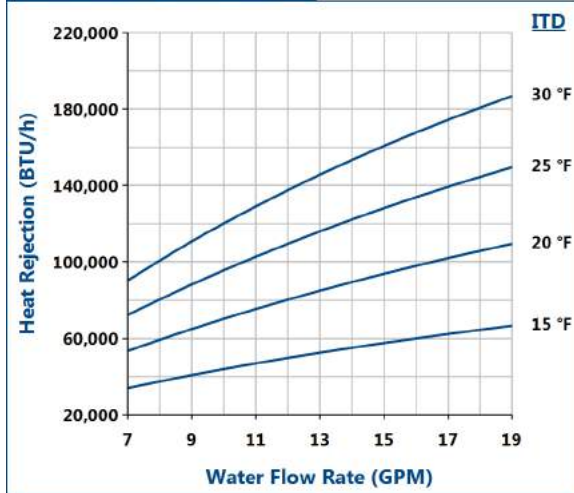
Evaporator Performance



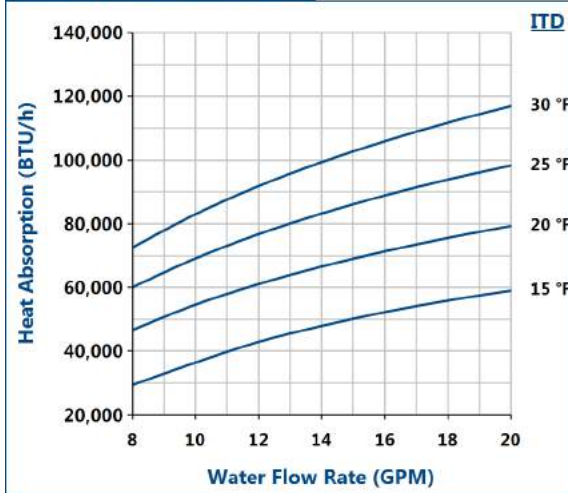
COAX-7400	GPM	6.0	8.0	10.0	12.0	14.0	16.0	18.0
	PSI	1.1	1.9	2.8	4.0	5.2	6.7	8.2

COAX-7500

Condenser Performance



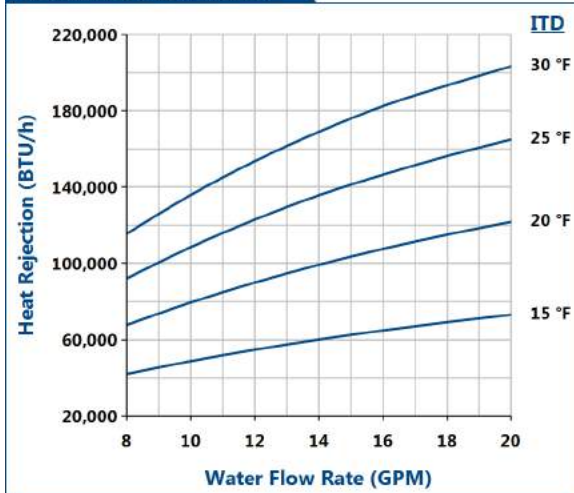
Evaporator Performance



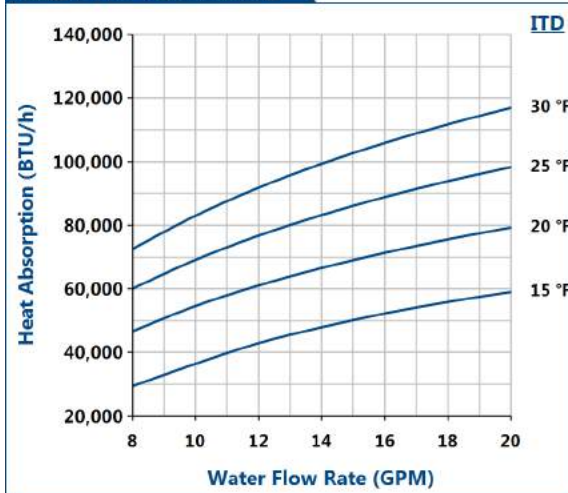
COAX-7500	GPM	7.0	9.0	11.0	13.0	15.0	17.0	19.0
	PSI	1.4	2.1	3.0	4.1	5.2	6.6	8.0

COAX-7600

Condenser Performance



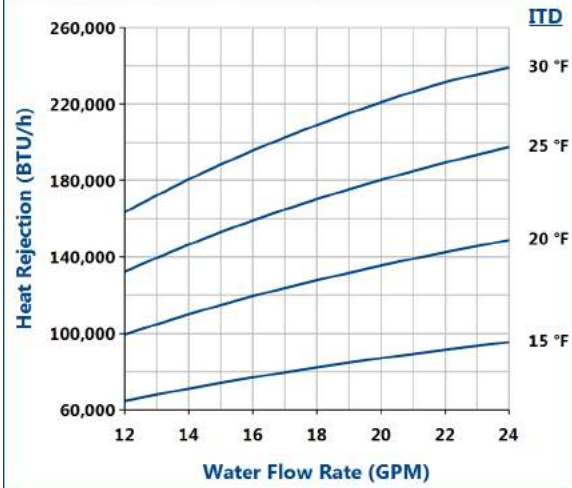
Evaporator Performance



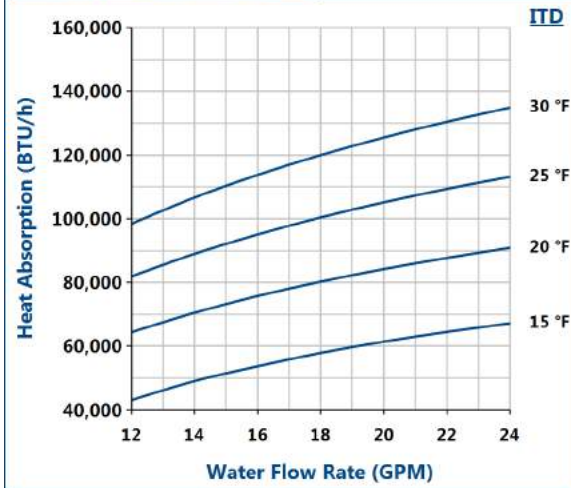
COAX-7600	GPM	8.0	10.0	12.0	14.0	16.0	18.0	20.0
	PSI	1.8	2.5	3.5	4.7	5.9	7.3	8.7

COAX-7750

Condenser Performance



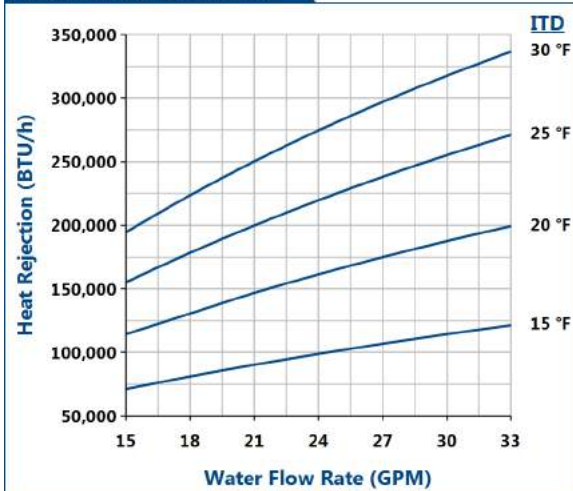
Evaporator Performance



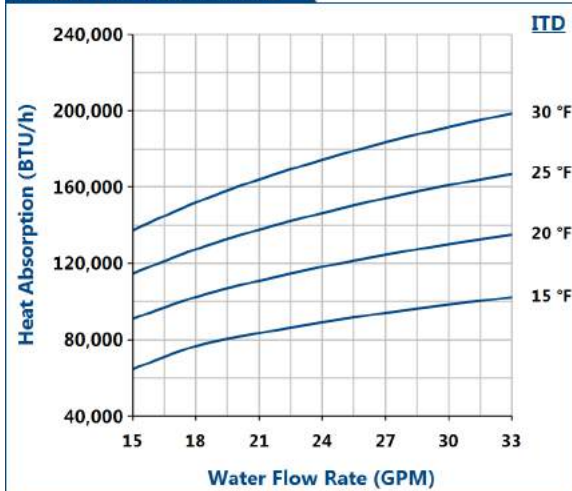
COAX-7750	GPM	12.0	14.0	16.0	18.0	20.0	22.0	24.0
	PSI	2.6	3.3	4.2	5.1	6.2	7.3	8.5

COAX-7800

Condenser Performance



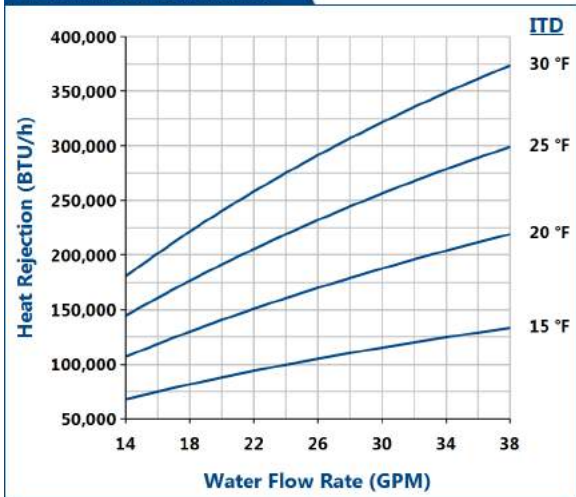
Evaporator Performance



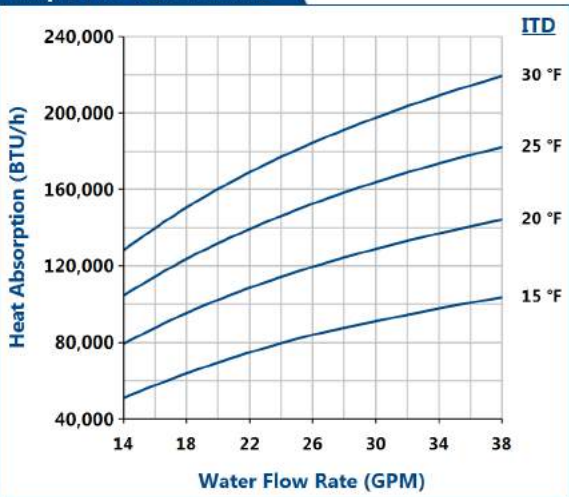
COAX-7800	GPM	15.0	18.0	21.0	24.0	27.0	30.0	33.0
	PSI	2.4	3.5	4.8	6.0	7.1	8.4	10.2

COAX-7010

Condenser Performance



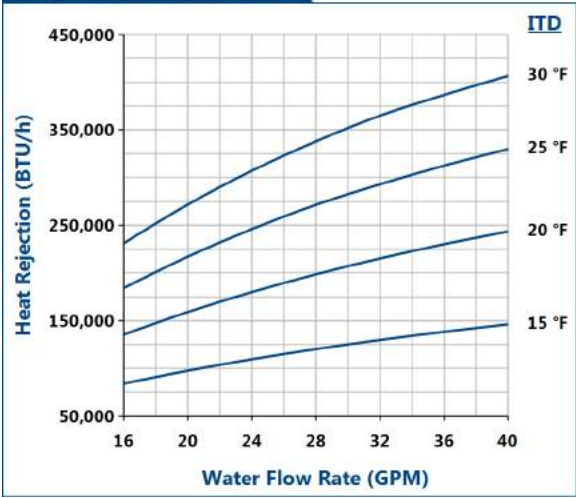
Evaporator Performance



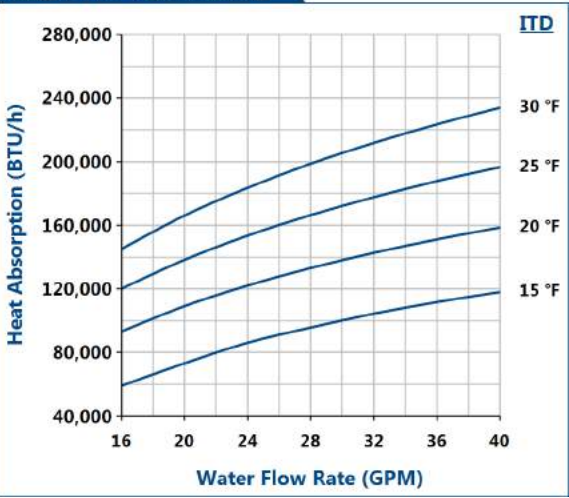
COAX-7010	GPM	14.0	18.0	22.0	26.0	30.0	34.0	38.0
	PSI	1.6	2.4	3.4	4.6	5.9	7.3	8.8

COAX-7012

Condenser Performance



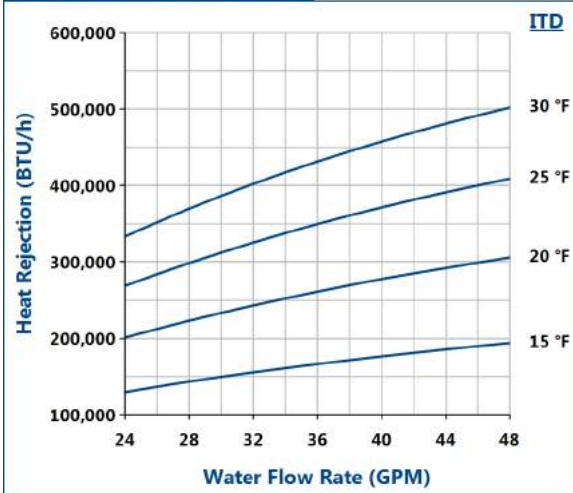
Evaporator Performance



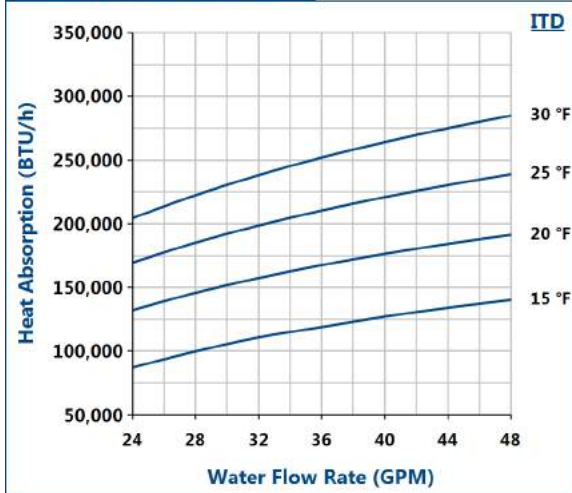
COAX-7012	GPM	16.0	20.0	24.0	28.0	32.0	36.0	40.0
	PSI	1.9	2.8	3.9	5.2	6.6	8.0	9.7

COAX-7015

Condenser Performance



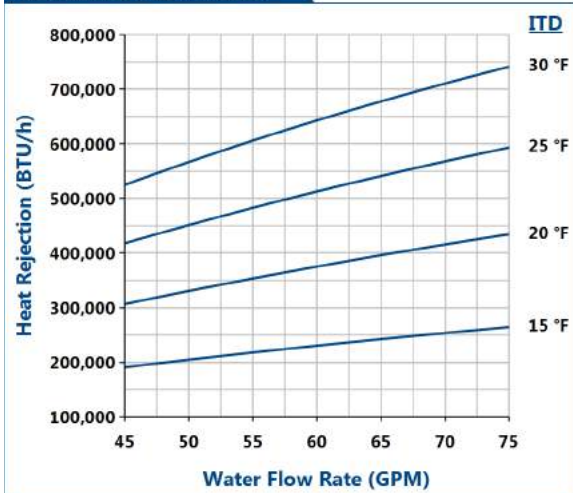
Evaporator Performance



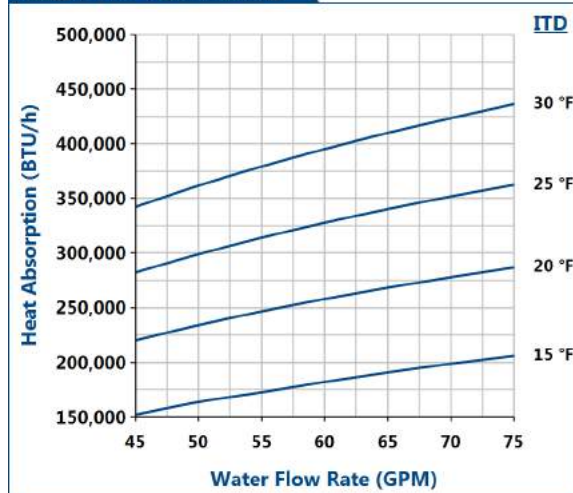
COAX-7015	GPM	24.0	28.0	32.0	36.0	40.0	44.0	48.0
	PSI	2.9	3.8	4.9	6.0	7.2	8.1	9.5

COAX-7020

Condenser Performance



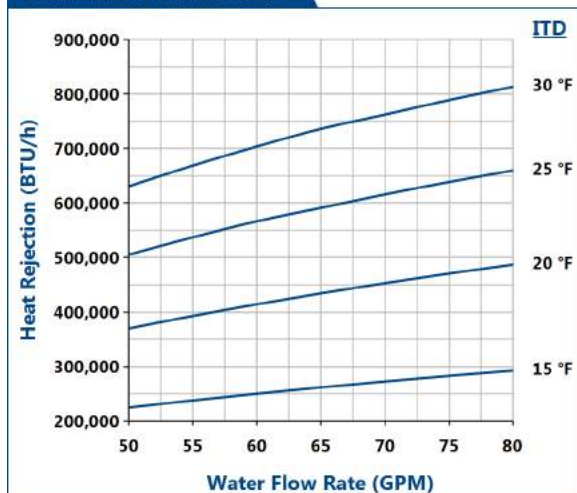
Evaporator Performance



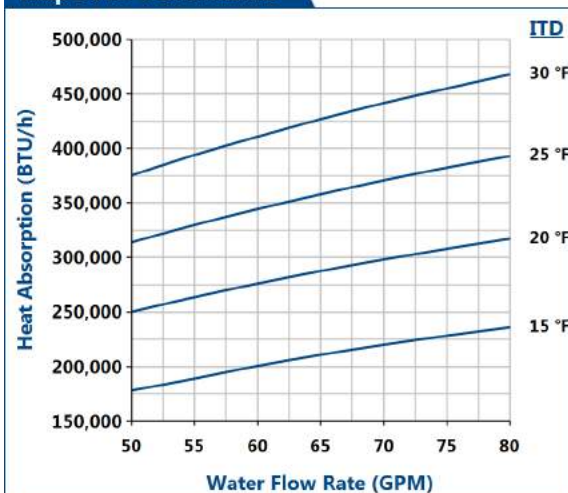
COAX-7020	GPM	45.0	50.0	55.0	60.0	65.0	70.0	75.0
	PSI	3.4	4.1	5.0	5.9	6.7	7.7	8.8

COAX-7025

Condenser Performance



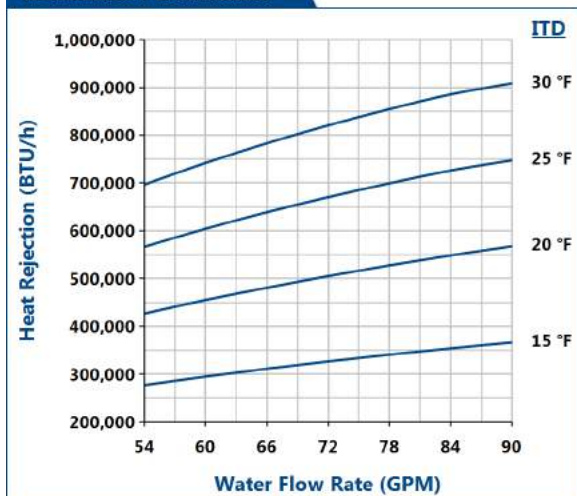
Evaporator Performance



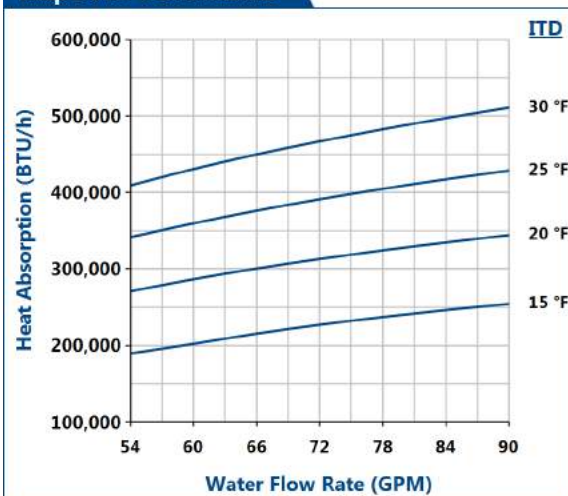
COAX-7025	GPM	50.0	55.0	60.0	65.0	70.0	75.0	80.0
	PSI	4.1	5.0	5.8	6.7	7.7	8.7	9.8

COAX-7030

Condenser Performance



Evaporator Performance



COAX-7030	GPM	54.0	60.0	66.0	72.0	78.0	84.0	90.0
	PSI	4.0	4.8	5.7	6.6	7.7	8.8	9.9