



Pressure-Temperature Chart

							R-404A		R-407A		R-407C		R-407F	
°F	°C	R-22	R-32	R-134a	R-290	R-600a	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	0.6	11.0	14.8	1.4	21.5	4.9	4.3	3.9	2.0	2.7	4.6	4.9	0.5
-35.0	-37.2	2.6	14.4	12.5	3.4	20.2	7.5	6.8	6.4	1.0	5.1	0.9	7.5	1.9
-30.0	-34.4	4.9	18.2	9.8	5.7	18.8	10.3	9.6	9.2	3.3	7.7	1.6	10.4	4.2
-25.0	-31.7	7.4	22.3	6.9	8.1	17.2	13.4	12.7	12.2	5.7	10.6	3.9	13.6	6.8
-20.0	-28.9	10.2	26.8	3.7	10.7	15.4	16.8	16.0	15.6	8.5	13.7	6.5	17.1	9.7
-15.0	-26.1	13.2	31.7	0.1	13.6	13.5	20.5	19.7	19.2	11.5	17.2	9.3	20.9	12.9
-10.0	-23.3	16.5	37.1	1.9	16.7	11.4	24.6	23.6	23.2	14.9	20.9	12.3	25.1	16.4
-5.0	-20.6	20.1	42.9	4.1	20.1	9.0	28.9	27.9	27.5	18.5	25.0	15.7	29.6	20.2
0.0	-17.8	24.0	49.2	6.5	23.7	6.4	33.7	32.6	32.2	22.5	29.5	19.4	34.5	24.4
5.0	-15.0	28.3	56.1	9.1	27.6	3.6	38.8	37.7	37.3	26.9	34.3	23.5	39.8	28.9
10.0	-12.2	32.8	63.5	11.9	31.8	0.6	44.3	43.1	42.8	31.6	39.5	27.9	45.6	33.9
15.0	-9.4	37.8	71.4	15.0	36.3	1.4	50.2	49.0	48.7	36.7	45.2	32.7	51.8	39.3
20.0	-6.7	43.1	80.0	18.4	41.1	3.2	56.6	55.3	55.1	42.3	51.2	37.9	58.5	45.1
25.0	-3.9	48.8	89.2	22.1	46.3	5.1	63.4	62.1	62.0	48.3	57.7	43.5	65.6	51.4
30.0	-1.1	55.0	99.1	26.1	51.8	7.2	70.7	69.3	69.3	54.8	64.7	49.6	73.3	58.2
35.0	1.7	61.5	109.7	30.4	57.7	9.4	78.6	77.1	77.2	61.8	72.2	56.1	81.5	65.5
40.0	4.4	68.6	121.0	35.0	63.9	11.9	86.9	85.4	85.6	69.4	80.2	63.2	90.3	73.4
45.0	7.2	76.1	133.0	40.0	70.6	14.5	95.8	94.2	94.6	77.4	88.8	70.7	99.7	81.8
50.0	10.0	84.1	145.8	45.4	77.6	17.3	105.3	103.6	104.2	86.1	97.9	78.8	109.7	90.8
55.0	12.8	92.6	159.5	51.2	85.1	20.3	115.3	113.6	114.4	95.3	107.6	87.5	120.4	100.5
60.0	15.6	101.6	174.0	57.4	93.0	23.5	126.0	124.2	125.2	105.2	117.9	96.8	131.7	110.8
65.0	18.3	111.2	189.5	64.0	101.4	27.0	137.3	135.5	136.7	115.7	128.9	106.7	143.7	121.8
70.0	21.1	121.4	205.8	71.1	110.2	30.6	149.3	147.4	148.8	127.0	140.5	117.3	156.4	133.5
75.0	23.9	132.2	223.2	78.7	119.5	34.5	162.0	160.1	161.7	138.9	152.8	128.5	169.9	146.0
80.0	26.7	143.6	241.5	86.7	129.3	38.7	175.4	173.4	175.3	151.6	165.8	140.5	184.1	159.2
85.0	29.4	155.7	260.9	95.2	139.7	43.1	189.5	187.5	189.7	165.1	179.6	153.2	199.1	173.3
90.0	32.2	168.4	281.3	104.3	150.5	47.8	204.5	202.4	204.8	179.3	194.1	166.7	215.0	188.1
95.0	35.0	181.8	302.9	114.0	161.9	52.7	220.2	218.1	220.8	194.4	209.4	181.0	231.7	203.9
100.0	37.8	195.9	325.7	124.2	173.9	57.9	236.8	234.6	237.6	210.4	225.5	196.1	249.3	220.6
105.0	40.6	210.8	349.6	135.0	186.5	63.5	254.2	252.1	255.3	227.4	242.4	212.1	267.8	238.3
110.0	43.3	226.4	374.9	146.4	199.6	69.3	272.5	270.4	273.9	245.2	260.3	229.0	287.2	256.9
115.0	46.1	242.8	401.4	158.4	213.4	75.5	291.8	289.6	293.5	264.1	279.0	246.9	307.6	276.6
120.0	48.9	260.0	429.3	171.2	227.8	81.9	312.1	309.9	314.0	284.0	298.6	265.8	329.0	297.4
125.0	51.7	278.0	458.7	184.6	242.9	88.8	333.3	331.2	335.4	305.0	319.2	285.7	351.5	319.3
130.0	54.4	296.9	489.5	198.7	258.7	95.9	355.6	353.5	357.9	327.1	340.7	306.6	375.0	342.4
135.0	57.2	316.7	521.8	213.6	275.1	103.5	379.1	377.0	381.5	350.5	363.3	328.8	399.7	366.8
140.0	60.0	337.4	555.8	229.2	292.3	111.4	403.7	401.7	406.2	375.1	386.9	352.1	425.4	392.4
145.0	62.8	359.0	591.4	245.7	310.2	119.6	429.6	427.7	431.9	401.0	411.7	376.6	452.4	419.5
150.0	65.6	381.7	628.8	262.9	328.9	128.3	456.8	455.1	458.9	428.3	437.5	402.5	480.6	448.0

Black figures – psig | Blue figures – inches mercury vacuum

°F	°C	R-408A		R-410A		R-421A		R-422B+		R-422D		R-434A		R-438A	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	3.5	3.1	10.8	10.7	0.5	6.1	0.9	5.5	2.4	2.4	3.9	1.7	1.7	5.2
-35.0	-37.2	5.8	5.4	14.1	14.0	2.5	2.6	3.0	1.9	4.6	0.8	6.3	4.0	3.9	1.5
-30.0	-34.4	8.5	8.0	17.8	17.7	4.8	0.7	5.3	1.0	7.1	3.0	9.0	6.5	6.4	1.2
-25.0	-31.7	11.3	10.9	21.9	21.8	7.4	2.8	7.9	3.2	9.9	5.4	12.0	9.3	9.1	3.5
-20.0	-28.9	14.5	14.0	26.3	26.2	10.1	5.2	10.7	5.7	12.9	8.1	15.3	12.3	12.0	5.9
-15.0	-26.1	17.9	17.4	31.2	31.0	13.2	7.8	13.8	8.3	16.2	11.0	18.8	15.7	15.3	8.6
-10.0	-23.3	21.7	21.1	36.5	36.3	16.5	10.7	17.1	11.3	19.8	14.3	22.7	19.3	18.8	11.6
-5.0	-20.6	25.7	25.1	42.2	42.0	20.1	13.9	20.7	14.5	23.7	17.8	26.9	23.3	22.7	14.9
0.0	-17.8	30.1	29.5	48.4	48.2	24.0	17.3	24.7	18.0	27.9	21.6	31.4	27.6	26.8	18.5
5.0	-15.0	34.9	34.2	55.2	54.9	28.2	21.1	29.0	21.9	32.5	25.8	36.3	32.3	31.4	22.4
10.0	-12.2	40.0	39.3	62.4	62.2	32.8	25.2	33.6	26.1	37.5	30.4	41.6	37.4	36.3	26.6
15.0	-9.4	45.5	44.8	70.2	70.0	37.8	29.7	38.6	30.6	42.8	35.3	47.3	42.9	41.6	31.2
20.0	-6.7	51.5	50.6	78.7	78.4	43.1	34.6	43.9	35.5	48.5	40.7	53.4	48.8	47.2	36.2
25.0	-3.9	57.8	57.0	87.7	87.4	48.9	39.8	49.7	40.8	54.7	46.4	60.0	55.1	53.4	41.6
30.0	-1.1	64.6	63.7	97.4	97.0	55.0	45.5	55.9	46.6	61.3	52.6	67.1	61.9	59.9	47.5
35.0	1.7	71.9	71.0	107.7	107.3	61.6	51.6	62.5	52.7	68.4	59.3	74.6	69.2	67.0	53.7
40.0	4.4	79.7	78.7	118.8	118.4	68.7	58.1	69.6	59.4	75.9	66.4	82.6	77.0	74.5	60.5
45.0	7.2	88.0	87.0	130.6	130.1	76.3	65.2	77.2	66.5	84.0	74.0	91.2	85.4	82.5	67.7
50.0	10.0	96.8	95.7	143.2	142.6	84.3	72.7	85.3	74.1	92.6	82.2	100.4	94.3	91.1	75.5
55.0	12.8	106.2	105.1	156.5	156.0	92.9	80.7	93.9	82.2	101.7	90.9	110.1	103.8	100.2	83.8
60.0	15.6	116.1	115.0	170.7	170.1	102.0	89.4	103.0	90.9	111.4	100.2	120.4	113.9	109.8	92.7
65.0	18.3	126.7	125.5	185.8	185.1	111.7	98.5	112.7	100.1	121.7	110.1	131.3	124.6	120.1	102.2
70.0	21.1	137.8	136.6	201.8	201.1	122.0	108.3	123.0	110.0	132.6	120.7	142.9	135.9	131.0	112.3
75.0	23.9	149.6	148.3	218.7	217.9	132.9	118.7	133.9	120.4	144.1	131.8	155.1	148.0	142.5	123.0
80.0	26.7	162.1	160.8	236.5	235.8	144.4	129.8	145.4	131.5	156.3	143.7	168.0	160.7	154.7	134.4
85.0	29.4	175.3	173.9	255.4	254.6	156.6	141.5	157.5	143.3	169.2	156.2	181.7	174.2	167.6	146.5
90.0	32.2	189.2	187.7	275.4	274.5	169.5	153.9	170.4	155.8	182.8	169.5	196.1	188.5	181.2	159.3
95.0	35.0	203.8	202.3	296.4	295.5	183.1	167.1	183.9	169.0	197.1	183.6	211.3	203.5	195.5	172.9
100.0	37.8	219.2	217.6	318.5	317.6	197.4	181.0	198.2	182.9	212.2	198.4	227.3	219.4	210.6	187.3
105.0	40.6	235.3	233.8	341.9	340.9	212.4	195.7	213.2	197.7	228.0	214.0	244.1	236.1	226.5	202.5
110.0	43.3	252.3	250.7	366.4	365.4	228.3	211.2	229.0	213.2	244.7	230.5	261.8	253.7	243.1	218.5
115.0	46.1	270.2	268.6	392.3	391.2	244.9	227.6	245.7	229.6	262.3	247.9	280.4	272.2	260.7	235.4
120.0	48.9	288.9	287.2	419.4	418.3	262.4	244.9	263.1	246.9	280.7	266.3	299.9	291.7	279.1	253.3
125.0	51.7	308.6	306.9	447.9	446.8	280.8	263.1	281.4	265.1	300.0	285.5	320.4	312.3	298.3	272.2
130.0	54.4	329.2	327.4	477.9	476.8	300.1	282.2	300.6	284.2	320.2	305.8	341.9	333.8	318.5	292.0
135.0	57.2	350.7	349.0	509.4	508.3	320.3	302.4	320.7	304.4	341.5	327.2	364.4	356.5	339.7	312.9
140.0	60.0	373.3	371.5	542.5	541.4	341.5	323.6	341.8	325.6	363.7	349.6	388.1	380.4	361.9	335.0
145.0	62.8	397.0	395.2	577.3	576.3	363.6	346.0	363.9	347.9	387.0	373.3	412.9	405.5	385.0	358.2
150.0	65.6	421.7	419.9	613.9	613.0	386.9	369.5	387.1	371.3	411.4	398.2	438.9	432.0	409.2	382.6

Black figures – psig Blue figures – inches mercury vacuum

°F	°C	R-448A		R-449A		R-452A		R-453A		R-454A		R-454B		R-454C	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	4.9	0.0	4.5	0.0	5.7	2.4	1.8	6.1	6.5	1.6	9.5	8.4	4.3	3.0
-35.0	-37.2	7.5	2.1	7.1	2.1	8.3	4.7	5.8	0.0	9.3	3.9	12.7	11.4	6.8	0.4
-30.0	-34.4	10.4	4.4	9.9	4.4	11.3	7.3	11.0	4.2	12.3	6.4	16.2	14.8	9.5	2.4
-25.0	-31.7	13.5	7.0	13.0	7.0	14.6	10.1	16.6	8.6	15.7	9.1	20.1	18.5	12.4	4.7
-20.0	-28.9	17.0	9.8	16.4	9.9	18.1	13.2	23.8	14.6	19.3	12.1	24.3	22.6	15.7	7.2
-15.0	-26.1	20.8	13.0	20.1	13.0	22.0	16.7	31.3	20.7	23.3	15.5	28.9	27.0	19.2	10.0
-10.0	-23.3	24.9	16.4	24.2	16.4	26.2	20.4	40.9	29.0	27.6	19.1	33.9	31.8	23.1	13.0
-5.0	-20.6	29.3	20.2	28.6	20.2	30.8	24.5	50.9	37.2	32.3	23.0	39.4	37.0	27.3	16.3
0.0	-17.8	34.2	24.3	33.4	24.3	35.7	28.9	63.4	48.2	37.4	27.3	45.3	42.7	31.8	19.9
5.0	-15.0	39.4	28.8	38.5	28.7	41.1	33.7	76.2	59.0	42.9	32.0	51.7	48.8	36.7	23.8
10.0	-12.2	45.1	33.6	44.1	33.5	46.9	38.8	92.2	73.5	48.8	37.1	58.5	55.4	41.9	28.0
15.0	-9.4	51.2	38.9	50.1	38.8	53.1	44.4	108.2	87.3	55.2	42.6	66.0	62.6	47.6	32.6
20.0	-6.7	57.8	44.6	56.6	44.4	59.8	50.5	47.2	34.0	62.0	48.5	73.9	70.3	53.6	37.6
25.0	-3.9	64.8	50.7	63.5	50.6	66.9	57.0	53.3	39.3	69.4	54.9	82.5	78.5	60.1	42.9
30.0	-1.1	72.3	57.3	70.9	57.1	74.6	64.0	59.9	44.9	77.2	61.7	91.7	87.4	67.1	48.7
35.0	1.7	80.4	64.4	78.9	64.2	82.8	71.4	67.0	51.0	85.6	69.1	101.5	96.9	74.5	54.9
40.0	4.4	89.0	72.1	87.4	71.8	91.5	79.4	74.6	57.6	94.6	76.9	112.0	107.0	82.4	61.5
45.0	7.2	98.2	80.3	96.4	80.0	100.9	88.0	82.6	64.7	104.1	85.4	123.1	117.8	90.8	68.6
50.0	10.0	108.0	89.0	106.1	88.7	110.8	97.1	91.2	72.2	114.2	94.4	135.0	129.3	99.7	76.3
55.0	12.8	118.4	98.4	116.3	98.0	121.3	106.9	100.4	80.4	125.0	104.0	147.7	141.6	109.2	84.4
60.0	15.6	129.4	108.4	127.2	107.9	132.4	117.3	110.1	89.0	136.4	114.3	161.1	154.6	119.3	93.1
65.0	18.3	141.1	119.0	138.8	118.5	144.3	128.3	120.5	98.3	148.4	125.2	175.4	168.5	129.9	102.3
70.0	21.1	153.5	130.3	151.0	129.7	156.8	140.0	131.5	108.2	161.2	136.7	190.5	183.1	141.2	112.2
75.0	23.9	166.6	142.4	163.9	141.7	170.0	152.4	143.1	118.7	174.7	149.0	206.5	198.7	153.0	122.6
80.0	26.7	180.5	155.1	177.6	154.3	183.9	165.6	155.4	129.9	188.9	162.1	223.4	215.2	165.6	133.7
85.0	29.4	195.1	168.7	192.0	167.8	198.6	179.5	168.3	141.8	203.9	175.9	241.2	232.6	178.8	145.5
90.0	32.2	210.5	183.0	207.2	182.0	214.1	194.3	181.8	155.3	219.8	190.6	260.1	251.0	192.6	158.0
95.0	35.0	226.7	198.2	223.2	197.1	230.4	209.9	196.5	167.8	236.4	206.1	279.9	270.4	207.2	171.2
100.0	37.8	243.7	214.3	240.1	213.1	247.6	226.4	211.7	182.0	253.9	222.4	300.8	290.9	222.5	185.2
105.0	40.6	261.7	231.3	257.8	229.9	265.6	243.7	227.7	197.0	272.2	239.7	322.8	312.5	238.6	199.9
110.0	43.3	280.5	249.2	276.4	247.7	284.5	262.1	244.5	212.8	291.4	258.0	345.9	335.2	255.5	215.5
115.0	46.1	300.2	268.1	295.9	266.5	304.3	281.4	262.2	229.6	311.6	277.2	370.2	359.1	273.1	232.0
120.0	48.9	320.9	288.1	316.3	286.3	325.1	301.8	280.8	247.3	332.8	297.5	395.7	384.3	291.6	249.3
125.0	51.7	342.6	309.1	337.8	307.2	346.8	323.3	300.2	265.9	354.9	319.0	422.4	410.8	310.8	267.7
130.0	54.4	365.3	331.3	360.2	329.2	369.6	345.9	320.6	285.6	378.0	341.5	450.5	438.7	331.0	287.0
135.0	57.2	389.0	354.7	383.7	352.4	393.4	369.8	341.9	306.3	402.1	365.3	479.9	468.0	352.0	307.4
140.0	60.0	413.8	379.3	408.3	376.8	418.3	395.0	364.2	328.2	427.4	390.4	510.7	498.8	373.9	328.8
145.0	62.8	439.7	405.3	433.9	402.5	444.2	421.6	387.6	351.2	453.7	416.9	543.0	531.3	396.8	351.5
150.0	65.6	466.7	432.6	460.7	429.7	471.3	449.8	411.9	375.5	481.1	444.8	576.8	565.4	420.6	375.3

Black figures – psig Blue figures – inches mercury vacuum

°F	°C	R-470A		R-470B		R-480A		R-507A		R-513A		R-515B		R-4106A	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	24.6	6.0	22.5	10.5	4.4	17.7	5.4	5.4	11.6	11.8	19.2	19.2	12.6	6.7
-35.0	-37.2	28.9	2.4	26.6	7.5	6.6	15.8	8.1	8.1	9.0	9.1	17.5	17.5	16.1	9.7
-30.0	-34.4	33.7	0.8	31.0	4.1	9.0	13.6	11.0	11.0	6.0	6.1	15.6	15.6	19.9	12.9
-25.0	-31.7	38.8	3.1	35.8	0.4	11.5	11.2	14.1	14.1	2.7	2.8	13.4	13.4	24.1	16.5
-20.0	-28.9	44.3	5.5	41.0	1.9	14.3	8.5	17.6	17.6	0.5	0.4	11.0	11.1	28.7	20.4
-15.0	-26.1	50.2	8.3	46.5	4.2	17.3	5.5	21.4	21.4	2.4	2.4	8.4	8.4	33.7	24.7
-10.0	-23.3	56.6	11.3	52.4	6.7	20.5	2.2	25.5	25.5	4.6	4.5	5.5	5.5	39.1	29.4
-5.0	-20.6	63.3	14.6	58.7	9.5	23.9	0.7	30.0	30.0	7.0	6.9	2.2	2.2	45.0	34.5
0.0	-17.8	70.6	18.3	65.5	12.6	27.6	2.7	34.8	34.8	9.6	9.5	0.7	0.6	51.3	40.1
5.0	-15.0	78.3	22.3	72.7	15.9	31.5	4.9	40.1	40.0	12.4	12.4	2.6	2.6	58.1	46.1
10.0	-12.2	86.5	26.7	80.3	19.6	35.7	7.3	45.7	45.7	15.5	15.5	4.7	4.7	65.5	52.7
15.0	-9.4	95.2	31.4	88.4	23.6	40.2	9.9	51.8	51.7	18.9	18.8	7.0	7.0	73.4	59.7
20.0	-6.7	104.5	36.6	96.9	28.0	45.0	12.8	58.3	58.2	22.5	22.4	9.5	9.5	81.9	67.3
25.0	-3.9	114.3	42.2	106.0	32.7	50.1	15.9	65.3	65.2	26.4	26.4	12.3	12.2	91.0	75.5
30.0	-1.1	124.7	48.3	115.6	37.9	55.5	19.3	72.7	72.7	30.7	30.6	15.2	15.2	100.8	84.3
35.0	1.7	135.6	54.9	125.7	43.5	61.2	23.0	80.7	80.7	35.2	35.2	18.5	18.4	111.2	93.7
40.0	4.4	147.1	62.0	136.3	49.5	67.3	26.9	89.2	89.2	40.1	40.1	21.9	21.9	122.3	103.8
45.0	7.2	159.3	69.6	147.5	56.0	73.7	31.2	98.3	98.3	45.4	45.4	25.7	25.7	134.1	114.6
50.0	10.0	172.1	77.8	159.3	63.0	80.5	35.8	108.0	107.9	51.1	51.0	29.7	29.7	146.6	126.2
55.0	12.8	185.5	86.7	171.6	70.6	87.6	40.8	118.3	118.2	57.1	57.1	34.1	34.0	159.9	138.5
60.0	15.6	199.6	96.1	184.6	78.6	95.2	46.1	129.2	129.1	63.5	63.5	38.7	38.7	174.1	151.5
65.0	18.3	214.4	106.2	198.1	87.3	103.1	51.8	140.8	140.6	70.4	70.4	43.7	43.7	189.1	165.4
70.0	21.1	229.8	117.1	212.2	96.6	111.4	57.9	153.0	152.9	77.7	77.7	49.1	49.0	204.9	180.2
75.0	23.9	246.0	128.6	227.0	106.5	120.2	64.4	165.9	165.8	85.5	85.5	54.8	54.7	221.6	195.9
80.0	26.7	262.9	140.9	242.4	117.1	129.4	71.4	179.6	179.5	93.8	93.8	60.8	60.8	239.3	212.5
85.0	29.4	280.5	154.1	258.5	128.3	139.0	78.8	194.1	193.9	102.6	102.6	67.3	67.3	257.9	230.1
90.0	32.2	298.8	168.0	275.2	140.3	149.1	86.7	209.3	209.1	111.9	111.9	74.2	74.2	277.5	248.7
95.0	35.0	317.9	182.9	292.6	153.1	159.7	95.1	225.4	225.2	121.7	121.7	81.5	81.5	298.2	268.3
100.0	37.8	337.8	198.7	310.7	166.7	170.8	104.1	242.3	242.1	132.1	132.1	89.3	89.2	319.9	289.1
105.0	40.6	358.5	215.4	329.5	181.1	182.3	113.5	260.1	259.9	143.1	143.1	97.5	97.4	342.7	311.0
110.0	43.3	379.9	233.2	348.9	196.4	194.4	123.6	278.8	278.6	154.7	154.7	106.2	106.1	366.6	334.1
115.0	46.1	402.1	252.1	369.1	212.7	206.9	134.2	298.5	298.3	166.9	166.9	115.4	115.3	391.7	358.4
120.0	48.9	425.1	272.1	389.9	229.9	220.1	145.4	319.2	318.9	179.8	179.7	125.1	125.0	418.0	384.0
125.0	51.7	448.9	293.2	411.5	248.1	233.7	157.3	340.9	340.7	193.3	193.3	135.3	135.2	445.6	410.9
130.0	54.4	473.6	315.6	433.7	267.5	247.9	169.9	363.8	363.5	207.5	207.5	146.1	146.0	474.4	439.3
135.0	57.2	498.9	339.4	456.7	287.9	262.7	183.1	387.8	387.5	222.5	222.4	157.5	157.4	504.5	469.1
140.0	60.0	525.1	364.6	480.3	309.6	278.1	197.1	413.0	412.7	238.2	238.1	169.4	169.3	536.0	500.5
145.0	62.8	552.0	391.2	504.6	332.5	294.0	211.8	439.5	439.2	254.7	254.6	182.0	181.9	568.9	533.6
150.0	65.6	579.6	419.5	529.6	356.8	310.6	227.3	467.4	467.2	271.9	271.8	195.2	195.1	603.2	568.3

Black figures – psig Blue figures – inches mercury vacuum

Refrigerant Pressure-Temperature Chart

°F	°C					410A			407C			422D		422B+	
		22	32	134a	600a	290	Bubble	Dew	507A	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	15.3	25.7	7.4	4.2	16.1	25.5	25.4	20.1	17.4	12.4	17.1	13.5	15.6	12.0
-35.0	-37.2	17.3	29.1	8.6	4.8	18.1	28.8	28.7	22.8	19.8	14.3	19.3	15.5	17.7	13.8
-30.0	-34.4	19.6	32.9	9.9	5.5	20.4	32.5	32.4	25.7	22.4	16.3	21.8	17.7	20.0	15.7
-25.0	-31.7	22.1	37.0	11.3	6.3	22.8	36.6	36.5	28.8	25.3	18.6	24.6	20.1	22.6	17.9
-20.0	-28.9	24.9	41.5	12.9	7.1	25.4	41.0	40.9	32.3	28.4	21.2	27.6	22.8	25.4	20.4
-15.0	-26.1	27.9	46.4	14.7	8.1	28.3	45.9	45.7	36.1	31.9	24.0	30.9	25.7	28.5	23.0
-10.0	-23.3	31.2	51.8	16.6	9.1	31.4	51.2	51.0	40.2	35.6	27.0	34.5	29.0	31.8	26.0
-5.0	-20.6	34.8	57.6	18.8	10.3	34.8	56.9	56.7	44.7	39.7	30.4	38.4	32.5	35.4	29.2
0.0	-17.8	38.7	63.9	21.2	11.5	38.4	63.1	62.9	49.5	44.2	34.1	42.6	36.3	39.4	32.7
5.0	-15.0	43.0	70.8	23.8	12.9	42.3	69.9	69.6	54.7	49.0	38.2	47.2	40.5	43.7	36.6
10.0	-12.2	47.5	78.2	26.6	14.4	46.5	77.1	76.9	60.4	54.2	42.6	52.2	45.1	48.3	40.8
15.0	-9.4	52.5	86.1	29.7	16.1	51.0	84.9	84.7	66.4	59.9	47.4	57.5	50.0	53.3	45.3
20.0	-6.7	57.8	94.7	33.1	17.9	55.8	93.4	93.1	73.0	65.9	52.6	63.2	55.4	58.6	50.2
25.0	-3.9	63.5	103.9	36.8	19.8	61.0	102.4	102.1	79.9	72.4	58.2	69.4	61.1	64.4	55.5
30.0	-1.1	69.7	113.8	40.8	21.9	66.5	112.1	111.7	87.4	79.4	64.3	76.0	67.3	70.6	61.3
35.0	1.7	76.2	124.4	45.1	24.1	72.4	122.4	122.0	95.4	86.9	70.8	83.1	74.0	77.2	67.4
40.0	4.4	83.3	135.7	49.7	26.6	78.6	133.5	133.1	103.9	94.9	77.9	90.6	81.1	84.3	74.1
45.0	7.2	90.8	147.7	54.7	29.2	85.3	145.3	144.8	113.0	103.5	85.4	98.7	88.7	91.9	81.2
50.0	10.0	98.8	160.5	60.1	32.0	92.3	157.9	157.3	122.7	112.6	93.5	107.3	96.9	100.0	88.8
55.0	12.8	107.3	174.2	65.9	35.0	99.8	171.2	170.7	133.0	122.3	102.2	116.4	105.6	108.6	96.9
60.0	15.6	116.3	188.7	72.1	38.2	107.7	185.4	184.8	143.9	132.6	111.5	126.1	114.9	117.7	105.6
65.0	18.3	125.9	204.2	78.7	41.7	116.1	200.5	199.8	155.4	143.6	121.4	136.4	124.8	127.4	114.8
70.0	21.1	136.1	220.5	85.8	45.3	124.9	216.5	215.8	167.7	155.2	132.0	147.3	135.4	137.7	124.7
75.0	23.9	146.9	237.9	93.4	49.2	134.2	233.4	232.6	180.6	167.5	143.2	158.8	146.5	148.6	135.1
80.0	26.7	158.3	256.2	101.4	53.4	144.0	251.2	250.5	194.3	180.5	155.2	171.0	158.4	160.1	146.2
85.0	29.4	170.4	275.6	109.9	57.8	154.4	270.1	269.3	208.8	194.3	167.9	183.9	170.9	172.2	158.0
90.0	32.2	183.1	296.0	119.0	62.5	165.2	290.1	289.2	224.0	208.8	181.4	197.5	184.2	185.1	170.5
95.0	35.0	196.5	317.6	128.7	67.4	176.6	311.1	310.2	240.1	224.1	195.7	211.8	198.3	198.6	183.7
100.0	37.8	210.6	340.4	138.9	72.6	188.6	333.2	332.3	257.0	240.2	210.8	226.9	213.1	212.9	197.6
105.0	40.6	225.5	364.3	149.7	78.2	201.2	356.6	355.6	274.8	257.1	226.8	242.7	228.7	227.9	212.4
110.0	43.3	241.1	389.6	161.1	84.0	214.3	381.1	380.1	293.5	275.0	243.7	259.4	245.2	243.7	227.9
115.0	46.1	257.5	416.1	173.1	90.2	228.1	407.0	405.9	313.2	293.7	261.6	277.0	262.6	260.4	244.3
120.0	48.9	274.7	444.0	185.9	96.6	242.5	434.1	433.0	333.9	313.3	280.5	295.4	281.0	277.8	261.6
125.0	51.7	292.7	473.4	199.3	103.5	257.6	462.6	461.5	355.6	333.9	300.4	314.7	300.2	296.1	279.8
130.0	54.4	311.6	504.2	213.4	110.6	273.4	492.6	491.5	378.5	355.4	321.3	334.9	320.5	315.3	298.9
135.0	57.2	331.4	536.5	228.3	118.2	289.8	524.1	523.0	402.5	378.0	343.5	356.2	341.9	335.4	319.1
140.0	60.0	352.1	570.5	243.9	126.1	307.0	557.2	556.1	427.7	401.6	366.8	378.4	364.3	356.5	340.3
145.0	62.8	373.7	606.1	260.4	134.3	324.9	592.0	591.0	454.2	426.4	391.3	401.7	388.0	378.6	362.6
150.0	65.6	396.4	643.5	277.6	143.0	343.6	628.6	627.7	482.1	452.2	417.2	426.1	412.9	401.8	386.0

°F	°C	407A		438A		404A		448A		449A		408A		407F	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	18.6	13.7	16.4	12.1	19.6	19.0	19.6	14.7	19.2	14.7	18.2	17.8	19.6	14.5
-35.0	-37.2	21.1	15.7	18.6	13.9	22.2	21.5	22.2	16.8	21.8	16.8	20.5	20.1	22.2	16.6
-30.0	-34.4	23.9	18.0	21.1	15.9	25.0	24.3	25.1	19.1	24.6	19.1	23.2	22.7	25.1	18.9
-25.0	-31.7	26.9	20.4	23.8	18.2	28.1	27.4	28.2	21.7	27.7	21.7	26.0	25.6	28.3	21.5
-20.0	-28.9	30.3	23.2	26.7	20.6	31.5	30.7	31.7	24.5	31.1	24.6	29.2	28.7	31.8	24.4
-15.0	-26.1	33.9	26.2	30.0	23.3	35.2	34.4	35.5	27.7	34.8	27.7	32.6	32.1	35.6	27.6
-10.0	-23.3	37.9	29.6	33.5	26.3	39.3	38.3	39.6	31.1	38.9	31.1	36.4	35.8	39.8	31.1
-5.0	-20.6	42.2	33.2	37.4	29.6	43.6	42.6	44.0	34.9	43.3	34.9	40.4	39.8	44.3	34.9
0.0	-17.8	46.9	37.2	41.5	33.2	48.4	47.3	48.9	39.0	48.1	39.0	44.8	44.2	49.2	39.1
5.0	-15.0	52.0	41.6	46.1	37.1	53.5	52.4	54.1	43.5	53.2	43.4	49.6	48.9	54.5	43.6
10.0	-12.2	57.5	46.3	51.0	41.3	59.0	57.8	59.8	48.3	58.8	48.2	54.7	54.0	60.3	48.6
15.0	-9.4	63.4	51.4	56.3	45.9	64.9	63.7	65.9	53.6	64.8	53.5	60.2	59.5	66.5	54.0
20.0	-6.7	69.8	57.0	61.9	50.9	71.3	70.0	72.5	59.3	71.3	59.1	66.2	65.3	73.2	59.8
25.0	-3.9	76.7	63.0	68.1	56.3	78.1	76.8	79.5	65.4	78.2	65.3	72.5	71.7	80.3	66.1
30.0	-1.1	84.0	69.5	74.6	62.2	85.4	84.0	87.0	72.0	85.6	71.8	79.3	78.4	88.0	72.9
35.0	1.7	91.9	76.5	81.7	68.4	93.3	91.8	95.1	79.1	93.6	78.9	86.6	85.7	96.2	80.2
40.0	4.4	100.3	84.1	89.2	75.2	101.6	100.1	103.7	86.8	102.1	86.5	94.4	93.4	105.0	88.1
45.0	7.2	109.3	92.1	97.2	82.4	110.5	108.9	112.9	95.0	111.1	94.7	102.7	101.7	114.4	96.5
50.0	10.0	118.9	100.8	105.8	90.2	120.0	118.3	122.7	103.7	120.8	103.4	111.5	110.4	124.4	105.5
55.0	12.8	129.1	110.0	114.9	98.5	130.0	128.3	133.1	113.1	131.0	112.7	120.9	119.8	135.1	115.2
60.0	15.6	139.9	119.9	124.5	107.4	140.7	138.9	144.1	123.1	141.9	122.6	130.8	129.7	146.4	125.5
65.0	18.3	151.4	130.4	134.8	116.9	152.0	150.2	155.8	133.7	153.5	133.2	141.4	140.2	158.4	136.5
70.0	21.1	163.5	141.7	145.7	127.0	164.0	162.1	168.2	145.0	165.7	144.4	152.5	151.3	171.1	148.2
75.0	23.9	176.4	153.6	157.2	137.7	176.7	174.8	181.3	157.1	178.6	156.4	164.3	163.0	184.6	160.7
80.0	26.7	190.0	166.3	169.4	149.1	190.1	188.1	195.2	169.8	192.3	169.0	176.8	175.5	198.8	173.9
85.0	29.4	204.4	179.8	182.3	161.2	204.2	202.2	209.8	183.4	206.7	182.5	190.0	188.6	213.8	188.0
90.0	32.2	219.5	194.0	195.9	174.0	219.2	217.1	225.2	197.7	221.9	196.7	203.9	202.4	229.7	202.8
95.0	35.0	235.5	209.1	210.2	187.6	234.9	232.8	241.4	212.9	237.9	211.8	218.5	217.0	246.4	218.6
100.0	37.8	252.3	225.1	225.3	202.0	251.5	249.3	258.4	229.0	254.8	227.8	233.9	232.3	264.0	235.3

105.0	40.6	270.0	242.1	241.2	217.2	268.9	266.8	276.4	246.0	272.5	244.6	250.0	248.5	282.5	253.0
110.0	43.3	288.6	259.9	257.8	233.2	287.2	285.1	295.2	263.9	291.1	262.4	267.0	265.4	301.9	271.6
115.0	46.1	308.2	278.8	275.4	250.1	306.5	304.3	314.9	282.8	310.6	281.2	284.9	283.3	322.3	291.3
120.0	48.9	328.7	298.7	293.8	268.0	326.8	324.6	335.6	302.8	331.0	301.0	303.6	301.9	343.7	312.1
125.0	51.7	350.1	319.7	313.0	286.9	348.0	345.9	357.3	323.8	352.5	321.9	323.3	321.6	366.2	334.0
130.0	54.4	372.6	341.8	333.2	306.7	370.3	368.2	380.0	346.0	374.9	343.9	343.9	342.1	389.7	357.1
135.0	57.2	396.2	365.2	354.4	327.6	393.8	391.7	403.7	369.4	398.4	367.1	365.4	363.7	414.4	381.5
140.0	60.0	420.9	389.8	376.6	349.7	418.4	416.4	428.5	394.0	423.0	391.5	388.0	386.2	440.1	407.1
145.0	62.8	446.6	415.7	399.7	372.9	444.3	442.4	454.4	420.0	448.6	417.2	411.7	409.9	467.1	434.2
150.0	65.6	473.6	443.0	423.9	397.3	471.5	469.8	481.4	447.3	475.4	444.4	436.4	434.6	495.3	462.7

°F	°C	434A		453A		470B		480A		470A		421A	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	18.6	16.4			37.2	9.5	19.1	6.0	39.3	11.7	15.2	11.7
-35.0	-37.2	21.0	18.7			41.3	11.0	21.3	6.9	43.6	13.5	17.2	13.4
-30.0	-34.4	23.7	21.2			45.7	12.7	23.7	8.0	48.4	15.5	19.5	15.4
-25.0	-31.7	26.7	24.0			50.5	14.5	26.2	9.2	53.5	17.8	22.1	17.5
-20.0	-28.9	30.0	27.0			55.7	16.6	29.0	10.5	59.0	20.2	24.8	19.9
-15.0	-26.1	33.5	30.4			61.2	18.9	32.0	12.0	64.9	23.0	27.9	22.5
-10.0	-23.3	37.4	34.0			67.1	21.4	35.2	13.6	71.3	26.0	31.2	25.4
-5.0	-20.6	41.6	38.0			73.4	24.2	38.6	15.4	78.0	29.3	34.8	28.6
0.0	-17.8	46.1	42.3			80.2	27.3	42.3	17.4	85.3	33.0	38.7	32.0
5.0	-15.0	51.0	47.0			87.4	30.6	46.2	19.6	93.0	37.0	42.9	35.8
10.0	-12.2	56.3	52.1			95.0	34.3	50.4	22.0	101.2	41.4	47.5	39.9
15.0	-9.4	62.0	57.6			103.1	38.3	54.9	24.6	109.9	46.1	52.5	44.4
20.0	-6.7	68.1	63.5	61.9	48.7	111.6	42.7	59.7	27.5	119.2	51.3	57.8	49.3
25.0	-3.9	74.7	69.8	68.0	54.0	120.7	47.4	64.8	30.6	129.0	56.9	63.6	54.5
30.0	-1.1	81.8	76.6	74.6	59.6	130.3	52.6	70.2	34.0	139.4	63.0	69.7	60.2
35.0	1.7	89.3	83.9	81.7	65.7	140.4	58.2	75.9	37.7	150.3	69.6	76.3	66.3
40.0	4.4	97.3	91.7	89.3	72.3	151.0	64.2	82.0	41.6	161.8	76.7	83.4	72.8
45.0	7.2	105.9	100.1	97.3	79.4	162.2	70.7	88.4	45.9	174.0	84.3	91.0	79.9
50.0	10.0	115.1	109.0	105.9	86.9	174.0	77.7	95.2	50.5	186.8	92.5	99.0	87.4
55.0	12.8	124.8	118.5	115.1	95.1	186.3	85.3	102.3	55.5	200.2	101.4	107.6	95.4
60.0	15.6	135.1	128.6	124.8	103.7	199.3	93.3	109.9	60.8	214.3	110.8	116.7	104.1
65.0	18.3	146.0	139.3	135.2	113.0	212.8	102.0	117.8	66.5	229.1	120.9	126.4	113.2
70.0	21.1	157.6	150.6	146.2	122.9	226.9	111.3	126.1	72.6	244.5	131.8	136.7	123.0
75.0	23.9	169.8	162.7	157.8	133.4	241.7	121.2	134.9	79.1	260.7	143.3	147.6	133.4
80.0	26.7	182.7	175.4	170.1	144.6	257.1	131.8	144.1	86.1	277.6	155.6	159.1	144.5
85.0	29.4	196.4	188.9	183.0	156.5	273.2	143.0	153.7	93.5	295.2	168.8	171.3	156.2
90.0	32.2	210.8	203.2			289.9	155.0	163.8	101.4	313.5	182.7	184.2	168.6
95.0	35.0	226.0	218.2	211.2	182.5	307.3	167.8	174.4	109.8	332.6	197.6	197.8	181.8
100.0	37.8	242.0	234.1	226.4	196.7	325.4	181.4	185.5	118.8	352.5	213.4	212.1	195.7
105.0	40.6	258.8	250.8	242.4	211.7	344.2	195.8	197.0	128.2	373.2	230.1	227.1	210.4
110.0	43.3	276.5	268.4	259.2	227.5	363.6	211.1	209.1	138.3	394.6	247.9	243.0	225.9
115.0	46.1	295.1	286.9	276.9	244.3	383.8	227.4	221.6	148.9	416.8	266.8	259.6	242.3
120.0	48.9	314.6	306.4	295.5	262.0	404.6	244.6	234.8	160.1	439.8	286.8	277.1	259.6
125.0	51.7	335.1	327.0	314.9	280.6	426.2	262.8	248.4	172.0	463.6	307.9	295.5	277.8
130.0	54.4	356.6	348.5	335.3	300.3	448.4	282.2	262.6	184.6	488.3	330.3	314.8	296.9
135.0	57.2	379.1	371.2	356.6	321.0	471.4	302.6	277.4	197.8	513.6	354.1	335.0	317.1
140.0	60.0	402.8	395.1	378.9	342.9	495.0	324.3	292.8	211.8	539.8	379.3	356.2	338.3
145.0	62.8	427.6	420.2	402.3	365.9	519.3	347.2	308.7	226.5	566.7	405.9	378.3	360.7
150.0	65.6	453.6	446.7	426.6	390.2	544.3	371.5	325.3	242.0	594.3	434.2	401.6	384.2

Black figures – psia

°F	°C	454A		454C		R-507		R-513A		515B		4106A		452A	
		Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew	Bubble	Dew
-40.0	-40.0	21.2	16.3	19.0	13.2	20.1	20.1	9.0	8.9	5.3	5.3	27.3	21.4	20.4	17.1
-35.0	-37.2	24.0	18.6	21.4	15.1	22.8	22.7	10.3	10.2	6.1	6.1	30.8	24.4	23.0	19.4
-30.0	-34.4	27.0	21.0	24.2	17.1	25.7	25.6	11.8	11.7	7.1	7.0	34.6	27.6	26.0	22.0
-25.0	-31.7	30.4	23.8	27.1	19.4	28.8	28.8	13.4	13.3	8.1	8.1	38.8	31.2	29.3	24.8
-20.0	-28.9	34.0	26.8	30.4	21.9	32.3	32.3	15.2	15.1	9.3	9.3	43.4	35.1	32.8	27.9
-15.0	-26.1	38.0	30.1	33.9	24.7	36.1	36.1	17.1	17.1	10.6	10.6	48.4	39.4	36.7	31.4
-10.0	-23.3	42.3	33.8	37.8	27.7	40.2	40.2	19.3	19.2	12.0	12.0	53.8	44.1	40.9	35.1
-5.0	-20.6	47.0	37.7	42.0	31.0	44.7	44.7	21.7	21.6	13.6	13.6	59.7	49.2	45.5	39.1
0.0	-17.8	52.1	42.0	46.5	34.6	49.5	49.5	24.3	24.2	15.4	15.3	66.0	54.8	50.4	43.6
5.0	-15.0	57.6	46.7	51.3	38.5	54.7	54.7	27.1	27.1	17.3	17.3	72.8	60.8	55.8	48.4
10.0	-12.2	63.5	51.8	56.6	42.7	60.4	60.4	30.2	30.1	19.4	19.4	80.2	67.4	61.6	53.5
15.0	-9.4	69.9	57.3	62.3	47.3	66.4	66.4	33.6	33.5	21.7	21.7	88.1	74.4	67.8	59.1
20.0	-6.7	76.7	63.2	68.3	52.3	73.0	72.9	37.2	37.1	24.2	24.2	96.6	82.0	74.5	65.2
25.0	-3.9	84.1	69.6	74.8	57.6	79.9	79.9	41.1	41.1	27.0	26.9	105.7	90.2	81.6	71.7
30.0	-1.1	91.9	76.4	81.8	63.4	87.4	87.4	45.4	45.3	29.9	29.9	115.5	99.0	89.3	78.7
35.0	1.7	100.3	83.8	89.2	69.6	95.4	95.4	49.9	49.9	33.2	33.1	125.9	108.4	97.5	86.1
40.0	4.4	109.3	91.6	97.1	76.2	103.9	103.9	54.8	54.8	36.6	36.6	137.0	118.5	106.3	94.1

45.0	7.2	118.8	100.1	105.5	83.3	113.0	113.0	60.1	60.1	40.4	40.4	148.8	129.3	115.6	102.7
50.0	10.0	128.9	109.1	114.4	91.0	122.7	122.6	65.8	65.7	44.4	44.4	161.3	140.9	125.5	111.8
55.0	12.8	139.7	118.7	123.9	99.1	133.0	132.9	71.8	71.8	48.8	48.7	174.6	153.1	136.0	121.6
60.0	15.6	151.1	128.9	134.0	107.8	143.9	143.8	78.2	78.2	53.4	53.4	188.8	166.2	147.1	132.0
65.0	18.3	163.1	139.8	144.6	117.0	155.4	155.3	85.1	85.1	58.4	58.4	203.7	180.1	159.0	143.0
70.0	21.1	175.9	151.4	155.9	126.9	167.7	167.6	92.4	92.4	63.8	63.7	219.6	194.9	171.5	154.7
75.0	23.9	189.4	163.7	167.7	137.3	180.6	180.5	100.2	100.2	69.5	69.4	236.3	210.6	184.7	167.1
80.0	26.7	203.6	176.8	180.3	148.4	194.3	194.2	108.5	108.5	75.5	75.5	254.0	227.2	198.6	180.3
85.0	29.4	218.6	190.6	193.5	160.2	208.8	208.6	117.3	117.3	82.0	82.0	272.6	244.8	213.3	194.2
90.0	32.2	234.4	205.3	207.3	172.7	224.0	223.8	126.6	126.6	88.9	88.9	292.2	263.4	228.8	209.0
95.0	35.0	251.1	220.7	221.9	185.9	240.1	239.9	136.4	136.4	96.2	96.2	312.9	283.0	245.1	224.6
100.0	37.8	268.5	237.1	237.2	199.9	257.0	256.8	146.8	146.8	104.0	103.9	334.6	303.8	262.3	241.1
105.0	40.6	286.9	254.4	253.3	214.6	274.8	274.6	157.8	157.8	112.2	112.1	357.4	325.7	280.3	258.4
110.0	43.3	306.1	272.7	270.2	230.2	293.5	293.3	169.4	169.4	120.9	120.8	381.3	348.8	299.2	276.8
115.0	46.1	326.3	291.9	287.8	246.7	313.2	313.0	181.6	181.6	130.1	130.0	406.4	373.1	319.0	296.1
120.0	48.9	347.4	312.2	306.3	264.0	333.9	333.6	194.5	194.4	139.8	139.7	432.7	398.7	339.8	316.5
125.0	51.7	369.6	333.7	325.5	282.4	355.6	355.4	208.0	208.0	150.0	149.9	460.2	425.6	361.5	338.0
130.0	54.4	392.7	356.2	345.7	301.7	378.5	378.2	222.2	222.2	160.8	160.7	489.1	454.0	384.3	360.6
135.0	57.2	416.8	380.0	366.7	322.0	402.5	402.2	237.2	237.1	172.1	172.1	519.2	483.8	408.1	384.5
140.0	60.0	442.1	405.1	388.6	343.5	427.7	427.4	252.9	252.8	184.1	184.0	550.7	515.2	433.0	409.7
145.0	62.8	468.4	431.6	411.5	366.2	454.2	453.9	269.3	269.3	196.7	196.6	583.6	548.2	458.9	436.3
150.0	65.6	495.8	459.5	435.3	390.0	482.1	481.9	286.6	286.5	209.9	209.8	617.8	583.0	486.0	464.5

Black figures – psia

R-452A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-49.062	-52.472	-45.652	-6.82
10	-28.6795	-32.153	-25.206	-6.947
20	-14.004	-17.511	-10.497	-7.014
30	-2.3051	-5.8288	1.2186	-7.0474
40	7.5329	4.0018	11.064	-7.0622
50	16.083	12.552	19.614	-7.062
60	23.6825	20.156	27.209	-7.053
70	30.5485	27.031	34.066	-7.035
80	36.828	33.323	40.333	-7.01
90	42.627	39.137	46.117	-6.98
100	48.024	44.551	51.497	-6.946
110	53.0785	49.625	56.532	-6.907
120	57.8385	54.407	61.27	-6.863
130	62.3405	58.932	65.749	-6.817
140	66.6155	63.232	69.999	-6.767
150	70.688	67.331	74.045	-6.714
160	74.58	71.251	77.909	-6.658
170	78.309	75.009	81.609	-6.6
180	81.8895	78.62	85.159	-6.539
190	85.335	82.097	88.573	-6.476
200	88.6565	85.451	91.862	-6.411
210	91.8645	88.693	95.036	-6.343
220	94.9665	91.83	98.103	-6.273
230	97.97	94.87	101.07	-6.2
240	100.8855	97.821	103.95	-6.129
250	103.715	100.69	106.74	-6.05
260	106.465	103.48	109.45	-5.97
270	109.135	106.19	112.08	-5.89
280	111.74	108.84	114.64	-5.8
290	114.28	111.42	117.14	-5.72
300	116.755	113.94	119.57	-5.63
310	119.17	116.4	121.94	-5.54
320	121.525	118.8	124.25	-5.45
330	123.83	121.15	126.51	-5.36
340	126.09	123.46	128.72	-5.26
350	128.29	125.71	130.87	-5.16
360	130.45	127.92	132.98	-5.06
370	132.565	130.09	135.04	-4.95
380	134.64	132.22	137.06	-4.84

390	136.665	134.3	139.03	-4.73
400	138.655	136.35	140.96	-4.61

R-4160A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-58.8525	-63.831	-53.874	-9.957
10	-39.2765	-44.096	-34.457	-9.639
20	-25.2165	-29.93	-20.503	-9.427
30	-14.03015	-18.661	-9.3993	-9.2617
40	-4.638743	-9.2006	-0.076886	-9.123714
50	3.51248	-0.98884	8.0138	-9.00264
60	10.74935	6.3027	15.196	-8.8933
70	17.281	12.885	21.677	-8.792
80	23.249	18.9	27.598	-8.698
90	28.757	24.453	33.061	-8.608
100	33.88	29.619	38.141	-8.522
110	38.675	34.455	42.895	-8.44
120	43.188	39.008	47.368	-8.36
130	47.4555	43.314	51.597	-8.283
140	51.506	47.403	55.609	-8.206
150	55.364	51.298	59.43	-8.132
160	59.0495	55.02	63.079	-8.059
170	62.5805	58.587	66.574	-7.987
180	65.97	62.012	69.928	-7.916
190	69.2315	65.309	73.154	-7.845
200	72.3755	68.488	76.263	-7.775
210	75.4115	71.558	79.265	-7.707
220	78.3475	74.529	82.166	-7.637
230	81.1915	77.407	84.976	-7.569
240	83.9495	80.199	87.7	-7.501
250	86.627	82.91	90.344	-7.434
260	89.2295	85.547	92.912	-7.365
270	91.7625	88.114	95.411	-7.297
280	94.229	90.614	97.844	-7.23
290	96.6315	93.053	100.21	-7.157
300	98.981	95.432	102.53	-7.098
310	101.2685	97.757	104.78	-7.023
320	103.51	100.03	106.99	-6.96
330	105.695	102.25	109.14	-6.89
340	107.84	104.43	111.25	-6.82
350	109.935	106.56	113.31	-6.75
360	111.985	108.64	115.33	-6.69
370	113.995	110.69	117.3	-6.61
380	115.97	112.7	119.24	-6.54

390	117.905	114.67	121.14	-6.47
400	119.8	116.6	123	-6.4

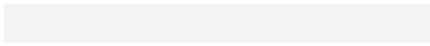
PT Format

R-32	
PRESSURE BASED PT CHART	
Pressure (psig)	Temperature (F)
0	-60.972
10	-41.623
20	-27.746
30	-16.715
40	-7.4612
50	0.56661
60	7.6908
70	14.118
80	19.99
90	25.406
100	30.443
110	35.156
120	39.591
130	43.784
140	47.763
150	51.552
160	55.171
170	58.638
180	61.965
190	65.166
200	68.251
210	71.23
220	74.111
230	76.9
240	79.605
250	82.231
260	84.784
270	87.267
280	89.685
290	92.042
300	94.341
310	96.585
320	98.778
330	100.92
340	103.02
350	105.07
360	107.08
370	109.05
380	110.98

TP Format

R-32	
PRESSURE BASED PT CHART	
Temperature (F)	Pressure (psig)
-60	0.40905
-55	2.658
-50	5.165
-45	7.9505
-40	11.035
-35	14.441
-30	18.191
-25	22.307
-20	26.815
-15	31.737
-10	37.1
-5	42.929
0	49.251
5	56.093
10	63.483
15	71.448
20	80.019
25	89.224
30	99.093
35	109.66
40	120.95
45	133
50	145.85
55	159.52
60	174.05
65	189.47
70	205.83
75	223.15
80	241.48
85	260.86
90	281.32
95	302.91
100	325.67
105	349.65
110	374.88
115	401.43
120	429.34
125	458.67

390	112.88
400	114.74



R-32 Pressure-Temperature Chart

°F	°C	R-32
-40.0	-40.0	11.0
-35.0	-37.2	14.4
-30.0	-34.4	18.2
-25.0	-31.7	22.3
-20.0	-28.9	26.8
-15.0	-26.1	31.7
-10.0	-23.3	37.1
-5.0	-20.6	42.9
0.0	-17.8	49.2
5.0	-15.0	56.1
10.0	-12.2	63.5
15.0	-9.4	71.4
20.0	-6.7	80.0
25.0	-3.9	89.2
30.0	-1.1	99.1
35.0	1.7	109.7
40.0	4.4	121.0
45.0	7.2	133.0
50.0	10.0	145.8
55.0	12.8	159.5
60.0	15.6	174.0
65.0	18.3	189.5
70.0	21.1	205.8
75.0	23.9	223.2
80.0	26.7	241.5
85.0	29.4	260.9
90.0	32.2	281.3
95.0	35.0	302.9
100.0	37.8	325.7
105.0	40.6	349.6
110.0	43.3	374.9
115.0	46.1	401.4
120.0	48.9	429.3
125.0	51.7	458.7
130.0	54.4	489.5
135.0	57.2	521.8
140.0	60.0	555.8
145.0	62.8	591.4
150.0	65.6	628.8

Black figures – psig

R-404A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-50.513	-51.189	-49.837	-1.352
10	-29.946	-30.56	-29.332	-1.228
20	-15.117	-15.691	-14.543	-1.148
30	-3.2844	-3.8283	-2.7405	-1.0878
40	6.67145	6.1516	7.1913	-1.0397
50	15.328	14.828	15.828	-1
60	23.025	22.543	23.507	-0.964
70	29.9795	29.513	30.446	-0.933
80	36.3415	35.889	36.794	-0.905
90	42.218	41.778	42.658	-0.88
100	47.687	47.259	48.115	-0.856
110	52.81	52.393	53.227	-0.834
120	57.6345	57.228	58.041	-0.813
130	62.1975	61.801	62.594	-0.793
140	66.5305	66.143	66.918	-0.775
150	70.6595	70.281	71.038	-0.757
160	74.604	74.234	74.974	-0.74
170	78.3835	78.022	78.745	-0.723
180	82.0125	81.659	82.366	-0.707
190	85.504	85.158	85.85	-0.692
200	88.87	88.532	89.208	-0.676
210	92.1205	91.79	92.451	-0.661
220	95.2635	94.94	95.587	-0.647
230	98.3075	97.991	98.624	-0.633
240	101.26	100.95	101.57	-0.62
250	104.125	103.82	104.43	-0.61
260	106.905	106.61	107.2	-0.59
270	109.615	109.33	109.9	-0.57
280	112.25	111.97	112.53	-0.56
290	114.815	114.54	115.09	-0.55
300	117.325	117.06	117.59	-0.53
310	119.77	119.51	120.03	-0.52
320	122.155	121.9	122.41	-0.51
330	124.485	124.24	124.73	-0.49
340	126.765	126.52	127.01	-0.49
350	128.995	128.76	129.23	-0.47
360	131.175	130.95	131.4	-0.45
370	133.31	133.09	133.53	-0.44
380	135.405	135.19	135.62	-0.43

390	137.455	137.25	137.66	-0.41
400	139.46	139.26	139.66	-0.4

R-407A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-43.2305	-49.003	-37.458	-11.545
10	-23.05	-28.641	-17.459	-11.182
20	-8.5382	-13.992	-3.0844	-10.9076
30	3.0189	-2.3205	8.3583	-10.6788
40	12.7298	7.4906	17.969	-10.4784
50	21.164	16.016	26.312	-10.296
60	28.657	23.592	33.722	-10.13
70	35.423	30.437	40.409	-9.972
80	41.609	36.697	46.521	-9.824
90	47.319	42.478	52.16	-9.682
100	52.6325	47.86	57.405	-9.545
110	57.6075	52.901	62.314	-9.413
120	62.2915	57.649	66.934	-9.285
130	66.7205	62.141	71.3	-9.159
140	70.926	66.408	75.444	-9.036
150	74.932	70.474	79.39	-8.916
160	78.7595	74.361	83.158	-8.797
170	82.427	78.087	86.767	-8.68
180	85.9475	81.665	90.23	-8.565
190	89.3355	85.111	93.56	-8.449
200	92.6015	88.434	96.769	-8.335
210	95.755	91.644	99.866	-8.222
220	98.805	94.75	102.86	-8.11
230	101.76	97.76	105.76	-8
240	104.625	100.68	108.57	-7.89
250	107.405	103.52	111.29	-7.77
260	110.11	106.28	113.94	-7.66
270	112.735	108.96	116.51	-7.55
280	115.3	111.58	119.02	-7.44
290	117.795	114.13	121.46	-7.33
300	120.225	116.62	123.83	-7.21
310	122.6	119.05	126.15	-7.1
320	124.925	121.43	128.42	-6.99
330	127.195	123.76	130.63	-6.87
340	129.41	126.03	132.79	-6.76
350	131.58	128.26	134.9	-6.64
360	133.71	130.45	136.97	-6.52
370	135.79	132.59	138.99	-6.4
380	137.83	134.69	140.97	-6.28

390	139.83	136.75	142.91	-6.16
400	141.795	138.77	144.82	-6.05

R-407C

PRESSURE BASED PT CHART

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-40.22	-46.518	-33.922	-12.596
10	-19.8685	-25.983	-13.754	-12.229
20	-5.23993	-11.214	0.73414	-11.94814
30	6.40683	0.54966	12.264	-11.71434
40	16.191	10.437	21.945	-11.508
50	24.687	19.026	30.348	-11.322
60	32.2335	26.659	37.808	-11.149
70	39.047	33.554	44.54	-10.986
80	45.276	39.86	50.692	-10.832
90	51.0255	45.683	56.368	-10.685
100	56.3745	51.103	61.646	-10.543
110	61.383	56.181	66.585	-10.404
120	66.0975	60.962	71.233	-10.271
130	70.556	65.486	75.626	-10.14
140	74.7885	69.783	79.794	-10.011
150	78.8205	73.878	83.763	-9.885
160	82.6725	77.792	87.553	-9.761
170	86.3625	81.544	91.181	-9.637
180	89.906	85.148	94.664	-9.516
190	93.315	88.617	98.013	-9.396
200	96.6015	91.963	101.24	-9.277
210	99.773	95.196	104.35	-9.154
220	102.842	98.324	107.36	-9.036
230	105.82	101.36	110.28	-8.92
240	108.7	104.3	113.1	-8.8
250	111.495	107.15	115.84	-8.69
260	114.215	109.93	118.5	-8.57
270	116.865	112.64	121.09	-8.45
280	119.435	115.27	123.6	-8.33
290	121.945	117.84	126.05	-8.21
300	124.395	120.35	128.44	-8.09
310	126.79	122.8	130.78	-7.98
320	129.125	125.2	133.05	-7.85
330	131.405	127.54	135.27	-7.73
340	133.64	129.83	137.45	-7.62
350	135.825	132.08	139.57	-7.49
360	137.965	134.28	141.65	-7.37
370	140.06	136.44	143.68	-7.24
380	142.11	138.55	145.67	-7.12

R-407F

PRESSURE BASED PT CHART

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-45.139	-50.896	-39.382	-11.514
10	-25.0995	-30.682	-19.517	-11.165
20	-10.6964	-16.148	-5.2448	-10.9032
30	0.7702	-4.573	6.1134	-10.6864
40	10.4021	5.1532	15.651	-10.4978
50	18.7655	13.602	23.929	-10.327
60	26.194	21.109	31.279	-10.17
70	32.9005	27.889	37.912	-10.023
80	39.031	34.089	43.973	-9.884
90	44.689	39.813	49.565	-9.752
100	49.953	45.141	54.765	-9.624
110	54.882	50.132	59.632	-9.5
120	59.5215	54.831	64.212	-9.381
130	63.9085	59.277	68.54	-9.263
140	68.0735	63.499	72.648	-9.149
150	72.041	67.523	76.559	-9.036
160	75.8315	71.369	80.294	-8.925
170	79.462	75.054	83.87	-8.816
180	82.9485	78.595	87.302	-8.707
190	86.303	82.003	90.603	-8.6
200	89.536	85.289	93.783	-8.494
210	92.659	88.465	96.853	-8.388
220	95.6785	91.537	99.82	-8.283
230	98.602	94.514	102.69	-8.176
240	101.441	97.402	105.48	-8.078
250	104.195	100.21	108.18	-7.97
260	106.87	102.94	110.8	-7.86
270	109.47	105.59	113.35	-7.76
280	112.005	108.18	115.83	-7.65
290	114.475	110.7	118.25	-7.55
300	116.885	113.16	120.61	-7.45
310	119.24	115.57	122.91	-7.34
320	121.54	117.92	125.16	-7.24
330	123.785	120.22	127.35	-7.13
340	125.98	122.47	129.49	-7.02
350	128.135	124.68	131.59	-6.91
360	130.24	126.84	133.64	-6.8
370	132.3	128.95	135.65	-6.7
380	134.32	131.03	137.61	-6.58

390	136.305	133.07	139.54	-6.47
400	138.25	135.07	141.43	-6.36

R-408A

PRESSURE BASED PT CHART

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-47.8225	-48.232	-47.413	-0.819
10	-26.8935	-27.278	-26.509	-0.769
20	-11.812	-12.178	-11.446	-0.732
30	0.218005	-0.13401	0.57002	-0.70403
40	10.33855	9.9981	10.679	-0.6809
50	19.137	18.807	19.467	-0.66
60	26.961	26.64	27.282	-0.642
70	34.0315	33.718	34.345	-0.627
80	40.5	40.194	40.806	-0.612
90	46.4755	46.176	46.775	-0.599
100	52.0385	51.745	52.332	-0.587
110	57.2505	56.963	57.538	-0.575
120	62.1595	61.877	62.442	-0.565
130	66.804	66.527	67.081	-0.554
140	71.2155	70.943	71.488	-0.545
150	75.42	75.152	75.688	-0.536
160	79.439	79.175	79.703	-0.528
170	83.29	83.03	83.55	-0.52
180	86.9895	86.734	87.245	-0.511
190	90.55	90.298	90.802	-0.504
200	93.983	93.735	94.231	-0.496
210	97.2995	97.055	97.544	-0.489
220	100.51	100.27	100.75	-0.48
230	103.615	103.38	103.85	-0.47
240	106.63	106.4	106.86	-0.46
250	109.56	109.33	109.79	-0.46
260	112.405	112.18	112.63	-0.45
270	115.175	114.95	115.4	-0.45
280	117.87	117.65	118.09	-0.44
290	120.5	120.28	120.72	-0.44
300	123.065	122.85	123.28	-0.43
310	125.57	125.36	125.78	-0.42
320	128.015	127.81	128.22	-0.41
330	130.405	130.2	130.61	-0.41
340	132.75	132.55	132.95	-0.4
350	135.04	134.84	135.24	-0.4
360	137.275	137.08	137.47	-0.39
370	139.475	139.28	139.67	-0.39
380	141.63	141.44	141.82	-0.38

390	143.74	143.55	143.93	-0.38
400	145.81	145.63	145.99	-0.36

R-410A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-60.5165	-60.587	-60.446	-0.141
10	-41.1175	-41.19	-41.045	-0.145
20	-27.1855	-27.261	-27.11	-0.151
30	-16.1	-16.178	-16.022	-0.156
40	-6.7926	-6.8733	-6.7119	-0.1614
50	1.2867	1.2035	1.3699	-0.1664
60	8.46045	8.375	8.5459	-0.1709
70	14.9355	14.848	15.023	-0.175
80	20.8535	20.764	20.943	-0.179
90	26.3145	26.223	26.406	-0.183
100	31.394	31.301	31.487	-0.186
110	36.149	36.054	36.244	-0.19
120	40.6245	40.528	40.721	-0.193
130	44.8565	44.759	44.954	-0.195
140	48.8735	48.774	48.973	-0.199
150	52.6995	52.599	52.8	-0.201
160	56.3545	56.253	56.456	-0.203
170	59.856	59.753	59.959	-0.206
180	63.2175	63.114	63.321	-0.207
190	66.4515	66.347	66.556	-0.209
200	69.569	69.464	69.674	-0.21
210	72.5795	72.474	72.685	-0.211
220	75.491	75.385	75.597	-0.212
230	78.3105	78.204	78.417	-0.213
240	81.045	80.938	81.152	-0.214
250	83.6995	83.592	83.807	-0.215
260	86.2795	86.172	86.387	-0.215
270	88.7895	88.682	88.897	-0.215
280	91.2345	91.127	91.342	-0.215
290	93.617	93.509	93.725	-0.216
300	95.9415	95.834	96.049	-0.215
310	98.2105	98.103	98.318	-0.215
320	100.425	100.32	100.53	-0.21
330	102.595	102.49	102.7	-0.21
340	104.715	104.61	104.82	-0.21
350	106.785	106.68	106.89	-0.21
360	108.825	108.72	108.93	-0.21
370	110.815	110.71	110.92	-0.21
380	112.765	112.66	112.87	-0.21

390	114.675	114.57	114.78	-0.21
400	116.555	116.45	116.66	-0.21

R-410A Pressure-Temperature Chart

°F	°C	Bubble	Dew
-40.0	-40.0	10.8	10.7
-35.0	-37.2	14.1	14.0
-30.0	-34.4	17.8	17.7
-25.0	-31.7	21.9	21.8
-20.0	-28.9	26.3	26.2
-15.0	-26.1	31.2	31.0
-10.0	-23.3	36.5	36.3
-5.0	-20.6	42.2	42.0
0.0	-17.8	48.4	48.2
5.0	-15.0	55.2	54.9
10.0	-12.2	62.4	62.2
15.0	-9.4	70.2	70.0
20.0	-6.7	78.7	78.4
25.0	-3.9	87.7	87.4
30.0	-1.1	97.4	97.0
35.0	1.7	107.7	107.3
40.0	4.4	118.8	118.4
45.0	7.2	130.6	130.1
50.0	10.0	143.2	142.6
55.0	12.8	156.5	156.0
60.0	15.6	170.7	170.1
65.0	18.3	185.8	185.1
70.0	21.1	201.8	201.1
75.0	23.9	218.7	217.9
80.0	26.7	236.5	235.8
85.0	29.4	255.4	254.6
90.0	32.2	275.4	274.5
95.0	35.0	296.4	295.5
100.0	37.8	318.5	317.6
105.0	40.6	341.9	340.9
110.0	43.3	366.4	365.4
115.0	46.1	392.3	391.2
120.0	48.9	419.4	418.3
125.0	51.7	447.9	446.8
130.0	54.4	477.9	476.8
135.0	57.2	509.4	508.3
140.0	60.0	542.5	541.4
145.0	62.8	577.3	576.3
150.0	65.6	613.9	613.0

Black figures – psig

Blue figures – inches mercury vacuu

R-421A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-36.4365	-41.221	-31.652	-9.569
10	-15.6995	-20.22	-11.179	-9.041
20	-0.76765	-5.0919	3.5566	-8.6485
30	11.13555	6.9721	15.299	-8.3269
40	21.1445	17.119	25.17	-8.051
50	29.8435	25.94	33.747	-7.807
60	37.5755	33.782	41.369	-7.587
70	44.56	40.868	48.252	-7.384
80	50.948	47.349	54.547	-7.198
90	56.8465	53.335	60.358	-7.023
100	62.3355	58.907	65.764	-6.857
110	67.477	64.127	70.827	-6.7
120	72.318	69.043	75.593	-6.55
130	76.8965	73.693	80.1	-6.407
140	81.2435	78.109	84.378	-6.269
150	85.3855	82.318	88.453	-6.135
160	89.343	86.34	92.346	-6.006
170	93.134	90.194	96.074	-5.88
180	96.7745	93.895	99.654	-5.759
190	100.279	97.458	103.1	-5.642
200	103.65	100.89	106.41	-5.52
210	106.915	104.21	109.62	-5.41
220	110.065	107.42	112.71	-5.29
230	113.12	110.53	115.71	-5.18
240	116.08	113.54	118.62	-5.08
250	118.955	116.47	121.44	-4.97
260	121.75	119.32	124.18	-4.86
270	124.465	122.09	126.84	-4.75
280	127.11	124.79	129.43	-4.64
290	129.685	127.41	131.96	-4.55
300	132.2	129.98	134.42	-4.44
310	134.65	132.48	136.82	-4.34
320	137.045	134.93	139.16	-4.23
330	139.385	137.32	141.45	-4.13
340	141.675	139.66	143.69	-4.03
350	143.915	141.95	145.88	-3.93
360	146.105	144.2	148.01	-3.81
370	148.25	146.39	150.11	-3.72
380	150.35	148.55	152.15	-3.6
390	152.41	150.66	154.16	-3.5
400	154.425	152.73	156.12	-3.39

R-422B**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-37.4685	-42.353	-32.584	-9.769
10	-16.669	-21.21	-12.128	-9.082
20	-1.6888	-5.9848	2.6072	-8.592
30	10.25615	6.1543	14.358	-8.2037
40	20.3025	16.363	24.242	-7.879
50	29.035	25.237	32.833	-7.596
60	36.798	33.125	40.471	-7.346
70	43.812	40.252	47.372	-7.12
80	50.227	46.771	53.683	-6.912
90	56.1525	52.792	59.513	-6.721
100	61.666	58.395	64.937	-6.542
110	66.831	63.644	70.018	-6.374
120	71.695	68.587	74.803	-6.216
130	76.2955	73.263	79.328	-6.065
140	80.664	77.704	83.624	-5.92
150	84.826	81.935	87.717	-5.782
160	88.8035	85.979	91.628	-5.649
170	92.614	89.854	95.374	-5.52
180	96.2735	93.576	98.971	-5.395
190	99.7935	97.157	102.43	-5.273
200	103.19	100.61	105.77	-5.16
210	106.47	103.95	108.99	-5.04
220	109.635	107.17	112.1	-4.93
230	112.71	110.3	115.12	-4.82
240	115.685	113.33	118.04	-4.71
250	118.57	116.27	120.87	-4.6
260	121.38	119.13	123.63	-4.5
270	124.115	121.92	126.31	-4.39
280	126.775	124.63	128.92	-4.29
290	129.365	127.27	131.46	-4.19
300	131.89	129.85	133.93	-4.08
310	134.355	132.36	136.35	-3.99
320	136.765	134.82	138.71	-3.89
330	139.12	137.23	141.01	-3.78
340	141.42	139.58	143.26	-3.68
350	143.67	141.88	145.46	-3.58
360	145.875	144.13	147.62	-3.49
370	148.03	146.34	149.72	-3.38
380	150.14	148.5	151.78	-3.28

390	152.21	150.62	153.8	-3.18
400	154.24	152.7	155.78	-3.08

R-422D**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-41.3775	-45.751	-37.004	-8.747
10	-20.765	-24.814	-16.716	-8.098
20	-5.9096	-9.7305	-2.0887	-7.6418
30	5.9408	2.2992	9.5824	-7.2832
40	15.911	12.419	19.403	-6.984
50	24.58	21.216	27.944	-6.728
60	32.288	29.038	35.538	-6.5
70	39.253	36.105	42.401	-6.296
80	45.6255	42.571	48.68	-6.109
90	51.5105	48.542	54.479	-5.937
100	56.989	54.101	59.877	-5.776
110	62.121	59.308	64.934	-5.626
120	66.9545	64.213	69.696	-5.483
130	71.5265	68.852	74.201	-5.349
140	75.868	73.258	78.478	-5.22
150	80.005	77.457	82.553	-5.096
160	83.9585	81.47	86.447	-4.977
170	87.7465	85.315	90.178	-4.863
180	91.3845	89.009	93.76	-4.751
190	94.885	92.563	97.207	-4.644
200	98.26	95.99	100.53	-4.54
210	101.52	99.3	103.74	-4.44
220	104.67	102.5	106.84	-4.34
230	107.72	105.6	109.84	-4.24
240	110.68	108.61	112.75	-4.14
250	113.555	111.53	115.58	-4.05
260	116.345	114.37	118.32	-3.95
270	119.065	117.14	120.99	-3.85
280	121.71	119.83	123.59	-3.76
290	124.285	122.45	126.12	-3.67
300	126.8	125.01	128.59	-3.58
310	129.255	127.51	131	-3.49
320	131.65	129.95	133.35	-3.4
330	133.99	132.33	135.65	-3.32
340	136.28	134.67	137.89	-3.22
350	138.515	136.95	140.08	-3.13
360	140.705	139.18	142.23	-3.05
370	142.845	141.37	144.32	-2.95
380	144.95	143.52	146.38	-2.86

390	147.01	145.63	148.39	-2.76
400	149.025	147.69	150.36	-2.67

R-434A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-46.5665	-49.062	-44.071	-4.991
10	-26.0535	-28.344	-23.763	-4.581
20	-11.26055	-13.412	-9.1091	-4.3029
30	0.5451	-1.4997	2.5899	-4.0896
40	10.4801	8.5222	12.438	-3.9158
50	19.12	17.236	21.004	-3.768
60	26.8035	24.984	28.623	-3.639
70	33.747	31.985	35.509	-3.524
80	40.1	38.391	41.809	-3.418
90	45.968	44.307	47.629	-3.322
100	51.4305	49.814	53.047	-3.233
110	56.548	54.973	58.123	-3.15
120	61.367	59.831	62.903	-3.072
130	65.9255	64.427	67.424	-2.997
140	70.255	68.792	71.718	-2.926
150	74.38	72.951	75.809	-2.858
160	78.3225	76.926	79.719	-2.793
170	82.099	80.734	83.464	-2.73
180	85.7265	84.392	87.061	-2.669
190	89.2165	87.912	90.521	-2.609
200	92.5815	91.306	93.857	-2.551
210	95.8305	94.583	97.078	-2.495
220	98.9715	97.753	100.19	-2.437
230	102.015	100.82	103.21	-2.39
240	104.965	103.8	106.13	-2.33
250	107.83	106.69	108.97	-2.28
260	110.615	109.5	111.73	-2.23
270	113.325	112.24	114.41	-2.17
280	115.96	114.9	117.02	-2.12
290	118.525	117.49	119.56	-2.07
300	121.03	120.02	122.04	-2.02
310	123.475	122.49	124.46	-1.97
320	125.87	124.91	126.83	-1.92
330	128.195	127.26	129.13	-1.87
340	130.48	129.57	131.39	-1.82
350	132.71	131.83	133.59	-1.76
360	134.89	134.03	135.75	-1.72
370	137.03	136.2	137.86	-1.66
380	139.12	138.32	139.92	-1.6
390	141.17	140.39	141.95	-1.56
400	143.18	142.43	143.93	-1.5

R-438A

PRESSURE BASED PT CHART

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-38.611	-44.181	-33.041	-11.14
10	-18.0155	-23.384	-12.647	-10.737
20	-3.1924	-8.4102	2.0254	-10.4356
30	8.6203	3.5276	13.713	-10.1854
40	18.551	13.567	23.535	-9.968
50	27.18	22.294	32.066	-9.772
60	34.8485	30.053	39.644	-9.591
70	41.775	37.063	46.487	-9.424
80	48.109	43.477	52.741	-9.264
90	53.958	49.401	58.515	-9.114
100	59.4005	54.916	63.885	-8.969
110	64.4975	60.083	68.912	-8.829
120	69.2965	64.95	73.643	-8.693
130	73.836	69.556	78.116	-8.56
140	78.1455	73.93	82.361	-8.431
150	82.252	78.1	86.404	-8.304
160	86.1755	82.086	90.265	-8.179
170	89.9345	85.906	93.963	-8.057
180	93.544	89.577	97.511	-7.934
190	97.015	93.11	100.92	-7.81
200	100.364	96.518	104.21	-7.692
210	103.6	99.81	107.39	-7.58
220	106.725	103	110.45	-7.45
230	109.75	106.08	113.42	-7.34
240	112.69	109.08	116.3	-7.22
250	115.54	111.99	119.09	-7.1
260	118.315	114.82	121.81	-6.99
270	121.005	117.57	124.44	-6.87
280	123.63	120.25	127.01	-6.76
290	126.19	122.87	129.51	-6.64
300	128.68	125.42	131.94	-6.52
310	131.12	127.92	134.32	-6.4
320	133.495	130.35	136.64	-6.29
330	135.82	132.74	138.9	-6.16
340	138.09	135.07	141.11	-6.04
350	140.31	137.35	143.27	-5.92
360	142.49	139.59	145.39	-5.8
370	144.62	141.79	147.45	-5.66
380	146.71	143.94	149.48	-5.54

390	148.755	146.05	151.46	-5.41
400	150.76	148.12	153.4	-5.28

R-453A				
PRESSURE BASED PT CHART				
Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	0			0
10	-16.8645	-23.221	-10.508	-12.713
20	-2.05055	-8.2807	4.1796	-12.4603
30	9.74025	3.6215	15.859	-12.2375
40				
50	28.248	22.319	34.177	-11.858
60	35.889	30.044	41.734	-11.69
70	42.789	37.023	48.555	-11.532
80	49.096	43.406	54.786	-11.38
90	54.918	49.301	60.535	-11.234
100	60.335	54.789	65.881	-11.092
110	65.407	59.929	70.885	-10.956
120	70.1815	64.771	75.592	-10.821
130	74.697	69.353	80.041	-10.688
140	78.9835	73.704	84.263	-10.559
150	83.067	77.853	88.281	-10.428
160	86.969	81.819	92.119	-10.3
170	90.7065	85.619	95.794	-10.175
180	94.2945	89.27	99.319	-10.049
190	97.7475	92.785	102.71	-9.925
200	101.0775	96.175	105.98	-9.805
210	104.2905	99.451	109.13	-9.679
220	107.395	102.62	112.17	-9.55
230	110.405	105.69	115.12	-9.43
240	113.325	108.67	117.98	-9.31
250	116.16	111.57	120.75	-9.18
260	118.915	114.39	123.44	-9.05
270	121.595	117.13	126.06	-8.93
280	124.2	119.8	128.6	-8.8
290	126.74	122.4	131.08	-8.68
300	129.225	124.95	133.5	-8.55
310	131.64	127.43	135.85	-8.42
320	134.005	129.86	138.15	-8.29
330	136.32	132.24	140.4	-8.16
340	138.575	134.56	142.59	-8.03
350	140.79	136.84	144.74	-7.9
360	142.955	139.07	146.84	-7.77
370	145.075	141.26	148.89	-7.63
380	147.155	143.41	150.9	-7.49
390	149.185	145.51	152.86	-7.35
400	151.185	147.58	154.79	-7.21

453A Pressure-Temperature Chart			
°F	°C	Bubble	Dew
-40.0	-40.0	1.8	6.1
-35.0	-37.2	5.8	0.0
-30.0	-34.4	11.0	4.2
-25.0	-31.7	16.6	8.6
-20.0	-28.9	23.8	14.6
-15.0	-26.1	31.3	20.7
-10.0	-23.3	40.9	29.0
-5.0	-20.6	50.9	37.2
0.0	-17.8	63.4	48.2
5.0	-15.0	76.2	59.0
10.0	-12.2	92.2	73.5
15.0	-9.4	108.2	87.3
20.0	-6.7	47.2	34.0
25.0	-3.9	53.3	39.3
30.0	-1.1	59.9	44.9
35.0	1.7	67.0	51.0
40.0	4.4	74.6	57.6
45.0	7.2	82.6	64.7
50.0	10.0	91.2	72.2
55.0	12.8	100.4	80.4
60.0	15.6	110.1	89.0
65.0	18.3	120.5	98.3
70.0	21.1	131.5	108.2
75.0	23.9	143.1	118.7
80.0	26.7	155.4	129.9
85.0	29.4	168.3	141.8
90.0	32.2	181.8	155.3
95.0	35.0	196.5	167.8
100.0	37.8	211.7	182.0
105.0	40.6	227.7	197.0
110.0	43.3	244.5	212.8
115.0	46.1	262.2	229.6
120.0	48.9	280.8	247.3
125.0	51.7	300.2	265.9
130.0	54.4	320.6	285.6
135.0	57.2	341.9	306.3
140.0	60.0	364.2	328.2
145.0	62.8	387.6	351.2
150.0	65.6	411.9	375.5

Black figures – psig
Blue figures – inches mercury vacuum

R-454A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-49.002	-54.121	-43.883	-10.238
10	-28.62	-33.767	-23.473	-10.294
20	-13.9549	-19.111	-8.7988	-10.3122
30	-2.2712	-7.4266	2.8842	-10.3108
40	7.54915	2.4013	12.697	-10.2957
50	16.081	10.945	21.217	-10.272
60	23.662	18.542	28.782	-10.24
70	30.5085	25.408	35.609	-10.201
80	36.769	31.69	41.848	-10.158
90	42.549	37.494	47.604	-10.11
100	47.927	42.898	52.956	-10.058
110	52.964	47.963	57.965	-10.002
120	57.7055	52.734	62.677	-9.943
130	62.1905	57.25	67.131	-9.881
140	66.4485	61.541	71.356	-9.815
150	70.505	65.631	75.379	-9.748
160	74.3805	69.542	79.219	-9.677
170	78.094	73.292	82.896	-9.604
180	81.659	76.895	86.423	-9.528
190	85.0895	80.365	89.814	-9.449
200	88.3965	83.712	93.081	-9.369
210	91.59	86.947	96.233	-9.286
220	94.6785	90.078	99.279	-9.201
230	97.6715	93.113	102.23	-9.117
240	100.569	96.058	105.08	-9.022
250	103.385	98.92	107.85	-8.93
260	106.12	101.7	110.54	-8.84
270	108.785	104.41	113.16	-8.75
280	111.38	107.06	115.7	-8.64
290	113.905	109.63	118.18	-8.55
300	116.37	112.15	120.59	-8.44
310	118.775	114.61	122.94	-8.33
320	121.125	117.01	125.24	-8.23
330	123.42	119.36	127.48	-8.12
340	125.665	121.66	129.67	-8.01
350	127.865	123.92	131.81	-7.89
360	130.015	126.13	133.9	-7.77
370	132.125	128.3	135.95	-7.65
380	134.19	130.43	137.95	-7.52

390	136.22	132.52	139.92	-7.4
400	138.205	134.57	141.84	-7.27

R-454A Pressure-Temperature Chart

°F	°C	Bubble	Dew
-40.0	-40.0	6.5	1.6
-35.0	-37.2	9.3	3.9
-30.0	-34.4	12.3	6.4
-25.0	-31.7	15.7	9.1
-20.0	-28.9	19.3	12.1
-15.0	-26.1	23.3	15.5
-10.0	-23.3	27.6	19.1
-5.0	-20.6	32.3	23.0
0.0	-17.8	37.4	27.3
5.0	-15.0	42.9	32.0
10.0	-12.2	48.8	37.1
15.0	-9.4	55.2	42.6
20.0	-6.7	62.0	48.5
25.0	-3.9	69.4	54.9
30.0	-1.1	77.2	61.7
35.0	1.7	85.6	69.1
40.0	4.4	94.6	76.9
45.0	7.2	104.1	85.4
50.0	10.0	114.2	94.4
55.0	12.8	125.0	104.0
60.0	15.6	136.4	114.3
65.0	18.3	148.4	125.2
70.0	21.1	161.2	136.7
75.0	23.9	174.7	149.0
80.0	26.7	188.9	162.1
85.0	29.4	203.9	175.9
90.0	32.2	219.8	190.6
95.0	35.0	236.4	206.1
100.0	37.8	253.9	222.4
105.0	40.6	272.2	239.7
110.0	43.3	291.4	258.0
115.0	46.1	311.6	277.2
120.0	48.9	332.8	297.5
125.0	51.7	354.9	319.0
130.0	54.4	378.0	341.5
135.0	57.2	402.1	365.3
140.0	60.0	427.4	390.4
145.0	62.8	453.7	416.9
150.0	65.6	481.1	444.8

Black figures – psig

Blue figures – inches mercury vacuum

R-454B				
PRESSURE BASED PT CHART				
Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-57.9875	-58.89	-57.085	-1.805
10	-38.271	-39.233	-37.309	-1.924
20	-24.11	-25.115	-23.105	-2.01
30	-12.8425	-13.882	-11.803	-2.079
40	-3.38235	-4.4491	-2.3156	-2.1335
50	4.82905	3.7393	5.9188	-2.1795
60	12.12	11.011	13.229	-2.218
70	18.7005	17.575	19.826	-2.251
80	24.714	23.574	25.854	-2.28
90	30.263	29.111	31.415	-2.304
100	35.4245	34.262	36.587	-2.325
110	40.256	39.085	41.427	-2.342
120	44.8035	43.625	45.982	-2.357
130	49.1025	47.918	50.287	-2.369
140	53.1835	51.994	54.373	-2.379
150	57.0705	55.877	58.264	-2.387
160	60.7835	59.587	61.98	-2.393
170	64.34	63.141	65.539	-2.398
180	67.754	66.554	68.954	-2.4
190	71.0395	69.839	72.24	-2.401
200	74.2055	73.005	75.406	-2.401
210	77.2625	76.063	78.462	-2.399
220	80.2195	79.022	81.417	-2.395
230	83.0825	81.887	84.278	-2.391
240	85.859	84.666	87.052	-2.386
250	88.5545	87.365	89.744	-2.379
260	91.174	89.988	92.36	-2.372
270	93.7225	92.541	94.904	-2.363
280	96.2045	95.028	97.381	-2.353
290	98.6235	97.453	99.794	-2.341
300	100.984	99.818	102.15	-2.332
310	103.285	102.13	104.44	-2.31
320	105.54	104.39	106.69	-2.3
330	107.735	106.59	108.88	-2.29
340	109.885	108.75	111.02	-2.27
350	111.995	110.87	113.12	-2.25
360	114.06	112.94	115.18	-2.24
370	116.08	114.97	117.19	-2.22
380	118.06	116.96	119.16	-2.2
390	120	118.91	121.09	-2.18
400	121.91	120.83	122.99	-2.16

R-454B Pressure-Temperature Chart			
°F	°C	Bubble	Dew
-40.0	-40.0	9.5	8.4
-35.0	-37.2	12.7	11.4
-30.0	-34.4	16.2	14.8
-25.0	-31.7	20.1	18.5
-20.0	-28.9	24.3	22.6
-15.0	-26.1	28.9	27.0
-10.0	-23.3	33.9	31.8
-5.0	-20.6	39.4	37.0
0.0	-17.8	45.3	42.7
5.0	-15.0	51.7	48.8
10.0	-12.2	58.5	55.4
15.0	-9.4	66.0	62.6
20.0	-6.7	73.9	70.3
25.0	-3.9	82.5	78.5
30.0	-1.1	91.7	87.4
35.0	1.7	101.5	96.9
40.0	4.4	112.0	107.0
45.0	7.2	123.1	117.8
50.0	10.0	135.0	129.3
55.0	12.8	147.7	141.6
60.0	15.6	161.1	154.6
65.0	18.3	175.4	168.5
70.0	21.1	190.5	183.1
75.0	23.9	206.5	198.7
80.0	26.7	223.4	215.2
85.0	29.4	241.2	232.6
90.0	32.2	260.1	251.0
95.0	35.0	279.9	270.4
100.0	37.8	300.8	290.9
105.0	40.6	322.8	312.5
110.0	43.3	345.9	335.2
115.0	46.1	370.2	359.1
120.0	48.9	395.7	384.3
125.0	51.7	422.4	410.8
130.0	54.4	450.5	438.7
135.0	57.2	479.9	468.0
140.0	60.0	510.7	498.8
145.0	62.8	543.0	531.3
150.0	65.6	576.8	565.4

Black figures – psig

Blue figures – inches mercury vacuum

R-454C**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-42.9805	-50.006	-35.955	-14.051
10	-22.0015	-29.071	-14.932	-14.139
20	-6.8948	-13.972	0.1824	-14.1544
30	5.14815	-1.9187	12.215	-14.1337
40	15.2751	8.2292	22.321	-14.0918
50	24.0765	17.059	31.094	-14.035
60	31.9	24.916	38.884	-13.968
70	38.9675	32.021	45.914	-13.893
80	45.4315	38.527	52.336	-13.809
90	51.4015	44.541	58.262	-13.721
100	56.957	50.144	63.77	-13.626
110	62.161	55.397	68.925	-13.528
120	67.061	60.349	73.773	-13.424
130	71.6965	65.038	78.355	-13.317
140	76.098	69.495	82.701	-13.206
150	80.291	73.745	86.837	-13.092
160	84.298	77.811	90.785	-12.974
170	88.1375	81.711	94.564	-12.853
180	91.8245	85.46	98.189	-12.729
190	95.3705	89.071	101.67	-12.599
200	98.793	92.556	105.03	-12.474
210	102.0925	95.925	108.26	-12.335
220	105.2885	99.187	111.39	-12.203
230	108.38	102.35	114.41	-12.06
240	111.38	105.42	117.34	-11.92
250	114.295	108.41	120.18	-11.77
260	117.125	111.31	122.94	-11.63
270	119.88	114.14	125.62	-11.48
280	122.56	116.9	128.22	-11.32
290	125.175	119.59	130.76	-11.17
300	127.725	122.22	133.23	-11.01
310	130.21	124.79	135.63	-10.84
320	132.64	127.3	137.98	-10.68
330	135.015	129.76	140.27	-10.51
340	137.335	132.17	142.5	-10.33
350	139.61	134.53	144.69	-10.16
360	141.83	136.84	146.82	-9.98
370	144.015	139.12	148.91	-9.79
380	146.145	141.35	150.94	-9.59

390	148.24	143.54	152.94	-9.4
400	150.29	145.69	154.89	-9.2

R-454C Pressure-Temperature Chart

°F	°C	Bubble	Dew
-40.0	-40.0	4.3	3.0
-35.0	-37.2	6.8	0.4
-30.0	-34.4	9.5	2.4
-25.0	-31.7	12.4	4.7
-20.0	-28.9	15.7	7.2
-15.0	-26.1	19.2	10.0
-10.0	-23.3	23.1	13.0
-5.0	-20.6	27.3	16.3
0.0	-17.8	31.8	19.9
5.0	-15.0	36.7	23.8
10.0	-12.2	41.9	28.0
15.0	-9.4	47.6	32.6
20.0	-6.7	53.6	37.6
25.0	-3.9	60.1	42.9
30.0	-1.1	67.1	48.7
35.0	1.7	74.5	54.9
40.0	4.4	82.4	61.5
45.0	7.2	90.8	68.6
50.0	10.0	99.7	76.3
55.0	12.8	109.2	84.4
60.0	15.6	119.3	93.1
65.0	18.3	129.9	102.3
70.0	21.1	141.2	112.2
75.0	23.9	153.0	122.6
80.0	26.7	165.6	133.7
85.0	29.4	178.8	145.5
90.0	32.2	192.6	158.0
95.0	35.0	207.2	171.2
100.0	37.8	222.5	185.2
105.0	40.6	238.6	199.9
110.0	43.3	255.5	215.5
115.0	46.1	273.1	232.0
120.0	48.9	291.6	249.3
125.0	51.7	310.8	267.7
130.0	54.4	331.0	287.0
135.0	57.2	352.0	307.4
140.0	60.0	373.9	328.8
145.0	62.8	396.8	351.5
150.0	65.6	420.6	375.3

Black figures – psig

Blue figures – inches mercury vacuum

R-470A				
PRESSURE BASED PT CHART				
Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-56.4055	-80.797	-32.014	-48.783
10	-36.263	-60.428	-12.098	-48.33
20	-21.7385	-45.675	2.198	-47.873
30	-10.156	-33.859	13.547	-47.406
40	-0.4085	-23.884	23.067	-46.951
50	8.0685	-15.183	31.32	-46.503
60	15.60745	-7.4231	38.638	-46.0611
70	22.42131	-0.39138	45.234	-45.62538
80	28.65645	6.0589	51.254	-45.1951
90	34.417	12.032	56.802	-44.77
100	39.781	17.607	61.955	-44.348
110	44.807	22.842	66.772	-43.93
120	49.5425	27.785	71.3	-43.515
130	54.0235	32.472	75.575	-43.103
140	58.281	36.935	79.627	-42.692
150	62.339	41.197	83.481	-42.284
160	66.219	45.28	87.158	-41.878
170	69.9385	49.202	90.675	-41.473
180	73.5115	52.977	94.046	-41.069
190	76.952	56.619	97.285	-40.666
200	80.2695	60.139	100.4	-40.261
210	83.478	63.546	103.41	-39.864
220	86.58	66.85	106.31	-39.46
230	89.584	70.058	109.11	-39.052
240	92.503	73.176	111.83	-38.654
250	95.336	76.212	114.46	-38.248
260	98.095	79.17	117.02	-37.85
270	100.7775	82.055	119.5	-37.445
280	103.3905	84.871	121.91	-37.039
290	105.942	87.624	124.26	-36.636
300	108.428	90.316	126.54	-36.224
310	110.8605	92.951	128.77	-35.819
320	113.2355	95.531	130.94	-35.409
330	115.5605	98.061	133.06	-34.999
340	117.83	100.54	135.12	-34.58
350	120.06	102.98	137.14	-34.16
360	122.245	105.37	139.12	-33.75
370	124.38	107.72	141.04	-33.32
380	126.48	110.03	142.93	-32.9
390	128.535	112.3	144.77	-32.47
400	130.555	114.53	146.58	-32.05

R-470A Pressure-Temperature Chart			
°F	°C	Bubble	Dew
-40.0	-40.0	39.3	11.7
-35.0	-37.2	43.6	13.5
-30.0	-34.4	48.4	15.5
-25.0	-31.7	53.5	17.8
-20.0	-28.9	59.0	20.2
-15.0	-26.1	64.9	23.0
-10.0	-23.3	71.3	26.0
-5.0	-20.6	78.0	29.3
0.0	-17.8	85.3	33.0
5.0	-15.0	93.0	37.0
10.0	-12.2	101.2	41.4
15.0	-9.4	109.9	46.1
20.0	-6.7	119.2	51.3
25.0	-3.9	129.0	56.9
30.0	-1.1	139.4	63.0
35.0	1.7	150.3	69.6
40.0	4.4	161.8	76.7
45.0	7.2	174.0	84.3
50.0	10.0	186.8	92.5
55.0	12.8	200.2	101.4
60.0	15.6	214.3	110.8
65.0	18.3	229.1	120.9
70.0	21.1	244.5	131.8
75.0	23.9	260.7	143.3
80.0	26.7	277.6	155.6
85.0	29.4	295.2	168.8
90.0	32.2	313.5	182.7
95.0	35.0	332.6	197.6
100.0	37.8	352.5	213.4
105.0	40.6	373.2	230.1
110.0	43.3	394.6	247.9
115.0	46.1	416.8	266.8
120.0	48.9	439.8	286.8
125.0	51.7	463.6	307.9
130.0	54.4	488.3	330.3
135.0	57.2	513.6	354.1
140.0	60.0	539.8	379.3
145.0	62.8	566.7	405.9
150.0	65.6	594.3	434.2

Black figures – psig

R-470B				
PRESSURE BASED PT CHART				
Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-51.802	-79.038	-24.566	-54.472
10	-31.218	-58.292	-4.144	-54.148
20	-16.3615	-43.232	10.509	-53.741
30	-4.496	-31.148	22.156	-53.304
40	5.491	-20.93	31.912	-52.842
50	14.182	-12.008	40.372	-52.38
60	21.9159	-4.0412	47.873	-51.9142
70	28.90915	3.1853	54.633	-51.4477
80	35.3107	9.8204	60.801	-50.9806
90	41.228	15.97	66.486	-50.516
100	46.7395	21.714	71.765	-50.051
110	51.906	27.113	76.699	-49.586
120	56.7745	32.213	81.336	-49.123
130	61.384	37.054	85.714	-48.66
140	65.7635	41.664	89.863	-48.199
150	69.94	46.071	93.809	-47.738
160	73.934	50.296	97.572	-47.276
170	77.763	54.356	101.17	-46.814
180	81.443	58.266	104.62	-46.354
190	84.9855	62.041	107.93	-45.889
200	88.405	65.69	111.12	-45.43
210	91.708	69.226	114.19	-44.964
220	94.9075	72.655	117.16	-44.505
230	98.0085	75.987	120.03	-44.043
240	101.0135	79.227	122.8	-43.573
250	103.9365	82.383	125.49	-43.107
260	106.7795	85.459	128.1	-42.641
270	109.5505	88.461	130.64	-42.179
280	112.247	91.394	133.1	-41.706
290	114.8755	94.261	135.49	-41.229
300	117.448	97.066	137.83	-40.764
310	119.9565	99.813	140.1	-40.287
320	122.405	102.5	142.31	-39.81
330	124.805	105.14	144.47	-39.33
340	127.155	107.73	146.58	-38.85
350	129.455	110.28	148.63	-38.35
360	131.71	112.78	150.64	-37.86
370	133.915	115.23	152.6	-37.37
380	136.085	117.65	154.52	-36.87
390	138.21	120.02	156.4	-36.38
400	140.295	122.36	158.23	-35.87


470B Pressure-Temperature Chart			
°F	°C	Bubble	Dew
-40.0	-40.0	22.5	10.5
-35.0	-37.2	26.6	7.5
-30.0	-34.4	31.0	4.1
-25.0	-31.7	35.8	0.4
-20.0	-28.9	41.0	1.9
-15.0	-26.1	46.5	4.2
-10.0	-23.3	52.4	6.7
-5.0	-20.6	58.7	9.5
0.0	-17.8	65.5	12.6
5.0	-15.0	72.7	15.9
10.0	-12.2	80.3	19.6
15.0	-9.4	88.4	23.6
20.0	-6.7	96.9	28.0
25.0	-3.9	106.0	32.7
30.0	-1.1	115.6	37.9
35.0	1.7	125.7	43.5
40.0	4.4	136.3	49.5
45.0	7.2	147.5	56.0
50.0	10.0	159.3	63.0
55.0	12.8	171.6	70.6
60.0	15.6	184.6	78.6
65.0	18.3	198.1	87.3
70.0	21.1	212.2	96.6
75.0	23.9	227.0	106.5
80.0	26.7	242.4	117.1
85.0	29.4	258.5	128.3
90.0	32.2	275.2	140.3
95.0	35.0	292.6	153.1
100.0	37.8	310.7	166.7
105.0	40.6	329.5	181.1
110.0	43.3	348.9	196.4
115.0	46.1	369.1	212.7
120.0	48.9	389.9	229.9
125.0	51.7	411.5	248.1
130.0	54.4	433.7	267.5
135.0	57.2	456.7	287.9
140.0	60.0	480.3	309.6
145.0	62.8	504.6	332.5
150.0	65.6	529.6	356.8

Black figures – psig

Blue figures – inches mercury vacuum

R-480A**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-29.3701	-51.755	-6.9852	-44.7698
10	-6.4275	-27.956	15.101	-43.057
20	10.137	-10.71	30.984	-41.694
30	23.36345	3.0999	43.627	-40.5271
40	34.498	14.752	54.244	-39.492
50	44.1835	24.908	63.459	-38.551
60	52.7975	33.957	71.638	-37.681
70	60.585	42.151	79.019	-36.868
80	67.71	49.66	85.76	-36.1
90	74.2925	56.607	91.978	-35.371
100	80.4215	63.085	97.758	-34.673
110	86.1665	69.163	103.17	-34.007
120	91.5725	74.895	108.25	-33.355
130	96.693	80.326	113.06	-32.734
140	101.551	85.492	117.61	-32.118
150	106.1855	90.421	121.95	-31.529
160	110.6145	95.139	126.09	-30.951
170	114.858	99.666	130.05	-30.384
180	118.93	104.02	133.84	-29.82
190	122.855	108.22	137.49	-29.27
200	126.64	112.27	141.01	-28.74
210	130.29	116.18	144.4	-28.22
220	133.825	119.98	147.67	-27.69
230	137.245	123.66	150.83	-27.17
240	140.57	127.24	153.9	-26.66
250	143.79	130.71	156.87	-26.16
260	146.925	134.1	159.75	-25.65
270	149.97	137.39	162.55	-25.16
280	152.945	140.61	165.28	-24.67
290	155.84	143.75	167.93	-24.18
300	158.66	146.82	170.5	-23.68
310	161.42	149.82	173.02	-23.2
320	164.115	152.76	175.47	-22.71
330	166.74	155.63	177.85	-22.22
340	169.315	158.45	180.18	-21.73
350	171.835	161.21	182.46	-21.25
360	174.3	163.92	184.68	-20.76
370	176.715	166.58	186.85	-20.27
380	179.08	169.19	188.97	-19.78
390	181.405	171.76	191.05	-19.29
400	183.685	174.29	193.08	-18.79

	CR480			
	PRESSURE BASED PT CHART			
	Temperature			
	°F			
Pressure (psig)	Average	Bubble	Dew	Glide
0	-21.92645	-38.699	-5.1539	-33.5451
10	1.343	-14.469	17.155	-31.624
20	18.0987	2.9904	33.207	-30.2166
30	31.4535	16.915	45.992	-29.077
40	42.6795	28.627	56.732	-28.105
50	52.4345	38.81	66.059	-27.249
60	61.1025	47.864	74.341	-26.477
70	68.932	56.047	81.817	-25.77
80	76.0905	63.533	88.648	-25.115
90	82.7	70.449	94.951	-24.502
100	88.8495	76.889	100.81	-23.921
110	94.6115	82.923	106.3	-23.377
120	100.034	88.608	111.46	-22.852
130	105.159	93.988	116.33	-22.342
140	110.03	99.1	120.96	-21.86
150	114.665	103.97	125.36	-21.39
160	119.1	108.63	129.57	-20.94
170	123.345	113.1	133.59	-20.49
180	127.42	117.39	137.45	-20.06
190	131.345	121.52	141.17	-19.65
200	135.125	125.51	144.74	-19.23
210	138.775	129.36	148.19	-18.83
220	142.305	133.09	151.52	-18.43
230	145.72	136.7	154.74	-18.04
240	149.04	140.21	157.87	-17.66
250	152.255	143.62	160.89	-17.27
260	155.38	146.93	163.83	-16.9
270	158.425	150.16	166.69	-16.53
280	161.385	153.31	169.46	-16.15
290	164.27	156.37	172.17	-15.8
300	167.085	159.37	174.8	-15.43
310	169.83	162.3	177.36	-15.06
320	172.515	165.16	179.87	-14.71
330	175.135	167.96	182.31	-14.35
340	177.695	170.7	184.69	-13.99
350	180.205	173.39	187.02	-13.63
360	182.655	176.02	189.29	-13.27
370	185.06	178.61	191.51	-12.9
380	187.41	181.14	193.68	-12.54
390	189.72	183.63	195.81	-12.18
400	191.98	186.08	197.88	-11.8

R-507A

PRESSURE BASED PT CHART

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-52.1235	-52.124	-52.123	-0.001
10	-31.5865	-31.59	-31.583	-0.007
20	-16.7805	-16.787	-16.774	-0.013
30	-4.9687	-4.9781	-4.9593	-0.0188
40	4.96955	4.9575	4.9816	-0.0241
50	13.6105	13.596	13.625	-0.029
60	21.2925	21.276	21.309	-0.033
70	28.2345	28.216	28.253	-0.037
80	34.585	34.565	34.605	-0.04
90	40.4495	40.428	40.471	-0.043
100	45.908	45.885	45.931	-0.046
110	51.021	50.997	51.045	-0.048
120	55.8355	55.81	55.861	-0.051
130	60.3895	60.363	60.416	-0.053
140	64.714	64.687	64.741	-0.054
150	68.834	68.806	68.862	-0.056
160	72.7705	72.742	72.799	-0.057
170	76.5425	76.513	76.572	-0.059
180	80.164	80.134	80.194	-0.06
190	83.6485	83.618	83.679	-0.061
200	87.007	86.976	87.038	-0.062
210	90.2505	90.219	90.282	-0.063
220	93.3875	93.356	93.419	-0.063
230	96.4245	96.393	96.456	-0.063
240	99.369	99.337	99.401	-0.064
250	102.23	102.2	102.26	-0.06
260	105.005	104.97	105.04	-0.07
270	107.71	107.68	107.74	-0.06
280	110.34	110.31	110.37	-0.06
290	112.9	112.87	112.93	-0.06
300	115.4	115.37	115.43	-0.06
310	117.84	117.81	117.87	-0.06
320	120.22	120.19	120.25	-0.06
330	122.55	122.52	122.58	-0.06
340	124.82	124.79	124.85	-0.06
350	127.045	127.01	127.08	-0.07
360	129.22	129.19	129.25	-0.06
370	131.35	131.32	131.38	-0.06
380	133.44	133.41	133.47	-0.06

390	135.485	135.46	135.51	-0.05
400	137.49	137.46	137.52	-0.06

R-513A

°F	°C	Bubble	Dew
-40.0	-40.0	11.6	11.8
-35.0	-37.2	9.0	9.1
-30.0	-34.4	6.0	6.1
-25.0	-31.7	2.7	2.8
-20.0	-28.9	0.5	0.4
-15.0	-26.1	2.4	2.4
-10.0	-23.3	4.6	4.5
-5.0	-20.6	7.0	6.9
0.0	-17.8	9.6	9.5
5.0	-15.0	12.4	12.4
10.0	-12.2	15.5	15.5
15.0	-9.4	18.9	18.8
20.0	-6.7	22.5	22.4
25.0	-3.9	26.4	26.4
30.0	-1.1	30.7	30.6
35.0	1.7	35.2	35.2
40.0	4.4	40.1	40.1
45.0	7.2	45.4	45.4
50.0	10.0	51.1	51.0
55.0	12.8	57.1	57.1
60.0	15.6	63.5	63.5
65.0	18.3	70.4	70.4
70.0	21.1	77.7	77.7
75.0	23.9	85.5	85.5
80.0	26.7	93.8	93.8
85.0	29.4	102.6	102.6
90.0	32.2	111.9	111.9
95.0	35.0	121.7	121.7
100.0	37.8	132.1	132.1
105.0	40.6	143.1	143.1
110.0	43.3	154.7	154.7
115.0	46.1	166.9	166.9
120.0	48.9	179.8	179.7
125.0	51.7	193.3	193.3
130.0	54.4	207.5	207.5
135.0	57.2	222.5	222.4
140.0	60.0	238.2	238.1
145.0	62.8	254.7	254.6
150.0	65.6	271.9	271.8

Black figures – psig

Blue figures – inches mercury vacuum

R-515B**PRESSURE BASED PT CHART**

Pressure (psig)	Temperature			
	°F			
	Average	Bubble	Dew	Glide
0	-1.81705	-1.8357	-1.7984	-0.0373
10	20.91	20.892	20.928	-0.036
20	37.2825	37.265	37.3	-0.035
30	50.336	50.319	50.353	-0.034
40	61.3145	61.298	61.331	-0.033
50	70.8555	70.839	70.872	-0.033
60	79.336	79.32	79.352	-0.032
70	86.9965	86.981	87.012	-0.031
80	94.0025	93.987	94.018	-0.031
90	100.475	100.46	100.49	-0.03
100	106.495	106.48	106.51	-0.03
110	112.13	112.12	112.14	-0.02
120	117.435	117.42	117.45	-0.03
130	122.455	122.44	122.47	-0.03
140	127.225	127.21	127.24	-0.03
150	131.765	131.75	131.78	-0.03
160	136.105	136.09	136.12	-0.03
170	140.26	140.25	140.27	-0.02
180	144.25	144.24	144.26	-0.02
190	148.085	148.07	148.1	-0.03
200	151.785	151.77	151.8	-0.03
210	155.36	155.35	155.37	-0.02
220	158.815	158.8	158.83	-0.03
230	162.16	162.15	162.17	-0.02
240	165.4	165.39	165.41	-0.02
250	168.55	168.54	168.56	-0.02
260	171.605	171.59	171.62	-0.03
270	174.58	174.57	174.59	-0.02
280	177.475	177.46	177.49	-0.03
290	180.295	180.28	180.31	-0.03
300	183.04	183.03	183.05	-0.02
310	185.73	185.72	185.74	-0.02
320	188.35	188.34	188.36	-0.02
330	190.905	190.9	190.91	-0.01
340	193.41	193.4	193.42	-0.02
350	195.85	195.84	195.86	-0.02
360	198.245	198.24	198.25	-0.01
370	200.59	200.58	200.6	-0.02
380	202.88	202.87	202.89	-0.02

390	205.125	205.12	205.13	-0.01
400	207.33	207.32	207.34	-0.02

R-515B Pressure-Temperature Chart

°F	°C	Bubble	Dew
-40.0	-40.0	19.2	19.2
-35.0	-37.2	17.5	17.5
-30.0	-34.4	15.6	15.6
-25.0	-31.7	13.4	13.4
-20.0	-28.9	11.0	11.1
-15.0	-26.1	8.4	8.4
-10.0	-23.3	5.5	5.5
-5.0	-20.6	2.2	2.2
0.0	-17.8	0.7	0.6
5.0	-15.0	2.6	2.6
10.0	-12.2	4.7	4.7
15.0	-9.4	7.0	7.0
20.0	-6.7	9.5	9.5
25.0	-3.9	12.3	12.2
30.0	-1.1	15.2	15.2
35.0	1.7	18.5	18.4
40.0	4.4	21.9	21.9
45.0	7.2	25.7	25.7
50.0	10.0	29.7	29.7
55.0	12.8	34.1	34.0
60.0	15.6	38.7	38.7
65.0	18.3	43.7	43.7
70.0	21.1	49.1	49.0
75.0	23.9	54.8	54.7
80.0	26.7	60.8	60.8
85.0	29.4	67.3	67.3
90.0	32.2	74.2	74.2
95.0	35.0	81.5	81.5
100.0	37.8	89.3	89.2
105.0	40.6	97.5	97.4
110.0	43.3	106.2	106.1
115.0	46.1	115.4	115.3
120.0	48.9	125.1	125.0
125.0	51.7	135.3	135.2
130.0	54.4	146.1	146.0
135.0	57.2	157.5	157.4
140.0	60.0	169.4	169.3
145.0	62.8	182.0	181.9
150.0	65.6	195.2	195.1

Black figures – psig

Blue figures – inches mercury vacuum