



# Freon™ 22

Refrigerant (R-22)

## Thermodynamic Properties Engineering (I/P) Units

### Technical Information

#### PHYSICAL PROPERTIES

Chemical Formula:	CHClF <sub>2</sub>	Viscosity, $\eta$ , in Centipoises:	
Molecular Weight:	86.476	<u>t °F</u>	<u><math>\eta</math></u>
Boiling Point at one atmosphere, °F	-41.36	Liquid	
Freezing Point, °F	-256	-40	0.349
Critical Temperature, °F	204.81	0	0.298
Critical Pressure, psia	721.906	40	0.261
Critical Density, lb/cu ft	32.76	120	0.211
Critical Volume, cu ft/lb	0.030525	Vapor (one atmosphere)	
Refractive Index ( $n_D$ ), 70°F		-40	0.0100
Liquid	1.259	0	0.0111
Vapor (one atmosphere)	1.00073	40	0.0121
Dielectric Constant:		120	0.0140
Liquid at 75°F	6.11	Surface Tension, $\gamma$ , in dynes/cm:	
Vapor (0.5 atmosphere) at 78°F	1.0035	<u>t °F</u>	<u><math>\gamma</math></u>
Relative Dielectric Strength ( $N_2 = 1$ )	1.3	-40	18.5
at 1 atmosphere with 0.1-inch gap		0	14.9
and 0.75-inch-sphere-to-plane gap		40	11.4
at 77°F.		120	4.9
Thermal Conductivity, $k$ , in		Solubility of Water in the Liquid:	
Btu/(hr)(ft)(°F)		<u>t °F</u>	<u>ppm</u>
Liquid	<u><math>k</math></u>	-100	19
-40	0.0792	-40	120
0	0.0698	40	690
40	0.0605	100	1800
120	0.0417		
Vapor(one atmosphere)			
-40	0.0050		
0	0.0056		
40	0.0061		
120	0.0072		

#### UNITS AND FACTORS

$t$ = temperature in °F	$s_f$ = entropy of the saturated liquid in Btu/(lb.)(°R)
$T$ = temperature in °R = °F + 459.69	$s_g$ = entropy of the saturated vapor in Btu/(lb)(°R)
psia = pressure in lb/sq in absolute	$S$ = entropy of the superheated vapor in Btu/(lb)(°R)
psig = pressure in lb/sq in gage	$c_f$ = heat capacity of the saturated liquid in Btu/(lb)(°F)
$p$ = pressure of vapor in psia	$c_v^o$ = heat capacity of the vapor at constant volume in Btu/(lb)(°F) at zero pressure
$p_{sat}$ = pressure of saturated vapor in psia	$c_p$ = heat capacity of the vapor at constant pressure in Btu/(lb)(°F)
$v_f$ = volume of the saturated liquid in cu ft/lb	$c_v$ = heat capacity of the vapor at constant volume in Btu/(lb)(°F)
$v_g$ = volume of the saturated vapor in cu ft/lb	$k$ = thermal conductivity in Btu/(hr) (ft) (°F)
$V$ = volume of the superheated vapor in cu ft/lb	$\eta$ = viscosity in centipoises
$d_f = 1/v_f$ = density of the saturated liquid in lb/cu ft	$\gamma$ = surface tension in dynes/cm
$d_g = 1/v_g$ = density of the saturated vapor in lb/cu ft	$n_D$ = refractive index
$h_f$ = enthalpy of the saturated liquid in Btu/lb	$e$ = base of natural logarithms = 2.718281828
$h_{fg}$ = enthalpy of vaporization in Btu/lb	
$h_g$ = enthalpy of the saturated vapor in Btu/lb	
$H$ = enthalpy of the superheated vapor in Btu/lb	

The gas constant,  $R = 10.7315$  (psia) (cu ft)/(°R) (lb mol)  
 Heat units (Btu/lb) = work units (psia) (cu ft/lb)  $\times 0.185053$   
 One atmosphere = 14.696 psia = 29.9212 inches of mercury



Chemours™

## EQUATIONS

The four basic equations used to calculate the tables of thermodynamic properties are given below. They were developed by Prof. J. J. Martin at the University of Michigan. Programming and computations were also carried out at the University under his supervision.

### 1. Vapor Pressure

$$\log_{10} P_{sat} = A - \frac{B}{T} - C \log_{10} T + DT + \frac{E(F-T)}{FT} \cdot \log_{10}(F-T)$$

$$\begin{aligned} A &= 29.35754453 & D &= 0.002190939044 \\ B &= 3845.193152 & E &= 305.8268131 \\ C &= 7.86103122 & F &= 686.1 \end{aligned}$$

Range of Data: 0.08 psia to 692 psia.  
Average Deviation: 0.11%.

Based on data from Prof. A. Michels at the University of Amsterdam and checked with data from the University of Michigan and the Du Pont Company.

### 2. Equation of State

$$p = \frac{RT}{V-b} + \frac{A_2 + B_2T + C_2e^{kT/Tc}}{(V-b)^2} + \frac{A_3 + B_3T + C_3e^{kT/Tc}}{(V-b)^3} + \frac{A_4 + B_4T}{(V-b)^4} + \frac{A_5 + B_5T + C_5e^{kT/Tc}}{(V-b)^5} + \frac{A_6 + B_6T}{e^{548.2V}}$$

$$\begin{aligned} R &= 0.124098 & A_4 &= 0.002310142 \\ b &= 0.002 & B_4 &= -3.605723 \times 10^{-6} \\ A_2 &= -4.353547 & A_5 &= -3.724044 \times 10^{-5} \\ B_2 &= 0.002407252 & B_5 &= 5.355465 \times 10^{-8} \\ C_2 &= -44.066868 & C_5 &= -1.845051 \times 10^{-4} \\ A_3 &= -0.017464 & A_6 &= 1.363387 \times 10^8 \\ B_3 &= 7.62789 \times 10^{-5} & B_6 &= -1.672612 \times 10^5 \\ C_3 &= 1.483763 & k &= -4.2 \end{aligned}$$

Range of Data: Vapor densities from 1.6 to 42 lb/cu ft.  
Average Deviation: 0.07%

Based on data from Prof. A. Michels at the University of Amsterdam and checked with data from the University of Michigan and the Du Pont Company.

### 3. Density of the Saturated Liquid

$$d_f = A + B \left(1 - \frac{T}{T_c}\right)^{1/3} + C \left(1 - \frac{T}{T_c}\right)^{2/3} + D \left(1 - \frac{T}{T_c}\right) + E \left(1 - \frac{T}{T_c}\right)^{4/3}$$

$$\begin{aligned} A &= 32.76 & D &= -22.2925657 \\ B &= 54.6344093 & E &= 20.47328862 \\ C &= 36.74892 \end{aligned}$$

Range of Data: 100 lb/cu ft to 51 lb/cu ft  
Average Deviation: 0.08%

### 4. Heat Capacity of the Vapor

$$c_v^\circ = a + \frac{b}{T^2} + cT + dT^2$$

$$\begin{aligned} a &= 2.812836 \times 10^{-2} \\ b &= 257.341 \\ c &= 2.255408 \times 10^{-4} \\ d &= -6.509607 \times 10^{-8} \end{aligned}$$

Range of Data: -280°F to 530°F (calculated from spectroscopic data)

Average Deviation: 0.07%

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID $v_f$	VAPOR $v_g$	LIQUID $l/v_f$	VAPOR $l/v_g$	LIQUID $h_f$	LATENT $h_{fg}$	VAPOR $h_g$	LIQUID $s_f$	VAPOR $s_g$	
-155	0.20882	29.49604*	0.010135	180.81	98.669	0.0055308	-27.095	114.040	86.945	-0.07512	0.29917	-155
-154	0.22027	29.47273*	0.010144	171.96	98.582	0.0058153	-26.870	113.931	87.060	-0.07438	0.29832	-154
-153	0.23225	29.44833*	0.010153	163.61	98.496	0.0061121	-26.646	113.822	87.175	-0.07365	0.29748	-153
-152	0.24479	29.42280*	0.010162	155.72	98.409	0.0064216	-26.422	113.713	87.291	-0.07292	0.29665	-152
-151	0.25791	29.39609*	0.010171	148.27	98.323	0.0067443	-26.198	113.604	87.406	-0.07219	0.29583	-151
-150	0.27163	29.36816*	0.010180	141.23	98.236	0.0070805	-25.974	113.495	87.521	-0.07147	0.29501	-150
-149	0.28597	29.33897*	0.010189	134.57	98.149	0.0074308	-25.749	113.386	87.637	-0.07074	0.29421	-149
-148	0.30095	29.30847*	0.010198	128.28	98.062	0.0077956	-25.525	113.277	87.753	-0.07002	0.29341	-148
-147	0.31660	29.27661*	0.010207	122.32	97.975	0.0081754	-25.300	113.168	87.868	-0.06930	0.29262	-147
-146	0.33294	29.24334*	0.010216	116.68	97.888	0.0085707	-25.075	113.059	87.984	-0.06859	0.29183	-146
-145	0.34999	29.20861*	0.010225	111.34	97.800	0.0089819	-24.851	112.951	88.100	-0.06787	0.29106	-145
-144	0.36779	29.17238*	0.010234	106.27	97.713	0.0094096	-24.626	112.842	88.216	-0.06716	0.29029	-144
-143	0.38636	29.13458*	0.010243	101.48	97.625	0.0098542	-24.401	112.733	88.332	-0.06645	0.28953	-143
-142	0.40571	29.09516*	0.010252	96.933	97.538	0.010316	-24.175	112.624	88.448	-0.06574	0.28877	-142
-141	0.42589	29.05407*	0.010262	92.622	97.450	0.010797	-23.950	112.515	88.564	-0.06503	0.28803	-141
-140	0.44692	29.01126*	0.010271	88.532	97.363	0.011295	-23.725	112.405	88.681	-0.06432	0.28729	-140
-139	0.46883	28.96665*	0.010280	84.650	97.275	0.011813	-23.499	112.296	88.797	-0.06361	0.28655	-139
-138	0.49165	28.92020*	0.010289	80.965	97.187	0.012351	-23.274	112.187	88.914	-0.06291	0.28583	-138
-137	0.51540	28.87184*	0.010299	77.466	97.099	0.012909	-23.048	112.078	89.030	-0.06221	0.28511	-137
-136	0.54012	28.82151*	0.010308	74.141	97.011	0.013488	-22.822	111.969	89.147	-0.06152	0.28440	-136
-135	0.56584	28.76914*	0.010318	70.981	96.922	0.014088	-22.596	111.859	89.263	-0.06082	0.28369	-135
-134	0.59260	28.71467*	0.010327	67.978	96.834	0.014711	-22.369	111.750	89.380	-0.06012	0.28299	-134
-133	0.62041	28.65803*	0.010336	65.121	96.746	0.015356	-22.143	111.640	89.497	-0.05943	0.28230	-133
-132	0.64933	28.59915*	0.010346	62.404	96.657	0.016025	-21.917	111.530	89.614	-0.05874	0.28162	-132
-131	0.67938	28.53797*	0.010355	59.818	96.569	0.016717	-21.690	111.421	89.731	-0.05805	0.28094	-131
-130	0.71060	28.47441*	0.010365	57.356	96.480	0.017435	-21.463	111.311	89.848	-0.05736	0.28027	-130
-129	0.74302	28.40840*	0.010374	55.013	96.391	0.018178	-21.236	111.201	89.965	-0.05667	0.27960	-129
-128	0.77669	28.33985*	0.010384	52.780	96.302	0.018947	-21.009	111.091	90.082	-0.05598	0.27894	-128
-127	0.81163	28.26871*	0.010394	50.653	96.213	0.019742	-20.781	110.980	90.199	-0.05530	0.27829	-127
-126	0.84789	28.19488*	0.010403	48.625	96.124	0.020565	-20.554	110.870	90.316	-0.05462	0.27764	-126
-125	0.88551	28.11829*	0.010413	46.692	96.035	0.021417	-20.326	110.760	90.433	-0.05394	0.27700	-125
-124	0.92452	28.03886*	0.010423	44.849	95.945	0.022297	-20.098	110.649	90.551	-0.05326	0.27636	-124
-123	0.96497	27.95650*	0.010432	43.090	95.856	0.023207	-19.870	110.538	90.668	-0.05258	0.27573	-123
-122	1.0069	27.8711*	0.010442	41.411	95.767	0.024148	-19.642	110.427	90.785	-0.05190	0.27511	-122
-121	1.0504	27.7827*	0.010452	39.809	95.677	0.025120	-19.413	110.316	90.903	-0.05123	0.27449	-121
-120	1.0954	27.6910*	0.010462	38.280	95.587	0.026124	-19.185	110.205	91.020	-0.05055	0.27388	-120
-119	1.1420	27.5961*	0.010471	36.818	95.497	0.027160	-18.956	110.093	91.138	-0.04988	0.27327	-119
-118	1.1903	27.4978*	0.010481	35.423	95.407	0.028231	-18.727	109.982	91.255	-0.04921	0.27267	-118
-117	1.2402	27.3961*	0.010491	34.088	95.317	0.029335	-18.497	109.870	91.373	-0.04854	0.27207	-117
-116	1.2920	27.2907*	0.010501	32.813	95.227	0.030476	-18.268	109.758	91.490	-0.04787	0.27148	-116
-115	1.3455	27.1818*	0.010511	31.594	95.137	0.031652	-18.038	109.646	91.608	-0.04720	0.27090	-115
-114	1.4008	27.0691*	0.010521	30.427	95.047	0.032865	-17.808	109.533	91.725	-0.04654	0.27032	-114
-113	1.4581	26.9525*	0.010531	29.311	94.956	0.034116	-17.578	109.421	91.843	-0.04587	0.26974	-113
-112	1.5173	26.8320*	0.010541	28.244	94.866	0.035406	-17.348	109.308	91.960	-0.04521	0.26918	-112
-111	1.5784	26.7075*	0.010551	27.221	94.775	0.036736	-17.117	109.195	92.078	-0.04455	0.26861	-111
-110	1.6417	26.5788*	0.010561	26.242	94.684	0.038106	-16.886	109.082	92.196	-0.04389	0.26805	-110
-109	1.7070	26.4458*	0.010572	25.305	94.593	0.039518	-16.655	108.968	92.313	-0.04323	0.26750	-109
-108	1.7744	26.3084*	0.010582	24.407	94.502	0.040972	-16.424	108.854	92.431	-0.04257	0.26695	-108
-107	1.8441	26.1666*	0.010592	23.546	94.411	0.042470	-16.192	108.740	92.548	-0.04191	0.26641	-107
-106	1.9161	26.0201*	0.010602	22.721	94.320	0.044012	-15.960	108.626	92.666	-0.04125	0.26587	-106
-105	1.9903	25.8689*	0.010613	21.930	94.228	0.045599	-15.728	108.512	92.783	-0.04060	0.26533	-105
-104	2.0669	25.7129*	0.010623	21.172	94.137	0.047233	-15.496	108.397	92.901	-0.03995	0.26481	-104
-103	2.1460	25.5520*	0.010633	20.444	94.045	0.048914	-15.263	108.282	93.018	-0.03929	0.26428	-103
-102	2.2275	25.3860*	0.010644	19.746	93.953	0.050644	-15.031	108.167	93.136	-0.03864	0.26376	-102
-101	2.3116	25.2148*	0.010654	19.076	93.862	0.052423	-14.798	108.051	93.253	-0.03799	0.26325	-101

\*Inches of mercury below one atmosphere

**TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE**

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID $v_f$	VAPOR $v_g$	LIQUID $l/v_f$	VAPOR $l/v_g$	LIQUID $h_f$	LATENT $h_{fg}$	VAPOR $h_g$	LIQUID $s_f$	VAPOR $s_g$	
-100	2.3983	25.0383*	0.010664	18.433	93.770	0.054252	-14.564	107.935	93.371	-0.03734	0.26274	-100
-99	2.4877	24.8563*	0.010675	17.815	93.678	0.056133	-14.331	107.819	93.488	-0.03670	0.26223	-99
-98	2.5798	24.6688*	0.010685	17.222	93.585	0.058066	-14.097	107.702	93.606	-0.03605	0.26173	-98
-97	2.6747	24.4755*	0.010696	16.652	93.493	0.060053	-13.863	107.586	93.723	-0.03540	0.26123	-97
-96	2.7724	24.2765*	0.010707	16.104	93.401	0.062095	-13.628	107.469	93.840	-0.03476	0.26074	-96
-95	2.8731	24.0715*	0.010717	15.578	93.308	0.064192	-13.393	107.351	93.958	-0.03411	0.26025	-95
-94	2.9768	23.8604*	0.010728	15.072	93.215	0.066347	-13.158	107.233	94.075	-0.03347	0.25977	-94
-93	3.0836	23.6430*	0.010739	14.586	93.123	0.068559	-12.923	107.115	94.192	-0.03283	0.25929	-93
-92	3.1934	23.4193*	0.010749	14.118	93.030	0.070831	-12.688	106.997	94.309	-0.03219	0.25881	-92
-91	3.3065	23.1891*	0.010760	13.668	92.937	0.073163	-12.452	106.878	94.426	-0.03155	0.25834	-91
-90	3.4229	22.9522*	0.010771	13.235	92.843	0.075557	-12.216	106.759	94.544	-0.03091	0.25787	-90
-89	3.5426	22.7085*	0.010782	12.818	92.750	0.078014	-11.979	106.640	94.661	-0.03027	0.25741	-89
-88	3.6657	22.4579*	0.010793	12.417	92.657	0.080534	-11.743	106.520	94.777	-0.02963	0.25695	-88
-87	3.7922	22.2002*	0.010803	12.031	92.563	0.083120	-11.506	106.400	94.894	-0.02900	0.25649	-87
-86	3.9224	21.9352*	0.010814	11.659	92.469	0.085772	-11.268	106.279	95.011	-0.02836	0.25604	-86
-85	4.0562	21.6628*	0.010825	11.301	92.376	0.088491	-11.031	106.159	95.128	-0.02773	0.25560	-85
-84	4.1936	21.3829*	0.010836	10.955	92.282	0.091280	-10.793	106.037	95.244	-0.02709	0.25515	-84
-83	4.3349	21.0953*	0.010847	10.623	92.188	0.094138	-10.555	105.916	95.361	-0.02646	0.25471	-83
-82	4.4800	20.7998*	0.010859	10.302	92.093	0.097068	-10.316	105.794	95.478	-0.02583	0.25428	-82
-81	4.6291	20.4963*	0.010870	9.9929	91.999	0.10007	-10.077	105.671	95.594	-0.02520	0.25384	-81
-80	4.7822	20.1846*	0.010881	9.6949	91.905	0.10315	-9.838	105.548	95.710	-0.02457	0.25342	-80
-79	4.9394	19.8646*	0.010892	9.4074	91.810	0.10630	-9.599	105.425	95.827	-0.02394	0.25299	-79
-78	5.1007	19.5361*	0.010903	9.1301	91.715	0.10953	-9.359	105.302	95.943	-0.02331	0.25257	-78
-77	5.2664	19.1989*	0.010915	8.8625	91.620	0.11283	-9.119	105.178	96.059	-0.02269	0.25215	-77
-76	5.4363	18.8528*	0.010926	8.6043	91.525	0.11622	-8.878	105.053	96.175	-0.02206	0.25174	-76
-75	5.6107	18.4977*	0.010937	8.3551	91.430	0.11969	-8.638	104.928	96.290	-0.02143	0.25133	-75
-74	5.7896	18.1334*	0.010949	8.1145	91.335	0.12324	-8.397	104.803	96.406	-0.02081	0.25092	-74
-73	5.9732	17.7598*	0.010960	7.8822	91.240	0.12687	-8.155	104.677	96.522	-0.02019	0.25052	-73
-72	6.1614	17.3766*	0.010972	7.6579	91.144	0.13058	-7.914	104.551	96.637	-0.01956	0.25012	-72
-71	6.3543	16.9837*	0.010983	7.4412	91.048	0.13439	-7.672	104.424	96.753	-0.01894	0.24972	-71
-70	6.5522	16.5809*	0.010995	7.2318	90.952	0.13828	-7.429	104.297	96.868	-0.01832	0.24932	-70
-69	6.7550	16.1680*	0.011006	7.0295	90.856	0.14226	-7.187	104.170	96.983	-0.01770	0.24893	-69
-68	6.9628	15.7449*	0.011018	6.8339	90.760	0.14633	-6.944	104.042	97.098	-0.01708	0.24855	-68
-67	7.1757	15.3113*	0.011030	6.6449	90.664	0.15049	-6.700	103.913	97.213	-0.01646	0.24816	-67
-66	7.3939	14.8671*	0.011041	6.4621	90.568	0.15475	-6.457	103.785	97.328	-0.01584	0.24778	-66
-65	7.6174	14.4120*	0.011053	6.2854	90.471	0.15910	-6.213	103.655	97.443	-0.01522	0.24740	-65
-64	7.8463	13.9460*	0.011065	6.1144	90.374	0.16355	-5.968	103.525	97.557	-0.01460	0.24703	-64
-63	8.0808	13.4687*	0.011077	5.9491	90.277	0.16809	-5.724	103.395	97.672	-0.01399	0.24666	-63
-62	8.3208	12.9800*	0.011089	5.7891	90.180	0.17274	-5.479	103.264	97.786	-0.01337	0.24629	-62
-61	8.5665	12.4798*	0.011101	5.6343	90.083	0.17749	-5.233	103.133	97.900	-0.01276	0.24592	-61
-60	8.8180	11.9677*	0.011113	5.4844	89.986	0.18233	-4.987	103.001	98.014	-0.01214	0.24556	-60
-59	9.0754	11.4436*	0.011125	5.3394	89.888	0.18729	-4.741	102.869	98.128	-0.01153	0.24520	-59
-58	9.3388	10.9074*	0.011137	5.1989	89.791	0.19235	-4.495	102.736	98.241	-0.01092	0.24484	-58
-57	9.6082	10.3587*	0.011149	5.0629	89.693	0.19752	-4.248	102.603	98.355	-0.01030	0.24449	-57
-56	9.8839	9.7975*	0.011161	4.9312	89.595	0.20279	-4.001	102.469	98.468	-0.00969	0.24414	-56
-55	10.166	9.223*	0.011174	4.8036	89.497	0.20818	-3.754	102.335	98.581	-0.00908	0.24379	-55
-54	10.454	8.636*	0.011186	4.6799	89.399	0.21368	-3.506	102.200	98.694	-0.00847	0.24345	-54
-53	10.749	8.036*	0.011198	4.5601	89.300	0.21929	-3.258	102.065	98.807	-0.00786	0.24310	-53
-52	11.051	7.422*	0.011211	4.4440	89.202	0.22502	-3.009	101.929	98.920	-0.00725	0.24276	-52
-51	11.359	6.795*	0.011223	4.3315	89.103	0.23087	-2.761	101.793	99.032	-0.00665	0.24243	-51
-50	11.674	6.154*	0.011235	4.2224	89.004	0.23683	-2.511	101.656	99.144	-0.00604	0.24209	-50
-49	11.996	5.498*	0.011248	4.1166	88.905	0.24292	-2.262	101.519	99.257	-0.00543	0.24176	-49
-48	12.324	4.829*	0.011261	4.0140	88.806	0.24913	-2.012	101.381	99.369	-0.00483	0.24143	-48
-47	12.660	4.144*	0.011273	3.9145	88.707	0.25546	-1.762	101.242	99.480	-0.00422	0.24110	-47
-46	13.004	3.445*	0.011286	3.8179	88.607	0.26192	-1.511	101.103	99.592	-0.00361	0.24078	-46

\* Inches of mercury below one atmosphere

**TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE**

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID $v_f$	VAPOR $v_g$	LIQUID $l/v_f$	VAPOR $l/v_g$	LIQUID $h_f$	LATENT $h_{fg}$	VAPOR $h_g$	LIQUID $s_f$	VAPOR $s_g$	
-45	13.354	2.732*	0.011298	3.7243	88.507	0.26851	-1.260	100.963	99.703	-0.00301	0.24046	-45
-44	13.712	2.002*	0.011311	3.6334	88.407	0.27523	-1.009	100.823	99.814	-0.00241	0.24014	-44
-43	14.078	1.258*	0.011324	3.5452	88.307	0.28207	-0.757	100.683	99.925	-0.00181	0.23982	-43
-42	14.451	0.498*	0.011337	3.4596	88.207	0.28905	-0.505	100.541	100.036	-0.00120	0.23951	-42
-41	14.833	0.137	0.011350	3.3764	88.107	0.29617	-0.253	100.399	100.147	-0.00060	0.23919	-41
-40	15.222	0.526	0.011363	3.2957	88.006	0.30342	0.000	100.257	100.257	0.00000	0.23888	-40
-39	15.619	0.923	0.011376	3.2173	87.905	0.31082	0.253	100.114	100.367	0.00060	0.23858	-39
-38	16.024	1.328	0.011389	3.1412	87.805	0.31835	0.506	99.971	100.477	0.00120	0.23827	-38
-37	16.437	1.741	0.011402	3.0673	87.703	0.32602	0.760	99.826	100.587	0.00180	0.23797	-37
-36	16.859	2.163	0.011415	2.9954	87.602	0.33384	1.014	99.682	100.696	0.00240	0.23767	-36
-35	17.290	2.594	0.011428	2.9256	87.501	0.34181	1.269	99.536	100.805	0.00300	0.23737	-35
-34	17.728	3.032	0.011442	2.8578	87.399	0.34992	1.524	99.391	100.914	0.00359	0.23707	-34
-33	18.176	3.480	0.011455	2.7919	87.297	0.35818	1.779	99.244	101.023	0.00419	0.23678	-33
-32	18.633	3.937	0.011469	2.7278	87.195	0.36660	2.035	99.097	101.132	0.00479	0.23649	-32
-31	19.098	4.402	0.011482	2.6655	87.093	0.37517	2.291	98.949	101.240	0.00538	0.23620	-31
-30	19.573	4.877	0.011495	2.6049	86.991	0.38389	2.547	98.801	101.348	0.00598	0.23591	-30
-29	20.056	5.360	0.011509	2.5460	86.888	0.39278	2.804	98.652	101.456	0.00657	0.23563	-29
-28	20.549	5.853	0.011523	2.4887	86.785	0.40182	3.061	98.503	101.564	0.00716	0.23534	-28
-27	21.052	6.356	0.011536	2.4329	86.682	0.41103	3.318	98.353	101.671	0.00776	0.23506	-27
-26	21.564	6.868	0.011550	2.3787	86.579	0.42040	3.576	98.202	101.778	0.00835	0.23478	-26
-25	22.086	7.390	0.011564	2.3260	86.476	0.42993	3.834	98.051	101.885	0.00894	0.23451	-25
-24	22.617	7.921	0.011578	2.2746	86.372	0.43964	4.093	97.899	101.992	0.00953	0.23423	-24
-23	23.159	8.463	0.011592	2.2246	86.269	0.44951	4.352	97.746	102.098	0.01013	0.23396	-23
-22	23.711	9.015	0.011606	2.1760	86.165	0.45956	4.611	97.593	102.204	0.01072	0.23369	-22
-21	24.272	9.576	0.011620	2.1287	86.061	0.46978	4.871	97.439	102.310	0.01131	0.23342	-21
-20	24.845	10.149	0.011634	2.0826	85.956	0.48018	5.131	97.285	102.415	0.01189	0.23315	-20
-19	25.427	10.731	0.011648	2.0377	85.852	0.49075	5.391	97.129	102.521	0.01248	0.23289	-19
-18	26.020	11.324	0.011662	1.9940	85.747	0.50151	5.652	96.974	102.626	0.01307	0.23262	-18
-17	26.624	11.928	0.011677	1.9514	85.642	0.51245	5.913	96.817	102.730	0.01366	0.23236	-17
-16	27.239	12.543	0.011691	1.9099	85.537	0.52358	6.175	96.660	102.835	0.01425	0.23210	-16
-15	27.865	13.169	0.011705	1.8695	85.431	0.53489	6.436	96.502	102.939	0.01483	0.23184	-15
-14	28.501	13.805	0.011720	1.8302	85.326	0.54640	6.699	96.344	103.043	0.01542	0.23159	-14
-13	29.149	14.453	0.011734	1.7918	85.220	0.55810	6.961	96.185	103.146	0.01600	0.23133	-13
-12	29.809	15.113	0.011749	1.7544	85.114	0.56999	7.224	96.025	103.250	0.01659	0.23108	-12
-11	30.480	15.784	0.011764	1.7180	85.008	0.58207	7.488	95.865	103.353	0.01717	0.23083	-11
-10	31.162	16.466	0.011778	1.6825	84.901	0.59436	7.751	95.704	103.455	0.01776	0.23058	-10
-9	31.856	17.160	0.011793	1.6479	84.795	0.60685	8.015	95.542	103.558	0.01834	0.23033	-9
-8	32.563	17.867	0.011808	1.6141	84.688	0.61954	8.280	95.380	103.660	0.01892	0.23008	-8
-7	33.281	18.585	0.011823	1.5812	84.581	0.63244	8.545	95.217	103.762	0.01950	0.22984	-7
-6	34.011	19.315	0.011838	1.5491	84.473	0.64555	8.810	95.053	103.863	0.02009	0.22960	-6
-5	34.754	20.058	0.011853	1.5177	84.366	0.65887	9.075	94.889	103.964	0.02067	0.22936	-5
-4	35.509	20.813	0.011868	1.4872	84.258	0.67240	9.341	94.724	104.065	0.02125	0.22912	-4
-3	36.277	21.581	0.011884	1.4574	84.150	0.68615	9.608	94.558	104.166	0.02183	0.22888	-3
-2	37.057	22.361	0.011899	1.4283	84.042	0.70012	9.874	94.391	104.266	0.02241	0.22864	-2
-1	37.850	23.154	0.011914	1.4000	83.933	0.71431	10.142	94.224	104.366	0.02299	0.22841	-1
0	38.657	23.961	0.011930	1.3723	83.825	0.72872	10.409	94.056	104.465	0.02357	0.22817	0
1	39.476	24.780	0.011945	1.3453	83.716	0.74336	10.677	93.888	104.565	0.02414	0.22794	1
2	40.309	25.613	0.011961	1.3189	83.606	0.75822	10.945	93.718	104.663	0.02472	0.22771	2
3	41.155	26.459	0.011976	1.2931	83.497	0.77332	11.214	93.548	104.762	0.02530	0.22748	3
4	42.014	27.318	0.011992	1.2680	83.387	0.78865	11.483	93.378	104.860	0.02587	0.22725	4
5	42.888	28.192	0.012008	1.2434	83.277	0.80422	11.752	93.206	104.958	0.02645	0.22703	5
6	43.775	29.079	0.012024	1.2195	83.167	0.82003	12.022	93.034	105.056	0.02703	0.22680	6
7	44.676	29.980	0.012040	1.1961	83.057	0.83608	12.292	92.861	105.153	0.02760	0.22658	7
8	45.591	30.895	0.012056	1.1732	82.946	0.85237	12.562	92.688	105.250	0.02818	0.22636	8
9	46.521	31.825	0.012072	1.1509	82.835	0.86892	12.833	92.513	105.346	0.02875	0.22614	9

\*Inches of mercury below one atmosphere



**TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE**

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb×°R)		TEMP. °F
	PSIA	PSIG	LIQUID <i>v<sub>f</sub></i>	VAPOR <i>v<sub>g</sub></i>	LIQUID <i>l/v<sub>f</sub></i>	VAPOR <i>l/v<sub>g</sub></i>	LIQUID <i>h<sub>f</sub></i>	LATENT <i>h<sub>fg</sub></i>	VAPOR <i>h<sub>g</sub></i>	LIQUID <i>s<sub>f</sub></i>	VAPOR <i>s<sub>g</sub></i>	
10	47.464	32.768	0.012088	1.1290	82.724	0.88571	13.104	92.338	105.442	0.02932	0.22592	10
11	48.423	33.727	0.012105	1.1077	82.612	0.90275	13.376	92.162	105.538	0.02990	0.22570	11
12	49.396	34.700	0.012121	1.0869	82.501	0.92005	13.648	91.986	105.633	0.03047	0.22548	12
13	50.384	35.688	0.012138	1.0665	82.389	0.93761	13.920	91.808	105.728	0.03104	0.22527	13
14	51.387	36.691	0.012154	1.0466	82.276	0.95544	14.193	91.630	105.823	0.03161	0.22505	14
15	52.405	37.709	0.012171	1.0272	82.164	0.97352	14.466	91.451	105.917	0.03218	0.22484	15
16	53.438	38.742	0.012188	1.0082	82.051	0.99188	14.739	91.272	106.011	0.03275	0.22463	16
17	54.487	39.791	0.012204	0.98961	81.938	1.0105	15.013	91.091	106.105	0.03332	0.22442	17
18	55.551	40.855	0.012221	0.97144	81.825	1.0294	15.288	90.910	106.198	0.03389	0.22421	18
19	56.631	41.935	0.012238	0.95368	81.711	1.0486	15.562	90.728	106.290	0.03446	0.22400	19
20	57.727	43.031	0.012255	0.93631	81.597	1.0680	15.837	90.545	106.383	0.03503	0.22379	20
21	58.839	44.143	0.012273	0.91932	81.483	1.0878	16.113	90.362	106.475	0.03560	0.22358	21
22	59.967	45.271	0.012290	0.90270	81.368	1.1078	16.389	90.178	106.566	0.03617	0.22338	22
23	61.111	46.415	0.012307	0.88645	81.253	1.1281	16.665	89.993	106.657	0.03674	0.22318	23
24	62.272	47.576	0.012325	0.87055	81.138	1.1487	16.942	89.807	106.748	0.03730	0.22297	24
25	63.450	48.754	0.012342	0.85500	81.023	1.1696	17.219	89.620	106.839	0.03787	0.22277	25
26	64.644	49.948	0.012360	0.83978	80.907	1.1908	17.496	89.433	106.928	0.03844	0.22257	26
27	65.855	51.159	0.012378	0.82488	80.791	1.2123	17.774	89.244	107.018	0.03900	0.22237	27
28	67.083	52.387	0.012395	0.81031	80.675	1.2341	18.052	89.055	107.107	0.03958	0.22217	28
29	68.328	53.632	0.012413	0.79604	80.558	1.2562	18.330	88.865	107.196	0.04013	0.22198	29
30	69.591	54.895	0.012431	0.78208	80.441	1.2786	18.609	88.674	107.284	0.04070	0.22178	30
31	70.871	56.175	0.012450	0.76842	80.324	1.3014	18.889	88.483	107.372	0.04126	0.22158	31
32	72.169	57.473	0.012468	0.75503	80.207	1.3244	19.169	88.290	107.459	0.04182	0.22139	32
33	73.485	58.789	0.012486	0.74194	80.089	1.3478	19.449	88.097	107.546	0.04239	0.22119	33
34	74.818	60.122	0.012505	0.72911	79.971	1.3715	19.729	87.903	107.632	0.04295	0.22100	34
35	76.170	61.474	0.012523	0.71655	79.852	1.3956	20.010	87.708	107.719	0.04351	0.22081	35
36	77.540	62.844	0.012542	0.70425	79.733	1.4199	20.292	87.512	107.804	0.04407	0.22062	36
37	78.929	64.233	0.012561	0.69221	79.614	1.4447	20.574	87.316	107.889	0.04464	0.22043	37
38	80.336	65.640	0.012579	0.68041	79.495	1.4697	20.856	87.118	107.974	0.04520	0.22024	38
39	81.761	67.065	0.012598	0.66885	79.375	1.4951	21.138	86.920	108.058	0.04576	0.22005	39
40	83.206	68.510	0.012618	0.65753	79.255	1.5208	21.422	86.720	108.142	0.04632	0.21986	40
41	84.670	69.974	0.012637	0.64643	79.134	1.5469	21.705	86.520	108.225	0.04688	0.21968	41
42	86.153	71.457	0.012656	0.63557	79.013	1.5734	21.989	86.319	108.308	0.04744	0.21949	42
43	87.655	72.959	0.012676	0.62492	78.892	1.6002	22.273	86.117	108.390	0.04800	0.21931	43
44	89.177	74.481	0.012695	0.61448	78.770	1.6274	22.558	85.914	108.472	0.04855	0.21912	44
45	90.719	76.023	0.012715	0.60425	78.648	1.6549	22.843	85.710	108.553	0.04911	0.21894	45
46	92.280	77.584	0.012735	0.59422	78.526	1.6829	23.129	85.506	108.634	0.04967	0.21876	46
47	93.861	79.165	0.012755	0.58440	78.403	1.7112	23.415	85.300	108.715	0.05023	0.21858	47
48	95.463	80.767	0.012775	0.57476	78.280	1.7398	23.701	85.094	108.795	0.05079	0.21839	48
49	97.085	82.389	0.012795	0.56532	78.157	1.7689	23.988	84.886	108.874	0.05134	0.21821	49
50	98.727	84.031	0.012815	0.55606	78.033	1.7984	24.275	84.678	108.953	0.05190	0.21803	50
51	100.39	85.69	0.012836	0.54698	77.909	1.8282	24.563	84.468	109.031	0.05245	0.21785	51
52	102.07	87.38	0.012856	0.53808	77.784	1.8585	24.851	84.258	109.109	0.05301	0.21768	52
53	103.78	89.08	0.012877	0.52934	77.659	1.8891	25.139	84.047	109.186	0.05357	0.21750	53
54	105.50	90.81	0.012898	0.52078	77.534	1.9202	25.429	83.834	109.263	0.05412	0.21732	54
55	107.25	92.56	0.012919	0.51238	77.408	1.9517	25.718	83.621	109.339	0.05468	0.21714	55
56	109.02	94.32	0.012940	0.50414	77.282	1.9836	26.008	83.407	109.415	0.05523	0.21697	56
57	110.81	96.11	0.012961	0.49606	77.155	2.0159	26.298	83.191	109.490	0.05579	0.21679	57
58	112.62	97.93	0.012982	0.48813	77.028	2.0486	26.589	82.975	109.564	0.05634	0.21662	58
59	114.46	99.76	0.013004	0.48035	76.900	2.0818	26.880	82.758	109.638	0.05689	0.21644	59
60	116.31	101.62	0.013025	0.47272	76.773	2.1154	27.172	82.540	109.712	0.05745	0.21627	60
61	118.19	103.49	0.013047	0.46523	76.644	2.1495	27.464	82.320	109.785	0.05800	0.21610	61
62	120.09	105.39	0.013069	0.45788	76.515	2.1840	27.757	82.100	109.857	0.05855	0.21592	62
63	122.01	107.32	0.013091	0.45066	76.386	2.2190	28.050	81.878	109.929	0.05910	0.21575	63
64	123.96	109.26	0.013114	0.44358	76.257	2.2544	28.344	81.656	110.000	0.05966	0.21558	64

TABLE I "FREON" 22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID $v_f$	VAPOR $v_g$	LIQUID $l/v_f$	VAPOR $l/v_g$	LIQUID $h_f$	LATENT $h_{fg}$	VAPOR $h_g$	LIQUID $s_f$	VAPOR $s_g$	
65	125.93	111.23	0.013136	0.43663	76.126	2.2903	28.638	81.432	110.070	0.06021	0.21541	65
66	127.92	113.22	0.013159	0.42981	75.996	2.3266	28.932	81.208	110.140	0.06076	0.21524	66
67	129.94	115.24	0.013181	0.42311	75.865	2.3635	29.228	80.982	110.209	0.06131	0.21507	67
68	131.97	117.28	0.013204	0.41653	75.733	2.4008	29.523	80.755	110.278	0.06186	0.21490	68
69	134.04	119.34	0.013227	0.41007	75.601	2.4386	29.819	80.527	110.346	0.06241	0.21473	69
70	136.12	121.43	0.013251	0.40373	75.469	2.4769	30.116	80.298	110.414	0.06296	0.21456	70
71	138.23	123.54	0.013274	0.39751	75.336	2.5157	30.413	80.068	110.480	0.06351	0.21439	71
72	140.37	125.67	0.013297	0.39139	75.202	2.5550	30.710	79.836	110.547	0.06406	0.21422	72
73	142.52	127.83	0.013321	0.38539	75.068	2.5948	31.008	79.604	110.612	0.06461	0.21405	73
74	144.71	130.01	0.013345	0.37949	74.934	2.6351	31.307	79.370	110.677	0.06516	0.21388	74
75	146.91	132.22	0.013369	0.37369	74.799	2.6760	31.606	79.135	110.741	0.06571	0.21372	75
76	149.15	134.45	0.013393	0.36800	74.664	2.7174	31.906	78.899	110.805	0.06626	0.21355	76
77	151.40	136.71	0.013418	0.36241	74.528	2.7593	32.206	78.662	110.868	0.06681	0.21338	77
78	153.69	138.99	0.013442	0.35691	74.391	2.8018	32.506	78.423	110.930	0.06736	0.21321	78
79	155.99	141.30	0.013467	0.35151	74.254	2.8449	32.808	78.184	110.991	0.06791	0.21305	79
80	158.33	143.63	0.013492	0.34621	74.116	2.8885	33.109	77.943	111.052	0.06846	0.21288	80
81	160.68	145.99	0.013518	0.34099	73.978	2.9326	33.412	77.701	111.112	0.06901	0.21271	81
82	163.07	148.37	0.013543	0.33587	73.839	2.9774	33.714	77.457	111.171	0.06956	0.21255	82
83	165.48	150.78	0.013569	0.33083	73.700	3.0227	34.018	77.212	111.230	0.07011	0.21238	83
84	167.92	153.22	0.013594	0.32588	73.560	3.0686	34.322	76.966	111.288	0.07065	0.21222	84
85	170.38	155.68	0.013620	0.32101	73.420	3.1151	34.626	76.719	111.345	0.07120	0.21205	85
86	172.87	158.17	0.013647	0.31623	73.278	3.1622	34.931	76.470	111.401	0.07175	0.21188	86
87	175.38	160.69	0.013673	0.31153	73.137	3.2100	35.237	76.220	111.457	0.07230	0.21172	87
88	177.93	163.23	0.013700	0.30690	72.994	3.2583	35.543	75.968	111.512	0.07285	0.21155	88
89	180.50	165.80	0.013727	0.30236	72.851	3.3073	35.850	75.716	111.566	0.07339	0.21139	89
90	183.09	168.40	0.013754	0.29789	72.708	3.3570	36.158	75.461	111.619	0.07394	0.21122	90
91	185.72	171.02	0.013781	0.29349	72.564	3.4073	36.466	75.206	111.671	0.07449	0.21106	91
92	188.37	173.67	0.013809	0.28917	72.419	3.4582	36.774	74.949	111.723	0.07504	0.21089	92
93	191.05	176.35	0.013836	0.28491	72.273	3.5098	37.084	74.690	111.774	0.07559	0.21072	93
94	193.76	179.06	0.013864	0.28073	72.127	3.5621	37.394	74.430	111.824	0.07613	0.21056	94
95	196.50	181.80	0.013893	0.27662	71.980	3.6151	37.704	74.168	111.873	0.07668	0.21039	95
96	199.26	184.56	0.013921	0.27257	71.833	3.6688	38.016	73.905	111.921	0.07723	0.21023	96
97	202.05	187.36	0.013950	0.26859	71.685	3.7232	38.328	73.641	111.968	0.07778	0.21006	97
98	204.87	190.18	0.013979	0.26467	71.536	3.7783	38.640	73.375	112.015	0.07832	0.20989	98
99	207.72	193.03	0.014008	0.26081	71.386	3.8341	38.953	73.107	112.060	0.07887	0.20973	99
100	210.60	195.91	0.014038	0.25702	71.236	3.8907	39.267	72.838	112.105	0.07942	0.20956	100
101	213.51	198.82	0.014068	0.25329	71.084	3.9481	39.582	72.567	112.149	0.07997	0.20939	101
102	216.45	201.76	0.014098	0.24962	70.933	4.0062	39.897	72.294	112.192	0.08052	0.20923	102
103	219.42	204.72	0.014128	0.24600	70.780	4.0651	40.213	72.020	112.233	0.08107	0.20906	103
104	222.42	207.72	0.014159	0.24244	70.626	4.1247	40.530	71.744	112.274	0.08161	0.20889	104
105	225.45	210.75	0.014190	0.23894	70.472	4.1852	40.847	71.467	112.314	0.08216	0.20872	105
106	228.50	213.81	0.014221	0.23549	70.317	4.2465	41.166	71.187	112.353	0.08271	0.20855	106
107	231.59	216.90	0.014253	0.23209	70.161	4.3086	41.485	70.906	112.391	0.08326	0.20838	107
108	234.71	220.02	0.014285	0.22875	70.005	4.3715	41.804	70.623	112.427	0.08381	0.20821	108
109	237.86	223.17	0.014317	0.22546	69.847	4.4354	42.125	70.338	112.463	0.08436	0.20804	109
110	241.04	226.35	0.014350	0.22222	69.689	4.5000	42.446	70.052	112.498	0.08491	0.20787	110
111	244.25	229.56	0.014382	0.21903	69.529	4.5656	42.768	69.763	112.531	0.08546	0.20770	111
112	247.50	232.80	0.014416	0.21589	69.369	4.6321	43.091	69.473	112.564	0.08601	0.20753	112
113	250.77	236.08	0.014449	0.21279	69.208	4.6994	43.415	69.180	112.595	0.08656	0.20736	113
114	254.08	239.38	0.014483	0.20974	69.046	4.7677	43.739	68.886	112.626	0.08711	0.20718	114
115	257.42	242.72	0.014517	0.20674	68.883	4.8370	44.065	68.590	112.655	0.08766	0.20701	115
116	260.79	246.10	0.014552	0.20378	68.719	4.9072	44.391	68.291	112.682	0.08821	0.20684	116
117	264.20	249.50	0.014587	0.20087	68.554	4.9784	44.718	67.991	112.709	0.08876	0.20666	117
118	267.63	252.94	0.014622	0.19800	68.388	5.0506	45.046	67.688	112.735	0.08932	0.20649	118
119	271.10	256.41	0.014658	0.19517	68.221	5.1238	45.375	67.384	112.759	0.08987	0.20631	119

**TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE**

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID <i>v<sub>f</sub></i>	VAPOR <i>v<sub>g</sub></i>	LIQUID <i>l/v<sub>f</sub></i>	VAPOR <i>l/v<sub>g</sub></i>	LIQUID <i>h<sub>f</sub></i>	LATENT <i>h<sub>fg</sub></i>	VAPOR <i>h<sub>g</sub></i>	LIQUID <i>s<sub>f</sub></i>	VAPOR <i>s<sub>g</sub></i>	
120	274.60	259.91	0.014694	0.19238	68.054	5.1981	45.705	67.077	112.782	0.09042	0.20613	120
121	278.14	263.44	0.014731	0.18963	67.885	5.2734	46.036	66.767	112.803	0.09098	0.20595	121
122	281.71	267.01	0.014768	0.18692	67.714	5.3498	46.368	66.456	112.824	0.09153	0.20578	122
123	285.31	270.62	0.014805	0.18426	67.543	5.4272	46.701	66.142	112.843	0.09208	0.20560	123
124	288.95	274.25	0.014843	0.18163	67.371	5.5058	47.034	65.826	112.860	0.09264	0.20542	124
125	292.62	277.92	0.014882	0.17903	67.197	5.5856	47.369	65.507	112.877	0.09320	0.20523	125
126	296.33	281.63	0.014920	0.17648	67.023	5.6665	47.705	65.186	112.891	0.09375	0.20505	126
127	300.07	285.37	0.014960	0.17396	66.847	5.7486	48.042	64.863	112.905	0.09431	0.20487	127
128	303.84	289.14	0.014999	0.17147	66.670	5.8319	48.380	64.537	112.917	0.09487	0.20468	128
129	307.65	292.95	0.015039	0.16902	66.492	5.9164	48.719	64.208	112.927	0.09543	0.20449	129
130	311.50	296.80	0.015080	0.16661	66.312	6.0022	49.059	63.877	112.936	0.09598	0.20431	130
131	315.38	300.68	0.015121	0.16422	66.131	6.0893	49.400	63.543	112.943	0.09654	0.20412	131
132	319.29	304.60	0.015163	0.16187	65.949	6.1777	49.743	63.206	112.949	0.09711	0.20393	132
133	323.25	308.55	0.015206	0.15956	65.766	6.2674	50.087	62.866	112.953	0.09767	0.20374	133
134	327.23	312.54	0.015248	0.15727	65.581	6.3585	50.432	62.523	112.955	0.09823	0.20354	134
135	331.26	316.56	0.015292	0.15501	65.394	6.4510	50.778	62.178	112.956	0.09879	0.20335	135
136	335.32	320.63	0.015336	0.15279	65.207	6.5450	51.125	61.829	112.954	0.09936	0.20315	136
137	339.42	324.73	0.015381	0.15059	65.017	6.6405	51.474	61.477	112.951	0.09992	0.20295	137
138	343.56	328.86	0.015426	0.14843	64.826	6.7374	51.824	61.123	112.947	0.10049	0.20275	138
139	347.73	333.04	0.015472	0.14629	64.634	6.8359	52.175	60.764	112.940	0.10106	0.20255	139
140	351.94	337.25	0.015518	0.14418	64.440	6.9360	52.528	60.403	112.931	0.10163	0.20235	140
141	356.19	341.50	0.015566	0.14209	64.244	7.0377	52.883	60.038	112.921	0.10220	0.20214	141
142	360.48	345.79	0.015613	0.14004	64.047	7.1410	53.238	59.670	112.908	0.10277	0.20194	142
143	364.81	350.11	0.015662	0.13801	63.848	7.2461	53.596	59.298	112.893	0.10334	0.20173	143
144	369.17	354.48	0.015712	0.13600	63.647	7.3529	53.955	58.922	112.877	0.10391	0.20152	144
145	373.58	358.88	0.015762	0.13402	63.445	7.4615	54.315	58.543	112.858	0.10449	0.20130	145
146	378.02	363.32	0.015813	0.13207	63.240	7.5719	54.677	58.159	112.836	0.10507	0.20109	146
147	382.50	367.81	0.015865	0.13014	63.034	7.6842	55.041	57.772	112.813	0.10564	0.20087	147
148	387.03	372.33	0.015917	0.12823	62.825	7.7985	55.406	57.380	112.787	0.10622	0.20065	148
149	391.59	376.89	0.015971	0.12635	62.615	7.9148	55.774	56.985	112.758	0.10681	0.20042	149
150	396.19	381.50	0.016025	0.12448	62.402	8.0331	56.143	56.585	112.728	0.10739	0.20020	150
151	400.84	386.14	0.016080	0.12265	62.187	8.1536	56.514	56.180	112.694	0.10797	0.19997	151
152	405.52	390.83	0.016137	0.12083	61.970	8.2763	56.887	55.771	112.658	0.10856	0.19974	152
153	410.25	395.56	0.016194	0.11903	61.751	8.4011	57.261	55.358	112.619	0.10915	0.19950	153
154	415.02	400.32	0.016252	0.11726	61.529	8.5284	57.638	54.939	112.577	0.10974	0.19926	154
155	419.83	405.13	0.016312	0.11550	61.305	8.6580	58.017	54.515	112.533	0.11034	0.19902	155
156	424.68	409.99	0.016372	0.11376	61.079	8.7901	58.399	54.087	112.485	0.11093	0.19878	156
157	429.58	414.88	0.016434	0.11205	60.849	8.9247	58.782	53.652	112.435	0.11153	0.19853	157
158	434.52	419.82	0.016497	0.11035	60.617	9.0620	59.168	53.213	112.381	0.11213	0.19828	158
159	439.50	424.80	0.016561	0.10867	60.383	9.2020	59.557	52.767	112.324	0.11273	0.19802	159
160	444.53	429.83	0.016627	0.10701	60.145	9.3449	59.948	52.316	112.263	0.11334	0.19776	160
161	449.59	434.90	0.016693	0.10537	59.904	9.4907	60.341	51.858	112.199	0.11395	0.19750	161
162	454.71	440.01	0.016762	0.10374	59.660	9.6395	60.737	51.394	112.131	0.11456	0.19723	162
163	459.87	445.17	0.016831	0.10213	59.413	9.7915	61.136	50.923	112.060	0.11518	0.19696	163
164	465.07	450.37	0.016902	0.10054	59.163	9.9467	61.538	50.446	111.984	0.11580	0.19668	164
165	470.32	455.62	0.016975	0.098956	58.909	10.106	61.943	49.961	111.904	0.11642	0.19640	165
166	475.61	460.92	0.017050	0.097393	58.651	10.268	62.351	49.469	111.820	0.11705	0.19611	166
167	480.95	466.26	0.017126	0.095844	58.390	10.434	62.763	48.969	111.732	0.11768	0.19581	167
168	486.34	471.65	0.017204	0.094309	58.125	10.603	63.178	48.461	111.639	0.11831	0.19552	168
169	491.78	477.08	0.017285	0.092787	57.855	10.777	63.596	47.945	111.541	0.11895	0.19521	169
170	497.26	482.56	0.017367	0.091279	57.581	10.955	64.019	47.419	111.438	0.11959	0.19490	170
171	502.79	488.09	0.017451	0.089783	57.303	11.138	64.445	46.885	111.330	0.12024	0.19458	171
172	508.37	493.67	0.017538	0.088299	57.019	11.325	64.875	46.340	111.216	0.12089	0.19425	172
173	513.99	499.30	0.017627	0.086827	56.731	11.517	65.310	45.786	111.096	0.12155	0.19392	173
174	519.67	504.97	0.017719	0.085365	56.438	11.714	65.750	45.221	110.970	0.12222	0.19358	174



**TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE**

TEMP. °F	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP. °F
	PSIA	PSIG	LIQUID $v_f$	VAPOR $v_g$	LIQUID $l/v_f$	VAPOR $l/v_g$	LIQUID $h_f$	LATENT $h_{fg}$	VAPOR $h_g$	LIQUID $s_f$	VAPOR $s_g$	
175	525.39	510.70	0.017813	0.083914	56.139	11.917	66.194	44.644	110.838	0.12289	0.19323	175
176	531.17	516.47	0.017910	0.082473	55.834	12.125	66.643	44.056	110.699	0.12356	0.19287	176
177	537.00	522.30	0.018011	0.081040	55.523	12.340	67.098	43.455	110.553	0.12425	0.19250	177
178	542.87	528.18	0.018114	0.079616	55.205	12.560	67.558	42.841	110.400	0.12494	0.19212	178
179	548.80	534.11	0.018221	0.078200	54.881	12.788	68.025	42.213	110.238	0.12564	0.19173	179
180	554.78	540.09	0.018332	0.076790	54.549	13.023	68.498	41.570	110.068	0.12635	0.19133	180
181	560.82	546.12	0.018447	0.075386	54.209	13.265	68.978	40.911	109.888	0.12707	0.19092	181
182	566.90	552.21	0.018566	0.073987	53.861	13.516	69.465	40.235	109.700	0.12779	0.19050	182
183	573.04	558.35	0.018690	0.072592	53.503	13.776	69.960	39.540	109.500	0.12853	0.19005	183
184	579.24	564.54	0.018820	0.071201	53.136	14.045	70.464	38.826	109.290	0.12928	0.18960	184
185	585.49	570.79	0.018954	0.069811	52.759	14.324	70.977	38.090	109.067	0.13004	0.18913	185
186	591.80	577.10	0.019095	0.068421	52.370	14.615	71.500	37.332	108.832	0.13082	0.18864	186
187	598.16	583.46	0.019243	0.067031	51.968	14.918	72.034	36.548	108.582	0.13161	0.18813	187
188	604.58	589.88	0.019397	0.065638	51.553	15.235	72.579	35.738	108.317	0.13242	0.18760	188
189	611.05	596.36	0.019561	0.064241	51.123	15.566	73.138	34.897	108.035	0.13325	0.18704	189
190	617.59	602.89	0.019733	0.062837	50.677	15.914	73.711	34.023	107.734	0.13409	0.18646	190
191	624.19	609.49	0.019915	0.061424	50.213	16.280	74.300	33.112	107.412	0.13496	0.18585	191
192	630.84	616.14	0.020110	0.059999	49.728	16.667	74.907	32.160	107.067	0.13585	0.18520	192
193	637.56	622.86	0.020317	0.058558	49.219	17.077	75.534	31.162	106.696	0.13678	0.18452	193
194	644.33	629.64	0.020540	0.057096	48.685	17.514	76.184	30.111	106.295	0.13773	0.18380	194
195	651.18	636.48	0.020782	0.055609	48.119	17.983	76.861	28.998	105.858	0.13873	0.18302	195
196	658.08	643.38	0.021045	0.054089	47.518	18.488	77.568	27.813	105.381	0.13977	0.18218	196
197	665.05	650.35	0.021334	0.052528	46.874	19.038	78.313	26.543	104.856	0.14086	0.18128	197
198	672.08	657.39	0.021655	0.050912	46.178	19.642	79.102	25.169	104.270	0.14202	0.18029	198
199	679.19	664.49	0.022018	0.049224	45.417	20.315	79.946	23.664	103.610	0.14326	0.17918	199
200	686.36	671.66	0.022436	0.047438	44.571	21.080	80.862	21.990	102.853	0.14460	0.17794	200
201	693.60	678.90	0.022931	0.045513	43.609	21.972	81.875	20.086	101.961	0.14609	0.17649	201
202	700.91	686.21	0.023543	0.043375	42.476	23.055	83.030	17.840	100.870	0.14779	0.17475	202
203	708.29	693.59	0.024358	0.040868	41.054	24.469	84.418	15.022	99.439	0.14984	0.17250	203
204	715.75	701.05	0.025647	0.037545	38.991	26.635	86.309	10.951	97.260	0.15264	0.16914	204
204.81	721.91	707.21	0.030525	0.030525	32.760	32.760	91.329	0.000	91.329	0.16016	0.16016	204.81

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	0.20			0.25			0.30			0.35			TEMP. °F
	29.51400*			29.41220*			29.31040*			29.20860*			
	(-155.80 °F)			(-151.60 °F)			(-148.06 °F)			(-145.00 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(188.29)	(86.853)	(0.29985)	(152.68)	(87.337)	(0.29632)	(128.66)	(87.746)	(0.29346)	(111.34)	(88.100)	(0.29106)		
-150	191.91	87.533	0.30207	153.47	87.525	0.29693	—	—	—	—	—	—	-150
-140	198.13	88.717	0.30583	158.46	88.710	0.30069	132.01	88.702	0.29649	113.12	88.695	0.29293	-140
-130	204.35	89.918	0.30953	163.44	89.911	0.30439	136.16	89.904	0.30019	116.68	89.897	0.29664	-130
-120	210.57	91.135	0.31317	168.42	91.129	0.30803	140.31	91.123	0.30383	120.24	91.116	0.30028	-120
-110	216.79	92.370	0.31675	173.39	92.364	0.31161	144.46	92.358	0.30741	123.80	92.352	0.30386	-110
-100	223.01	93.621	0.32028	178.37	93.615	0.31514	148.61	93.609	0.31094	127.36	93.604	0.30739	-100
-90	229.22	94.888	0.32375	183.34	94.883	0.31862	152.76	94.878	0.31442	130.91	94.872	0.31087	-90
-80	235.44	96.173	0.32718	188.32	96.168	0.32205	156.91	96.163	0.31785	134.47	96.158	0.31430	-80
-70	241.65	97.473	0.33056	193.29	97.469	0.32543	161.05	97.464	0.32123	138.02	97.459	0.31768	-70
-60	247.87	98.791	0.33390	198.27	98.786	0.32877	165.20	98.782	0.32457	141.58	98.777	0.32102	-60
-50	254.08	100.124	0.33720	203.24	100.120	0.33206	169.34	100.116	0.32787	145.13	100.112	0.32432	-50
-40	260.29	101.475	0.34045	208.21	101.471	0.33532	173.49	101.467	0.33113	148.69	101.463	0.32758	-40
-30	266.50	102.841	0.34367	213.18	102.837	0.33854	177.63	102.834	0.33435	152.24	102.830	0.33080	-30
-20	272.71	104.224	0.34685	218.15	104.220	0.34172	181.77	104.217	0.33753	155.79	104.213	0.33398	-20
-10	278.93	105.623	0.35000	223.12	105.619	0.34487	185.92	105.616	0.34067	159.34	105.613	0.33713	-10
0	285.14	107.038	0.35311	228.09	107.035	0.34798	190.06	107.032	0.34379	162.89	107.028	0.34024	0
10	291.35	108.469	0.35619	233.06	108.466	0.35106	194.20	108.463	0.34687	166.44	108.460	0.34332	10
20	297.56	109.916	0.35924	238.03	109.913	0.35411	198.34	109.910	0.34992	169.99	109.907	0.34637	20
30	303.76	111.378	0.36225	243.00	111.376	0.35713	202.48	111.373	0.35293	173.54	111.370	0.34939	30
40	309.97	112.857	0.36524	247.96	112.854	0.36011	206.62	112.852	0.35592	177.09	112.849	0.35238	40
50	316.18	114.351	0.36820	252.93	114.348	0.36307	210.76	114.346	0.35888	180.64	114.344	0.35534	50
60	322.39	115.860	0.37114	257.90	115.858	0.36601	214.90	115.856	0.36182	184.19	115.853	0.35827	60
70	328.60	117.385	0.37404	262.87	117.383	0.36891	219.04	117.381	0.36472	187.74	117.379	0.36118	70
80	334.81	118.925	0.37692	267.83	118.923	0.37179	223.18	118.921	0.36761	191.29	118.919	0.36406	80
90	341.01	120.481	0.37978	272.80	120.479	0.37465	227.32	120.477	0.37046	194.84	120.475	0.36692	90
100	347.22	122.051	0.38261	277.77	122.049	0.37748	231.46	122.047	0.37329	198.39	122.045	0.36975	100
110	353.43	123.636	0.38542	282.73	123.635	0.38029	235.60	123.633	0.37610	201.94	123.631	0.37256	110
120	359.64	125.237	0.38820	287.70	125.235	0.38307	239.74	125.233	0.37889	205.48	125.231	0.37534	120
130	365.84	126.852	0.39096	292.66	126.850	0.38584	243.88	126.848	0.38165	209.03	126.847	0.37811	130
140	372.05	128.481	0.39370	297.63	128.480	0.38858	248.02	128.478	0.38439	212.58	128.476	0.38085	140
150	378.26	130.125	0.39642	302.60	130.124	0.39130	252.16	130.122	0.38711	216.13	130.121	0.38357	150
160	—	—	—	—	—	—	256.29	131.781	0.38981	219.67	131.779	0.38626	160

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	0.40			0.45			0.50			0.60			TEMP. °F
	29.10680*			29.0050*			28.90319*			28.80139*			
	(-142.29 °F)			(-139.86 °F)			(-137.64 °F)			(-135.73 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(98.232)	(88.415)	(0.28899)	(87.965)	(88.697)	(0.28718)	(79.698)	(88.955)	(0.28557)	(67.192)	(89.412)	(0.28281)		
-140	98.946	88.688	0.28985	—	—	—	—	—	—	—	—	-140	
-130	102.07	89.890	0.29355	90.700	89.884	0.29083	81.608	89.877	0.28840	67.970	89.863	0.28418	-130
-120	105.18	91.110	0.29720	93.473	91.103	0.29448	84.105	91.097	0.29205	70.053	91.084	0.28783	-120
-110	108.30	92.346	0.30078	96.244	92.340	0.29807	86.601	92.334	0.29563	72.136	92.322	0.29142	-110
-100	111.41	93.598	0.30431	99.015	93.593	0.30160	89.095	93.587	0.29917	74.216	93.576	0.29496	-100
-90	114.53	94.867	0.30779	101.78	94.862	0.30508	91.589	94.857	0.30265	76.296	94.846	0.29844	-90
-80	117.64	96.153	0.31123	104.55	96.148	0.30851	94.081	96.143	0.30608	78.375	96.133	0.30188	-80
-70	120.75	97.455	0.31461	107.32	97.450	0.31190	96.573	97.445	0.30947	80.453	97.436	0.30526	-70
-60	123.86	98.773	0.31795	110.09	98.769	0.31524	99.064	98.764	0.31281	82.530	98.755	0.30861	-60
-50	126.97	100.108	0.32125	112.85	100.104	0.31854	101.55	100.099	0.31611	84.607	100.091	0.31191	-50
-40	130.08	101.459	0.32451	115.62	101.455	0.32180	104.04	101.451	0.31937	86.682	101.443	0.31517	-40
-30	133.19	102.826	0.32773	118.38	102.823	0.32502	106.53	102.819	0.32259	88.758	102.811	0.31839	-30
-20	136.30	104.210	0.33091	121.15	104.206	0.32820	109.02	104.203	0.32577	90.832	104.196	0.32158	-20
-10	139.41	105.610	0.33406	123.91	105.606	0.33135	111.51	105.603	0.32892	92.907	105.596	0.32472	-10
0	142.52	107.025	0.33717	126.67	107.022	0.33446	114.00	107.019	0.33204	94.980	107.013	0.32784	0
10	145.63	108.457	0.34025	129.44	108.454	0.33754	116.48	108.451	0.33512	97.054	108.445	0.33092	10
20	148.73	109.904	0.34330	132.20	109.902	0.34059	118.97	109.899	0.33817	99.127	109.893	0.33397	20
30	151.84	111.368	0.34632	134.96	111.365	0.34361	121.46	111.362	0.34119	101.20	111.357	0.33699	30
40	154.95	112.847	0.34931	137.72	112.844	0.34660	123.94	112.842	0.34418	103.27	112.836	0.33998	40
50	158.05	114.341	0.35227	140.48	114.339	0.34956	126.43	114.336	0.34714	105.34	114.331	0.34295	50
60	161.16	115.851	0.35520	143.24	115.849	0.35250	128.91	115.846	0.35007	107.42	115.842	0.34588	60
70	164.27	117.376	0.35811	146.01	117.374	0.35540	131.40	117.372	0.35298	109.49	117.368	0.34879	70
80	167.37	118.917	0.36099	148.77	118.915	0.35829	133.88	118.913	0.35586	111.56	118.909	0.35167	80
90	170.48	120.473	0.36385	151.53	120.471	0.36114	136.37	120.469	0.35872	113.63	120.465	0.35453	90
100	173.58	122.043	0.36668	154.29	122.042	0.36397	138.85	122.040	0.36155	115.70	122.036	0.35736	100
110	176.69	123.629	0.36949	157.05	123.627	0.36678	141.34	123.626	0.36436	117.77	123.622	0.36017	110
120	179.79	125.230	0.37227	159.81	125.228	0.36957	143.82	125.226	0.36715	119.84	125.223	0.36295	120
130	182.90	126.845	0.37504	162.57	126.843	0.37233	146.31	126.842	0.36991	121.91	126.838	0.36572	130
140	186.00	128.475	0.37778	165.33	128.473	0.37507	148.79	128.472	0.37265	123.98	128.468	0.36846	140
150	189.10	130.119	0.38050	168.09	130.117	0.37779	151.27	130.116	0.37537	126.05	130.113	0.37118	150
160	192.21	131.778	0.38320	170.85	131.776	0.38049	153.76	131.775	0.37807	128.12	131.772	0.37388	160
170	—	—	—	173.61	133.449	0.38317	156.24	133.448	0.38075	130.19	133.445	0.37656	170

\*Inches of mercury below one atmosphere

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	0.70			0.80			0.90			1.0			TEMP. °F
	28.49599*			28.29239*			28.08879*			27.8852*			
	(-130.34 °F)			(-127.33 °F)			(-124.62 °F)			(-122.16 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(58.168)	(89.809)	(0.28049)	(51.341)	(90.161)	(0.27850)	(45.989)	(90.478)	(0.27676)	(41.678)	(90.766)	(0.27521)		
-130	58.229	89.849	0.28061	—	—	—	—	—	—	—	—	—	-130
-120	60.017	91.071	0.28427	52.489	91.058	0.28117	46.634	91.045	0.27844	41.950	91.033	0.27599	-120
-110	61.803	92.310	0.28786	54.054	92.297	0.28477	48.027	92.285	0.28204	43.205	92.273	0.27959	-110
-100	63.589	93.564	0.29140	55.618	93.553	0.28831	49.418	93.542	0.28558	44.458	93.530	0.28314	-100
-90	65.373	94.835	0.29488	57.180	94.825	0.29179	50.808	94.814	0.28907	45.711	94.803	0.28663	-90
-80	67.156	96.123	0.29832	58.742	96.113	0.29523	52.198	96.103	0.29251	46.962	96.093	0.29007	-80
-70	68.939	97.426	0.30171	60.303	97.417	0.29862	53.586	97.408	0.29590	48.213	97.398	0.29346	-70
-60	70.721	98.747	0.30505	61.863	98.738	0.30197	54.974	98.729	0.29925	49.463	98.720	0.29681	-60
-50	72.501	100.083	0.30835	63.423	100.075	0.30527	56.361	100.066	0.30255	50.712	100.058	0.30012	-50
-40	74.282	101.435	0.31162	64.981	101.428	0.30854	57.748	101.420	0.30582	51.961	101.412	0.30338	-40
-30	76.062	102.804	0.31484	66.538	102.797	0.31176	59.133	102.789	0.30904	53.209	102.782	0.30661	-30
-20	77.841	104.189	0.31802	68.097	104.182	0.31495	60.519	104.175	0.31223	54.456	104.168	0.30980	-20
-10	79.620	105.590	0.32117	69.654	105.583	0.31810	61.903	105.576	0.31538	55.703	105.570	0.31295	-10
0	81.398	107.006	0.32429	71.211	107.000	0.32121	63.288	106.994	0.31850	56.949	106.988	0.31607	0
10	83.176	108.439	0.32737	72.767	108.433	0.32430	64.672	108.427	0.32158	58.195	108.421	0.31915	10
20	84.953	109.887	0.33042	74.323	109.882	0.32735	66.055	109.876	0.32464	59.441	109.871	0.32221	20
30	86.730	111.352	0.33345	75.879	111.346	0.33037	67.439	111.341	0.32766	60.686	111.336	0.32523	30
40	88.507	112.831	0.33644	77.434	112.826	0.33336	68.821	112.821	0.33065	61.931	112.816	0.32822	40
50	90.284	114.327	0.33940	78.989	114.322	0.33633	70.204	114.317	0.33361	63.176	114.312	0.33119	50
60	92.060	115.837	0.34233	80.544	115.833	0.33926	71.587	115.828	0.33655	64.421	115.823	0.33412	60
70	93.836	117.363	0.34524	82.098	117.359	0.34217	72.969	117.354	0.33946	65.665	117.350	0.33703	70
80	95.612	118.904	0.34813	83.653	118.900	0.34505	74.351	118.896	0.34234	66.909	118.892	0.33992	80
90	97.388	120.461	0.35098	85.207	120.457	0.34791	75.732	120.453	0.34520	68.153	120.449	0.34278	90
100	99.164	122.032	0.35382	86.761	122.022	0.35074	77.114	122.024	0.34803	69.397	122.021	0.34561	100
110	100.94	123.618	0.35662	88.314	123.615	0.35355	78.495	123.611	0.35084	70.640	123.607	0.34842	110
120	102.71	125.219	0.35941	89.868	125.216	0.35634	79.877	125.212	0.35363	71.884	125.209	0.35121	120
130	104.49	126.835	0.36217	91.422	126.832	0.35910	81.258	126.828	0.35639	73.127	126.825	0.35397	130
140	106.26	128.465	0.36491	92.975	128.462	0.36184	82.639	128.459	0.35914	74.370	128.455	0.35671	140
150	108.04	130.110	0.36763	94.528	130.107	0.36456	84.020	130.104	0.36186	75.613	130.101	0.35943	150
160	109.81	131.769	0.37033	96.081	131.766	0.36726	85.400	131.763	0.36456	76.856	131.760	0.36213	160
170	111.59	133.442	0.37301	97.634	133.439	0.36994	86.781	133.436	0.36723	78.098	133.434	0.36481	170
180	—	—	—	99.187	135.127	0.37260	88.162	135.124	0.36989	79.341	135.121	0.36747	180

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	1.2			1.4			1.6			1.8			TEMP. °F
	27.4780*			27.0708*			26.6636*			26.2564*			
	(-117.80 °F)			(-114.02 °F)			(-110.66 °F)			(-107.63 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(35.154)	(91.278)	(0.27255)	(30.444)	(91.724)	(0.27033)	(26.879)	(92.119)	(0.26842)	(24.084)	(92.474)	(0.26675)		
-110	35.972	92.249	0.27536	30.806	92.225	0.27177	26.931	92.201	0.26865	—	—	—	-110
-100	37.019	93.508	0.27891	31.705	93.485	0.27532	27.719	93.462	0.27221	24.619	93.439	0.26946	-100
-90	38.064	94.782	0.28240	32.603	94.761	0.27882	28.506	94.739	0.27571	25.220	94.718	0.27297	-90
-80	39.019	96.073	0.28585	33.500	96.053	0.28227	29.293	96.033	0.27916	26.020	96.013	0.27642	-80
-70	40.153	97.379	0.28924	34.396	97.361	0.28567	30.078	97.342	0.28257	26.720	97.323	0.27983	-70
-60	41.196	98.702	0.29259	35.291	98.685	0.28902	30.862	98.667	0.28593	27.418	98.649	0.28319	-60
-50	42.238	100.041	0.29590	36.186	100.024	0.29233	31.646	100.008	0.28924	28.116	99.991	0.28650	-50
-40	43.280	101.396	0.29917	37.080	101.380	0.29560	32.429	101.365	0.29251	28.813	101.349	0.28978	-40
-30	44.321	102.767	0.30240	37.973	102.752	0.29883	33.212	102.737	0.29574	29.509	102.722	0.29301	-30
-20	45.362	104.154	0.30559	38.866	104.140	0.30203	33.994	104.126	0.29894	30.205	104.112	0.29621	-20
-10	46.402	105.556	0.30874	39.758	105.543	0.30518	34.776	105.530	0.30209	30.900	105.517	0.29937	-10
0	47.441	106.975	0.31186	40.650	106.962	0.30830	35.557	106.950	0.30522	31.595	106.937	0.30249	0
10	48.481	108.409	0.31495	41.542	108.397	0.31139	36.337	108.385	0.30831	32.290	108.373	0.30558	10
20	49.520	109.859	0.31800	42.433	109.848	0.31445	37.118	109.837	0.31136	32.984	109.825	0.30864	20
30	50.558	111.325	0.32103	43.324	111.314	0.31747	37.898	111.303	0.31439	33.678	111.293	0.31167	30
40	51.596	112.806	0.32402	44.214	112.796	0.32047	38.677	112.785	0.31739	34.371	112.775	0.31467	40
50	52.634	114.302	0.32699	45.104	114.293	0.32343	39.457	114.283	0.32035	35.064	114.273	0.31764	50
60	53.672	115.814	0.32992	45.994	115.805	0.32637	40.236	115.796	0.32329	35.757	115.786	0.32058	60
70	54.709	117.341	0.33284	46.884	117.332	0.32928	41.015	117.324	0.32621	36.450	117.315	0.32349	70
80	55.747	118.883	0.33572	47.773	118.875	0.33217	41.794	118.867	0.32909	37.143	118.858	0.32638	80
90	56.784	120.441	0.33858	48.663	120.433	0.33503	42.572	120.425	0.33195	37.835	120.417	0.32924	90
100	57.821	122.013	0.34141	49.552	122.005	0.33786	43.350	121.998	0.33479	38.527	121.990	0.33207	100
110	58.857	123.600	0.34422	50.441	123.593	0.34067	44.129	123.585	0.33760	39.219	123.578	0.33488	110
120	59.894	125.202	0.34701	51.330	125.195	0.34346	44.907	125.188	0.34039	39.911	125.181	0.33767	120
130	60.930	126.818	0.34978	52.218	126.811	0.34623	45.684	126.805	0.34315	40.603	126.798	0.34044	130
140	61.966	128.449	0.35252	53.107	128.443	0.34897	46.462	128.436	0.34590	41.294	128.430	0.34318	140
150	63.003	130.094	0.35524	53.995	130.088	0.35169	47.240	130.082	0.34862	41.986	130.076	0.34591	150
160	64.039	131.754	0.35794	54.884	131.748	0.35439	48.017	131.742	0.35132	42.677	131.736	0.34861	160
170	65.075	133.428	0.36062	55.772	133.422	0.35707	48.795	133.417	0.35400	43.368	133.411	0.35129	170
180	66.110	135.116	0.36328	56.660	135.110	0.35973	49.572	135.105	0.35666	44.059	135.099	0.35395	180
190	67.146	136.818	0.36592	57.548	136.812	0.36237	50.349	136.807	0.35930	44.750	136.802	0.35659	190
200	—	—	—	—	—	—	—	—	—	45.441	138.518	0.35921	200

\*Inches of mercury below one atmosphere



TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Temperature (TEMP. °F) and Absolute Pressure (lb/sq in) at intervals of 0.5 units (2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5). Each pressure interval has sub-columns for Volume (V), Enthalpy (H), and Entropy (S). Values are provided for temperatures from -100 to 240 °F.

\*Inches of mercury below one atmosphere

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in														
TEMP.		6.0			6.5			7.0			7.5			TEMP.
		17.7051*			16.6871*			15.6691*			14.6511*			
		(-72.86 °F)			(-70.26 °F)			(-67.82 °F)			(-65.52 °F)			
°F	V	H	S	V	H	S	V	H	S	V	H	S	°F	
	(7.8494)	(96.539)	(0.25046)	(7.2858)	(96.838)	(0.24943)	(6.8001)	(97.119)	(0.24848)	(6.3770)	(97.383)	(0.24760)		
-80	—	—	—	—	—	—	—	—	—	—	—	—	-80	
-70	7.9113	96.922	0.25144	7.2911	96.873	0.24952	—	—	—	—	—	—	-70	
-60	8.1273	98.272	0.25487	7.4912	98.226	0.25295	6.9459	98.181	0.25116	6.4734	98.135	0.24950	-60	
-50	8.3425	99.636	0.25824	7.6906	99.593	0.25632	7.1317	99.550	0.25455	6.6473	99.507	0.25289	-50	
-40	8.5571	101.014	0.26156	7.8892	100.974	0.25965	7.3168	100.934	0.25788	6.8206	100.893	0.25623	-40	
-30	8.7710	102.407	0.26484	8.0873	102.369	0.26294	7.5012	102.331	0.26117	6.9932	102.293	0.25952	-30	
-20	8.9844	103.814	0.26808	8.2848	103.778	0.26618	7.6851	103.742	0.26442	7.1653	103.706	0.26278	-20	
-10	9.1973	105.235	0.27127	8.4818	105.201	0.26938	7.8684	105.167	0.26762	7.3368	105.134	0.26599	-10	
0	9.4097	106.671	0.27443	8.6783	106.639	0.27254	8.0513	106.607	0.27079	7.5079	106.575	0.26916	0	
10	9.6217	108.121	0.27755	8.8744	108.091	0.27567	8.2338	108.061	0.27392	7.6786	108.030	0.27229	10	
20	9.8333	109.586	0.28064	9.0701	109.558	0.27876	8.4159	109.529	0.27701	7.8489	109.500	0.27538	20	
30	10.045	111.066	0.28369	9.2655	111.039	0.28181	8.5976	111.011	0.28007	8.0188	110.984	0.27845	30	
40	10.256	112.560	0.28671	9.4605	112.534	0.28484	8.7790	112.508	0.28310	8.1884	112.482	0.28148	40	
50	10.466	114.068	0.28970	9.6553	114.044	0.28783	8.9602	114.019	0.28609	8.3577	113.995	0.28447	50	
60	10.677	115.592	0.29266	9.8498	115.568	0.29079	9.1410	115.545	0.28906	8.5268	115.522	0.28744	60	
70	10.887	117.129	0.29559	10.044	117.107	0.29372	9.3217	117.085	0.29199	8.6956	117.063	0.29038	70	
80	11.097	118.681	0.29849	10.238	118.660	0.29663	9.5021	118.639	0.29490	8.8642	118.618	0.29328	80	
90	11.307	120.248	0.30137	10.432	120.228	0.29950	9.6823	120.208	0.29778	9.0326	120.187	0.29617	90	
100	11.516	121.829	0.30422	10.626	121.810	0.30236	9.8623	121.790	0.30063	9.2008	121.771	0.29902	100	
110	11.725	123.424	0.30704	10.819	123.406	0.30518	10.042	123.387	0.30346	9.3688	123.369	0.30185	110	
120	11.935	125.033	0.30984	11.012	125.016	0.30798	10.222	124.998	0.30626	9.5367	124.981	0.30466	120	
130	12.144	126.657	0.31262	11.206	126.640	0.31076	10.401	126.623	0.30904	9.7044	126.607	0.30744	130	
140	12.353	128.295	0.31538	11.399	128.279	0.31352	10.581	128.262	0.31180	9.8720	128.246	0.31019	140	
150	12.562	129.946	0.31811	11.592	129.931	0.31625	10.760	129.915	0.31453	10.040	129.900	0.31293	150	
160	12.770	131.612	0.32082	11.784	131.597	0.31896	10.939	131.582	0.31724	10.207	131.567	0.31564	160	
170	12.979	133.291	0.32350	11.977	133.277	0.32165	11.118	133.263	0.31993	10.374	133.249	0.31833	170	
180	13.187	134.985	0.32617	12.170	134.971	0.32432	11.297	134.957	0.32260	10.541	134.944	0.32100	180	
190	13.396	136.691	0.32882	12.362	136.678	0.32697	11.476	136.665	0.32525	10.708	136.652	0.32365	190	
200	13.604	138.412	0.33145	12.555	138.399	0.32960	11.655	138.386	0.32788	10.875	138.374	0.32628	200	
210	13.812	140.146	0.33406	12.747	140.133	0.33221	11.834	140.121	0.33049	11.042	140.109	0.32889	210	
220	14.021	141.893	0.33665	12.939	141.881	0.33480	12.012	141.869	0.33308	11.209	141.858	0.33148	220	
230	14.229	143.653	0.33922	13.131	143.642	0.33737	12.191	143.631	0.33565	11.376	143.619	0.33406	230	
240	—	—	—	—	—	—	12.369	145.405	0.33821	11.542	145.394	0.33661	240	

  

ABSOLUTE PRESSURE, lb/sq in														
TEMP.		8.0			8.5			9.0			9.5			TEMP.
		13.6331*			12.6151*			11.5971*			10.5791*			
		(-63.34 °F)			(-61.27 °F)			(-59.29 °F)			(-57.40 °F)			
°F	V	H	S	V	H	S	V	H	S	V	H	S	°F	
	(6.0050)	(97.633)	(0.24678)	(5.6753)	(97.869)	(0.24602)	(5.3810)	(98.095)	(0.24531)	(5.1166)	(98.310)	(0.24463)		
-60	6.0599	98.089	0.24793	5.6950	98.043	0.24646	—	—	—	—	—	—	-60	
-50	6.2235	99.464	0.25133	5.8495	99.421	0.24986	5.5171	99.378	0.24847	5.2196	99.334	0.24716	-50	
-40	6.3864	100.853	0.25468	6.0034	100.812	0.25322	5.6628	100.771	0.25183	5.3581	100.731	0.25052	-40	
-30	6.5488	102.255	0.25798	6.1566	102.216	0.25652	5.8079	102.178	0.25515	5.4960	102.140	0.25384	-30	
-20	6.7105	103.670	0.26124	6.3092	103.634	0.25978	5.9525	103.598	0.25841	5.6333	103.562	0.25711	-20	
-10	6.8717	105.100	0.26445	6.4613	105.066	0.26300	6.0965	105.031	0.26164	5.7700	104.997	0.26034	-10	
0	7.0325	106.543	0.26762	6.6129	106.511	0.26618	6.2400	106.478	0.26482	5.9063	106.446	0.26353	0	
10	7.1928	108.000	0.27076	6.7641	107.970	0.26932	6.3831	107.939	0.26796	6.0422	107.909	0.26667	10	
20	7.3527	109.471	0.27386	6.9150	109.443	0.27242	6.5258	109.414	0.27107	6.1777	109.385	0.26978	20	
30	7.5123	110.957	0.27692	7.0655	110.930	0.27549	6.6682	110.902	0.27414	6.3128	110.875	0.27286	30	
40	7.6716	112.456	0.27996	7.2156	112.431	0.27853	6.8103	112.405	0.27718	6.4476	112.379	0.27590	40	
50	7.8306	113.970	0.28296	7.3655	113.946	0.28153	6.9520	113.921	0.28018	6.5821	113.896	0.27891	50	
60	7.9893	115.498	0.28592	7.5151	115.475	0.28450	7.0935	115.451	0.28316	6.7164	115.428	0.28188	60	
70	8.1478	117.040	0.28886	7.6644	117.018	0.28744	7.2348	116.996	0.28610	6.8503	116.973	0.28483	70	
80	8.3061	118.597	0.29177	7.8136	118.575	0.29035	7.3758	118.554	0.28901	6.9841	118.533	0.28774	80	
90	8.4641	120.167	0.29466	7.9625	120.147	0.29324	7.5166	120.127	0.29190	7.1177	120.106	0.29063	90	
100	8.6220	121.752	0.29751	8.1113	121.732	0.29610	7.6573	121.713	0.29476	7.2511	121.694	0.29349	100	
110	8.7797	123.350	0.30035	8.2598	123.332	0.29893	7.7977	123.313	0.29759	7.3843	123.295	0.29633	110	
120	8.9372	124.963	0.30315	8.4082	124.945	0.30174	7.9380	124.928	0.30040	7.5173	124.910	0.29914	120	
130	9.0946	126.590	0.30593	8.5565	126.573	0.30452	8.0782	126.556	0.30319	7.6502	126.539	0.30193	130	
140	9.2519	128.230	0.30869	8.7046	128.214	0.30728	8.2182	128.198	0.30595	7.7830	128.182	0.30469	140	
150	9.4090	129.885	0.31143	8.8526	129.869	0.31002	8.3581	129.854	0.30869	7.9156	129.838	0.30743	150	
160	9.5660	131.553	0.31414	9.0005	131.538	0.31273	8.4979	131.523	0.31140	8.0482	131.508	0.31014	160	
170	9.7229	133.234	0.31683	9.1483	133.220	0.31543	8.6376	133.206	0.31410	8.1806	133.192	0.31284	170	
180	9.8797	134.930	0.31951	9.2960	134.916	0.31810	8.7771	134.902	0.31677	8.3129	134.889	0.31551	180	
190	10.036	136.639	0.32216	9.4436	136.626	0.32075	8.9166	136.612	0.31942	8.4451	136.599	0.31817	190	
200	10.193	138.361	0.32479	9.5911	138.348	0.32338	9.0560	138.336	0.32205	8.5773	138.323	0.32080	200	
210	10.350	140.097	0.32740	9.7385	140.085	0.32599	9.1953	140.072	0.32467	8.7093	140.060	0.32341	210	
220	10.506	141.846	0.32999	9.8859	141.834	0.32859	9.3346	141.822	0.32726	8.8413	141.810	0.32601	220	
230	10.663	143.608	0.33256	10.033	143.597	0.33116	9.4738	143.585	0.32984	8.9732	143.574	0.32858	230	
240	10.819	145.383	0.33512	10.180	145.372	0.33372	9.6129	145.361	0.33243	9.1051	145.350	0.33114	240	
250	—	—	—	—	—	—	9.7519	147.150	0.33493	9.2369	147.139	0.33368	250	

\*Inches of mercury below one atmosphere



**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)*

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	10.0			10.5			11.0			11.5			TEMP. °F
	9.561*			8.543*			7.525*			6.507*			
	(−55.58 °F)			(−53.84 °F)			(−52.17 °F)			(−50.55 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(4.8778)	(98.515)	(0.24399)	(4.6609)	(98.712)	(0.24339)	(4.4630)	(98.901)	(0.24282)	(4.2818)	(99.083)	(0.24227)	°F	
−50	4.9518	99.291	0.24590	4.7096	99.247	0.24470	4.4893	99.204	0.24356	4.2882	99.160	0.24246	−50
−40	5.0838	100.690	0.24927	4.8357	100.649	0.24808	4.6101	100.608	0.24695	4.4041	100.567	0.24585	−40
−30	5.2152	102.101	0.25260	4.9612	102.063	0.25141	4.7302	102.024	0.25028	4.5193	101.985	0.24919	−30
−20	5.3460	103.526	0.25588	5.0860	103.489	0.25470	4.8497	103.453	0.25357	4.6340	103.416	0.25249	−20
−10	5.4762	104.963	0.25911	5.2104	104.929	0.25793	4.9687	104.895	0.25681	4.7481	104.860	0.25573	−10
0	5.6060	106.414	0.26230	5.3343	106.382	0.26113	5.0872	106.349	0.26001	4.8617	106.317	0.25894	0
10	5.7353	107.878	0.26545	5.4577	107.848	0.26428	5.2053	107.817	0.26317	4.9749	107.786	0.26210	10
20	5.8643	109.356	0.26856	5.5808	109.327	0.26740	5.3230	109.298	0.26629	5.0877	109.269	0.26522	20
30	5.9929	110.847	0.27164	5.7035	110.820	0.27048	5.4404	110.792	0.26937	5.2001	110.765	0.26831	30
40	6.1212	112.353	0.27468	5.8259	112.327	0.27353	5.5574	112.300	0.27242	5.3122	112.274	0.27136	40
50	6.2492	113.872	0.27769	5.9479	113.847	0.27654	5.6741	113.822	0.27543	5.4240	113.797	0.27438	50
60	6.3769	115.404	0.28067	6.0697	115.381	0.27952	5.7905	115.357	0.27842	5.5356	115.334	0.27736	60
70	6.5044	116.951	0.28362	6.1913	116.929	0.28247	5.9067	116.906	0.28137	5.6469	116.884	0.28032	70
80	6.6316	118.512	0.28654	6.3126	118.490	0.28539	6.0227	118.469	0.28429	5.7579	118.448	0.28324	80
90	6.7586	120.086	0.28943	6.4338	120.066	0.28828	6.1385	120.045	0.28719	5.8688	120.025	0.28614	90
100	6.8855	121.674	0.29229	6.5547	121.655	0.29115	6.2540	121.636	0.29005	5.9795	121.616	0.28901	100
110	7.0122	123.276	0.29513	6.6755	123.258	0.29399	6.3694	123.239	0.29289	6.0900	123.221	0.29185	110
120	7.1387	124.892	0.29794	6.7961	124.875	0.29680	6.4847	124.857	0.29571	6.2003	124.839	0.29467	120
130	7.2651	126.522	0.30073	6.9166	126.505	0.29959	6.5998	126.488	0.29850	6.3105	126.471	0.29746	130
140	7.3913	128.165	0.30349	7.0369	128.149	0.30235	6.7147	128.133	0.30126	6.4206	128.117	0.30022	140
150	7.5174	129.822	0.30623	7.1571	129.807	0.30509	6.8296	129.791	0.30401	6.5305	129.776	0.30297	150
160	7.6434	131.493	0.30895	7.2772	131.478	0.30781	6.9443	131.463	0.30673	6.6403	131.448	0.30569	160
170	7.7693	133.177	0.31165	7.3972	133.163	0.31051	7.0589	133.149	0.30942	6.7500	133.134	0.30839	170
180	7.8951	134.875	0.31432	7.5170	134.861	0.31318	7.1734	134.847	0.31210	6.8596	134.834	0.31106	180
190	8.0208	136.586	0.31697	7.6368	136.573	0.31584	7.2878	136.560	0.31476	6.9691	136.546	0.31372	190
200	8.1464	138.310	0.31961	7.7565	138.298	0.31847	7.4021	138.285	0.31739	7.0785	138.272	0.31636	200
210	8.2719	140.048	0.32222	7.8762	140.036	0.32109	7.5164	140.023	0.32001	7.1879	140.011	0.31897	210
220	8.3974	141.799	0.32482	7.9957	141.787	0.32368	7.6306	141.775	0.32260	7.2972	141.763	0.32157	220
230	8.5228	143.562	0.32739	8.1152	143.551	0.32626	7.7447	143.540	0.32518	7.4064	143.528	0.32415	230
240	8.6481	145.339	0.32995	8.2346	145.328	0.32882	7.8587	145.317	0.32774	7.5155	145.306	0.32671	240
250	8.7734	147.129	0.33249	8.3540	147.118	0.33136	7.9727	147.107	0.33028	7.6246	147.097	0.32925	250
TEMP. °F	12.0			13.0			14.0			14.696			TEMP. °F
	5.489*			2.435*			1.417*			0.000			
	(−48.99 °F)			(−46.01 °F)			(−43.21 °F)			(−41.35 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(4.1151)	(99.258)	(0.24175)	(3.8190)	(99.591)	(0.24078)	(3.5636)	(99.902)	(0.23989)	(3.4058)	(100.108)	(0.23931)	°F	
−40	4.2152	100.525	0.24481	3.8811	100.442	0.24283	3.5946	100.359	0.24098	3.4183	100.301	0.23977	−40
−30	4.3260	101.947	0.24815	3.9839	101.869	0.24618	3.6907	101.790	0.24435	3.5102	101.732	0.24314	−30
−20	4.4362	103.380	0.25145	4.0862	103.307	0.24949	3.7862	103.233	0.24767	3.6014	103.186	0.24647	−20
−10	4.5458	104.826	0.25470	4.1879	104.757	0.25275	3.8811	104.687	0.25094	3.6922	104.639	0.24975	−10
0	4.6549	106.284	0.25791	4.2891	106.219	0.25597	3.9755	106.154	0.25416	3.7824	106.108	0.25298	0
10	4.7636	107.755	0.26108	4.3899	107.694	0.25914	4.0695	107.632	0.25735	3.8722	107.589	0.25617	10
20	4.8719	109.240	0.26420	4.4902	109.182	0.26228	4.1630	109.123	0.26049	3.9616	109.082	0.25931	20
30	4.9799	110.737	0.26729	4.5902	110.682	0.26537	4.2562	110.627	0.26359	4.0506	110.588	0.26242	30
40	5.0875	112.248	0.27035	4.6899	112.196	0.26843	4.3491	112.143	0.26666	4.1393	112.107	0.26549	40
50	5.1948	113.773	0.27337	4.7893	113.723	0.27146	4.4417	113.673	0.26969	4.2276	113.638	0.26852	50
60	5.3019	115.310	0.27635	4.8884	115.263	0.27445	4.5340	115.216	0.27268	4.3157	115.183	0.27152	60
70	5.4087	116.862	0.27931	4.9872	116.817	0.27741	4.6260	116.772	0.27565	4.4036	116.740	0.27449	70
80	5.5153	118.426	0.28224	5.0859	118.384	0.28034	4.7178	118.341	0.27858	4.4912	118.311	0.27743	80
90	5.6216	120.005	0.28514	5.1843	119.964	0.28324	4.8094	119.923	0.28149	4.5786	119.895	0.28034	90
100	5.7278	121.597	0.28801	5.2825	121.558	0.28612	4.9009	121.519	0.28437	4.6659	121.492	0.28322	100
110	5.8338	123.202	0.29085	5.3806	123.165	0.28896	4.9921	123.128	0.28722	4.7529	123.102	0.28607	110
120	5.9396	124.822	0.29367	5.4785	124.786	0.29178	5.0832	124.751	0.29004	4.8398	124.726	0.28889	120
130	6.0453	126.454	0.29646	5.5762	126.420	0.29458	5.1741	126.386	0.29284	4.9265	126.363	0.29169	130
140	6.1509	128.101	0.29923	5.6738	128.068	0.29735	5.2649	128.036	0.29561	5.0131	128.013	0.29447	140
150	6.2563	129.760	0.30197	5.7713	129.729	0.30010	5.3556	129.698	0.29836	5.0996	129.676	0.29722	150
160	6.3617	131.433	0.30469	5.8687	131.404	0.30282	5.4461	131.374	0.30109	5.1859	131.353	0.29995	160
170	6.4669	133.120	0.30739	5.9659	133.091	0.30552	5.5365	133.063	0.30379	5.2722	133.043	0.30265	170
180	6.5720	134.820	0.31007	6.0631	134.792	0.30820	5.6269	134.765	0.30647	5.3583	134.746	0.30534	180
190	6.6770	136.533	0.31273	6.1601	136.507	0.31086	5.7171	136.480	0.30913	5.4444	136.462	0.30800	190
200	6.7819	138.259	0.31537	6.2571	138.234	0.31350	5.8073	138.208	0.31177	5.5303	138.191	0.31064	200
210	6.8868	139.999	0.31798	6.3540	139.974	0.31612	5.8974	139.950	0.31439	5.6162	139.933	0.31326	210
220	6.9916	141.751	0.32058	6.4508	141.728	0.31872	5.9874	141.704	0.31699	5.7020	141.688	0.31586	220
230	7.0963	143.517	0.32316	6.5476	143.494	0.32130	6.0773	143.471	0.31957	5.7878	143.455	0.31844	230
240	7.2009	145.295	0.32572	6.6443	145.273	0.32386	6.1672	145.251	0.32214	5.8735	145.236	0.32101	240
250	7.3055	147.086	0.32826	6.7409	147.065	0.32640	6.2570	147.044	0.32468	5.9591	147.029	0.32355	250
260	7.4100	148.890	0.33079	6.8375	148.869	0.32893	6.3468	148.849	0.32720	6.0446	148.835	0.32608	260

\*Inches of mercury below one atmosphere

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP.	15			16			17			18			TEMP.
	0.304			1.304			2.304			3.304			
	(-40.57 °F)			(-38.06 °F)			(-35.67 °F)			(-33.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(3.3412)	(100.194)	(0.23906)	(3.1456)	(100.471)	(0.23829)	(2.9722)	(100.732)	(0.23757)	(2.8174)	(100.981)	(0.23689)	°F	
-40	3.3463	100.276	0.23925	—	—	—	—	—	—	—	—	—	-40
-30	3.4365	101.712	0.24263	3.2141	101.633	0.24102	3.0178	101.554	0.23949	2.8433	101.474	0.23805	-30
-20	3.5261	103.159	0.24596	3.2986	103.085	0.24436	3.0977	103.011	0.24285	2.9192	102.936	0.24141	-20
-10	3.6152	104.618	0.24924	3.3824	104.548	0.24765	3.1771	104.478	0.24615	2.9945	104.407	0.24472	-10
0	3.7037	106.088	0.25248	3.4658	106.022	0.25089	3.2559	105.956	0.24940	3.0694	105.890	0.24798	0
10	3.7918	107.570	0.25567	3.5488	107.508	0.25409	3.3343	107.446	0.25260	3.1437	107.383	0.25119	10
20	3.8794	109.065	0.25882	3.6313	109.006	0.25725	3.4123	108.947	0.25576	3.2177	108.888	0.25436	20
30	3.9667	110.571	0.26192	3.7134	110.516	0.26036	3.4899	110.460	0.25889	3.2912	110.404	0.25749	30
40	4.0537	112.091	0.26500	3.7953	112.038	0.26344	3.5672	111.985	0.26197	3.3644	111.932	0.26058	40
50	4.1404	113.623	0.26803	3.8768	113.573	0.26648	3.6441	113.523	0.26502	3.4374	113.473	0.26363	50
60	4.2268	115.168	0.27103	3.9580	115.121	0.26949	3.7208	115.073	0.26803	3.5100	115.026	0.26665	60
70	4.3129	116.727	0.27400	4.0390	116.681	0.27246	3.7973	116.636	0.27101	3.5824	116.591	0.26963	70
80	4.3989	118.298	0.27694	4.1197	118.255	0.27540	3.8735	118.212	0.27395	3.6545	118.169	0.27258	80
90	4.4846	119.882	0.27985	4.2003	119.841	0.27832	3.9494	119.800	0.27687	3.7265	119.759	0.27551	90
100	4.5701	121.480	0.28273	4.2806	121.441	0.28120	4.0252	121.402	0.27976	3.7982	121.363	0.27840	100
110	4.6554	123.091	0.28559	4.3608	123.054	0.28406	4.1008	123.016	0.28262	3.8698	122.979	0.28126	110
120	4.7406	124.715	0.28841	4.4408	124.679	0.28689	4.1763	124.644	0.28545	3.9412	124.608	0.28409	120
130	4.8256	126.352	0.29121	4.5207	126.318	0.28969	4.2516	126.284	0.28826	4.0124	126.250	0.28690	130
140	4.9105	128.003	0.29399	4.6004	127.970	0.29247	4.3267	127.938	0.29104	4.0835	127.905	0.28968	140
150	4.9952	129.667	0.29674	4.6800	129.636	0.29522	4.4018	129.604	0.29379	4.1545	129.573	0.29244	150
160	5.0799	131.344	0.29947	4.7594	131.314	0.29795	4.4767	131.284	0.29652	4.2254	131.524	0.29518	160
170	5.1644	133.034	0.30217	4.8388	133.005	0.30066	4.5515	132.976	0.29923	4.2961	132.948	0.29789	170
180	5.2488	134.737	0.30486	4.9181	134.710	0.30334	4.6262	134.682	0.30192	4.3668	134.654	0.30058	180
190	5.3332	136.454	0.30752	4.9972	136.427	0.30601	4.7008	136.400	0.30459	4.4373	136.374	0.30324	190
200	5.4174	138.183	0.31016	5.0763	138.157	0.30865	4.7753	138.132	0.30723	4.5078	138.106	0.30589	200
210	5.5016	139.925	0.31278	5.1553	139.901	0.31127	4.8498	139.876	0.30986	4.5782	139.851	0.30852	210
220	5.5857	141.680	0.31538	5.2343	141.657	0.31388	4.9241	141.633	0.31246	4.6485	141.609	0.31112	220
230	5.6697	143.448	0.31797	5.3131	143.425	0.31646	4.9984	143.403	0.31504	4.7187	143.380	0.31371	230
240	5.7537	145.229	0.32053	5.3919	145.207	0.31902	5.0727	145.185	0.31761	4.7889	145.163	0.31627	240
250	5.8376	147.022	0.32307	5.4706	147.001	0.32157	5.1469	146.980	0.32016	4.8590	146.958	0.31882	250
260	5.9215	148.828	0.32560	5.5493	148.808	0.32410	5.2210	148.787	0.32269	4.9291	148.767	0.32135	260
270	—	—	—	5.6280	150.627	0.32661	5.2950	150.607	0.32520	4.9991	150.587	0.32386	270

  

TEMP.	19			20			21			22			TEMP.
	4.304			5.304			6.304			7.304			
	(-31.21 °F)			(-29.12 °F)			(-27.10 °F)			(-25.16 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(2.6784)	(101.218)	(0.23626)	(2.5527)	(101.444)	(0.23566)	(2.4386)	(101.660)	(0.23509)	(2.3345)	(101.868)	(0.23455)	°F	
-30	2.6871	101.394	0.23667	—	—	—	—	—	—	—	—	—	-30
-20	2.7595	102.861	0.24004	2.6156	102.785	0.23874	2.4855	102.709	0.23750	2.3672	102.633	0.23630	-20
-10	2.8312	104.337	0.24336	2.6841	104.266	0.24207	2.5511	104.195	0.24084	2.4301	104.123	0.23965	-10
0	2.9024	105.823	0.24663	2.7521	105.756	0.24535	2.6161	105.689	0.24412	2.4925	105.622	0.24295	0
10	2.9731	107.320	0.24986	2.8196	107.257	0.24858	2.6807	107.194	0.24736	2.5544	107.131	0.24620	10
20	3.0435	108.828	0.25303	2.8867	108.769	0.25177	2.7448	108.709	0.25056	2.6159	108.650	0.24940	20
30	3.1134	110.348	0.25617	2.9534	110.292	0.25491	2.8086	110.235	0.25370	2.6770	110.179	0.25255	30
40	3.1830	111.879	0.25926	3.0198	111.826	0.25801	2.8720	111.773	0.25681	2.7377	111.719	0.25567	40
50	3.2523	113.422	0.26232	3.0858	113.372	0.26107	2.9351	113.321	0.25988	2.7981	113.271	0.25874	50
60	3.3214	114.978	0.26534	3.1516	114.930	0.26410	2.9979	114.882	0.26291	2.8583	114.834	0.26178	60
70	3.3901	116.545	0.26833	3.2171	116.500	0.26709	3.0605	116.454	0.26591	2.9182	116.409	0.26478	70
80	3.4586	118.126	0.27129	3.2823	118.082	0.27005	3.1228	118.039	0.26887	2.9778	117.995	0.26775	80
90	3.5270	119.718	0.27421	3.3474	119.677	0.27298	3.1849	119.636	0.27180	3.0372	119.594	0.27068	90
100	3.5951	121.323	0.27710	3.4122	121.284	0.27588	3.2468	121.245	0.27471	3.0964	121.205	0.27359	100
110	3.6630	122.941	0.27997	3.4769	122.904	0.27874	3.3086	122.866	0.27758	3.1555	122.829	0.27646	110
120	3.7308	124.572	0.28281	3.5414	124.536	0.28159	3.3701	124.501	0.28042	3.2144	124.465	0.27931	120
130	3.7984	126.216	0.28562	3.6058	126.182	0.28440	3.4315	126.147	0.28324	3.2731	126.113	0.28213	130
140	3.8659	127.872	0.28840	3.6700	127.840	0.28719	3.4928	127.807	0.28603	3.3317	127.774	0.28492	140
150	3.9332	129.542	0.29116	3.7341	129.510	0.28995	3.5539	129.479	0.28879	3.3901	129.447	0.28769	150
160	4.0005	131.224	0.29390	3.7981	131.194	0.29269	3.6150	131.164	0.29153	3.4485	131.133	0.29043	160
170	4.0676	132.919	0.29661	3.8619	132.890	0.29540	3.6759	132.861	0.29425	3.5067	132.832	0.29315	170
180	4.1346	134.627	0.29931	3.9257	134.599	0.29810	3.7367	134.571	0.29695	3.5648	134.543	0.29585	180
190	4.2015	136.347	0.30197	3.9894	136.321	0.30077	3.7974	136.294	0.29962	3.6228	136.267	0.29852	190
200	4.2684	138.081	0.30462	4.0529	138.055	0.30342	3.8580	138.029	0.30227	3.6808	138.004	0.30117	200
210	4.3352	139.827	0.30725	4.1164	139.802	0.30604	3.9185	139.777	0.30490	3.7387	139.753	0.30380	210
220	4.4018	141.585	0.30986	4.1799	141.562	0.30865	3.9790	141.538	0.30751	3.7964	141.514	0.30641	220
230	4.4685	143.357	0.31244	4.2432	143.334	0.31124	4.0394	143.311	0.31010	3.8542	143.288	0.30901	230
240	4.5350	145.141	0.31501	4.3065	145.119	0.31381	4.0998	145.096	0.31267	3.9118	145.074	0.31158	240
250	4.6015	146.937	0.31756	4.3697	146.916	0.31636	4.1600	146.894	0.31522	3.9694	146.873	0.31413	250
260	4.6679	148.746	0.32009	4.4329	148.725	0.31889	4.2202	148.705	0.31775	4.0269	148.684	0.31666	260
270	4.7343	150.567	0.32260	4.4960	150.547	0.32141	4.2804	150.527	0.32027	4.0844	150.507	0.31918	270
280	—	—	—	4.5591	152.381	0.32390	4.3405	152.362	0.32276	4.1418	152.342	0.32168	280

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Temperature (TEMP. °F) and Absolute Pressure (lb/sq in) intervals (23, 24, 25, 26, 27, 28, 29, 30). Each interval contains columns for Volume (V), Enthalpy (H), and Entropy (S). Values are listed for temperatures from -20 to 290 °F. Saturation properties are shown in parentheses.



**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES  
AT PRESSURE INTERVALS**

*V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)*

		<b>ABSOLUTE PRESSURE, lb/sq in</b>												
<b>TEMP.</b> <b>°F</b>	<b>31</b>			<b>32</b>			<b>33</b>			<b>34</b>			<b>TEMP.</b> <b>°F</b>	
	16.304			17.304			18.304			19.304				
	(-10.24 °F)			(-8.80 °F)			(-7.39 °F)			(-6.02 °F)				
	V	H	S	V	H	S	V	H	S	V	H	S		
	(1.6908)	(103.431)	(0.23064)	(1.6409)	(103.579)	(0.23028)	(1.5939)	(103.722)	(0.22994)	(1.5495)	(103.862)	(0.22960)		
-10	1.6919	103.467	0.23072	—	—	—	—	—	—	—	—	—	-10	
0	1.7381	105.006	0.23410	1.6805	104.936	0.23326	1.6263	104.866	0.23244	1.5752	104.796	0.23165	0	
10	1.7839	106.551	0.23743	1.7250	106.486	0.23660	1.6696	106.420	0.23579	1.6175	106.354	0.23500	10	
20	1.8292	108.103	0.24070	1.7690	108.041	0.23987	1.7125	107.980	0.23907	1.6593	107.918	0.23829	20	
30	1.8740	109.663	0.24392	1.8127	109.605	0.24310	1.7550	109.547	0.24231	1.7007	109.488	0.24153	30	
40	1.9185	111.232	0.24709	1.8559	111.177	0.24628	1.7971	111.122	0.24549	1.7417	111.066	0.24473	40	
50	1.9627	112.809	0.25021	1.8988	112.757	0.24941	1.8389	112.705	0.24863	1.7824	112.653	0.24787	50	
60	2.0065	114.396	0.25330	1.9415	114.347	0.25250	1.8803	114.298	0.25172	1.8228	114.248	0.25097	60	
70	2.0501	115.993	0.25634	1.9838	115.947	0.25555	1.9215	115.900	0.25478	1.8628	115.853	0.25403	70	
80	2.0935	117.601	0.25935	2.0259	117.556	0.25856	1.9624	117.512	0.25779	1.9027	117.468	0.25705	80	
90	2.1366	119.219	0.26232	2.0678	119.177	0.26153	2.0031	119.135	0.26077	1.9423	119.092	0.26003	90	
100	2.1795	120.848	0.26525	2.1094	120.808	0.26447	2.0436	120.768	0.26371	1.9816	120.727	0.26298	100	
110	2.2222	122.488	0.26816	2.1509	122.450	0.26738	2.0839	122.411	0.26663	2.0208	122.373	0.26589	110	
120	2.2647	124.139	0.27103	2.1922	124.103	0.27026	2.1240	124.066	0.26951	2.0599	124.030	0.26877	120	
130	2.3071	125.802	0.27388	2.2333	125.767	0.27310	2.1640	125.732	0.27235	2.0987	125.698	0.27163	130	
140	2.3493	127.477	0.27669	2.2743	127.443	0.27592	2.2038	127.410	0.27518	2.1374	127.377	0.27445	140	
150	2.3915	129.163	0.27948	2.3152	129.131	0.27871	2.2435	129.099	0.27797	2.1760	129.067	0.27725	150	
160	2.4334	130.861	0.28224	2.3559	130.830	0.28148	2.2830	130.800	0.28074	2.2145	130.769	0.28001	160	
170	2.4753	132.570	0.28498	2.3965	132.541	0.28422	2.3225	132.512	0.28348	2.2528	132.483	0.28276	170	
180	2.5171	134.292	0.28769	2.4370	134.264	0.28693	2.3618	134.236	0.28619	2.2911	134.208	0.28548	180	
190	2.5587	136.026	0.29038	2.4775	135.999	0.28962	2.4011	135.972	0.28889	2.3292	135.945	0.28817	190	
200	2.6003	137.772	0.29305	2.5178	137.746	0.29229	2.4402	137.720	0.29156	2.3673	137.694	0.29084	200	
210	2.6418	139.529	0.29569	2.5580	139.504	0.29494	2.4793	139.479	0.29420	2.4052	139.454	0.29349	210	
220	2.6832	141.299	0.29831	2.5982	141.275	0.29756	2.5183	141.251	0.29683	2.4431	141.227	0.29612	220	
230	2.7246	143.081	0.30092	2.6383	143.057	0.30016	2.5572	143.034	0.29943	2.4809	143.011	0.29872	230	
240	2.7659	144.874	0.30350	2.6783	144.852	0.30275	2.5961	144.830	0.30202	2.5187	144.807	0.30131	240	
250	2.8071	146.680	0.30606	2.7183	146.658	0.30531	2.6349	146.637	0.30458	2.5564	146.615	0.30388	250	
260	2.8483	148.497	0.30860	2.7582	148.477	0.30785	2.6736	148.456	0.30713	2.5940	148.435	0.30642	260	
270	2.8894	150.327	0.31113	2.7981	150.307	0.31038	2.7123	150.286	0.30965	2.6316	150.266	0.30895	270	
280	2.9304	152.168	0.31363	2.8379	152.148	0.31289	2.7510	152.129	0.31216	2.6691	152.109	0.31146	280	
290	2.9714	154.021	0.31612	2.8777	154.002	0.31538	2.7895	153.983	0.31465	2.7066	153.964	0.31395	290	
300	—	—	—	2.9174	155.867	0.31785	2.8281	155.849	0.31712	2.7441	155.831	0.31642	300	

  

		<b>ABSOLUTE PRESSURE, lb/sq in</b>												
<b>TEMP.</b> <b>°F</b>	<b>35</b>			<b>36</b>			<b>37</b>			<b>38</b>			<b>TEMP.</b> <b>°F</b>	
	20.304			21.304			22.304			23.304				
	(-4.67 °F)			(-3.36 °F)			(-2.07 °F)			(-.81 °F)				
	V	H	S	V	H	S	V	H	S	V	H	S		
	(1.5077)	(103.997)	(0.22928)	(1.4680)	(104.130)	(0.22896)	(1.4304)	(104.259)	(0.22866)	(1.3947)	(104.384)	(0.22836)		
0	1.5271	104.726	0.23087	1.4817	104.655	0.23011	1.4387	104.584	0.22937	1.3979	104.512	0.22864	0	
10	1.5684	106.288	0.23423	1.5220	106.221	0.23348	1.4781	106.155	0.23275	1.4364	106.088	0.23203	10	
20	1.6092	107.855	0.23753	1.5618	107.793	0.23679	1.5170	107.730	0.23607	1.4745	107.667	0.23536	20	
30	1.6495	109.430	0.24078	1.6012	109.371	0.24005	1.5555	109.312	0.23933	1.5121	109.253	0.23863	30	
40	1.6895	111.011	0.24398	1.6402	110.956	0.24325	1.5936	110.900	0.24254	1.5493	110.844	0.24185	40	
50	1.7292	112.601	0.24713	1.6789	112.548	0.24641	1.6313	112.496	0.24570	1.5862	112.443	0.24502	50	
60	1.7685	114.199	0.25023	1.7172	114.149	0.24952	1.6687	114.100	0.24882	1.6228	114.050	0.24814	60	
70	1.8075	115.806	0.25330	1.7553	115.759	0.25259	1.7059	115.712	0.25189	1.6591	115.665	0.25122	70	
80	1.8463	117.423	0.25632	1.7931	117.379	0.25562	1.7428	117.334	0.25493	1.6951	117.289	0.25425	80	
90	1.8849	119.050	0.25931	1.8307	119.008	0.25861	1.7794	118.965	0.25792	1.7309	118.923	0.25725	90	
100	1.9232	120.687	0.26226	1.8681	120.647	0.26156	1.8159	120.606	0.26088	1.7664	120.566	0.26022	100	
110	1.9614	122.335	0.26518	1.9052	122.296	0.26448	1.8521	122.258	0.26380	1.8018	122.219	0.26314	110	
120	1.9994	123.993	0.26806	1.9422	123.957	0.26737	1.8882	123.920	0.26670	1.8370	123.883	0.26604	120	
130	2.0372	125.663	0.27092	1.9791	125.628	0.27023	1.9241	125.593	0.26956	1.8720	125.558	0.26890	130	
140	2.0749	127.343	0.27374	2.0158	127.310	0.27306	1.9599	127.276	0.27239	1.9069	127.243	0.27174	140	
150	2.1124	129.035	0.27654	2.0523	129.003	0.27586	1.9955	128.971	0.27519	1.9417	128.939	0.27454	150	
160	2.1498	130.739	0.27931	2.0888	130.708	0.27863	2.0310	130.677	0.27797	1.9763	130.647	0.27732	160	
170	2.1871	132.453	0.28206	2.1251	132.424	0.28138	2.0664	132.395	0.28072	2.0108	132.365	0.28007	170	
180	2.2243	134.180	0.28478	2.1613	134.152	0.28410	2.1017	134.124	0.28344	2.0452	134.095	0.28280	180	
190	2.2614	135.918	0.28748	2.1974	135.891	0.28680	2.1369	135.864	0.28614	2.0795	135.837	0.28550	190	
200	2.2985	137.668	0.29015	2.2335	137.642	0.28947	2.1720	137.616	0.28882	2.1138	137.590	0.28818	200	
210	2.3354	139.430	0.29280	2.2694	139.405	0.29213	2.2070	139.380	0.29147	2.1479	139.354	0.29083	210	
220	2.3722	141.203	0.29543	2.3053	141.179	0.29476	2.2419	141.155	0.29410	2.1819	141.131	0.29346	220	
230	2.4090	142.988	0.29803	2.3411	142.965	0.29736	2.2768	142.942	0.29671	2.2159	142.918	0.29607	230	
240	2.4457	144.785	0.30062	2.3768	144.763	0.29995	2.3116	144.740	0.29930	2.2498	144.718	0.29866	240	
250	2.4824	146.594	0.30319	2.4125	146.572	0.30252	2.3463	146.550	0.30187	2.2837	146.529	0.30123	250	
260	2.5190	148.414	0.30573	2.4481	148.393	0.30507	2.3810	148.372	0.30442	2.3175	148.351	0.30378	260	
270	2.5555	150.246	0.30826	2.4836	150.226	0.30760	2.4156	150.206	0.30695	2.3512	150.186	0.30632	270	
280	2.5920	152.090	0.31077	2.5191	152.071	0.31011	2.4502	152.051	0.30946	2.3849	152.031	0.30883	280	
290	2.6284	153.945	0.31326	2.5546	153.927	0.31260	2.4847	153.908	0.31195	2.4186	153.889	0.31132	290	
300	2.6648	155.812	0.31574	2.5900	155.794	0.31507	2.5192	155.776	0.31443	2.4522	155.758	0.31380	300	

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Temperature (TEMP. °F) and Absolute Pressure (lb/sq in) intervals (39, 40, 41, 42, 43, 44, 45, 46). Each interval includes sub-columns for Volume (V), Enthalpy (H), and Entropy (S). The table contains numerical data for temperatures ranging from 10 to 310 degrees Fahrenheit.



TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Absolute Pressure (47, 48, 49, 50, 51, 52, 53, 54) and Temperature (TEMP. °F) for HCFC-22 superheated vapor. Each pressure interval includes sub-columns for Volume (V), Enthalpy (H), and Entropy (S). Values are provided for temperatures from 10°F to 320°F.

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Temperature (TEMP. °F) and Absolute Pressure (lb/sq in) intervals (55, 56, 57, 58, 59, 60, 61, 62). Rows contain specific volume (V), enthalpy (H), and entropy (S) values for various temperatures within each pressure interval.





**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

<b>ABSOLUTE PRESSURE, lb/sq in</b>													
<b>TEMP.</b> °F	<b>71</b>			<b>72</b>			<b>73</b>			<b>74</b>			<b>TEMP.</b> °F
	56.304			57.304			58.304			59.304			
	(31.10 °F)			(31.87 °F)			(32.63 °F)			(33.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.76706)	(107.380)	(0.22156)	(0.75675)	(107.448)	(0.22141)	(0.74671)	(107.514)	(0.22127)	(0.73693)	(107.580)	(0.22112)	
40	0.78721	108.910	0.22465	0.77495	108.849	0.22424	0.76303	108.787	0.22383	0.75143	108.724	0.22343	40
50	0.80941	110.625	0.22805	0.79693	110.567	0.22764	0.78479	110.509	0.22724	0.77298	110.451	0.22685	50
60	0.83122	112.336	0.23138	0.81851	112.282	0.23098	0.80615	112.228	0.23058	0.79412	112.173	0.23019	60
70	0.85267	114.047	0.23464	0.83974	113.996	0.23424	0.82715	113.945	0.23386	0.81491	113.894	0.23347	70
80	0.87382	115.759	0.23784	0.86065	115.711	0.23745	0.84784	115.663	0.23707	0.83537	115.615	0.23669	80
90	0.89468	117.473	0.24099	0.88128	117.428	0.24060	0.86824	117.382	0.24023	0.85555	117.337	0.23985	90
100	0.91529	119.191	0.24408	0.90165	119.148	0.24370	0.88839	119.105	0.24333	0.87548	119.062	0.24296	100
110	0.93568	120.913	0.24713	0.92181	120.872	0.24676	0.90831	120.831	0.24639	0.89518	120.790	0.24602	110
120	0.95587	122.640	0.25014	0.94175	122.601	0.24977	0.92803	122.563	0.24940	0.91467	122.524	0.24904	120
130	0.97587	124.373	0.25310	0.96152	124.336	0.25273	0.94756	124.300	0.25237	0.93398	124.263	0.25201	130
140	0.99570	126.113	0.25603	0.98112	126.078	0.25566	0.96693	126.043	0.25530	0.95312	126.008	0.25495	140
150	1.0154	127.860	0.25892	1.0006	127.827	0.25856	0.98514	127.793	0.25820	0.97210	127.760	0.25785	150
160	1.0349	129.615	0.26177	1.0199	129.583	0.26141	1.0052	129.551	0.26106	0.99095	129.519	0.26071	160
170	1.0544	131.378	0.26459	1.0390	131.347	0.26424	1.0242	131.317	0.26388	1.0097	131.286	0.26035	170
180	1.0737	133.149	0.26738	1.0581	133.120	0.26703	1.0430	133.091	0.26668	1.0283	133.061	0.26000	180
190	1.0928	134.929	0.27014	1.0771	134.901	0.26979	1.0617	134.873	0.26945	1.0468	134.845	0.26910	190
200	1.1119	136.718	0.27288	1.0959	136.691	0.27253	1.0803	136.665	0.27218	1.0652	136.638	0.27184	200
210	1.1310	138.517	0.27558	1.1147	138.491	0.27523	1.0989	138.465	0.27489	1.0835	138.439	0.27155	210
220	1.1499	140.325	0.27826	1.1334	140.300	0.27792	1.1173	140.275	0.27757	1.1017	140.251	0.27123	220
230	1.1687	142.143	0.28092	1.1520	142.119	0.28057	1.1357	142.095	0.28023	1.1198	142.071	0.27092	230
240	1.1875	143.970	0.28355	1.1705	143.947	0.28320	1.1540	143.924	0.28286	1.1379	143.901	0.28063	240
250	1.2062	145.808	0.28616	1.1890	145.786	0.28581	1.1722	145.764	0.28547	1.1559	145.742	0.28034	250
260	1.2249	147.656	0.28874	1.2074	147.634	0.28840	1.1904	147.613	0.28806	1.1738	147.592	0.28007	260
270	1.2434	149.513	0.29131	1.2257	149.493	0.29096	1.2085	149.472	0.29063	1.1917	149.452	0.29030	270
280	1.2620	151.382	0.29385	1.2440	151.362	0.29351	1.2266	151.342	0.29317	1.2096	151.322	0.29082	280
290	1.2805	153.260	0.29637	1.2623	153.241	0.29603	1.2446	153.222	0.29570	1.2273	153.202	0.29053	290
300	1.2989	155.149	0.29887	1.2805	155.130	0.29854	1.2625	155.112	0.29820	1.2451	155.093	0.29078	300
310	1.3173	157.048	0.30136	1.2986	157.030	0.30102	1.2805	157.012	0.30069	1.2628	156.994	0.30053	310
320	1.3357	158.957	0.30382	1.3167	158.940	0.30349	1.2983	158.923	0.30315	1.2804	158.905	0.30028	320
330	1.3540	160.877	0.30627	1.3348	160.860	0.30593	1.3162	160.844	0.30560	1.2980	160.827	0.30052	330
340	1.3723	162.808	0.30870	1.3529	162.791	0.30836	1.3340	162.775	0.30803	1.3156	162.758	0.30070	340

  

<b>TEMP.</b> °F	<b>75</b>			<b>76</b>			<b>77</b>			<b>78</b>			<b>TEMP.</b> °F
	60.304			61.304			62.304			63.304			
	(34.13 °F)			(34.87 °F)			(35.61 °F)			(36.33 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.72740)	(107.644)	(0.22098)	(0.71811)	(107.708)	(0.22083)	(0.70905)	(107.771)	(0.22069)	(0.70021)	(107.833)	(0.22056)	
40	0.74013	108.662	0.22303	0.72913	108.599	0.22263	0.71840	108.537	0.22223	0.70795	108.474	0.22184	40
50	0.76148	110.393	0.22645	0.75027	110.334	0.22607	0.73936	110.275	0.22568	0.72872	110.217	0.22530	50
60	0.78241	112.119	0.22981	0.77100	112.064	0.22943	0.75989	112.009	0.22905	0.74906	111.954	0.22887	60
70	0.80298	113.843	0.23309	0.79137	113.791	0.23272	0.78006	113.740	0.23235	0.76903	113.688	0.23198	70
80	0.82323	115.566	0.23632	0.81142	115.518	0.23595	0.79990	115.469	0.23558	0.78868	115.421	0.23522	80
90	0.84320	117.291	0.23948	0.83117	117.245	0.23912	0.81946	117.200	0.23876	0.80804	117.154	0.23840	90
100	0.86291	119.019	0.24260	0.85068	118.975	0.24224	0.83875	118.932	0.24188	0.82714	118.888	0.24153	100
110	0.88239	120.749	0.24566	0.86995	120.708	0.24531	0.85782	120.667	0.24495	0.84600	120.626	0.24411	110
120	0.90167	122.485	0.24868	0.88901	122.446	0.24833	0.87668	122.407	0.24798	0.86466	122.368	0.24764	120
130	0.92076	124.226	0.25166	0.90789	124.189	0.25131	0.89535	124.152	0.25097	0.88313	124.115	0.25062	130
140	0.93968	125.973	0.25460	0.92659	125.937	0.25425	0.91384	125.902	0.25391	0.90142	125.867	0.25357	140
150	0.95844	127.726	0.25750	0.94514	127.693	0.25715	0.93219	127.659	0.25681	0.91956	127.625	0.25648	150
160	0.97707	129.487	0.26036	0.96355	129.455	0.26002	0.95039	129.423	0.25968	0.93756	129.391	0.25935	160
170	0.99557	131.255	0.26319	0.98184	131.225	0.26286	0.96846	131.194	0.26252	0.95543	131.164	0.26219	170
180	1.0139	133.032	0.26599	1.0000	133.003	0.26566	0.98642	132.973	0.26532	0.97318	132.944	0.26499	180
190	1.0322	134.817	0.26876	1.0181	134.789	0.26843	1.0043	134.761	0.26810	0.99082	134.733	0.26777	190
200	1.0504	136.611	0.27150	1.0360	136.584	0.27117	1.0220	136.557	0.27084	1.0084	136.530	0.27051	200
210	1.0685	138.414	0.27421	1.0539	138.388	0.27388	1.0397	138.362	0.27356	1.0258	138.336	0.27323	210
220	1.0865	140.226	0.27690	1.0717	140.201	0.27657	1.0572	140.176	0.27624	1.0432	140.151	0.27592	220
230	1.1044	142.047	0.27956	1.0894	142.023	0.27923	1.0747	142.000	0.27891	1.0605	141.976	0.27859	230
240	1.1222	143.878	0.28220	1.1070	143.855	0.28187	1.0921	143.832	0.28155	1.0777	143.809	0.28123	240
250	1.1400	145.719	0.28481	1.1246	145.697	0.28448	1.1095	145.675	0.28416	1.0948	145.653	0.28384	250
260	1.1577	147.570	0.28740	1.1421	147.549	0.28707	1.1268	147.527	0.28675	1.1119	147.506	0.28643	260
270	1.1754	149.431	0.28997	1.1595	149.410	0.28964	1.1440	149.390	0.28932	1.1289	149.369	0.28901	270
280	1.1930	151.302	0.29251	1.1769	151.282	0.29219	1.1612	151.262	0.29187	1.1459	151.242	0.29155	280
290	1.2106	153.183	0.29504	1.1942	153.164	0.29472	1.1783	153.144	0.29440	1.1628	153.125	0.29408	290
300	1.2281	155.074	0.29755	1.2115	155.056	0.29722	1.1954	155.037	0.29691	1.1797	155.018	0.29659	300
310	1.2456	156.976	0.30003	1.2288	156.958	0.29971	1.2125	156.940	0.29939	1.1966	156.922	0.29908	310
320	1.2630	158.888	0.30250	1.2460	158.870	0.30218	1.2295	158.853	0.30186	1.2134	158.835	0.30155	320
330	1.2804	160.810	0.30495	1.2632	160.793	0.30463	1.2464	160.776	0.30431	1.2301	160.759	0.30400	330
340	1.2977	162.742	0.30738	1.2803	162.725	0.30706	1.2634	162.709	0.30675	1.2468	162.693	0.30644	340

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for TEMP. (°F), ABSOLUTE PRESSURE (lb/sq in) (79, 80, 81, 82), and TEMP. (°F). Rows list temperature values from 40 to 340 and 350, with corresponding V, H, and S values for each pressure interval.





TABLE II HCFC-22 SUPERHEATED VAPOR-CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with 4 main sections for absolute pressures 95, 96, 97, 98, 99, 100, 101, 102. Each section has columns for Temp (°F), V, H, S and rows for various temperatures from 50 to 350/360.





**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES  
AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

<b>ABSOLUTE PRESSURE, lb/sq in</b>													
<b>TEMP.</b>	<b>111</b>			<b>112</b>			<b>114</b>			<b>116</b>			<b>TEMP.</b>
	96.304			97.304			99.304			101.304			
	(57.11 °F)			(57.66 °F)			(58.75 °F)			(59.83 °F)			
	<b>°F</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	
	(0.49522)	(109.498)	(0.21677)	(0.49082)	(109.539)	(0.21668)	(0.48226)	(109.620)	(0.21649)	(0.47398)	(109.700)	(0.21630)	
60	0.49986	110.040	0.21782	0.49456	109.978	0.21753	0.48423	109.855	0.21694	0.47425	109.731	0.21636	60
70	0.51561	111.900	0.22137	0.51023	111.843	0.22108	0.49974	111.729	0.22051	0.48960	111.614	0.21995	70
80	0.53094	113.745	0.22482	0.52547	113.692	0.22454	0.51482	113.585	0.22398	0.50452	113.478	0.22344	80
90	0.54591	115.579	0.22818	0.54035	115.529	0.22791	0.52953	115.430	0.22737	0.51907	115.329	0.22683	90
100	0.56056	117.405	0.23148	0.55492	117.358	0.23121	0.54392	117.265	0.23068	0.53329	117.171	0.23015	100
110	0.57494	119.225	0.23470	0.56920	119.181	0.23444	0.55802	119.093	0.23392	0.54723	119.005	0.23340	110
120	0.58907	121.042	0.23786	0.58324	121.001	0.23760	0.57188	120.918	0.23709	0.56091	120.834	0.23659	120
130	0.60298	122.857	0.24097	0.59705	122.818	0.24071	0.58551	122.740	0.24021	0.57437	122.661	0.23971	130
140	0.61670	124.673	0.24402	0.61068	124.636	0.24377	0.59895	124.561	0.24327	0.58763	124.487	0.24278	140
150	0.63023	126.490	0.24702	0.62412	126.454	0.24678	0.61221	126.384	0.24628	0.60070	126.313	0.24580	150
160	0.64361	128.309	0.24998	0.63740	128.275	0.24974	0.62530	128.208	0.24925	0.61362	128.141	0.24877	160
170	0.65685	130.131	0.25290	0.65054	130.099	0.25266	0.63826	130.035	0.25218	0.62639	129.971	0.25170	170
180	0.66996	131.958	0.25578	0.66355	131.927	0.25554	0.65108	131.866	0.25506	0.63903	131.805	0.25459	180
190	0.68294	133.789	0.25862	0.67644	133.760	0.25838	0.66377	133.702	0.25791	0.65154	133.643	0.25744	190
200	0.69582	135.626	0.26142	0.68922	135.598	0.26119	0.67636	135.543	0.26072	0.66395	135.487	0.26026	200
210	0.70860	137.469	0.26420	0.70190	137.443	0.26396	0.68885	137.389	0.26030	0.67626	137.336	0.26304	210
220	0.72129	139.319	0.26694	0.71449	139.294	0.26671	0.70125	139.242	0.26625	0.68847	139.191	0.26579	220
230	0.73389	141.176	0.26965	0.72699	141.151	0.26942	0.71357	141.102	0.26896	0.70060	141.053	0.26851	230
240	0.74642	143.040	0.27234	0.73942	143.017	0.27211	0.72580	142.969	0.27165	0.71265	142.922	0.27120	240
250	0.75887	144.912	0.27499	0.75178	144.890	0.27476	0.73797	144.844	0.27431	0.72463	144.799	0.27386	250
260	0.77126	146.792	0.27762	0.76407	146.770	0.27739	0.75006	146.727	0.27694	0.73654	146.683	0.27650	260
270	0.78359	148.681	0.28023	0.77630	148.660	0.28000	0.76210	148.617	0.27955	0.74839	148.575	0.27911	270
280	0.79586	150.577	0.28281	0.78847	150.557	0.28258	0.77408	150.516	0.28214	0.76019	150.476	0.28170	280
290	0.80808	152.483	0.28537	0.80059	152.463	0.28514	0.78601	152.424	0.28470	0.77193	152.385	0.28426	290
300	0.82025	154.397	0.28791	0.81266	154.378	0.28768	0.79789	154.340	0.28724	0.78362	154.302	0.28680	300
310	0.83238	156.320	0.29042	0.82469	156.302	0.29020	0.80972	156.265	0.28976	0.79527	156.228	0.28932	310
320	0.84446	158.253	0.29291	0.83667	158.235	0.29269	0.82151	158.199	0.29225	0.80687	158.164	0.29182	320
330	0.85650	160.194	0.29539	0.84862	160.177	0.29517	0.83326	160.143	0.29473	0.81843	160.108	0.29430	330
340	0.86851	162.145	0.29784	0.86052	162.128	0.29762	0.84497	162.095	0.29719	0.82996	162.062	0.29676	340
350	0.88048	164.105	0.30028	0.87240	164.089	0.30006	0.85665	164.057	0.29962	0.84145	164.024	0.29920	350
360	0.89242	166.075	0.30270	0.88424	166.059	0.30248	0.86830	166.028	0.30204	0.85291	165.996	0.30162	360

  

<b>ABSOLUTE PRESSURE, lb/sq in</b>													
<b>TEMP.</b>	<b>118</b>			<b>120</b>			<b>122</b>			<b>124</b>			<b>TEMP.</b>
	103.304			105.304			107.304			109.304			
	(60.90 °F)			(61.95 °F)			(62.99 °F)			(64.02 °F)			
	<b>°F</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	<b>S</b>	<b>V</b>	<b>H</b>	
	(0.46597)	(109.775)	(0.21611)	(0.45822)	(109.853)	(0.21593)	(0.45071)	(109.928)	(0.21575)	(0.44344)	(110.001)	(0.21558)	
70	0.47980	111.498	0.21939	0.47032	111.381	0.21884	0.46113	111.264	0.21829	0.45224	111.146	0.21775	70
80	0.49457	113.371	0.22289	0.48494	113.262	0.22236	0.47562	113.153	0.22183	0.46659	113.044	0.22130	80
90	0.50896	115.229	0.22630	0.49918	115.128	0.22578	0.48972	115.026	0.22526	0.48055	114.924	0.22475	90
100	0.52302	117.076	0.22964	0.51309	116.982	0.22912	0.50347	116.886	0.22862	0.49417	116.791	0.22812	100
110	0.53679	118.916	0.23289	0.52670	118.827	0.23239	0.51693	118.738	0.23190	0.50748	118.648	0.23141	110
120	0.55031	120.751	0.23609	0.54005	120.667	0.23559	0.53013	120.583	0.23511	0.52053	120.498	0.23463	120
130	0.56360	122.582	0.23922	0.55318	122.503	0.23873	0.54310	122.423	0.23825	0.53335	122.343	0.23778	130
140	0.57668	124.412	0.24230	0.56610	124.337	0.24182	0.55587	124.262	0.24135	0.54596	124.186	0.24088	140
150	0.58959	126.242	0.24532	0.57884	126.171	0.24485	0.56844	126.099	0.24439	0.55838	126.028	0.24393	150
160	0.60233	128.073	0.24830	0.59142	128.005	0.24784	0.58086	127.938	0.24738	0.57064	127.870	0.24692	160
170	0.61493	129.907	0.25124	0.60384	129.842	0.25078	0.59312	129.778	0.25032	0.58274	129.713	0.24987	170
180	0.62739	131.744	0.25413	0.61613	131.682	0.25368	0.60525	131.621	0.25323	0.59471	131.559	0.25278	180
190	0.63973	133.585	0.25699	0.62830	133.526	0.25654	0.61725	133.467	0.25609	0.60656	133.408	0.25565	190
200	0.65196	135.431	0.25981	0.64036	135.375	0.25936	0.62915	135.318	0.25892	0.61829	135.262	0.25848	200
210	0.66409	137.282	0.26259	0.65232	137.229	0.26215	0.64094	137.175	0.26171	0.62992	137.121	0.26128	210
220	0.67612	139.140	0.26535	0.66418	139.088	0.26490	0.65263	139.037	0.26447	0.64146	138.985	0.26404	220
230	0.68807	141.004	0.26807	0.67596	140.954	0.26763	0.66425	140.905	0.26720	0.65291	140.855	0.26677	230
240	0.69994	142.875	0.27076	0.68766	142.827	0.27033	0.67578	142.780	0.26990	0.66428	142.732	0.26948	240
250	0.71174	144.753	0.27343	0.69929	144.707	0.27299	0.68724	144.662	0.27257	0.67558	144.616	0.27215	250
260	0.72348	146.639	0.27607	0.71085	146.595	0.27564	0.69863	146.551	0.27521	0.68681	146.507	0.27479	260
270	0.73515	148.533	0.27868	0.72235	148.490	0.27825	0.70996	148.448	0.27783	0.69798	148.406	0.27741	270
280	0.74676	150.435	0.28127	0.73379	150.394	0.28084	0.72123	150.353	0.28042	0.70909	150.312	0.28001	280
290	0.75832	152.345	0.28383	0.74517	152.306	0.28341	0.73245	152.266	0.28299	0.72014	152.227	0.28258	290
300	0.76984	154.264	0.28638	0.75651	154.226	0.28595	0.74362	154.188	0.28554	0.73115	154.150	0.28513	300
310	0.78130	156.192	0.28890	0.76780	156.155	0.28848	0.75475	156.118	0.28806	0.74211	156.081	0.28765	310
320	0.79273	158.128	0.29140	0.77905	158.092	0.29098	0.76583	158.057	0.29056	0.75303	158.021	0.29016	320
330	0.80411	160.074	0.29388	0.79026	160.039	0.29346	0.77687	160.004	0.29305	0.76391	159.970	0.29264	330
340	0.81546	162.028	0.29633	0.80144	161.995	0.29592	0.78787	161.961	0.29551	0.77475	161.927	0.29511	340
350	0.82677	163.992	0.29877	0.81257	163.959	0.29836	0.79884	163.927	0.29795	0.78555	163.894	0.29755	350
360	0.83805	165.965	0.30120	0.82368	165.933	0.30078	0.80978	165.901	0.30038	0.79633	165.870	0.29997	360
370	0.84930	167.947	0.30360	0.83475	167.916	0.30319	0.82068	167.885	0.30278	0.80707	167.855	0.30238	370

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)*

<b>ABSOLUTE PRESSURE, lb/sq in</b>													
<b>TEMP.</b>  <b>°F</b>	<b>126</b>			<b>128</b>			<b>130</b>			<b>132</b>			<b>TEMP.</b>  <b>°F</b>
	111.304			113.304			115.304			117.304			
	(65.03 °F)			(66.04 °F)			(67.03 °F)			(68.01 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.43638)	(110.073)	(0.21540)	(0.42954)	(110.143)	(0.21523)	(0.42290)	(110.212)	(0.21506)	(0.41645)	(110.279)	(0.21489)		
70	0.44362	111.027	0.21721	0.43526	110.908	0.21668	0.42714	110.787	0.21615	0.41927	110.666	0.21563	70
80	0.45785	112.933	0.22078	0.44937	112.823	0.22026	0.44114	112.711	0.21975	0.43315	112.599	0.21924	80
90	0.47167	114.821	0.22424	0.46306	114.718	0.22374	0.45471	114.614	0.22324	0.44661	114.510	0.22275	90
100	0.48515	116.695	0.22762	0.47641	116.598	0.22713	0.46793	116.501	0.22665	0.45971	116.404	0.22616	100
110	0.49832	118.558	0.23092	0.48945	118.467	0.23044	0.48084	118.376	0.22997	0.47249	118.285	0.22560	110
120	0.51123	120.413	0.23415	0.50221	120.328	0.23368	0.49347	120.242	0.23321	0.48499	120.156	0.23275	120
130	0.52390	122.263	0.23731	0.51474	122.183	0.23685	0.50586	122.102	0.23639	0.49725	122.021	0.23594	130
140	0.53636	124.110	0.24042	0.52706	124.034	0.23997	0.51804	123.958	0.23952	0.50930	123.881	0.23907	140
150	0.54863	125.956	0.24347	0.53919	125.884	0.24302	0.53003	125.812	0.24258	0.52115	125.739	0.24214	150
160	0.56074	127.801	0.24647	0.55115	127.733	0.24603	0.54185	127.664	0.24560	0.53283	127.596	0.24516	160
170	0.57269	129.648	0.24943	0.56295	129.583	0.24899	0.55351	129.518	0.24856	0.54436	129.452	0.24814	170
180	0.58451	131.497	0.25234	0.57462	131.435	0.25191	0.56504	131.373	0.25149	0.55574	131.311	0.25106	180
190	0.59620	133.349	0.25522	0.58617	133.290	0.25479	0.57644	133.231	0.25437	0.56700	133.172	0.25395	190
200	0.60778	135.206	0.25805	0.59759	135.149	0.25763	0.58772	135.093	0.25721	0.57815	135.036	0.25680	200
210	0.61925	137.067	0.26085	0.60892	137.013	0.26043	0.59890	136.959	0.26002	0.58919	136.904	0.25961	210
220	0.63064	138.933	0.26362	0.62015	138.882	0.26320	0.60999	138.830	0.26279	0.60013	138.778	0.26239	220
230	0.64193	140.806	0.26635	0.63129	140.756	0.26594	0.62099	140.706	0.26553	0.61099	140.656	0.26513	230
240	0.65315	142.684	0.26906	0.64236	142.637	0.26865	0.63190	142.589	0.26824	0.62176	142.541	0.26784	240
250	0.66429	144.570	0.27173	0.65335	144.524	0.27133	0.64275	144.478	0.27092	0.63246	144.432	0.27053	250
260	0.67536	146.463	0.27438	0.66427	146.419	0.27398	0.65352	146.374	0.27358	0.64310	146.330	0.27318	260
270	0.68637	148.363	0.27700	0.67513	148.320	0.27660	0.66423	148.278	0.27620	0.65366	148.235	0.27581	270
280	0.69733	150.271	0.27960	0.68593	150.230	0.27920	0.67489	150.189	0.27880	0.66418	150.148	0.27841	280
290	0.70822	152.187	0.28217	0.69668	152.147	0.28178	0.68549	152.108	0.28138	0.67463	152.068	0.28099	290
300	0.71907	154.111	0.28472	0.70738	154.073	0.28433	0.69604	154.035	0.28393	0.68504	153.996	0.28355	300
310	0.72988	156.044	0.28725	0.71803	156.000	0.28686	0.70654	155.970	0.28647	0.69540	155.933	0.28608	310
320	0.74064	157.985	0.28976	0.72863	157.949	0.28936	0.71700	157.914	0.28897	0.70571	157.878	0.28859	320
330	0.75136	159.935	0.29224	0.73920	159.900	0.29185	0.72742	159.866	0.29146	0.71599	159.831	0.29108	330
340	0.76204	161.894	0.29471	0.74973	161.860	0.29432	0.73780	161.827	0.29393	0.72623	161.793	0.29355	340
350	0.77269	163.862	0.29715	0.76022	163.829	0.29676	0.74814	163.796	0.29638	0.73643	163.764	0.29600	350
360	0.78330	165.838	0.29958	0.77069	165.807	0.29919	0.75846	165.775	0.29881	0.74660	165.743	0.29843	360
370	0.79389	167.824	0.30199	0.78112	167.793	0.30160	0.76874	167.762	0.30122	0.75674	167.732	0.30084	370
<b>TEMP.</b>  <b>°F</b>	<b>134</b>			<b>136</b>			<b>138</b>			<b>140</b>			<b>TEMP.</b>  <b>°F</b>
	119.304			121.304			123.304			125.304			
	(68.98 °F)			(69.94 °F)			(70.89 °F)			(71.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.41019)	(110.345)	(0.21473)	(0.40410)	(110.410)	(0.21457)	(0.39818)	(110.473)	(0.21441)	(0.39243)	(110.535)	(0.21425)		
70	0.41161	110.544	0.21511	0.40418	110.421	0.21459	—	—	—	—	—	—	70
80	0.42540	112.486	0.21874	0.41786	112.372	0.21824	0.41054	112.258	0.21774	0.40342	112.143	0.21725	80
90	0.43874	114.405	0.22226	0.43110	114.299	0.22178	0.42368	114.193	0.22130	0.41646	114.086	0.22082	90
100	0.45172	116.306	0.22569	0.44397	116.207	0.22522	0.43643	116.108	0.22475	0.42911	116.009	0.22428	100
110	0.46438	118.193	0.22903	0.45651	118.101	0.22857	0.44886	118.008	0.22811	0.44143	117.915	0.22766	110
120	0.47676	120.070	0.23230	0.46877	119.984	0.23185	0.46100	119.897	0.23140	0.45346	119.809	0.23096	120
130	0.48889	121.940	0.23550	0.48078	121.858	0.23505	0.47290	121.777	0.23461	0.46524	121.694	0.23418	130
140	0.50081	123.805	0.23863	0.49257	123.728	0.23820	0.48457	123.650	0.23777	0.47679	123.573	0.23734	140
150	0.51253	125.666	0.24171	0.50416	125.593	0.24128	0.49604	125.520	0.24086	0.48814	125.447	0.24044	150
160	0.52408	127.527	0.24474	0.51559	127.457	0.24431	0.50733	127.388	0.24390	0.49932	127.319	0.24348	160
170	0.53547	129.387	0.24771	0.52685	129.321	0.24730	0.51847	129.255	0.24689	0.51033	129.189	0.24648	170
180	0.54673	131.248	0.25065	0.53797	131.186	0.25024	0.52947	131.123	0.24983	0.52121	131.060	0.24943	180
190	0.55785	133.112	0.25354	0.54896	133.052	0.25313	0.54033	132.993	0.25273	0.53195	132.933	0.25233	190
200	0.56886	134.979	0.25639	0.55984	134.922	0.25599	0.55108	134.865	0.25559	0.54258	134.808	0.25520	200
210	0.57976	136.850	0.25920	0.57061	136.795	0.25881	0.56173	136.741	0.25841	0.55309	136.686	0.25802	210
220	0.59057	138.725	0.26198	0.58129	138.673	0.26159	0.57227	138.621	0.26120	0.56351	138.569	0.26081	220
230	0.60129	140.606	0.26473	0.59187	140.556	0.26434	0.58273	140.506	0.26395	0.57385	140.456	0.26357	230
240	0.61192	142.493	0.26745	0.60238	142.445	0.26706	0.59310	142.397	0.26667	0.58409	142.349	0.26629	240
250	0.62249	144.386	0.27013	0.61280	144.340	0.26975	0.60340	144.294	0.26936	0.59477	144.247	0.26899	250
260	0.63298	146.286	0.27279	0.62317	146.241	0.27241	0.61363	146.197	0.27203	0.60437	146.152	0.27165	260
270	0.64341	148.192	0.27542	0.63346	148.150	0.27504	0.62380	148.107	0.27466	0.61441	148.064	0.27429	270
280	0.65378	150.107	0.27803	0.64370	150.065	0.27765	0.63391	150.024	0.27727	0.62439	149.983	0.27690	280
290	0.66410	152.028	0.28061	0.65388	151.988	0.28023	0.64396	151.949	0.27986	0.63432	151.909	0.27949	290
300	0.67437	153.958	0.28317	0.66401	153.920	0.28279	0.65396	153.881	0.28242	0.64419	153.843	0.28205	300
310	0.68459	155.896	0.28570	0.67410	155.859	0.28532	0.66391	155.821	0.28495	0.65402	155.784	0.28459	310
320	0.69477	157.842	0.28821	0.68414	157.806	0.28784	0.67382	157.770	0.28747	0.66380	157.734	0.28711	320
330	0.70490	159.796	0.29070	0.69414	159.761	0.29033	0.68369	159.727	0.28996	0.67354	159.692	0.28960	330
340	0.71500	161.759	0.29317	0.70411	161.725	0.29280	0.69353	161.692	0.29244	0.68325	161.658	0.29208	340
350	0.72506	163.731	0.29562	0.71403	163.698	0.29525	0.70332	163.666	0.29489	0.69292	163.633	0.29453	350
360	0.73509	165.711	0.29805	0.72393	165.680	0.29769	0.71309	165.648	0.29732	0.70255	165.616	0.29696	360
370	0.74509	167.701	0.30047	0.73379	167.670	0.30010	0.72282	167.639	0.29974	0.71216	167.608	0.29938	370
380	—	—	—	—	—	—	0.73252	169.639	0.30213	0.72173	169.609	0.30178	380



TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for TEMP. °F and ABSOLUTE PRESSURE, lb/sq in (142, 144, 146, 148, 150, 152, 154, 156). Rows list temperature values from 80 to 380 °F with corresponding V, H, and S values.

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES  
AT PRESSURE INTERVALS**

*V* = volume in cu ft lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

<b>ABSOLUTE PRESSURE, lb/sq in</b>													
<b>TEMP.</b> °F	<b>158</b>			<b>160</b>			<b>162</b>			<b>164</b>			<b>TEMP.</b> °F
	143.304			145.304			147.304			149.304			
	(79.86 °F)			(80.71 °F)			(81.55 °F)			(82.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.34694)	(111.044)	(0.21290)	(0.34249)	(111.095)	(0.21276)	(0.33815)	(111.145)	(0.21262)	(0.33390)	(111.194)	(0.21248)		
80	0.34711	111.072	0.21296	—	—	—	—	—	—	—	—	—	80
90	0.35944	113.097	0.21668	0.35387	112.984	0.21623	0.34842	112.870	0.21579	0.34311	112.755	0.21534	90
100	0.37132	115.091	0.22027	0.36568	114.986	0.21984	0.36017	114.880	0.21941	0.35479	114.774	0.21898	100
110	0.38282	117.059	0.22375	0.37710	116.961	0.22334	0.37152	116.863	0.22292	0.36607	116.765	0.22251	110
120	0.39400	119.008	0.22715	0.38820	118.917	0.22674	0.38254	118.825	0.22634	0.37702	118.733	0.22593	120
130	0.40489	120.941	0.23045	0.39901	120.856	0.23006	0.39327	120.770	0.22966	0.38767	120.684	0.22927	130
140	0.41554	122.863	0.23369	0.40958	122.783	0.23330	0.40376	122.702	0.23291	0.39807	122.622	0.23253	140
150	0.42598	124.777	0.23685	0.41992	124.701	0.23647	0.41402	124.625	0.23609	0.40825	124.549	0.23572	150
160	0.43622	126.684	0.23995	0.43008	126.612	0.23958	0.42409	126.541	0.23921	0.41824	126.469	0.23884	160
170	0.44629	128.587	0.24300	0.44006	128.519	0.24263	0.43398	128.451	0.24227	0.42804	128.383	0.24190	170
180	0.45621	130.488	0.24599	0.44989	130.423	0.24563	0.44372	130.359	0.24527	0.43770	130.294	0.24492	180
190	0.46600	132.387	0.24894	0.45958	132.326	0.24858	0.45332	132.265	0.24823	0.44721	132.203	0.24788	190
200	0.47565	134.288	0.25184	0.46914	134.229	0.25149	0.46279	134.171	0.25114	0.45659	134.112	0.25079	200
210	0.48520	136.189	0.25470	0.47859	136.133	0.25435	0.47215	136.078	0.25080	0.46586	136.022	0.25037	210
220	0.49464	138.093	0.25753	0.48794	138.040	0.25718	0.48141	137.986	0.25684	0.47503	137.933	0.25050	220
230	0.50399	140.000	0.26031	0.49720	139.949	0.25997	0.49057	139.898	0.25963	0.48410	139.847	0.25029	230
240	0.51326	141.912	0.26306	0.50637	141.863	0.26272	0.49965	141.814	0.26239	0.49309	141.765	0.26205	240
250	0.52244	143.824	0.26578	0.51546	143.781	0.26544	0.50864	143.734	0.26511	0.50199	143.686	0.26478	250
260	0.53155	145.749	0.26847	0.52447	145.704	0.26814	0.51757	145.658	0.26780	0.51083	145.613	0.26748	260
270	0.54060	147.675	0.27113	0.53342	147.632	0.27080	0.52642	147.589	0.27047	0.51959	147.545	0.27014	270
280	0.54959	149.608	0.27376	0.54231	149.567	0.27343	0.53522	149.525	0.27310	0.52830	149.483	0.27278	280
290	0.55852	151.548	0.27636	0.55115	151.507	0.27604	0.54396	151.467	0.27571	0.53694	151.427	0.27539	290
300	0.56740	153.494	0.27894	0.55993	153.455	0.27862	0.55265	153.416	0.27829	0.54554	153.377	0.27798	300
310	0.57622	155.447	0.28150	0.56866	155.410	0.28117	0.56128	155.372	0.28085	0.55408	155.334	0.28054	310
320	0.58501	157.408	0.28403	0.57735	157.372	0.28371	0.56987	157.335	0.28339	0.56258	157.299	0.28307	320
330	0.59375	159.376	0.28654	0.58599	159.341	0.28622	0.57842	159.306	0.28590	0.57104	159.271	0.28558	330
340	0.60245	161.353	0.28902	0.59460	161.319	0.28870	0.58694	161.284	0.28839	0.57946	161.250	0.28808	340
350	0.61112	163.337	0.29149	0.60317	163.304	0.29117	0.59541	163.271	0.29086	0.58784	163.238	0.29054	350
360	0.61975	165.329	0.29393	0.61170	165.297	0.29362	0.60385	165.265	0.29330	0.59619	165.233	0.29299	360
370	0.62835	167.330	0.29636	0.62020	167.298	0.29604	0.61226	167.267	0.29573	0.60450	167.236	0.29542	370
380	0.63692	169.338	0.29877	0.62868	169.308	0.29845	0.62064	169.278	0.29814	0.61279	169.248	0.29783	380
390	—	—	—	0.63712	171.326	0.30084	0.62898	171.297	0.30053	0.62105	171.268	0.30022	390
<b>TEMP.</b> °F	<b>166</b>			<b>168</b>			<b>170</b>			<b>172</b>			<b>TEMP.</b> °F
	151.304			153.304			155.304			157.304			
	(83.21 °F)			(84.03 °F)			(84.85 °F)			(85.65 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.32976)	(111.242)	(0.21235)	(0.32571)	(111.290)	(0.21221)	(0.32175)	(111.336)	(0.21208)	(0.31788)	(111.382)	(0.21194)		
90	0.33791	112.640	0.21490	0.33284	112.523	0.21447	0.32787	112.406	0.21403	0.32302	112.288	0.21360	90
100	0.34953	114.668	0.21856	0.34440	114.561	0.21814	0.33938	114.453	0.21772	0.33447	114.344	0.21730	100
110	0.36075	116.666	0.22210	0.35555	116.567	0.22169	0.35047	116.467	0.22129	0.34550	116.366	0.22089	110
120	0.37162	118.641	0.22554	0.36636	118.548	0.22514	0.36121	118.455	0.22475	0.35617	118.362	0.22436	120
130	0.38220	120.598	0.22888	0.37686	120.511	0.22850	0.37164	120.424	0.22812	0.36654	120.337	0.22774	130
140	0.39253	122.541	0.23215	0.38711	122.459	0.23177	0.38182	122.377	0.23140	0.37664	122.295	0.23103	140
150	0.40263	124.472	0.23534	0.39713	124.396	0.23498	0.39176	124.319	0.23461	0.38652	124.242	0.23425	150
160	0.41253	126.396	0.23847	0.40695	126.324	0.23811	0.40151	126.251	0.23775	0.39618	126.178	0.23740	160
170	0.42225	128.315	0.24155	0.41660	128.246	0.24119	0.41107	128.177	0.24084	0.40567	128.108	0.24049	170
180	0.43182	130.229	0.24456	0.42608	130.164	0.24421	0.42048	130.099	0.24387	0.41500	130.033	0.24352	180
190	0.44125	132.141	0.24753	0.43542	132.080	0.24718	0.42974	132.018	0.24684	0.42418	131.956	0.24650	190
200	0.45054	134.053	0.25045	0.44464	133.994	0.25011	0.43887	133.935	0.24977	0.43324	133.876	0.24944	200
210	0.45973	135.965	0.25333	0.45374	135.909	0.25299	0.44789	135.853	0.25266	0.44217	135.797	0.25233	210
220	0.46881	137.879	0.25616	0.46273	137.826	0.25583	0.45680	137.772	0.25550	0.45100	137.718	0.25517	220
230	0.47779	139.796	0.25896	0.47163	139.744	0.25863	0.46561	139.693	0.25831	0.45974	139.641	0.25798	230
240	0.48669	141.715	0.26172	0.48044	141.666	0.26140	0.47434	141.617	0.26108	0.46838	141.568	0.26076	240
250	0.49551	143.639	0.26445	0.48917	143.592	0.26413	0.48299	143.545	0.26381	0.47694	143.497	0.26349	250
260	0.50425	145.568	0.26715	0.49783	145.522	0.26683	0.49156	145.477	0.26651	0.48543	145.431	0.26620	260
270	0.51293	147.501	0.26982	0.50642	147.458	0.26950	0.50006	147.414	0.26919	0.49386	147.370	0.26888	270
280	0.52154	149.441	0.27246	0.51495	149.399	0.27215	0.50851	149.357	0.27183	0.50222	149.314	0.27152	280
290	0.53010	151.386	0.27507	0.52342	151.346	0.27476	0.51689	151.305	0.27445	0.51052	151.264	0.27414	290
300	0.53860	153.338	0.27766	0.53183	153.299	0.27735	0.52522	153.260	0.27704	0.51877	153.221	0.27673	300
310	0.54706	155.297	0.28022	0.54020	155.259	0.27991	0.53351	155.221	0.27960	0.52696	155.183	0.27930	310
320	0.55547	157.262	0.28276	0.54852	157.226	0.28245	0.54174	157.189	0.28214	0.53512	157.153	0.28184	320
330	0.56384	159.236	0.28527	0.55680	159.200	0.28497	0.54994	159.165	0.28466	0.54323	159.130	0.28436	330
340	0.57217	161.216	0.28777	0.56504	161.182	0.28746	0.55809	161.148	0.28716	0.55130	161.114	0.28686	340
350	0.58046	163.205	0.29024	0.57325	163.171	0.28993	0.56621	163.138	0.28963	0.55933	163.105	0.28933	350
360	0.58871	165.201	0.29269	0.58142	165.169	0.29238	0.57429	165.137	0.29208	0.56733	165.104	0.29179	360
370	0.59694	167.205	0.29512	0.58955	167.174	0.29482	0.58234	167.143	0.29452	0.57530	167.112	0.29422	370
380	0.60513	169.218	0.29753	0.59766	169.187	0.29723	0.59036	169.157	0.29693	0.58323	169.127	0.29663	380
390	0.61330	171.238	0.29992	0.60574	171.209	0.29962	0.59835	171.179	0.29932	0.59114	171.150	0.29903	390

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	174			176			178			180			TEMP. °F
	159.304 (86.45 °F)			161.304 (87.24 °F)			163.304 (88.03 °F)			165.304 (88.81 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.31410)	(111.426)	(0.21181)	(0.31040)	(111.470)	(0.21168)	(0.30677)	(111.513)	(0.21155)	(0.30323)	(111.555)	(0.21142)	
90	0.31827	112.170	0.21317	0.31362	112.050	0.21274	0.30906	111.930	0.21231	0.30461	111.808	0.21188	90
100	0.32967	114.235	0.21689	0.32497	114.125	0.21648	0.32037	114.015	0.21607	0.31587	113.904	0.21566	100
110	0.34064	116.265	0.22049	0.33589	116.164	0.22009	0.33124	116.062	0.21969	0.32669	115.959	0.21930	110
120	0.35125	118.268	0.22397	0.34644	118.173	0.22358	0.34173	118.079	0.22320	0.33713	117.983	0.22282	120
130	0.36156	120.249	0.22736	0.35668	120.161	0.22698	0.35191	120.072	0.22661	0.34724	119.933	0.22624	130
140	0.37159	122.213	0.23066	0.36665	122.130	0.23030	0.36181	122.048	0.22993	0.35708	121.964	0.22957	140
150	0.38139	124.164	0.23389	0.37638	124.087	0.23353	0.37148	124.009	0.23318	0.36668	123.930	0.23282	150
160	0.39098	126.105	0.23705	0.38590	126.032	0.23670	0.38093	125.959	0.23635	0.37607	125.885	0.23600	160
170	0.40040	128.039	0.24014	0.39524	127.970	0.23980	0.39020	127.900	0.23946	0.38527	127.831	0.23912	170
180	0.40965	129.968	0.24318	0.40442	129.902	0.24284	0.39930	129.836	0.24251	0.39430	129.770	0.24217	180
190	0.41875	131.893	0.24617	0.41345	131.831	0.24583	0.40826	131.768	0.24550	0.40319	131.706	0.24518	190
200	0.42773	133.817	0.24911	0.42235	133.757	0.24878	0.41709	133.698	0.24845	0.41194	133.638	0.24813	200
210	0.43659	135.740	0.25200	0.43113	135.683	0.25167	0.42579	135.627	0.25135	0.42057	135.570	0.25103	210
220	0.44534	137.664	0.25485	0.43980	137.610	0.25453	0.43439	137.556	0.25421	0.42910	137.501	0.25390	220
230	0.45399	139.590	0.25766	0.44838	139.538	0.25735	0.44289	139.486	0.25703	0.43752	139.434	0.25672	230
240	0.46256	141.518	0.26044	0.45687	141.468	0.26012	0.45130	141.419	0.25981	0.44586	141.369	0.25951	240
250	0.47104	143.450	0.26318	0.46527	143.402	0.26287	0.45963	143.355	0.26256	0.45411	143.307	0.26226	250
260	0.47945	145.386	0.26589	0.47360	145.340	0.26558	0.46788	145.294	0.26527	0.46229	145.249	0.26497	260
270	0.48779	147.326	0.26857	0.48186	147.282	0.26826	0.47607	147.239	0.26796	0.47040	147.195	0.26766	270
280	0.49607	149.272	0.27122	0.49006	149.230	0.27091	0.48419	149.188	0.27061	0.47485	149.145	0.27031	280
290	0.50429	151.224	0.27384	0.49820	151.183	0.27353	0.49225	151.142	0.27324	0.48644	151.102	0.27294	290
300	0.51246	153.181	0.27643	0.50629	153.142	0.27613	0.50026	153.103	0.27583	0.49437	153.063	0.27554	300
310	0.52057	155.145	0.27900	0.51433	155.108	0.27870	0.50822	155.070	0.27841	0.50225	155.032	0.27811	310
320	0.52865	157.116	0.28154	0.52232	157.080	0.28125	0.51614	157.043	0.28095	0.51009	157.006	0.28066	320
330	0.53667	159.094	0.28406	0.53027	159.059	0.28377	0.52401	159.023	0.28348	0.51788	158.988	0.28319	330
340	0.54466	161.079	0.28656	0.53818	161.045	0.28627	0.53184	161.011	0.28598	0.52564	160.976	0.28569	340
350	0.55261	163.072	0.28904	0.54605	163.039	0.28875	0.53963	163.005	0.28846	0.53335	162.972	0.28817	350
360	0.56053	165.072	0.29149	0.55388	165.040	0.29120	0.54739	165.008	0.29091	0.54103	164.976	0.29063	360
370	0.56841	167.080	0.29393	0.56169	167.049	0.29364	0.55511	167.018	0.29335	0.54868	166.986	0.29307	370
380	0.57627	169.096	0.29634	0.56946	169.066	0.29605	0.56281	169.036	0.29577	0.55630	169.005	0.29549	380
390	0.58409	171.120	0.29874	0.57720	171.091	0.29845	0.57047	171.062	0.29817	0.56389	171.032	0.29789	390

  

TEMP. °F	182			184			186			188			TEMP. °F
	167.304 (89.58 °F)			169.304 (90.35 °F)			171.304 (91.11 °F)			173.304 (91.86 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.29975)	(111.597)	(0.21129)	(0.29636)	(111.637)	(0.21116)	(0.29303)	(111.677)	(0.21104)	(0.28976)	(111.716)	(0.21091)	
90	0.30024	111.686	0.21145	—	—	—	—	—	—	—	—	—	90
100	0.31147	113.792	0.21525	0.30715	113.679	0.21484	0.30292	113.566	0.21444	0.29878	113.452	0.21404	100
110	0.32224	115.856	0.21891	0.31787	115.752	0.21852	0.31360	115.648	0.21813	0.30941	115.543	0.21774	110
120	0.33262	117.888	0.22244	0.32821	117.791	0.22206	0.32388	117.695	0.22169	0.31965	117.597	0.22132	120
130	0.34268	119.894	0.22587	0.33821	119.804	0.22551	0.33383	119.714	0.22514	0.32954	119.624	0.22478	130
140	0.35245	121.881	0.22921	0.34792	121.797	0.22886	0.34349	121.713	0.22850	0.33915	121.628	0.22815	140
150	0.36199	123.852	0.23247	0.35740	123.773	0.23213	0.35290	123.694	0.23178	0.34850	123.615	0.23144	150
160	0.37131	125.811	0.23566	0.36665	125.737	0.23532	0.36210	125.662	0.23148	0.35763	125.587	0.23465	160
170	0.38044	127.761	0.23878	0.37572	127.691	0.23845	0.37110	127.620	0.23812	0.36657	127.550	0.23779	170
180	0.38941	129.704	0.24184	0.38462	129.638	0.24152	0.37993	129.571	0.24119	0.37534	129.504	0.24087	180
190	0.39822	131.643	0.24485	0.39337	131.580	0.24453	0.38861	131.516	0.24421	0.38396	131.453	0.24389	190
200	0.40691	133.578	0.24781	0.40198	133.518	0.24749	0.39716	133.458	0.24717	0.39244	133.398	0.24686	200
210	0.41547	135.513	0.25072	0.41047	135.456	0.25040	0.40559	135.398	0.25009	0.40080	135.341	0.24979	210
220	0.42392	137.447	0.25358	0.41886	137.392	0.25328	0.41390	137.338	0.25297	0.40905	137.283	0.25266	220
230	0.43227	139.382	0.25641	0.42714	139.330	0.25611	0.42211	139.278	0.25580	0.41719	139.226	0.25550	230
240	0.44054	141.319	0.25920	0.43533	141.269	0.25890	0.43024	141.219	0.25860	0.42525	141.169	0.25830	240
250	0.44872	143.259	0.26195	0.44344	143.211	0.26165	0.43828	143.164	0.26136	0.43322	143.116	0.26106	250
260	0.45682	145.203	0.26467	0.45147	145.157	0.26437	0.44624	145.111	0.26408	0.44111	145.065	0.26379	260
270	0.46486	147.150	0.26736	0.45944	147.106	0.26706	0.45413	147.062	0.26677	0.44894	147.018	0.26648	270
280	0.47283	149.103	0.27002	0.46734	149.060	0.26972	0.46196	149.018	0.26943	0.45670	148.975	0.26915	280
290	0.48075	151.061	0.27265	0.47518	151.020	0.27236	0.46973	150.979	0.27207	0.46440	150.938	0.27178	290
300	0.48861	153.024	0.27525	0.48297	152.985	0.27496	0.47745	152.945	0.27467	0.47205	152.906	0.27439	300
310	0.49641	154.994	0.27782	0.49070	154.956	0.27754	0.48511	154.917	0.27725	0.47964	154.879	0.27697	310
320	0.50418	156.970	0.28037	0.49839	156.933	0.28009	0.49273	156.896	0.27981	0.48719	156.859	0.27953	320
330	0.51189	158.952	0.28290	0.50604	158.917	0.28262	0.50030	158.881	0.28234	0.49469	158.846	0.28206	330
340	0.51957	160.942	0.28540	0.51364	160.908	0.28512	0.50784	160.873	0.28484	0.50216	160.839	0.28457	340
350	0.52721	162.939	0.28789	0.52121	162.906	0.28761	0.51533	162.872	0.28733	0.50958	162.839	0.28705	350
360	0.53482	164.943	0.29035	0.52874	164.911	0.29007	0.52280	164.879	0.28979	0.51697	164.846	0.28952	360
370	0.54239	166.955	0.29279	0.53624	166.924	0.29251	0.53022	166.892	0.29223	0.52433	166.861	0.29196	370
380	0.54994	168.975	0.29521	0.54371	168.944	0.29493	0.53762	168.914	0.29465	0.53166	168.884	0.29438	380
390	0.55745	171.002	0.29761	0.55115	170.973	0.29733	0.54499	170.943	0.29706	0.53896	170.914	0.29679	390
400	—	—	—	0.55856	173.009	0.29971	0.55233	172.981	0.29944	0.54623	172.952	0.29917	400





**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	206			208			210			212			TEMP. °F
	191.304 (98.40 °F)			193.304 (99.10 °F)			195.304 (99.79 °F)			197.304 (100.48 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.26313)	(112.033)	(0.20983)	(0.26045)	(112.065)	(0.20971)	(0.25781)	(112.096)	(0.20959)	(0.25522)	(112.126)	(0.20948)	
100	0.26485	112.388	0.21046	0.26141	112.266	0.21007	0.25803	112.142	0.20968	—	—	—	100
110	0.27520	114.569	0.21433	0.27174	114.458	0.21395	0.26834	114.346	0.21358	0.26500	114.233	0.21321	110
120	0.28508	116.700	0.21803	0.28159	116.597	0.21768	0.27817	116.494	0.21732	0.27480	116.391	0.21696	120
130	0.29458	118.791	0.22161	0.29106	118.696	0.22127	0.28759	118.601	0.22092	0.28419	118.506	0.22058	130
140	0.30375	120.852	0.22507	0.30019	120.763	0.22474	0.29669	120.675	0.22441	0.29325	120.586	0.22408	140
150	0.31265	122.887	0.22844	0.30904	122.805	0.22812	0.30549	122.723	0.22780	0.30201	122.640	0.22748	150
160	0.32130	124.904	0.23172	0.31764	124.827	0.23141	0.31406	124.750	0.23109	0.31053	124.672	0.23078	160
170	0.32975	126.906	0.23493	0.32604	126.833	0.23462	0.32240	126.760	0.23431	0.31884	126.687	0.23401	170
180	0.33801	128.951	0.23806	0.33425	128.827	0.23776	0.33057	128.758	0.23746	0.32695	128.689	0.23716	180
190	0.34611	130.876	0.24113	0.34230	130.811	0.24084	0.33856	130.748	0.24054	0.33490	130.681	0.24025	190
200	0.35406	132.850	0.24415	0.35020	132.789	0.24386	0.34641	132.727	0.24357	0.34270	132.665	0.24328	200
210	0.36188	134.820	0.24711	0.35797	134.761	0.24683	0.35413	134.702	0.24654	0.35037	134.644	0.24626	210
220	0.36959	136.786	0.25003	0.36563	136.730	0.24974	0.36173	136.674	0.24946	0.35792	136.618	0.24919	220
230	0.37719	138.751	0.25290	0.37317	138.698	0.25262	0.36923	138.644	0.25234	0.36536	138.591	0.25207	230
240	0.38470	140.715	0.25572	0.38062	140.664	0.25545	0.37663	140.613	0.25518	0.37270	140.562	0.25491	240
250	0.39212	142.681	0.25851	0.38799	142.632	0.25824	0.38394	142.583	0.25797	0.37996	142.534	0.25770	250
260	0.39946	144.648	0.26127	0.39527	144.601	0.26100	0.39117	144.554	0.26073	0.38714	144.507	0.26046	260
270	0.40672	146.617	0.26398	0.40248	146.572	0.26372	0.39832	146.527	0.26345	0.39424	146.482	0.26319	270
280	0.41393	148.590	0.26667	0.40963	148.547	0.26640	0.40541	148.504	0.26614	0.40128	148.461	0.26588	280
290	0.42106	150.567	0.26932	0.41671	150.525	0.26906	0.41244	150.484	0.26880	0.40825	150.442	0.26854	290
300	0.42815	152.548	0.27195	0.42374	152.508	0.27169	0.41941	152.468	0.27143	0.41517	152.428	0.27171	300
310	0.43518	154.534	0.27455	0.43071	154.496	0.27429	0.42633	154.457	0.27403	0.42203	154.419	0.27378	310
320	0.44216	156.526	0.27712	0.43764	156.489	0.27686	0.43320	156.452	0.27661	0.42885	156.414	0.27635	320
330	0.44910	158.524	0.27966	0.44452	158.488	0.27941	0.44002	158.452	0.27916	0.43562	158.416	0.27890	330
340	0.45599	160.527	0.28218	0.45136	160.492	0.28193	0.44681	160.458	0.28168	0.44235	160.423	0.28143	340
350	0.46285	162.537	0.28468	0.45816	162.504	0.28443	0.45355	162.470	0.28418	0.44903	162.436	0.28393	350
360	0.46967	164.554	0.28716	0.46492	164.521	0.28691	0.46026	164.489	0.28666	0.45569	164.456	0.28641	360
370	0.47646	166.578	0.28961	0.47165	166.546	0.28936	0.46693	166.514	0.28911	0.46231	166.483	0.28887	370
380	0.48321	168.608	0.29204	0.47835	168.578	0.29180	0.47358	168.547	0.29155	0.46889	168.516	0.29163	380
390	0.48994	170.647	0.29446	0.48502	170.617	0.29421	0.48019	170.587	0.29397	0.47545	170.557	0.29372	390
400	0.49664	172.692	0.29685	0.49166	172.663	0.29660	0.48678	172.634	0.29636	0.48198	172.605	0.29612	400
410	—	—	—	—	—	—	—	—	—	0.48849	174.661	0.29850	410

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	214			216			218			220			TEMP. °F
	199.304 (101.17 °F)			201.304 (101.85 °F)			203.304 (102.52 °F)			205.304 (103.19 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.25267)	(112.156)	(0.20936)	(0.25017)	(112.185)	(0.20925)	(0.24772)	(112.214)	(0.20914)	(0.24530)	(112.241)	(0.20902)	
110	0.26172	114.119	0.21284	0.25850	114.004	0.21247	0.25533	113.889	0.21210	0.25221	113.773	0.21173	110
120	0.27150	116.287	0.21661	0.26825	116.182	0.21626	0.26505	116.076	0.21590	0.26191	115.970	0.21555	120
130	0.28086	118.409	0.22024	0.27758	118.313	0.21990	0.27435	118.216	0.21956	0.27119	118.118	0.21923	130
140	0.28987	120.497	0.22375	0.28656	120.407	0.22342	0.28330	120.317	0.22310	0.28010	120.227	0.22277	140
150	0.29860	122.556	0.22716	0.29524	122.473	0.22684	0.29195	122.389	0.22652	0.28871	122.305	0.22621	150
160	0.30707	124.594	0.23047	0.30368	124.516	0.23016	0.30034	124.437	0.22986	0.29706	124.358	0.22955	160
170	0.31533	126.614	0.23371	0.31189	126.540	0.23340	0.30851	126.466	0.23310	0.30519	126.392	0.23281	170
180	0.32340	128.620	0.23687	0.31991	128.551	0.23657	0.31649	128.481	0.23628	0.31313	128.411	0.23559	180
190	0.33130	130.616	0.23996	0.32777	130.550	0.23967	0.32430	130.484	0.23939	0.32089	130.418	0.23910	190
200	0.33905	132.603	0.24300	0.33547	132.541	0.24271	0.33196	132.479	0.24243	0.32850	132.416	0.24215	200
210	0.34667	134.585	0.24598	0.34304	134.526	0.24570	0.33948	134.466	0.24542	0.33598	134.407	0.24515	210
220	0.35417	136.562	0.24891	0.35049	136.506	0.24864	0.34688	136.450	0.24836	0.34333	136.393	0.24809	220
230	0.36156	138.537	0.25179	0.35783	138.484	0.25152	0.35417	138.430	0.25125	0.35058	138.376	0.25099	230
240	0.36885	140.511	0.25464	0.36508	140.460	0.25437	0.36137	140.409	0.25410	0.35772	140.357	0.25384	240
250	0.37606	142.485	0.25744	0.37223	142.436	0.25717	0.36847	142.387	0.25691	0.36478	142.338	0.25665	250
260	0.38318	144.460	0.26020	0.37930	144.413	0.25994	0.37549	144.366	0.25968	0.37175	144.319	0.25942	260
270	0.39023	146.437	0.26293	0.38630	146.392	0.26267	0.38244	146.347	0.26241	0.37865	146.302	0.26216	270
280	0.39722	148.417	0.26562	0.39323	148.374	0.26537	0.38932	148.331	0.26511	0.38548	148.287	0.26486	280
290	0.40414	150.401	0.26829	0.40010	150.359	0.26803	0.39614	150.317	0.26778	0.39225	150.276	0.26753	290
300	0.41100	152.388	0.27092	0.40691	152.348	0.27067	0.40290	152.308	0.27042	0.39896	152.268	0.27017	300
310	0.41781	154.380	0.27353	0.41367	154.341	0.27328	0.40961	154.303	0.27303	0.40562	154.264	0.27278	310
320	0.42457	156.377	0.27610	0.42038	156.340	0.27586	0.41627	156.302	0.27561	0.41222	156.265	0.27536	320
330	0.43129	158.380	0.27866	0.42705	158.343	0.27841	0.42288	158.307	0.27816	0.41879	158.271	0.27792	330
340	0.43797	160.388	0.28118	0.43367	160.353	0.28094	0.42945	160.318	0.28069	0.42530	160.283	0.28045	340
350	0.44460	162.402	0.28369	0.44025	162.369	0.28344	0.43598	162.335	0.28320	0.43178	162.301	0.28296	350
360	0.45120	164.423	0.28617	0.44680	164.391	0.28592	0.44247	164.358	0.28568	0.43823	164.325	0.28545	360
370	0.45777	166.451	0.28863	0.45331	166.419	0.28838	0.44893	166.388	0.28815	0.44464	166.356	0.28791	370
380	0.46430	168.488	0.29106	0.45979	168.455	0.29082	0.45536	168.424	0.29058	0.45101	168.393	0.29035	380
390	0.47080	170.527	0.29348	0.46624	170.498	0.29324	0.46176	170.468	0.29300	0.45736	170.438	0.29277	390
400	0.47728	172.576	0.29588	0.47266	172.547	0.29564	0.46813	172.518	0.29540	0.46368	172.489	0.29517	400
410	0.48373	174.633	0.29826	0.47906	174.605	0.29802	0.47448	174.576	0.29778	0.46998	174.548	0.29755	410





TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for TEMP. (°F), ABSOLUTE PRESSURE, lb/sq in (238, 240, 242, 244), and TEMP. (°F). It contains two main sections of data for pressures 238-244 and 246-252.

TABLE II "FREON" 22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V=volume in cu ft/lb; H=enthalpy in Btu/lb; S=entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with multiple sections for absolute pressures (254, 256, 258, 260, 262, 264, 266, 268 lb/sq in). Each section includes columns for Temperature (TEMP. °F) and properties (V, H, S) with values in parentheses indicating saturation properties.

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	270			272			274			276			TEMP. °F
	255.304			257.304			259.304			261.304			
	(118.68 °F)			(119.26 °F)			(119.83 °F)			(120.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.19606)	(112.751)	(0.20637)	(0.19444)	(112.765)	(0.20626)	(0.19285)	(112.778)	(0.20616)	(0.19128)	(112.790)	(0.20606)		
120	0.19729	113.077	0.20693	0.19514	112.949	0.20658	0.19301	112.821	0.20624	—	—	120	
130	0.20629	115.490	0.21106	0.20414	115.376	0.21073	0.20203	115.261	0.21041	0.19994	115.146	0.21009	
140	0.21474	117.816	0.21497	0.21259	117.713	0.21466	0.21047	117.609	0.21436	0.20838	117.505	0.21406	
150	0.22276	120.078	0.21871	0.22060	119.983	0.21842	0.21846	119.888	0.21813	0.21636	119.793	0.21784	
160	0.23042	122.288	0.22230	0.22825	122.201	0.22203	0.22610	122.113	0.22175	0.22398	122.025	0.22147	
170	0.23780	124.459	0.22578	0.23560	124.378	0.22551	0.23343	124.296	0.22524	0.23130	124.215	0.22498	
180	0.24493	126.597	0.22915	0.24271	126.522	0.22889	0.24052	126.446	0.22863	0.23836	126.370	0.22837	
190	0.25184	128.711	0.23243	0.24960	128.640	0.23217	0.24738	128.569	0.23192	0.24520	128.497	0.23167	
200	0.25857	130.804	0.23562	0.25630	130.737	0.23538	0.25406	130.670	0.23513	0.25185	130.603	0.23489	
210	0.26514	132.880	0.23875	0.26284	132.817	0.23851	0.26058	132.754	0.23827	0.25834	132.691	0.23803	
220	0.27157	134.944	0.24181	0.26924	134.884	0.24157	0.26695	134.824	0.24134	0.26468	134.764	0.24110	
230	0.27787	136.997	0.24481	0.27552	136.941	0.24458	0.27319	136.884	0.24435	0.27090	136.827	0.24412	
240	0.28406	139.043	0.24775	0.28167	138.989	0.24752	0.27932	138.935	0.24730	0.27700	138.881	0.24707	
250	0.29015	141.083	0.25065	0.28773	141.031	0.25042	0.28535	140.980	0.25020	0.28300	140.928	0.24998	
260	0.29614	143.118	0.25349	0.29369	143.069	0.25327	0.29128	143.020	0.25306	0.28890	142.971	0.25284	
270	0.30206	145.152	0.25630	0.29958	145.105	0.25608	0.29713	145.058	0.25587	0.29472	145.011	0.25565	
280	0.30789	147.183	0.25906	0.30538	147.138	0.25885	0.30291	147.094	0.25864	0.30046	147.048	0.25843	
290	0.31366	149.215	0.26179	0.31112	149.172	0.26158	0.30861	149.129	0.26137	0.30614	149.086	0.26116	
300	0.31937	151.247	0.26449	0.31679	151.206	0.26428	0.31425	151.165	0.26407	0.31175	151.123	0.26386	
310	0.32502	153.281	0.26715	0.32241	153.242	0.26694	0.31984	153.202	0.26673	0.31730	153.162	0.26653	
320	0.33061	155.318	0.26977	0.32797	155.279	0.26957	0.32537	155.241	0.26936	0.32280	155.203	0.26916	
330	0.33616	157.357	0.27237	0.33348	157.320	0.27217	0.33085	157.283	0.27197	0.32825	157.246	0.27177	
340	0.34166	159.400	0.27494	0.33895	159.364	0.27474	0.33628	159.329	0.27454	0.33365	159.293	0.27434	
350	0.34712	161.447	0.27749	0.34438	161.413	0.27729	0.34168	161.378	0.27709	0.33901	161.343	0.27689	
360	0.35253	163.499	0.28001	0.34976	163.465	0.27981	0.34703	163.432	0.27961	0.34434	163.399	0.27941	
370	0.35792	165.555	0.28250	0.35511	165.523	0.28230	0.35235	165.491	0.28211	0.34962	165.458	0.28191	
380	0.36327	167.617	0.28497	0.36043	167.586	0.28477	0.35763	167.555	0.28458	0.35487	167.523	0.28438	
390	0.36859	169.685	0.28742	0.36571	169.654	0.28722	0.36288	169.624	0.28703	0.36009	169.594	0.28684	
400	0.37387	171.758	0.28984	0.37097	171.729	0.28965	0.36811	171.699	0.28946	0.36528	171.670	0.28926	
410	0.37914	173.838	0.29225	0.37620	173.809	0.29206	0.37330	173.781	0.29186	0.37045	173.752	0.29167	
420	0.38437	175.924	0.29463	0.38140	175.896	0.29444	0.37847	175.868	0.29425	0.37558	175.840	0.29406	
430	—	—	—	—	—	—	—	—	—	0.38070	177.935	0.29643	

  

TEMP. °F	278			280			282			284			TEMP. °F
	263.304			265.304			267.304			269.304			
	(120.96 °F)			(121.52 °F)			(122.08 °F)			(122.64 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.18974)	(112.802)	(0.20596)	(0.18821)	(112.814)	(0.20586)	(0.18670)	(112.825)	(0.20576)	(0.18522)	(112.836)	(0.20566)		
130	0.19787	115.029	0.20977	0.19583	114.912	0.20944	0.19382	114.794	0.20912	0.19183	114.675	0.20880	
140	0.20631	117.400	0.21375	0.20427	117.294	0.21345	0.20226	117.188	0.21315	0.20027	117.081	0.21285	
150	0.21429	119.697	0.21755	0.21224	119.600	0.21726	0.21022	119.503	0.21698	0.20822	119.406	0.21669	
160	0.22189	121.937	0.22120	0.21983	121.848	0.22092	0.21779	121.759	0.22065	0.21579	121.670	0.22037	
170	0.22919	124.133	0.22471	0.22711	124.051	0.22445	0.22506	123.968	0.22418	0.22303	123.885	0.22392	
180	0.23623	126.294	0.22812	0.23413	126.217	0.22786	0.23206	126.140	0.22761	0.23001	126.063	0.22735	
190	0.24305	128.426	0.23142	0.24092	128.354	0.23118	0.23883	128.282	0.23093	0.23676	128.210	0.23068	
200	0.24968	130.536	0.23465	0.24753	130.468	0.23441	0.24541	130.401	0.23417	0.24332	130.333	0.23393	
210	0.25614	132.627	0.23779	0.25396	132.564	0.23756	0.25182	132.500	0.23732	0.24971	132.436	0.23709	
220	0.26245	134.704	0.24087	0.26025	134.644	0.24064	0.25809	134.584	0.24041	0.25595	134.524	0.24018	
230	0.26864	136.770	0.24389	0.26641	136.713	0.24366	0.26422	136.656	0.24344	0.26205	136.599	0.24321	
240	0.27471	138.827	0.24685	0.27246	138.773	0.24663	0.27023	138.718	0.24641	0.26804	138.664	0.24619	
250	0.28068	140.877	0.24976	0.27840	140.825	0.24954	0.27615	140.773	0.24932	0.27393	140.722	0.24911	
260	0.28655	142.922	0.25262	0.28424	142.873	0.25241	0.28196	142.823	0.25219	0.27971	142.774	0.25198	
270	0.29235	144.964	0.25544	0.29000	144.917	0.25523	0.28769	144.869	0.25502	0.28542	144.822	0.25481	
280	0.29806	147.003	0.25822	0.29569	146.958	0.25801	0.29335	146.913	0.25780	0.29104	146.868	0.25759	
290	0.30370	149.042	0.26095	0.30130	148.999	0.26075	0.29893	148.956	0.26054	0.29660	148.912	0.26034	
300	0.30928	151.081	0.26366	0.30685	151.040	0.26345	0.30445	150.998	0.26325	0.30209	150.957	0.26304	
310	0.31480	153.122	0.26632	0.31234	153.082	0.26612	0.30991	153.042	0.26592	0.30752	153.002	0.26572	
320	0.32027	155.164	0.26896	0.31778	155.125	0.26876	0.31532	155.087	0.26576	0.31290	155.048	0.26836	
330	0.32569	157.209	0.27157	0.32317	157.172	0.27137	0.32068	157.135	0.27117	0.31823	157.097	0.27097	
340	0.33106	159.257	0.27414	0.32851	159.221	0.27395	0.32599	159.185	0.27375	0.32351	159.149	0.27355	
350	0.33639	161.309	0.27669	0.33381	161.274	0.27650	0.33126	161.240	0.27630	0.32874	161.205	0.27611	
360	0.34168	163.365	0.27922	0.33907	163.332	0.27902	0.33649	163.298	0.27883	0.33394	163.265	0.27864	
370	0.34694	165.426	0.28172	0.34429	165.394	0.28152	0.34168	165.361	0.28133	0.33911	165.329	0.28114	
380	0.35216	167.492	0.28419	0.34948	167.460	0.28400	0.34684	167.429	0.28381	0.34423	167.398	0.28362	
390	0.35734	169.563	0.28664	0.35463	169.533	0.28645	0.35196	169.502	0.28626	0.34933	169.472	0.28607	
400	0.36250	171.640	0.28907	0.35976	171.611	0.28888	0.35706	171.581	0.28869	0.35440	171.552	0.28851	
410	0.36763	173.723	0.29148	0.36486	173.695	0.29129	0.36213	173.666	0.29111	0.35943	173.637	0.29032	
420	0.37274	175.812	0.29387	0.36994	175.784	0.29368	0.36717	175.757	0.29350	0.36445	175.729	0.29313	
430	0.37782	177.908	0.29624	0.37499	177.881	0.29605	0.37219	177.854	0.29587	0.36943	177.827	0.29568	



**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	286			288			290			292			TEMP. °F
	271.304			273.304			275.304			277.304			
	(123.19 °F)			(123.74 °F)			(124.29 °F)			(124.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.18375)	(112.846)	(0.20556)	(0.18230)	(112.856)	(0.20546)	(0.18088)	(112.865)	(0.20536)	(0.17946)	(112.874)	(0.20526)		
130	0.18986	114.555	0.20848	0.18792	114.434	0.20815	0.18600	114.312	0.20783	0.18410	114.189	0.20750	130
140	0.19830	116.973	0.21254	0.19636	116.864	0.21224	0.19445	116.755	0.21194	0.19256	116.646	0.21163	140
150	0.20625	119.308	0.21640	0.20431	119.209	0.21612	0.20239	119.110	0.21583	0.20049	119.011	0.21555	150
160	0.21381	121.580	0.22010	0.21185	121.489	0.21983	0.20992	121.398	0.21955	0.20801	121.307	0.21928	160
170	0.22104	123.802	0.22366	0.21906	123.718	0.22340	0.21712	123.635	0.22313	0.21520	123.550	0.22287	170
180	0.22800	125.985	0.22710	0.22601	125.908	0.22685	0.22404	125.830	0.22659	0.22211	125.752	0.22634	180
190	0.23473	128.138	0.23044	0.23272	128.065	0.23019	0.23073	127.992	0.22995	0.22878	127.919	0.22970	190
200	0.24126	130.265	0.23369	0.23923	130.197	0.23345	0.23722	130.128	0.23321	0.23524	130.060	0.23297	200
210	0.24762	132.372	0.23686	0.24557	132.308	0.23662	0.24354	132.244	0.23639	0.24154	132.179	0.23616	210
220	0.25384	134.463	0.23996	0.25176	134.402	0.23973	0.24970	134.342	0.23950	0.24768	134.281	0.23928	220
230	0.25992	136.541	0.24299	0.25781	136.484	0.24277	0.25573	136.426	0.24255	0.25368	136.368	0.24233	230
240	0.26588	138.609	0.24597	0.26375	138.555	0.24575	0.26164	138.500	0.24553	0.25957	138.445	0.24532	240
250	0.27174	140.670	0.24889	0.26958	140.618	0.24868	0.26745	140.566	0.24846	0.26535	140.513	0.24825	250
260	0.27750	142.724	0.25177	0.27531	142.675	0.25156	0.27315	142.625	0.25135	0.27103	142.575	0.25114	260
270	0.28317	144.775	0.25460	0.28096	144.727	0.25439	0.27877	144.680	0.25418	0.27662	144.632	0.25398	270
280	0.28877	146.822	0.25738	0.28653	146.777	0.25718	0.28432	146.732	0.25697	0.28214	146.686	0.25677	280
290	0.29430	148.869	0.26013	0.29203	148.825	0.25993	0.28979	148.782	0.25973	0.28758	148.738	0.25953	290
300	0.29976	150.915	0.26284	0.29746	150.873	0.26264	0.29519	150.831	0.26244	0.29296	150.789	0.26224	300
310	0.30516	152.962	0.26552	0.30283	152.921	0.26532	0.30054	152.881	0.26512	0.29827	152.841	0.26493	310
320	0.31051	155.010	0.26816	0.30815	154.971	0.26797	0.30583	154.932	0.26777	0.30354	154.894	0.26758	320
330	0.31581	157.060	0.27078	0.31342	157.023	0.27058	0.31107	156.986	0.27039	0.30875	156.948	0.27020	330
340	0.32106	159.113	0.27336	0.31864	159.077	0.27317	0.31626	159.041	0.27297	0.31391	159.005	0.27278	340
350	0.32627	161.170	0.27592	0.32382	161.135	0.27572	0.32141	161.101	0.27553	0.31904	161.066	0.27534	350
360	0.33144	163.231	0.27845	0.32896	163.197	0.27826	0.32652	163.164	0.27807	0.32412	163.130	0.27788	360
370	0.33657	165.296	0.28095	0.33407	165.264	0.28076	0.33160	165.231	0.28057	0.32916	165.199	0.28039	370
380	0.34167	167.366	0.28343	0.33913	167.335	0.28324	0.33664	167.303	0.28306	0.33418	167.272	0.28287	380
390	0.34673	169.441	0.28589	0.34417	169.411	0.28570	0.34165	169.380	0.28551	0.33915	169.350	0.28533	390
400	0.35177	171.522	0.28832	0.34918	171.492	0.28814	0.34662	171.463	0.28795	0.34410	171.433	0.28777	400
410	0.35678	173.608	0.29073	0.35416	173.580	0.29055	0.35157	173.551	0.29037	0.34902	173.522	0.29018	410
420	0.36176	175.701	0.29313	0.35911	175.673	0.29294	0.35650	175.645	0.29276	0.35392	175.617	0.29258	420
430	0.36672	177.799	0.29550	0.36404	177.772	0.29532	0.36139	177.745	0.29513	0.35879	177.718	0.29495	430

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	294			296			298			300			TEMP. °F
	279.304			281.304			283.304			285.304			
	(125.37 °F)			(125.91 °F)			(126.45 °F)			(126.98 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.17807)	(112.882)	(0.20516)	(0.17670)	(112.890)	(0.20507)	(0.17534)	(112.897)	(0.20497)	(0.17400)	(112.904)	(0.20487)		
130	0.18222	114.066	0.20718	0.18036	113.941	0.20685	0.17852	113.815	0.20653	0.17670	113.688	0.20620	130
140	0.19068	116.535	0.21133	0.18884	116.424	0.21103	0.18701	116.312	0.21073	0.18520	116.199	0.21042	140
150	0.19862	118.911	0.21526	0.19677	118.810	0.21498	0.19494	118.709	0.21469	0.19313	118.607	0.21441	150
160	0.20613	121.216	0.21901	0.20427	121.124	0.21874	0.20244	121.031	0.21847	0.20062	120.938	0.21820	160
170	0.21330	123.466	0.22261	0.21143	123.381	0.22235	0.20958	123.296	0.22209	0.20776	123.210	0.22184	170
180	0.22019	125.673	0.22609	0.21830	125.594	0.22584	0.21644	125.515	0.22559	0.21460	125.436	0.22534	180
190	0.22684	127.846	0.22946	0.22494	127.772	0.22922	0.22306	127.699	0.22898	0.22120	127.625	0.22874	190
200	0.23329	129.991	0.23274	0.23137	129.922	0.23250	0.22946	129.853	0.23227	0.22759	129.784	0.23204	200
210	0.23956	132.114	0.23593	0.23761	132.049	0.23570	0.23569	131.984	0.23548	0.23379	131.919	0.23525	210
220	0.24568	134.220	0.23905	0.24371	134.158	0.23883	0.24176	134.097	0.23861	0.23984	134.035	0.23839	220
230	0.25166	136.311	0.24211	0.24967	136.253	0.24189	0.24770	136.195	0.24167	0.24575	136.136	0.24145	230
240	0.25752	138.390	0.24510	0.25550	138.335	0.24489	0.25351	138.280	0.24467	0.25154	138.225	0.24446	240
250	0.26327	140.461	0.24804	0.26123	140.409	0.24783	0.25921	140.356	0.24762	0.25722	140.304	0.24741	250
260	0.26893	142.525	0.25093	0.26686	142.475	0.25072	0.26481	142.425	0.25052	0.26280	142.375	0.25031	260
270	0.27449	144.585	0.25377	0.27240	144.537	0.25357	0.27033	144.489	0.25336	0.26829	144.441	0.25316	270
280	0.27998	146.640	0.25657	0.27786	146.595	0.25637	0.27577	146.549	0.25617	0.27370	146.503	0.25597	280
290	0.28540	148.694	0.25933	0.28325	148.651	0.25913	0.28113	148.607	0.25893	0.27904	148.563	0.25873	290
300	0.29075	150.747	0.26205	0.28857	150.705	0.26185	0.28643	150.663	0.26166	0.28431	150.621	0.26146	300
310	0.29604	152.801	0.26473	0.29384	152.760	0.26454	0.29166	152.720	0.26434	0.28952	152.679	0.26415	310
320	0.30128	154.855	0.26738	0.29905	154.816	0.26719	0.29684	154.777	0.26700	0.29467	154.738	0.26681	320
330	0.30646	156.911	0.27000	0.30420	156.873	0.26981	0.30197	156.836	0.26962	0.29978	156.798	0.26944	330
340	0.31160	158.969	0.27259	0.30931	158.933	0.27241	0.30706	158.897	0.27222	0.30483	158.861	0.27203	340
350	0.31669	161.031	0.27516	0.31438	160.996	0.27497	0.31210	160.961	0.27478	0.30985	160.926	0.27460	350
360	0.32175	163.096	0.27769	0.31941	163.063	0.27751	0.31710	163.029	0.27732	0.31482	162.995	0.27714	360
370	0.32676	165.166	0.28020	0.32440	165.133	0.28002	0.32206	165.101	0.27983	0.31975	165.068	0.27965	370
380	0.33175	167.240	0.28269	0.32935	167.209	0.28250	0.32699	167.177	0.28232	0.32465	167.145	0.28214	380
390	0.33670	169.319	0.28515	0.33427	169.289	0.28497	0.33188	169.258	0.28478	0.32952	169.227	0.28460	390
400	0.34162	171.403	0.28759	0.33917	171.374	0.28740	0.33675	171.344	0.28722	0.33436	171.314	0.28705	400
410	0.34651	173.493	0.29000	0.34403	173.465	0.28982	0.34158	173.436	0.28964	0.33917	173.407	0.28947	410
420	0.35138	175.589	0.29240	0.34887	175.561	0.29222	0.34639	175.533	0.29204	0.34395	175.505	0.29186	420
430	0.35622	177.691	0.29477	0.35368	177.664	0.29460	0.35118	177.636	0.29442	0.34871	177.609	0.29424	430

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

Table with columns for Absolute Pressure (305, 310, 315, 320, 325, 330, 335, 340) and Temperature (°F). Each pressure column contains sub-columns for Volume (V), Enthalpy (H), and Entropy (S). The table lists values for temperatures from 130°F to 440°F in increments of 10°F.

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	345			350			355			360			TEMP. °F
	330.304 (138.35 °F)			335.304 (139.54 °F)			340.304 (140.72 °F)			345.304 (141.89 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.14768)	(112.944)	(0.20268)	(0.14514)	(112.935)	(0.20244)	(0.14267)	(112.924)	(0.20220)	(0.14026)	(112.909)	(0.20196)	
140	0.14912	113.414	0.20347	0.14555	113.068	0.20266	—	—	—	—	—	—	140
150	0.15733	116.138	0.20797	0.15383	115.838	0.20725	0.15040	115.533	0.20651	0.14705	115.221	0.20578	150
160	0.16487	118.712	0.21216	0.16139	118.446	0.21149	0.15800	118.177	0.21082	0.15469	117.902	0.21014	160
170	0.17189	121.179	0.21611	0.16842	120.940	0.21548	0.16504	120.697	0.21485	0.16174	120.451	0.21422	170
180	0.17852	123.566	0.21987	0.17505	123.348	0.21927	0.17166	123.127	0.21868	0.16836	122.903	0.21808	180
190	0.18484	125.892	0.22348	0.18135	125.690	0.22291	0.17794	125.487	0.22234	0.17463	125.282	0.22177	190
200	0.19090	128.168	0.22696	0.18738	127.981	0.22641	0.18395	127.793	0.22586	0.18062	127.603	0.22532	200
210	0.19673	130.406	0.23032	0.19318	130.231	0.22979	0.18973	130.056	0.22927	0.18636	129.879	0.22874	210
220	0.20238	132.612	0.23359	0.19880	132.449	0.23308	0.19531	132.284	0.23257	0.19192	132.119	0.23206	220
230	0.20787	134.792	0.23678	0.20425	134.639	0.23628	0.20072	134.485	0.23578	0.19729	134.329	0.23529	230
240	0.21321	136.953	0.23989	0.20955	136.808	0.23940	0.20599	136.662	0.23892	0.20253	136.516	0.23844	240
250	0.21843	139.096	0.24293	0.21473	138.959	0.24245	0.21113	138.821	0.24198	0.20763	138.682	0.24151	250
260	0.22354	141.226	0.24591	0.21980	141.096	0.24544	0.21616	140.965	0.24498	0.21261	140.834	0.24452	260
270	0.22856	143.346	0.24883	0.22477	143.222	0.24838	0.22108	143.097	0.24792	0.21750	142.972	0.24747	270
280	0.23348	145.457	0.25171	0.22964	145.338	0.25126	0.22592	145.220	0.25081	0.22229	145.102	0.25037	280
290	0.23832	147.561	0.25453	0.23444	147.448	0.25409	0.23067	147.335	0.25365	0.22700	147.221	0.25322	290
300	0.24310	149.661	0.25732	0.23917	149.553	0.25688	0.23535	149.444	0.25645	0.23164	149.335	0.25602	300
310	0.24780	151.758	0.26006	0.24383	151.654	0.25963	0.23996	151.550	0.25920	0.23620	151.445	0.25878	310
320	0.25245	153.852	0.26276	0.24843	153.752	0.26234	0.24451	153.652	0.26192	0.24071	153.552	0.26150	320
330	0.25704	155.945	0.26543	0.25297	155.850	0.26501	0.24901	155.753	0.26459	0.24516	155.657	0.26418	330
340	0.26158	158.039	0.26806	0.25746	157.947	0.26765	0.25346	157.854	0.26724	0.24956	157.761	0.26683	340
350	0.26608	160.133	0.27067	0.26191	160.044	0.27026	0.25786	159.955	0.26985	0.25392	159.866	0.26945	350
360	0.27053	162.229	0.27324	0.26631	162.143	0.27283	0.26221	162.057	0.27243	0.25823	161.971	0.27203	360
370	0.27494	164.328	0.27578	0.27068	164.245	0.27538	0.26653	164.161	0.27498	0.26249	164.078	0.27458	370
380	0.27932	166.429	0.27830	0.27500	166.348	0.27790	0.27081	166.268	0.27750	0.26673	166.187	0.27711	380
390	0.28366	168.533	0.28079	0.27930	168.455	0.28039	0.27505	168.378	0.28000	0.27092	168.300	0.27961	390
400	0.28797	170.641	0.28326	0.28356	170.566	0.28286	0.27926	170.491	0.28247	0.27509	170.415	0.28209	400
410	0.29225	172.754	0.28570	0.28779	172.681	0.28531	0.28345	172.608	0.28492	0.27922	172.535	0.28454	410
420	0.29651	174.871	0.28812	0.29199	174.800	0.28773	0.28760	174.729	0.28735	0.28333	174.658	0.28697	420
430	0.30074	176.993	0.29052	0.29617	176.925	0.29013	0.29173	176.856	0.28975	0.28741	176.787	0.28937	430
440	0.30494	179.121	0.29290	0.30032	179.054	0.29251	0.29583	178.987	0.29213	0.29147	178.920	0.29176	440
450	—	—	—	—	—	—	0.29992	181.123	0.29449	0.29550	181.058	0.29412	450

  

TEMP. °F	365			370			375			380			TEMP. °F
	350.304 (143.04 °F)			355.304 (144.19 °F)			360.304 (145.32 °F)			365.304 (146.44 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.13792)	(112.892)	(0.20172)	(0.13563)	(112.873)	(0.20148)	(0.13339)	(112.851)	(0.20123)	(0.13121)	(112.826)	(0.20099)	
150	0.14376	114.903	0.20503	0.14053	114.577	0.20428	0.13736	114.243	0.20353	0.13425	113.901	0.20276	150
160	0.15145	117.623	0.20946	0.14828	117.339	0.20878	0.14517	117.050	0.20809	0.14213	116.756	0.20740	160
170	0.15852	120.202	0.21359	0.15538	119.949	0.21296	0.15230	119.692	0.21232	0.14929	119.432	0.21169	170
180	0.16514	122.677	0.21749	0.16200	122.448	0.21689	0.15893	122.217	0.21630	0.15593	121.982	0.21571	180
190	0.17140	125.075	0.22121	0.16825	124.865	0.22064	0.16517	124.654	0.22008	0.16217	124.440	0.21952	190
200	0.17736	127.412	0.22478	0.17420	127.219	0.22424	0.17111	127.024	0.22370	0.16809	126.827	0.22317	200
210	0.18309	129.701	0.22822	0.17990	129.522	0.22770	0.17679	129.341	0.22719	0.17375	129.159	0.22667	210
220	0.18861	131.953	0.23156	0.18539	131.785	0.23106	0.18226	131.616	0.23056	0.17920	131.447	0.23006	220
230	0.19396	134.173	0.23480	0.19071	134.016	0.23432	0.18754	133.858	0.23383	0.18446	133.699	0.23335	230
240	0.19915	136.368	0.23796	0.19587	136.220	0.23749	0.19267	136.071	0.23702	0.18956	135.922	0.23655	240
250	0.20422	138.543	0.24105	0.20090	138.403	0.24059	0.19767	138.263	0.24013	0.19452	138.121	0.23967	250
260	0.20916	140.702	0.24407	0.20581	140.569	0.24362	0.20254	140.436	0.24317	0.19936	140.302	0.24273	260
270	0.21401	142.846	0.24703	0.21061	142.720	0.24659	0.20731	142.594	0.24615	0.20409	142.467	0.24571	270
280	0.21876	144.981	0.24993	0.21533	144.861	0.24950	0.21198	144.740	0.24907	0.20873	144.619	0.24864	280
290	0.22343	147.107	0.25279	0.21995	146.992	0.25236	0.21657	146.877	0.25194	0.21328	146.762	0.25152	290
300	0.22802	149.226	0.25560	0.22451	149.116	0.25518	0.22108	149.006	0.25476	0.21775	148.896	0.25435	300
310	0.23255	151.340	0.25836	0.22899	151.235	0.25795	0.22553	151.130	0.25754	0.22216	151.024	0.25713	310
320	0.23701	153.452	0.26109	0.23341	153.351	0.26068	0.22991	153.250	0.26027	0.22650	153.148	0.25987	320
330	0.24142	155.560	0.26377	0.23778	155.464	0.26337	0.23423	155.367	0.26297	0.23078	155.269	0.26258	330
340	0.24578	157.668	0.26643	0.24209	157.575	0.26603	0.23850	157.482	0.26563	0.23501	157.388	0.26524	340
350	0.25008	159.776	0.26905	0.24635	159.686	0.26865	0.24272	159.596	0.26826	0.23919	159.506	0.26787	350
360	0.25435	161.885	0.27163	0.25058	161.798	0.27124	0.24690	161.711	0.27086	0.24333	161.624	0.27047	360
370	0.25857	163.995	0.27419	0.25476	163.911	0.27381	0.25104	163.827	0.27342	0.24742	163.743	0.27304	370
380	0.26276	166.107	0.27672	0.25890	166.026	0.27634	0.25514	165.945	0.27596	0.25148	165.864	0.27558	380
390	0.26691	168.222	0.27923	0.26300	168.143	0.27885	0.25920	168.065	0.27847	0.25550	167.987	0.27810	390
400	0.27103	170.340	0.28171	0.26708	170.264	0.28133	0.26324	170.188	0.28095	0.25949	170.112	0.28058	400
410	0.27512	172.461	0.28416	0.27112	172.388	0.28378	0.26724	172.314	0.28341	0.26345	172.241	0.28305	410
420	0.27918	174.587	0.28659	0.27514	174.516	0.28622	0.27121	174.445	0.28585	0.26738	174.373	0.28548	420
430	0.28322	176.718	0.28900	0.27913	176.648	0.28863	0.27516	176.579	0.28826	0.27129	176.510	0.28790	430
440	0.28723	178.853	0.29138	0.28310	178.785	0.29102	0.27908	178.718	0.29065	0.27517	178.651	0.29029	440
450	0.29121	180.993	0.29375	0.28704	180.927	0.29338	0.28298	180.862	0.29302	0.27902	180.797	0.29266	450



**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	385			390			395			400			TEMP. °F
	370.304 (147.55 °F)			375.304 (148.65 °F)			380.304 (149.74 °F)			385.304 (150.82 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.12908)	(112.798)	(0.20075)	(0.12700)	(112.768)	(0.20050)	(0.12496)	(112.736)	(0.20026)	(0.12297)	(112.700)	(0.20001)		
150	0.13118	113.550	0.20198	0.12817	113.189	0.20119	0.12519	112.818	0.20039	—	—	—	150
160	0.13915	116.455	0.20671	0.13622	116.149	0.20601	0.13335	0.20530	0.13053	115.516	0.20459	0.20459	160
170	0.14635	119.167	0.21105	0.14347	118.898	0.21041	0.14065	0.20977	0.13788	118.347	0.20912	0.20912	170
180	0.15300	121.745	0.21511	0.15014	121.504	0.21452	0.14734	0.21392	0.14460	121.014	0.21332	0.21332	180
190	0.15924	124.224	0.21896	0.15638	124.006	0.21840	0.15358	0.21784	0.15085	123.562	0.21728	0.21728	190
200	0.16515	126.629	0.22263	0.16228	126.429	0.22210	0.15948	0.22157	0.15674	126.023	0.22104	0.22104	200
210	0.17080	128.976	0.22616	0.16791	128.790	0.22565	0.16509	0.22514	0.16234	128.416	0.22464	0.22464	210
220	0.17622	131.276	0.22957	0.17331	131.103	0.22908	0.17047	0.22859	0.16770	130.755	0.22810	0.22810	220
230	0.18145	133.539	0.23288	0.17851	133.377	0.23240	0.17565	0.23193	0.17286	133.052	0.23146	0.23146	230
240	0.18652	135.771	0.23609	0.18356	135.620	0.23563	0.18067	0.23517	0.17785	135.315	0.23471	0.23471	240
250	0.19145	137.979	0.23922	0.18845	137.837	0.23877	0.18554	0.23833	0.18269	137.549	0.23789	0.23789	250
260	0.19625	140.167	0.24228	0.19323	140.032	0.24185	0.19028	0.24141	0.18740	139.761	0.24098	0.24098	260
270	0.20095	142.339	0.24528	0.19789	142.211	0.24485	0.19491	0.24443	0.19200	141.953	0.24401	0.24401	270
280	0.20555	144.498	0.24822	0.20246	144.376	0.24780	0.19944	0.24738	0.19650	144.131	0.24697	0.24697	280
290	0.21007	146.646	0.25110	0.20694	146.530	0.25069	0.20389	0.25028	0.20091	146.296	0.24988	0.24988	290
300	0.21450	148.785	0.25394	0.21134	148.674	0.25353	0.20825	0.25313	0.20524	148.451	0.25273	0.25273	300
310	0.21887	150.919	0.25673	0.21567	150.812	0.25633	0.21255	0.25593	0.20950	150.599	0.25554	0.25554	310
320	0.22317	153.047	0.25948	0.21993	152.945	0.25908	0.21677	0.25869	0.21369	152.741	0.25831	0.25831	320
330	0.22742	155.172	0.26218	0.22414	155.074	0.26180	0.22094	0.26141	0.21783	154.878	0.26103	0.26103	330
340	0.23161	157.294	0.26486	0.22829	157.200	0.26447	0.22506	0.26409	0.22190	157.012	0.26372	0.26372	340
350	0.23575	159.416	0.26749	0.23239	159.325	0.26711	0.22912	0.26674	0.22593	159.144	0.26636	0.26636	350
360	0.23984	161.537	0.27010	0.23645	161.450	0.26972	0.23314	0.26935	0.22992	161.275	0.26898	0.26898	360
370	0.24390	163.659	0.27267	0.24047	163.575	0.27230	0.23712	0.27193	0.23386	163.406	0.27157	0.27157	370
380	0.24792	165.783	0.27521	0.24444	165.701	0.27484	0.24106	0.27448	0.23776	165.538	0.27412	0.27412	380
390	0.25190	167.908	0.27773	0.24839	167.829	0.27736	0.24496	0.27700	0.24162	167.672	0.27665	0.27665	390
400	0.25585	170.036	0.28022	0.25229	169.960	0.27986	0.24883	0.27950	0.24546	169.807	0.27914	0.27914	400
410	0.25976	172.167	0.28268	0.25617	172.093	0.28232	0.25267	0.28197	0.24926	171.945	0.28162	0.28162	410
420	0.26365	174.302	0.28512	0.26002	174.230	0.28477	0.25648	0.28441	0.25303	174.087	0.28407	0.28407	420
430	0.26752	176.441	0.28754	0.26384	176.371	0.28719	0.26026	0.28684	0.25677	176.232	0.28649	0.28649	430
440	0.27135	178.584	0.28994	0.26764	178.516	0.28958	0.26402	0.28924	0.26049	178.381	0.28889	0.28889	440
450	0.27517	180.731	0.29231	0.27141	180.666	0.29196	0.26776	0.29161	0.26419	180.534	0.29127	0.29127	450
460	—	—	—	—	—	—	—	—	0.26786	182.692	0.29363	0.29363	460

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	405			410			415			420			TEMP. °F
	390.304 (151.89 °F)			395.304 (152.95 °F)			400.304 (153.99 °F)			405.304 (155.03 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.12103)	(112.662)	(0.19976)	(0.11912)	(112.621)	(0.19951)	(0.11726)	(112.577)	(0.19927)	(0.11544)	(112.531)	(0.19901)		
160	0.12775	115.188	0.20387	0.12502	114.853	0.20314	0.12232	114.509	0.20240	0.11966	114.156	0.20165	160
170	0.13516	118.065	0.20847	0.13250	117.777	0.20782	0.12988	117.483	0.20716	0.12731	117.184	0.20650	170
180	0.14191	120.763	0.21272	0.13928	120.509	0.21212	0.13670	120.251	0.21152	0.13417	119.989	0.21092	180
190	0.14817	123.336	0.21672	0.14555	123.108	0.21616	0.14299	122.877	0.21559	0.14048	122.643	0.21503	190
200	0.15406	125.817	0.22050	0.15144	125.609	0.21998	0.14888	125.399	0.21945	0.14637	125.186	0.21892	200
210	0.15965	128.226	0.22413	0.15702	128.035	0.22363	0.15445	127.842	0.22312	0.15193	127.647	0.22262	210
220	0.16499	130.579	0.22762	0.16235	130.402	0.22713	0.15976	130.224	0.22665	0.15723	130.044	0.22617	220
230	0.17013	132.888	0.23099	0.16746	132.723	0.23052	0.16486	132.557	0.23006	0.16232	132.389	0.22960	230
240	0.17509	135.161	0.23426	0.17241	135.006	0.23381	0.16978	134.850	0.23336	0.16721	134.694	0.23292	240
250	0.17991	137.404	0.23745	0.17720	137.259	0.23701	0.17454	137.112	0.23657	0.17196	136.965	0.23614	250
260	0.18459	139.624	0.24055	0.18185	139.486	0.24012	0.17918	139.348	0.23970	0.17656	139.209	0.23928	260
270	0.18916	141.824	0.24359	0.18639	141.693	0.24317	0.18369	141.563	0.24276	0.18105	141.431	0.24234	270
280	0.19363	144.008	0.24656	0.19083	143.884	0.24615	0.18810	143.760	0.24575	0.18543	143.635	0.24534	280
290	0.19801	146.179	0.24947	0.19518	146.061	0.24907	0.19241	145.943	0.24868	0.18971	145.824	0.24828	290
300	0.20231	148.339	0.25234	0.19944	148.227	0.25195	0.19665	148.114	0.25156	0.19392	148.001	0.25117	300
310	0.20653	150.492	0.25515	0.20363	150.384	0.25477	0.20081	150.277	0.25438	0.19804	150.169	0.25400	310
320	0.21069	152.638	0.25792	0.20776	152.535	0.25754	0.20490	152.432	0.25717	0.20210	152.328	0.25679	320
330	0.21479	154.779	0.26065	0.21182	154.680	0.26028	0.20893	154.581	0.25990	0.20610	154.482	0.25954	330
340	0.21883	156.917	0.26334	0.21583	156.822	0.26297	0.21290	156.727	0.26260	0.21004	156.632	0.26224	340
350	0.22282	159.053	0.26600	0.21979	158.961	0.26563	0.21683	158.870	0.26527	0.21394	158.778	0.26491	350
360	0.22677	161.187	0.26862	0.22370	161.099	0.26825	0.22070	161.011	0.26790	0.21778	160.923	0.26754	360
370	0.23067	163.321	0.27120	0.22757	163.237	0.27085	0.22454	163.152	0.27049	0.22158	163.067	0.27014	370
380	0.23454	165.456	0.27376	0.23140	165.374	0.27341	0.22833	165.292	0.27306	0.22534	165.210	0.27271	380
390	0.23837	167.593	0.27629	0.23519	167.513	0.27594	0.23209	167.434	0.27559	0.22907	167.355	0.27525	390
400	0.24216	169.731	0.27879	0.23895	169.654	0.27844	0.23582	169.577	0.27810	0.23276	169.501	0.27776	400
410	0.24593	171.871	0.28127	0.24268	171.797	0.28092	0.23951	171.723	0.28058	0.23641	171.649	0.28024	410
420	0.24966	174.015	0.28372	0.24638	173.943	0.28338	0.24317	173.871	0.28304	0.24004	173.799	0.28270	420
430	0.25337	176.162	0.28615	0.25005	176.093	0.28581	0.24681	176.023	0.28547	0.24364	175.953	0.28514	430
440	0.25705	178.313	0.28855	0.25369	178.246	0.28821	0.25042	178.178	0.28788	0.24722	178.110	0.28755	440
450	0.26071	180.469	0.29093	0.25732	180.403	0.29060	0.25401	180.337	0.29026	0.25077	180.271	0.28994	450
460	0.26435	182.628	0.29329	0.26092	182.564	0.29296	0.25757	182.500	0.29263	0.25430	182.436	0.29230	460

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	425			430			435			440			TEMP. °F
	410.304			415.304			420.304			425.304			
	(156.06 °F)			(157.08 °F)			(158.10 °F)			(159.10 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.11365)	(112.482)	(0.19876)	(0.11190)	(112.430)	(0.19851)	(0.11019)	(112.375)	(0.19825)	(0.10850)	(112.318)	(0.19800)		
160	0.11703	113.794	0.20089	0.11443	113.420	0.20011	0.11186	113.034	0.19932	0.10931	112.636	0.19851	160
170	0.12478	116.879	0.20583	0.12229	116.568	0.20515	0.11984	116.249	0.20447	0.11742	115.924	0.20377	170
180	0.13169	119.723	0.21031	0.12925	119.453	0.20970	0.12686	119.179	0.20908	0.12451	118.899	0.20846	180
190	0.13802	122.406	0.21447	0.13561	122.166	0.21390	0.13324	121.922	0.21334	0.13092	121.676	0.21277	190
200	0.14391	124.972	0.21839	0.14151	124.755	0.21786	0.13915	124.536	0.21733	0.13684	124.314	0.21680	200
210	0.14947	127.451	0.22212	0.14707	127.253	0.22162	0.14471	127.053	0.22112	0.14240	126.851	0.22062	210
220	0.15476	129.862	0.22569	0.15235	129.680	0.22521	0.14998	129.496	0.22474	0.14766	129.310	0.22426	220
230	0.15983	132.221	0.22914	0.15740	132.051	0.22868	0.15502	131.880	0.22822	0.15269	131.708	0.22777	230
240	0.16471	134.536	0.23247	0.16226	134.378	0.23203	0.15986	134.218	0.23159	0.15751	134.058	0.23115	240
250	0.16943	136.817	0.23571	0.16695	136.668	0.23528	0.16453	136.519	0.23485	0.16217	136.369	0.23443	250
260	0.17401	139.070	0.23886	0.17151	138.930	0.23844	0.16907	138.789	0.23803	0.16668	138.647	0.23762	260
270	0.17846	141.299	0.24194	0.17594	141.167	0.24153	0.17348	141.034	0.24113	0.17107	140.900	0.24072	270
280	0.18282	143.510	0.24495	0.18027	143.384	0.24455	0.17778	143.258	0.24415	0.17543	143.132	0.24376	280
290	0.18708	145.705	0.24789	0.18450	145.586	0.24750	0.18198	145.466	0.24712	0.17952	145.346	0.24673	290
300	0.19125	147.888	0.25078	0.18864	147.774	0.25040	0.18610	147.660	0.25003	0.18361	147.545	0.24965	300
310	0.19535	150.060	0.25363	0.19271	149.951	0.25325	0.19014	149.842	0.25288	0.18762	149.733	0.25251	310
320	0.19938	152.225	0.25642	0.19671	152.121	0.25605	0.19411	152.016	0.25256	0.19156	151.912	0.25532	320
330	0.20334	154.383	0.25917	0.20065	154.283	0.25881	0.19801	154.183	0.25845	0.19544	154.083	0.25809	330
340	0.20725	156.536	0.26188	0.20453	156.441	0.26152	0.20186	156.345	0.26117	0.19926	156.248	0.26081	340
350	0.21111	158.686	0.26455	0.20835	158.594	0.26420	0.20566	158.502	0.26385	0.20303	158.410	0.26350	350
360	0.21492	160.834	0.26719	0.21213	160.746	0.26684	0.20941	160.657	0.26649	0.20674	160.568	0.26615	360
370	0.21869	162.981	0.26979	0.21587	162.896	0.26945	0.21311	162.810	0.26910	0.21042	162.725	0.26877	370
380	0.22242	165.128	0.27236	0.21957	165.045	0.27202	0.21678	164.963	0.27168	0.21405	164.880	0.27135	380
390	0.22611	167.275	0.27491	0.22323	167.196	0.27457	0.22041	167.116	0.27243	0.21765	167.036	0.27390	390
400	0.22977	169.424	0.27742	0.22688	169.347	0.27708	0.22400	169.269	0.27675	0.22121	169.192	0.27642	400
410	0.23339	171.574	0.27991	0.23044	171.499	0.27957	0.22756	171.425	0.27924	0.22474	171.350	0.27892	410
420	0.23699	173.727	0.28237	0.23400	173.655	0.28204	0.23109	173.582	0.28171	0.22824	173.510	0.28139	420
430	0.24056	175.883	0.28480	0.23754	175.813	0.28448	0.23459	175.743	0.28415	0.23171	175.672	0.28383	430
440	0.24410	178.042	0.28722	0.24105	177.974	0.28689	0.23807	177.906	0.28657	0.23516	177.838	0.28625	440
450	0.24762	180.205	0.28961	0.24453	180.139	0.28929	0.24152	180.073	0.28897	0.23858	180.007	0.28865	450
460	0.25111	182.372	0.29198	0.24800	182.308	0.29166	0.24495	182.244	0.29134	0.24198	182.179	0.29102	460

  

TEMP. °F	445			450			455			460			TEMP. °F
	430.304			435.304			440.304			445.304			
	(160.09 °F)			(161.08 °F)			(162.06 °F)			(163.02 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.10685)	(112.257)	(0.19774)	(0.10524)	(112.193)	(0.19748)	(0.10365)	(112.127)	(0.19721)	(0.10209)	(112.057)	(0.19695)		
170	0.11504	115.590	0.20307	0.11268	115.249	0.20236	0.11035	114.898	0.20164	0.10804	114.537	0.20091	170
180	0.12219	118.615	0.20784	0.11992	118.325	0.20721	0.11768	118.030	0.20658	0.11547	117.729	0.20594	180
190	0.12864	121.426	0.21220	0.12640	121.172	0.21163	0.12420	120.915	0.21106	0.12204	120.654	0.21048	190
200	0.13458	124.090	0.21627	0.13236	123.863	0.21574	0.13018	123.634	0.21521	0.12804	123.402	0.21468	200
210	0.14014	126.647	0.22012	0.13792	126.441	0.21962	0.13575	126.234	0.21912	0.13362	126.024	0.21862	210
220	0.14540	129.123	0.22379	0.14317	128.934	0.22331	0.14100	128.744	0.22284	0.13886	128.552	0.22237	220
230	0.15041	131.535	0.22731	0.14818	131.360	0.22686	0.14599	131.185	0.22641	0.14385	131.008	0.22595	230
240	0.15522	133.897	0.23071	0.15297	133.734	0.23027	0.15077	133.571	0.22984	0.14862	133.406	0.22941	240
250	0.15986	136.217	0.23400	0.15759	136.066	0.23358	0.15537	135.913	0.23316	0.15320	135.759	0.23275	250
260	0.16435	138.505	0.23721	0.16206	138.362	0.23680	0.15982	138.219	0.23639	0.15764	138.075	0.23599	260
270	0.16871	140.766	0.24033	0.16640	140.631	0.23993	0.16414	140.496	0.23953	0.16193	140.360	0.23914	270
280	0.17296	143.005	0.24337	0.17063	142.877	0.24298	0.16835	142.749	0.24260	0.16612	142.620	0.24222	280
290	0.17711	145.225	0.24635	0.17475	145.104	0.24597	0.17245	144.982	0.24560	0.17020	144.860	0.24522	290
300	0.18117	147.430	0.24928	0.17879	147.315	0.24890	0.17646	147.199	0.24854	0.17418	147.083	0.24817	300
310	0.18516	149.623	0.25214	0.18275	149.513	0.25178	0.18040	149.403	0.25142	0.17809	149.292	0.25106	310
320	0.18907	151.807	0.25496	0.18664	151.702	0.25460	0.18426	151.596	0.25425	0.18193	151.490	0.25390	320
330	0.19292	153.982	0.25774	0.19046	153.882	0.25738	0.18805	153.781	0.25703	0.18570	153.680	0.25669	330
340	0.19671	156.152	0.26047	0.19422	156.055	0.26012	0.19179	155.959	0.25977	0.18941	155.862	0.25943	340
350	0.20045	158.317	0.26316	0.19793	158.224	0.26281	0.19547	158.131	0.26247	0.19306	158.038	0.26214	350
360	0.20414	160.479	0.26581	0.20159	160.390	0.26547	0.19910	160.300	0.26514	0.19667	160.210	0.26480	360
370	0.20779	162.639	0.26843	0.20521	162.553	0.26809	0.20269	162.466	0.26776	0.20023	162.380	0.26743	370
380	0.21139	164.797	0.27101	0.20879	164.714	0.27068	0.20624	164.631	0.27036	0.20375	164.548	0.27003	380
390	0.21496	166.956	0.27357	0.21232	166.876	0.27324	0.20975	166.795	0.27292	0.20723	166.715	0.27260	390
400	0.21849	169.115	0.27610	0.21582	169.037	0.27577	0.21322	168.960	0.27545	0.21067	168.882	0.27513	400
410	0.22199	171.275	0.27859	0.21929	171.200	0.27827	0.21666	171.125	0.27796	0.21408	171.050	0.27764	410
420	0.22546	173.437	0.28107	0.22273	173.365	0.28075	0.22007	173.292	0.28043	0.21746	173.219	0.28012	420
430	0.22890	175.602	0.28351	0.22614	175.532	0.28320	0.22345	175.461	0.28288	0.22082	175.391	0.28257	430
440	0.23231	177.769	0.28594	0.22953	177.701	0.28562	0.22681	177.633	0.28531	0.22414	177.564	0.28500	440
450	0.23570	179.940	0.28834	0.23289	179.874	0.28802	0.23014	179.808	0.28772	0.22745	179.741	0.28741	450
460	0.23907	182.115	0.29071	0.23623	182.050	0.29040	0.23344	181.986	0.29010	0.23072	181.921	0.28979	460
470	0.24241	184.293	0.29307	0.23954	184.231	0.29276	0.23673	184.168	0.29246	0.23398	184.105	0.29216	470

**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	465			470			475			480			TEMP. °F
	450.304			455.304			460.304			465.304			
	(163.99 °F)			(164.94 °F)			(165.88 °F)			(166.82 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.10056)	(111.985)	(0.19668)	(0.099051)	(111.909)	(0.19641)	(0.097572)	(111.830)	(0.19614)	(0.096118)	(111.748)	(0.19587)		
170	0.10576	114.166	0.20016	0.10349	113.784	0.19940	0.10124	113.389	0.19863	0.098998	112.980	0.19783	170
180	0.11329	117.422	0.20530	0.11114	117.109	0.20464	0.10902	116.789	0.20398	0.10692	116.461	0.20331	180
190	0.11992	120.389	0.20990	0.11783	120.119	0.20931	0.11577	119.846	0.20873	0.11374	119.567	0.20813	190
200	0.12594	123.167	0.21414	0.12388	122.929	0.21360	0.12185	122.688	0.21307	0.11986	122.443	0.21253	200
210	0.13153	125.812	0.21812	0.12947	125.598	0.21762	0.12746	125.381	0.21712	0.12548	125.163	0.21662	210
220	0.13677	128.359	0.22190	0.13472	128.163	0.22142	0.13271	127.966	0.22095	0.13074	127.768	0.22048	220
230	0.14175	130.829	0.22550	0.13969	130.650	0.22506	0.13768	130.469	0.22461	0.13570	130.286	0.22416	230
240	0.14651	133.241	0.22898	0.14444	133.074	0.22855	0.14241	132.907	0.22812	0.14042	132.738	0.22769	240
250	0.15108	135.605	0.23233	0.14899	135.449	0.23192	0.14695	135.293	0.23150	0.14495	135.136	0.23109	250
260	0.15549	137.930	0.23558	0.15339	137.784	0.23518	0.15134	137.637	0.23478	0.14932	137.490	0.23439	260
270	0.15977	140.223	0.23875	0.15765	140.086	0.23836	0.15558	139.948	0.23797	0.15354	139.810	0.23759	270
280	0.16393	142.491	0.24184	0.16179	142.361	0.24146	0.15970	142.231	0.24108	0.15764	142.101	0.24070	280
290	0.16799	144.738	0.24485	0.16583	144.615	0.24448	0.16371	144.491	0.24411	0.16164	144.368	0.24375	290
300	0.17195	146.967	0.24781	0.16977	146.850	0.24744	0.16763	146.733	0.24708	0.16554	146.615	0.24673	300
310	0.17584	149.181	0.25070	0.17363	149.070	0.25035	0.17147	148.958	0.24999	0.16935	148.846	0.24964	310
320	0.17965	151.384	0.25355	0.17742	151.278	0.25320	0.17523	151.172	0.25285	0.17309	151.065	0.25251	320
330	0.18339	153.578	0.25634	0.18113	153.476	0.25600	0.17892	153.374	0.25566	0.17676	153.272	0.25532	330
340	0.18707	155.764	0.25909	0.18479	155.667	0.25876	0.18256	155.569	0.25842	0.18037	155.471	0.25809	340
350	0.19070	157.945	0.26180	0.18840	157.851	0.26147	0.18614	157.757	0.26114	0.18392	157.663	0.26081	350
360	0.19428	160.121	0.26447	0.19195	160.031	0.26415	0.18966	159.940	0.26382	0.18743	159.850	0.26350	360
370	0.19782	162.294	0.26711	0.19546	162.207	0.26678	0.19315	162.120	0.26646	0.19088	162.033	0.26614	370
380	0.20131	164.465	0.26971	0.19892	164.381	0.26939	0.19659	164.297	0.26907	0.19430	164.214	0.26876	380
390	0.20476	166.635	0.27228	0.20235	166.554	0.27196	0.19999	166.473	0.27165	0.19767	166.392	0.27134	390
400	0.20818	168.804	0.27482	0.20574	168.726	0.27450	0.20335	168.648	0.27419	0.20101	168.570	0.27388	400
410	0.21156	170.975	0.27733	0.20910	170.899	0.27702	0.20668	170.824	0.27671	0.20432	170.748	0.27640	410
420	0.21492	173.146	0.27981	0.21242	173.073	0.27950	0.20998	173.000	0.27920	0.20759	172.927	0.27889	420
430	0.21824	175.320	0.28227	0.21572	175.249	0.28196	0.21325	175.178	0.28166	0.21083	175.108	0.28136	430
440	0.22154	177.496	0.28470	0.21899	177.427	0.28440	0.21649	177.359	0.28410	0.21405	177.290	0.28380	440
450	0.22481	179.675	0.28711	0.22224	179.608	0.28681	0.21971	179.542	0.28651	0.21724	179.475	0.28621	450
460	0.22806	181.857	0.28949	0.22546	181.792	0.28919	0.22291	181.727	0.28890	0.22041	181.663	0.28860	460
470	0.23129	184.042	0.29186	0.22866	183.980	0.29156	0.22608	183.917	0.29127	0.22356	183.854	0.29097	470

  

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	485			490			495			500			TEMP. °F
	470.304			475.304			480.304			485.304			
	(167.75 °F)			(168.67 °F)			(169.59 °F)			(170.50 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.094688)	(111.662)	(0.19559)	(0.093281)	(111.573)	(0.19531)	(0.091896)	(111.481)	(0.19503)	(0.090533)	(111.384)	(0.19474)		
170	0.096763	112.555	0.19700	0.094531	112.114	0.19617	0.092293	111.653	0.19530	—	—	—	170
180	0.10485	116.125	0.20264	0.10280	115.781	0.20195	0.10076	115.427	0.20125	0.098744	115.064	0.20054	180
190	0.11174	119.284	0.20754	0.10977	118.995	0.20693	0.10783	118.701	0.20633	0.10591	118.402	0.20571	190
200	0.11790	122.196	0.21199	0.11597	121.945	0.21144	0.11407	121.690	0.21089	0.11220	121.432	0.21034	200
210	0.12354	124.942	0.21612	0.12163	124.718	0.21561	0.11975	124.492	0.21511	0.11791	124.263	0.21460	210
220	0.12880	127.567	0.22001	0.12689	127.365	0.21954	0.12503	127.161	0.21906	0.12319	126.954	0.21859	220
230	0.13376	130.103	0.22371	0.13185	129.917	0.22326	0.12998	129.731	0.22282	0.12815	129.543	0.22237	230
240	0.13847	132.568	0.22726	0.13656	132.397	0.22683	0.13469	132.225	0.22641	0.13285	132.051	0.22598	240
250	0.14299	134.977	0.23068	0.14107	134.818	0.23027	0.13918	134.658	0.22986	0.13733	134.497	0.22946	250
260	0.14734	137.342	0.23399	0.14541	137.194	0.23359	0.14351	137.044	0.23320	0.14164	136.894	0.23281	260
270	0.15155	139.671	0.23720	0.14960	139.531	0.23682	0.14768	139.391	0.23644	0.14580	139.250	0.23606	270
280	0.15563	141.969	0.24033	0.15366	141.837	0.23996	0.15173	141.705	0.23959	0.14983	141.572	0.23922	280
290	0.15961	144.243	0.24338	0.15762	144.119	0.24302	0.15567	143.993	0.24266	0.15375	143.868	0.24230	290
300	0.16348	146.497	0.24637	0.16147	146.379	0.24602	0.15950	146.260	0.24567	0.15757	146.141	0.24532	300
310	0.16728	148.734	0.24930	0.16525	148.621	0.24895	0.16325	148.508	0.24861	0.16130	148.395	0.24826	310
320	0.17099	150.957	0.25217	0.16894	150.850	0.25183	0.16693	150.742	0.25149	0.16495	150.634	0.25115	320
330	0.17464	153.170	0.25499	0.17257	153.067	0.25465	0.17053	152.964	0.25432	0.16854	152.861	0.25399	330
340	0.17823	155.373	0.25776	0.17613	155.274	0.25743	0.17407	155.176	0.25710	0.17205	155.077	0.25678	340
350	0.18176	157.569	0.26049	0.17963	157.475	0.26016	0.17755	157.380	0.25984	0.17552	157.285	0.25952	350
360	0.18524	159.760	0.26318	0.18309	159.669	0.26286	0.18099	159.578	0.26254	0.17893	159.487	0.26223	360
370	0.18867	161.946	0.26583	0.18650	161.859	0.26551	0.18437	161.771	0.26520	0.18229	161.684	0.26489	370
380	0.19206	164.130	0.26844	0.18986	164.045	0.26813	0.18771	163.961	0.26782	0.18560	163.877	0.26752	380
390	0.19541	166.311	0.27103	0.19319	166.230	0.27072	0.19101	166.149	0.27041	0.18888	166.068	0.27011	390
400	0.19872	168.492	0.27358	0.19648	168.414	0.27327	0.19428	168.335	0.27297	0.19212	168.257	0.27267	400
410	0.20200	170.673	0.27610	0.19973	170.597	0.27580	0.19751	170.521	0.27550	0.19533	170.445	0.27520	410
420	0.20525	172.854	0.27859	0.20295	172.781	0.27830	0.20071	172.707	0.27800	0.19850	172.634	0.27771	420
430	0.20847	175.037	0.28106	0.20615	174.965	0.28077	0.20388	174.895	0.28047	0.20165	174.823	0.28018	430
440	0.21166	177.221	0.28350	0.20931	177.152	0.28321	0.20702	177.083	0.28292	0.20477	177.014	0.28263	440
450	0.21483	179.408	0.28592	0.21246	179.341	0.28563	0.21014	179.274	0.28534	0.20786	179.208	0.28505	450
460	0.21797	181.598	0.28831	0.21557	181.533	0.28803	0.21323	181.468	0.28774	0.21093	181.403	0.28745	460
470	0.22109	183.791	0.29069	0.21867	183.728	0.29040	0.21630	183.665	0.29011	0.21398	183.602	0.28983	470
480	—	—	—	—	—	—	—	—	—	0.21700	185.803	0.29219	480



**TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS**

*V* = volume in cu ft/lb; *H* = enthalpy in Btu/lb; *S* = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in													
TEMP. °F	505			510			515			520			TEMP. °F
	490.304			495.304			500.304			505.304			
	(171.40 °F)			(172.29 °F)			(173.18 °F)			(174.06 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.089191)	(111.285)	(0.19445)	(0.087869)	(111.181)	(0.19416)	(0.086565)	(111.074)	(0.19386)	(0.085280)	(110.963)	(0.19356)		
180	0.096741	114.691	0.19981	0.094749	114.305	0.19907	0.092765	113.907	0.19831	0.090787	113.495	0.19753	180
190	0.10402	118.096	0.20509	0.10214	117.784	0.20447	0.10029	117.466	0.20383	0.098457	117.140	0.20319	190
200	0.11036	121.170	0.20979	0.10854	120.903	0.20923	0.10675	120.633	0.20867	0.10499	120.358	0.20811	200
210	0.11609	124.031	0.21410	0.11431	123.797	0.21359	0.11255	123.560	0.21308	0.11082	123.320	0.21256	210
220	0.12139	126.746	0.21812	0.11961	126.536	0.21765	0.11787	126.324	0.21717	0.11615	126.109	0.21260	220
230	0.12635	129.353	0.22193	0.12458	129.161	0.22148	0.12284	128.969	0.22104	0.12113	128.774	0.22059	230
240	0.13104	131.877	0.22556	0.12927	131.701	0.22514	0.12752	131.524	0.22471	0.12581	131.345	0.22429	240
250	0.13552	134.336	0.22905	0.13374	134.173	0.22864	0.13199	134.009	0.22824	0.13027	133.844	0.22784	250
260	0.13982	136.743	0.23242	0.13802	136.591	0.23203	0.13626	136.438	0.23164	0.13454	136.284	0.23125	260
270	0.14396	139.108	0.23568	0.14215	138.965	0.23530	0.14038	138.822	0.23493	0.13864	138.679	0.23456	270
280	0.14798	141.439	0.23885	0.14615	141.305	0.23849	0.14437	141.170	0.23813	0.14261	141.035	0.23776	280
290	0.15188	143.741	0.24195	0.15004	143.615	0.24159	0.14823	143.488	0.24124	0.14646	143.360	0.24089	290
300	0.15568	146.021	0.24497	0.15382	145.901	0.24462	0.15200	145.781	0.24428	0.15021	145.660	0.24393	300
310	0.15939	148.281	0.24792	0.15751	148.167	0.24758	0.15567	148.053	0.24725	0.15386	147.938	0.24691	310
320	0.16302	150.526	0.25082	0.16112	150.417	0.25049	0.15926	150.308	0.25016	0.15744	150.199	0.24983	320
330	0.16658	152.757	0.25366	0.16466	152.653	0.25334	0.16278	152.549	0.25301	0.16094	152.445	0.25269	330
340	0.17008	154.978	0.25646	0.16814	154.879	0.25614	0.16624	154.779	0.25582	0.16437	154.679	0.25550	340
350	0.17352	157.190	0.25921	0.17156	157.095	0.25889	0.16964	157.000	0.25858	0.16775	156.904	0.25827	350
360	0.17690	159.396	0.26191	0.17492	159.304	0.26160	0.17298	159.213	0.26130	0.17108	159.121	0.26099	360
370	0.18024	161.596	0.26458	0.17824	161.508	0.26428	0.17628	161.420	0.26397	0.17435	161.332	0.26367	370
380	0.18354	163.792	0.26721	0.18151	163.708	0.26691	0.17953	163.623	0.26661	0.17758	163.538	0.26631	380
390	0.18679	165.986	0.26981	0.18475	165.904	0.26951	0.18274	165.823	0.26922	0.18077	165.741	0.26892	390
400	0.19001	168.178	0.27238	0.18794	168.099	0.27208	0.18591	168.020	0.27179	0.18392	167.941	0.27150	400
410	0.19319	170.369	0.27491	0.19110	170.293	0.27462	0.18905	170.217	0.27433	0.18704	170.140	0.27404	410
420	0.19635	172.560	0.27742	0.19423	172.487	0.27713	0.19216	172.413	0.27684	0.19012	172.339	0.27655	420
430	0.19947	174.752	0.27989	0.19733	174.681	0.27961	0.19523	174.609	0.27932	0.19317	174.538	0.27904	430
440	0.20256	176.945	0.28234	0.20040	176.876	0.28206	0.19828	176.807	0.28178	0.19620	176.738	0.28150	440
450	0.20563	179.141	0.28477	0.20345	179.073	0.28449	0.20130	179.006	0.28421	0.19920	178.939	0.28393	450
460	0.20868	181.338	0.28717	0.20647	181.273	0.28689	0.20430	181.208	0.28662	0.20218	181.143	0.28634	460
470	0.21170	183.538	0.28955	0.20947	183.475	0.28928	0.20728	183.412	0.28900	0.20513	183.348	0.28873	470
480	0.21470	185.742	0.29191	0.21244	185.680	0.29163	0.21023	185.619	0.29136	0.20806	185.557	0.29109	480

  

TEMP. °F	525			530			535			540			TEMP. °F
	510.304			515.304			520.304			525.304			
	(174.93 °F)			(175.80 °F)			(176.66 °F)			(177.51 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.084013)	(110.847)	(0.19325)	(0.082762)	(110.728)	(0.19294)	(0.081528)	(110.604)	(0.19263)	(0.080309)	(110.475)	(0.19231)		
180	0.088811	113.067	0.19674	0.086832	112.622	0.19591	0.084846	112.158	0.19506	0.082848	111.672	0.19418	180
190	0.096642	116.806	0.20254	0.094842	116.465	0.20188	0.093056	116.114	0.20120	0.091282	115.754	0.20052	190
200	0.10325	120.078	0.20754	0.10153	119.794	0.20696	0.099830	119.504	0.20638	0.098151	119.210	0.20580	200
210	0.10911	123.076	0.21205	0.10743	122.830	0.21153	0.10578	122.580	0.21101	0.10415	122.327	0.21049	210
220	0.11447	125.892	0.21622	0.11281	125.673	0.21574	0.11117	125.452	0.21527	0.10957	125.228	0.21479	220
230	0.11945	128.578	0.22014	0.11779	128.380	0.21970	0.11617	128.180	0.21925	0.11457	127.979	0.21880	230
240	0.12413	131.166	0.22387	0.12248	130.985	0.22345	0.12086	130.802	0.22303	0.11926	130.618	0.22260	240
250	0.12858	133.678	0.22743	0.12692	133.511	0.22703	0.12530	133.343	0.22663	0.12370	133.173	0.22623	250
260	0.13284	136.130	0.23087	0.13117	135.975	0.23048	0.12954	135.819	0.23010	0.12793	135.662	0.22971	260
270	0.13693	138.534	0.23418	0.13525	138.389	0.23381	0.13361	138.243	0.23344	0.13199	138.097	0.23307	270
280	0.14089	140.899	0.23740	0.13920	140.763	0.23704	0.13754	140.626	0.23668	0.13591	140.489	0.23633	280
290	0.14472	143.232	0.24054	0.14302	143.104	0.24019	0.14134	142.974	0.23984	0.13970	142.845	0.23949	290
300	0.14845	145.538	0.24359	0.14673	145.417	0.24325	0.14504	145.295	0.24291	0.14338	145.172	0.24258	300
310	0.15209	147.823	0.24658	0.15035	147.707	0.24625	0.14864	147.591	0.24592	0.14697	147.475	0.24559	310
320	0.15565	150.089	0.24950	0.15389	149.979	0.24918	0.15216	149.869	0.24886	0.15047	149.758	0.24854	320
330	0.15913	152.340	0.25237	0.15735	152.235	0.25205	0.15561	152.130	0.25174	0.15390	152.025	0.25142	330
340	0.16255	154.579	0.25519	0.16075	154.479	0.25488	0.15899	154.378	0.25457	0.15726	154.278	0.25426	340
350	0.16590	156.808	0.25796	0.16409	156.712	0.25765	0.16231	156.616	0.25735	0.16056	156.519	0.25704	350
360	0.16921	159.029	0.26069	0.16737	158.937	0.26038	0.16557	158.844	0.26008	0.16381	158.752	0.25978	360
370	0.17246	161.243	0.26337	0.17061	161.155	0.26307	0.16879	161.066	0.26278	0.16700	160.977	0.26248	370
380	0.17567	163.453	0.26602	0.17379	163.368	0.26572	0.17196	163.282	0.26543	0.17015	163.197	0.26514	380
390	0.17884	165.659	0.26863	0.17694	165.577	0.26834	0.17508	165.494	0.26805	0.17326	165.412	0.26776	390
400	0.18197	167.862	0.27121	0.18005	167.783	0.27092	0.17817	167.704	0.27064	0.17633	167.624	0.27035	400
410	0.18506	170.064	0.27375	0.18312	169.987	0.27347	0.18122	169.911	0.27319	0.17936	169.834	0.27291	410
420	0.18812	172.265	0.27627	0.18617	172.191	0.27599	0.18424	172.117	0.27571	0.18236	172.043	0.27543	420
430	0.19116	174.466	0.27876	0.18918	174.395	0.27848	0.18723	174.323	0.27820	0.18533	174.251	0.27793	430
440	0.19416	176.669	0.28122	0.19216	176.599	0.28094	0.19020	176.530	0.28067	0.18827	176.460	0.28040	440
450	0.19714	178.872	0.28366	0.19512	178.805	0.28338	0.19313	178.737	0.28311	0.19119	178.670	0.28284	450
460	0.20009	181.077	0.28607	0.19805	181.012	0.28580	0.19604	180.947	0.28553	0.19408	180.881	0.28526	460
470	0.20303	183.285	0.28846	0.20096	183.222	0.28819	0.19893	183.158	0.28792	0.19694	183.095	0.28765	470
480	0.20594	185.496	0.29082	0.20385	185.434	0.29055	0.20180	185.372	0.29029	0.19979	185.311	0.29002	480

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