

**TABLE A-4**

**Properties of Superheated Water Vapor**

| $T$<br>°C                                                                                | $v$<br>m <sup>3</sup> /kg | $u$<br>kJ/kg | $h$<br>kJ/kg | $s$<br>kJ/kg · K | $v$<br>m <sup>3</sup> /kg                                                                | $u$<br>kJ/kg | $h$<br>kJ/kg | $s$<br>kJ/kg · K |
|------------------------------------------------------------------------------------------|---------------------------|--------------|--------------|------------------|------------------------------------------------------------------------------------------|--------------|--------------|------------------|
| $p = 0.06 \text{ bar} = 0.006 \text{ MPa}$<br>( $T_{\text{sat}} = 36.16^\circ\text{C}$ ) |                           |              |              |                  | $p = 0.35 \text{ bar} = 0.035 \text{ MPa}$<br>( $T_{\text{sat}} = 72.69^\circ\text{C}$ ) |              |              |                  |
| Sat.                                                                                     | 23.739                    | 2425.0       | 2567.4       | 8.3304           | 4.526                                                                                    | 2473.0       | 2631.4       | 7.7158           |
| 80                                                                                       | 27.132                    | 2487.3       | 2650.1       | 8.5804           | 4.625                                                                                    | 2483.7       | 2645.6       | 7.7564           |
| 120                                                                                      | 30.219                    | 2544.7       | 2726.0       | 8.7840           | 5.163                                                                                    | 2542.4       | 2723.1       | 7.9644           |
| 160                                                                                      | 33.302                    | 2602.7       | 2802.5       | 8.9693           | 5.696                                                                                    | 2601.2       | 2800.6       | 8.1519           |
| 200                                                                                      | 36.383                    | 2661.4       | 2879.7       | 9.1398           | 6.228                                                                                    | 2660.4       | 2878.4       | 8.3237           |
| 240                                                                                      | 39.462                    | 2721.0       | 2957.8       | 9.2982           | 6.758                                                                                    | 2720.3       | 2956.8       | 8.4828           |
| 280                                                                                      | 42.540                    | 2781.5       | 3036.8       | 9.4464           | 7.287                                                                                    | 2780.9       | 3036.0       | 8.6314           |
| 320                                                                                      | 45.618                    | 2843.0       | 3116.7       | 9.5859           | 7.815                                                                                    | 2842.5       | 3116.1       | 8.7712           |
| 360                                                                                      | 48.696                    | 2905.5       | 3197.7       | 9.7180           | 8.344                                                                                    | 2905.1       | 3197.1       | 8.9034           |
| 400                                                                                      | 51.774                    | 2969.0       | 3279.6       | 9.8435           | 8.872                                                                                    | 2968.6       | 3279.2       | 9.0291           |
| 440                                                                                      | 54.851                    | 3033.5       | 3362.6       | 9.9633           | 9.400                                                                                    | 3033.2       | 3362.2       | 9.1490           |
| 500                                                                                      | 59.467                    | 3132.3       | 3489.1       | 10.1336          | 10.192                                                                                   | 3132.1       | 3488.8       | 9.3194           |
| $p = 0.70 \text{ bar} = 0.07 \text{ MPa}$<br>( $T_{\text{sat}} = 89.95^\circ\text{C}$ )  |                           |              |              |                  | $p = 1.0 \text{ bar} = 0.10 \text{ MPa}$<br>( $T_{\text{sat}} = 99.63^\circ\text{C}$ )   |              |              |                  |
| Sat.                                                                                     | 2.365                     | 2494.5       | 2660.0       | 7.4797           | 1.694                                                                                    | 2506.1       | 2675.5       | 7.3594           |
| 100                                                                                      | 2.434                     | 2509.7       | 2680.0       | 7.5341           | 1.696                                                                                    | 2506.7       | 2676.2       | 7.3614           |
| 120                                                                                      | 2.571                     | 2539.7       | 2719.6       | 7.6375           | 1.793                                                                                    | 2537.3       | 2716.6       | 7.4668           |
| 160                                                                                      | 2.841                     | 2599.4       | 2798.2       | 7.8279           | 1.984                                                                                    | 2597.8       | 2796.2       | 7.6597           |
| 200                                                                                      | 3.108                     | 2659.1       | 2876.7       | 8.0012           | 2.172                                                                                    | 2658.1       | 2875.3       | 7.8343           |
| 240                                                                                      | 3.374                     | 2719.3       | 2955.5       | 8.1611           | 2.359                                                                                    | 2718.5       | 2954.5       | 7.9949           |
| 280                                                                                      | 3.640                     | 2780.2       | 3035.0       | 8.3162           | 2.546                                                                                    | 2779.6       | 3034.2       | 8.1445           |
| 320                                                                                      | 3.905                     | 2842.0       | 3115.3       | 8.4504           | 2.732                                                                                    | 2841.5       | 3114.6       | 8.2849           |
| 360                                                                                      | 4.170                     | 2904.6       | 3196.5       | 8.5828           | 2.917                                                                                    | 2904.2       | 3195.9       | 8.4175           |
| 400                                                                                      | 4.434                     | 2968.2       | 3278.6       | 8.7086           | 3.103                                                                                    | 2967.9       | 3278.2       | 8.5435           |
| 440                                                                                      | 4.698                     | 3032.9       | 3361.8       | 8.8286           | 3.288                                                                                    | 3032.6       | 3361.4       | 8.6636           |
| 500                                                                                      | 5.095                     | 3131.8       | 3488.5       | 8.9991           | 3.565                                                                                    | 3131.6       | 3488.1       | 8.8342           |
| $p = 1.5 \text{ bar} = 0.15 \text{ MPa}$<br>( $T_{\text{sat}} = 111.37^\circ\text{C}$ )  |                           |              |              |                  | $p = 3.0 \text{ bar} = 0.30 \text{ MPa}$<br>( $T_{\text{sat}} = 133.55^\circ\text{C}$ )  |              |              |                  |
| Sat.                                                                                     | 1.159                     | 2519.7       | 2693.6       | 7.2233           | 0.606                                                                                    | 2543.6       | 2725.3       | 6.9919           |
| 120                                                                                      | 1.188                     | 2533.3       | 2711.4       | 7.2693           |                                                                                          |              |              |                  |
| 160                                                                                      | 1.317                     | 2595.2       | 2792.8       | 7.4665           | 0.651                                                                                    | 2587.1       | 2782.3       | 7.1276           |
| 200                                                                                      | 1.444                     | 2656.2       | 2872.9       | 7.6433           | 0.716                                                                                    | 2650.7       | 2865.5       | 7.3115           |
| 240                                                                                      | 1.570                     | 2717.2       | 2952.7       | 7.8052           | 0.781                                                                                    | 2713.1       | 2947.3       | 7.4774           |
| 280                                                                                      | 1.695                     | 2778.6       | 3032.8       | 7.9555           | 0.844                                                                                    | 2775.4       | 3028.6       | 7.6299           |
| 320                                                                                      | 1.819                     | 2840.6       | 3113.5       | 8.0964           | 0.907                                                                                    | 2838.1       | 3110.1       | 7.7722           |
| 360                                                                                      | 1.943                     | 2903.5       | 3195.0       | 8.2293           | 0.969                                                                                    | 2901.4       | 3192.2       | 7.9061           |
| 400                                                                                      | 2.067                     | 2967.3       | 3277.4       | 8.3555           | 1.032                                                                                    | 2965.6       | 3275.0       | 8.0330           |
| 440                                                                                      | 2.191                     | 3032.1       | 3360.7       | 8.4757           | 1.094                                                                                    | 3030.6       | 3358.7       | 8.1538           |
| 500                                                                                      | 2.376                     | 3131.2       | 3487.6       | 8.6466           | 1.187                                                                                    | 3130.0       | 3486.0       | 8.3251           |
| 600                                                                                      | 2.685                     | 3301.7       | 3704.3       | 8.9101           | 1.341                                                                                    | 3300.8       | 3703.2       | 8.5892           |

Pressure Conversions:  
 1 bar = 0.1 MPa  
 = 10<sup>2</sup> kPa

H<sub>2</sub>O

Pressure Conversions:  
 1 bar = 0.1 MPa  
 = 10<sup>2</sup> kPa

**TABLE A-4**

(Continued)

| <i>T</i><br>°C                                                         | <i>v</i><br>m <sup>3</sup> /kg | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K | <i>v</i><br>m <sup>3</sup> /kg                                         | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K |
|------------------------------------------------------------------------|--------------------------------|-------------------|-------------------|-----------------------|------------------------------------------------------------------------|-------------------|-------------------|-----------------------|
| <i>p</i> = 5.0 bar = 0.50 MPa<br>( <i>T</i> <sub>sat</sub> = 151.86°C) |                                |                   |                   |                       | <i>p</i> = 7.0 bar = 0.70 MPa<br>( <i>T</i> <sub>sat</sub> = 164.97°C) |                   |                   |                       |
| Sat.                                                                   | 0.3749                         | 2561.2            | 2748.7            | 6.8213                | 0.2729                                                                 | 2572.5            | 2763.5            | 6.7080                |
| 180                                                                    | 0.4045                         | 2609.7            | 2812.0            | 6.9656                | 0.2847                                                                 | 2599.8            | 2799.1            | 6.7880                |
| 200                                                                    | 0.4249                         | 2642.9            | 2855.4            | 7.0592                | 0.2999                                                                 | 2634.8            | 2844.8            | 6.8865                |
| 240                                                                    | 0.4646                         | 2707.6            | 2939.9            | 7.2307                | 0.3292                                                                 | 2701.8            | 2932.2            | 7.0641                |
| 280                                                                    | 0.5034                         | 2771.2            | 3022.9            | 7.3865                | 0.3574                                                                 | 2766.9            | 3017.1            | 7.2233                |
| 320                                                                    | 0.5416                         | 2834.7            | 3105.6            | 7.5308                | 0.3852                                                                 | 2831.3            | 3100.9            | 7.3697                |
| 360                                                                    | 0.5796                         | 2898.7            | 3188.4            | 7.6660                | 0.4126                                                                 | 2895.8            | 3184.7            | 7.5063                |
| 400                                                                    | 0.6173                         | 2963.2            | 3271.9            | 7.7938                | 0.4397                                                                 | 2960.9            | 3268.7            | 7.6350                |
| 440                                                                    | 0.6548                         | 3028.6            | 3356.0            | 7.9152                | 0.4667                                                                 | 3026.6            | 3353.3            | 7.7571                |
| 500                                                                    | 0.7109                         | 3128.4            | 3483.9            | 8.0873                | 0.5070                                                                 | 3126.8            | 3481.7            | 7.9299                |
| 600                                                                    | 0.8041                         | 3299.6            | 3701.7            | 8.3522                | 0.5738                                                                 | 3298.5            | 3700.2            | 8.1956                |
| 700                                                                    | 0.8969                         | 3477.5            | 3925.9            | 8.5952                | 0.6403                                                                 | 3476.6            | 3924.8            | 8.4391                |
| <i>p</i> = 10.0 bar = 1.0 MPa<br>( <i>T</i> <sub>sat</sub> = 179.91°C) |                                |                   |                   |                       | <i>p</i> = 15.0 bar = 1.5 MPa<br>( <i>T</i> <sub>sat</sub> = 198.32°C) |                   |                   |                       |
| Sat.                                                                   | 0.1944                         | 2583.6            | 2778.1            | 6.5865                | 0.1318                                                                 | 2594.5            | 2792.2            | 6.4448                |
| 200                                                                    | 0.2060                         | 2621.9            | 2827.9            | 6.6940                | 0.1325                                                                 | 2598.1            | 2796.8            | 6.4546                |
| 240                                                                    | 0.2275                         | 2692.9            | 2920.4            | 6.8817                | 0.1483                                                                 | 2676.9            | 2899.3            | 6.6628                |
| 280                                                                    | 0.2480                         | 2760.2            | 3008.2            | 7.0465                | 0.1627                                                                 | 2748.6            | 2992.7            | 6.8381                |
| 320                                                                    | 0.2678                         | 2826.1            | 3093.9            | 7.1962                | 0.1765                                                                 | 2817.1            | 3081.9            | 6.9938                |
| 360                                                                    | 0.2873                         | 2891.6            | 3178.9            | 7.3349                | 0.1899                                                                 | 2884.4            | 3169.2            | 7.1363                |
| 400                                                                    | 0.3066                         | 2957.3            | 3263.9            | 7.4651                | 0.2030                                                                 | 2951.3            | 3255.8            | 7.2690                |
| 440                                                                    | 0.3257                         | 3023.6            | 3349.3            | 7.5883                | 0.2160                                                                 | 3018.5            | 3342.5            | 7.3940                |
| 500                                                                    | 0.3541                         | 3124.4            | 3478.5            | 7.7622                | 0.2352                                                                 | 3120.3            | 3473.1            | 7.5698                |
| 540                                                                    | 0.3729                         | 3192.6            | 3565.6            | 7.8720                | 0.2478                                                                 | 3189.1            | 3560.9            | 7.6805                |
| 600                                                                    | 0.4011                         | 3296.8            | 3697.9            | 8.0290                | 0.2668                                                                 | 3293.9            | 3694.0            | 7.8385                |
| 640                                                                    | 0.4198                         | 3367.4            | 3787.2            | 8.1290                | 0.2793                                                                 | 3364.8            | 3783.8            | 7.9391                |
| <i>p</i> = 20.0 bar = 2.0 MPa<br>( <i>T</i> <sub>sat</sub> = 212.42°C) |                                |                   |                   |                       | <i>p</i> = 30.0 bar = 3.0 MPa<br>( <i>T</i> <sub>sat</sub> = 233.90°C) |                   |                   |                       |
| Sat.                                                                   | 0.0996                         | 2600.3            | 2799.5            | 6.3409                | 0.0667                                                                 | 2604.1            | 2804.2            | 6.1869                |
| 240                                                                    | 0.1085                         | 2659.6            | 2876.5            | 6.4952                | 0.0682                                                                 | 2619.7            | 2824.3            | 6.2265                |
| 280                                                                    | 0.1200                         | 2736.4            | 2976.4            | 6.6828                | 0.0771                                                                 | 2709.9            | 2941.3            | 6.4462                |
| 320                                                                    | 0.1308                         | 2807.9            | 3069.5            | 6.8452                | 0.0850                                                                 | 2788.4            | 3043.4            | 6.6245                |
| 360                                                                    | 0.1411                         | 2877.0            | 3159.3            | 6.9917                | 0.0923                                                                 | 2861.7            | 3138.7            | 6.7801                |
| 400                                                                    | 0.1512                         | 2945.2            | 3247.6            | 7.1271                | 0.0994                                                                 | 2932.8            | 3230.9            | 6.9212                |
| 440                                                                    | 0.1611                         | 3013.4            | 3335.5            | 7.2540                | 0.1062                                                                 | 3002.9            | 3321.5            | 7.0520                |
| 500                                                                    | 0.1757                         | 3116.2            | 3467.6            | 7.4317                | 0.1162                                                                 | 3108.0            | 3456.5            | 7.2338                |
| 540                                                                    | 0.1853                         | 3185.6            | 3556.1            | 7.5434                | 0.1227                                                                 | 3178.4            | 3546.6            | 7.3474                |
| 600                                                                    | 0.1996                         | 3290.9            | 3690.1            | 7.7024                | 0.1324                                                                 | 3285.0            | 3682.3            | 7.5085                |
| 640                                                                    | 0.2091                         | 3362.2            | 3780.4            | 7.8035                | 0.1388                                                                 | 3357.0            | 3773.5            | 7.6106                |
| 700                                                                    | 0.2232                         | 3470.9            | 3917.4            | 7.9487                | 0.1484                                                                 | 3466.5            | 3911.7            | 7.7571                |

**TABLE A-4**

**(Continued)**

| <i>T</i><br>°C                                                         | <i>v</i><br>m <sup>3</sup> /kg | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K                                                  | <i>v</i><br>m <sup>3</sup> /kg | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K |
|------------------------------------------------------------------------|--------------------------------|-------------------|-------------------|------------------------------------------------------------------------|--------------------------------|-------------------|-------------------|-----------------------|
| <i>p</i> = 40 bar = 4.0 MPa<br>( <i>T</i> <sub>sat</sub> = 250.4°C)    |                                |                   |                   | <i>p</i> = 60 bar = 6.0 MPa<br>( <i>T</i> <sub>sat</sub> = 275.64°C)   |                                |                   |                   |                       |
| Sat.                                                                   | 0.04978                        | 2602.3            | 2801.4            | 6.0701                                                                 | 0.03244                        | 2589.7            | 2784.3            | 5.8892                |
| 280                                                                    | 0.05546                        | 2680.0            | 2901.8            | 6.2568                                                                 | 0.03317                        | 2605.2            | 2804.2            | 5.9252                |
| 320                                                                    | 0.06199                        | 2767.4            | 3015.4            | 6.4553                                                                 | 0.03876                        | 2720.0            | 2952.6            | 6.1846                |
| 360                                                                    | 0.06788                        | 2845.7            | 3117.2            | 6.6215                                                                 | 0.04331                        | 2811.2            | 3071.1            | 6.3782                |
| 400                                                                    | 0.07341                        | 2919.9            | 3213.6            | 6.7690                                                                 | 0.04739                        | 2892.9            | 3177.2            | 6.5408                |
| 440                                                                    | 0.07872                        | 2992.2            | 3307.1            | 6.9041                                                                 | 0.05122                        | 2970.0            | 3277.3            | 6.6853                |
| 500                                                                    | 0.08643                        | 3099.5            | 3445.3            | 7.0901                                                                 | 0.05665                        | 3082.2            | 3422.2            | 6.8803                |
| 540                                                                    | 0.09145                        | 3171.1            | 3536.9            | 7.2056                                                                 | 0.06015                        | 3156.1            | 3517.0            | 6.9999                |
| 600                                                                    | 0.09885                        | 3279.1            | 3674.4            | 7.3688                                                                 | 0.06525                        | 3266.9            | 3658.4            | 7.1677                |
| 640                                                                    | 0.1037                         | 3351.8            | 3766.6            | 7.4720                                                                 | 0.06859                        | 3341.0            | 3752.6            | 7.2731                |
| 700                                                                    | 0.1110                         | 3462.1            | 3905.9            | 7.6198                                                                 | 0.07352                        | 3453.1            | 3894.1            | 7.4234                |
| 740                                                                    | 0.1157                         | 3536.6            | 3999.6            | 7.7141                                                                 | 0.07677                        | 3528.3            | 3989.2            | 7.5190                |
| <i>p</i> = 80 bar = 8.0 MPa<br>( <i>T</i> <sub>sat</sub> = 295.06°C)   |                                |                   |                   | <i>p</i> = 100 bar = 10.0 MPa<br>( <i>T</i> <sub>sat</sub> = 311.06°C) |                                |                   |                   |                       |
| Sat.                                                                   | 0.02352                        | 2569.8            | 2758.0            | 5.7432                                                                 | 0.01803                        | 2544.4            | 2724.7            | 5.6141                |
| 320                                                                    | 0.02682                        | 2662.7            | 2877.2            | 5.9489                                                                 | 0.01925                        | 2588.8            | 2781.3            | 5.7103                |
| 360                                                                    | 0.03089                        | 2772.7            | 3019.8            | 6.1819                                                                 | 0.02331                        | 2729.1            | 2962.1            | 6.0060                |
| 400                                                                    | 0.03432                        | 2863.8            | 3138.3            | 6.3634                                                                 | 0.02641                        | 2832.4            | 3096.5            | 6.2120                |
| 440                                                                    | 0.03742                        | 2946.7            | 3246.1            | 6.5190                                                                 | 0.02911                        | 2922.1            | 3213.2            | 6.3805                |
| 480                                                                    | 0.04034                        | 3025.7            | 3348.4            | 6.6586                                                                 | 0.03160                        | 3005.4            | 3321.4            | 6.5282                |
| 520                                                                    | 0.04313                        | 3102.7            | 3447.7            | 6.7871                                                                 | 0.03394                        | 3085.6            | 3425.1            | 6.6622                |
| 560                                                                    | 0.04582                        | 3178.7            | 3545.3            | 6.9072                                                                 | 0.03619                        | 3164.1            | 3526.0            | 6.7864                |
| 600                                                                    | 0.04845                        | 3254.4            | 3642.0            | 7.0206                                                                 | 0.03837                        | 3241.7            | 3625.3            | 6.9029                |
| 640                                                                    | 0.05102                        | 3330.1            | 3738.3            | 7.1283                                                                 | 0.04048                        | 3318.9            | 3723.7            | 7.0131                |
| 700                                                                    | 0.05481                        | 3443.9            | 3882.4            | 7.2812                                                                 | 0.04358                        | 3434.7            | 3870.5            | 7.1687                |
| 740                                                                    | 0.05729                        | 3520.4            | 3978.7            | 7.3782                                                                 | 0.04560                        | 3512.1            | 3968.1            | 7.2670                |
| <i>p</i> = 120 bar = 12.0 MPa<br>( <i>T</i> <sub>sat</sub> = 324.75°C) |                                |                   |                   | <i>p</i> = 140 bar = 14.0 MPa<br>( <i>T</i> <sub>sat</sub> = 336.75°C) |                                |                   |                   |                       |
| Sat.                                                                   | 0.01426                        | 2513.7            | 2684.9            | 5.4924                                                                 | 0.01149                        | 2476.8            | 2637.6            | 5.3717                |
| 360                                                                    | 0.01811                        | 2678.4            | 2895.7            | 5.8361                                                                 | 0.01422                        | 2617.4            | 2816.5            | 5.6602                |
| 400                                                                    | 0.02108                        | 2798.3            | 3051.3            | 6.0747                                                                 | 0.01722                        | 2760.9            | 3001.9            | 5.9448                |
| 440                                                                    | 0.02355                        | 2896.1            | 3178.7            | 6.2586                                                                 | 0.01954                        | 2868.6            | 3142.2            | 6.1474                |
| 480                                                                    | 0.02576                        | 2984.4            | 3293.5            | 6.4154                                                                 | 0.02157                        | 2962.5            | 3264.5            | 6.3143                |
| 520                                                                    | 0.02781                        | 3068.0            | 3401.8            | 6.5555                                                                 | 0.02343                        | 3049.8            | 3377.8            | 6.4610                |
| 560                                                                    | 0.02977                        | 3149.0            | 3506.2            | 6.6840                                                                 | 0.02517                        | 3133.6            | 3486.0            | 6.5941                |
| 600                                                                    | 0.03164                        | 3228.7            | 3608.3            | 6.8037                                                                 | 0.02683                        | 3215.4            | 3591.1            | 6.7172                |
| 640                                                                    | 0.03345                        | 3307.5            | 3709.0            | 6.9164                                                                 | 0.02843                        | 3296.0            | 3694.1            | 6.8326                |
| 700                                                                    | 0.03610                        | 3425.2            | 3858.4            | 7.0749                                                                 | 0.03075                        | 3415.7            | 3846.2            | 6.9939                |
| 740                                                                    | 0.03781                        | 3503.7            | 3957.4            | 7.1746                                                                 | 0.03225                        | 3495.2            | 3946.7            | 7.0952                |

Pressure Conversions:  
1 bar = 0.1 MPa  
= 10<sup>2</sup> kPa

H<sub>2</sub>O

Pressure Conversions:  
 1 bar = 0.1 MPa  
 = 10<sup>2</sup> kPa

**TABLE A-4**

**(Continued)**

| <i>T</i><br>°C                                                         | <i>v</i><br>m <sup>3</sup> /kg | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K | <i>v</i><br>m <sup>3</sup> /kg                                         | <i>u</i><br>kJ/kg | <i>h</i><br>kJ/kg | <i>s</i><br>kJ/kg · K |
|------------------------------------------------------------------------|--------------------------------|-------------------|-------------------|-----------------------|------------------------------------------------------------------------|-------------------|-------------------|-----------------------|
| <i>p</i> = 160 bar = 16.0 MPa<br>( <i>T</i> <sub>sat</sub> = 347.44°C) |                                |                   |                   |                       | <i>p</i> = 180 bar = 18.0 MPa<br>( <i>T</i> <sub>sat</sub> = 357.06°C) |                   |                   |                       |
| Sat.                                                                   | 0.00931                        | 2431.7            | 2580.6            | 5.2455                | 0.00749                                                                | 2374.3            | 2509.1            | 5.1044                |
| 360                                                                    | 0.01105                        | 2539.0            | 2715.8            | 5.4614                | 0.00809                                                                | 2418.9            | 2564.5            | 5.1922                |
| 400                                                                    | 0.01426                        | 2719.4            | 2947.6            | 5.8175                | 0.01190                                                                | 2672.8            | 2887.0            | 5.6887                |
| 440                                                                    | 0.01652                        | 2839.4            | 3103.7            | 6.0429                | 0.01414                                                                | 2808.2            | 3062.8            | 5.9428                |
| 480                                                                    | 0.01842                        | 2939.7            | 3234.4            | 6.2215                | 0.01596                                                                | 2915.9            | 3203.2            | 6.1345                |
| 520                                                                    | 0.02013                        | 3031.1            | 3353.3            | 6.3752                | 0.01757                                                                | 3011.8            | 3378.0            | 6.2960                |
| 560                                                                    | 0.02172                        | 3117.8            | 3465.4            | 6.5132                | 0.01904                                                                | 3101.7            | 3444.4            | 6.4392                |
| 600                                                                    | 0.02323                        | 3201.8            | 3573.5            | 6.6399                | 0.02042                                                                | 3188.0            | 3555.6            | 6.5696                |
| 640                                                                    | 0.02467                        | 3284.2            | 3678.9            | 6.7580                | 0.02174                                                                | 3272.3            | 3663.6            | 6.6905                |
| 700                                                                    | 0.02674                        | 3406.0            | 3833.9            | 6.9224                | 0.02362                                                                | 3396.3            | 3821.5            | 6.8580                |
| 740                                                                    | 0.02808                        | 3486.7            | 3935.9            | 7.0251                | 0.02483                                                                | 3478.0            | 3925.0            | 6.9623                |
| <i>p</i> = 200 bar = 20.0 MPa<br>( <i>T</i> <sub>sat</sub> = 365.81°C) |                                |                   |                   |                       | <i>p</i> = 240 bar = 24.0 MPa                                          |                   |                   |                       |
| Sat.                                                                   | 0.00583                        | 2293.0            | 2409.7            | 4.9269                | 0.00673                                                                | 2477.8            | 2639.4            | 5.2393                |
| 400                                                                    | 0.00994                        | 2619.3            | 2818.1            | 5.5540                | 0.00929                                                                | 2700.6            | 2923.4            | 5.6506                |
| 440                                                                    | 0.01222                        | 2774.9            | 3019.4            | 5.8450                | 0.01100                                                                | 2838.3            | 3102.3            | 5.8950                |
| 480                                                                    | 0.01399                        | 2891.2            | 3170.8            | 6.0518                | 0.01241                                                                | 2950.5            | 3248.5            | 6.0842                |
| 520                                                                    | 0.01551                        | 2992.0            | 3302.2            | 6.2218                | 0.01366                                                                | 3051.1            | 3379.0            | 6.2448                |
| 560                                                                    | 0.01689                        | 3085.2            | 3423.0            | 6.3705                | 0.01481                                                                | 3145.2            | 3500.7            | 6.3875                |
| 600                                                                    | 0.01818                        | 3174.0            | 3537.6            | 6.5048                | 0.01588                                                                | 3235.5            | 3616.7            | 6.5174                |
| 640                                                                    | 0.01940                        | 3260.2            | 3648.1            | 6.6286                | 0.01739                                                                | 3366.4            | 3783.8            | 6.6947                |
| 700                                                                    | 0.02113                        | 3386.4            | 3809.0            | 6.7993                | 0.01835                                                                | 3451.7            | 3892.1            | 6.8038                |
| 740                                                                    | 0.02224                        | 3469.3            | 3914.1            | 6.9052                | 0.01974                                                                | 3578.0            | 4051.6            | 6.9567                |
| 800                                                                    | 0.02385                        | 3592.7            | 4069.7            | 7.0544                |                                                                        |                   |                   |                       |
| <i>p</i> = 280 bar = 28.0 MPa                                          |                                |                   |                   |                       | <i>p</i> = 320 bar = 32.0 MPa                                          |                   |                   |                       |
| 400                                                                    | 0.00383                        | 2223.5            | 2330.7            | 4.7494                | 0.00236                                                                | 1980.4            | 2055.9            | 4.3239                |
| 440                                                                    | 0.00712                        | 2613.2            | 2812.6            | 5.4494                | 0.00544                                                                | 2509.0            | 2683.0            | 5.2327                |
| 480                                                                    | 0.00885                        | 2780.8            | 3028.5            | 5.7446                | 0.00722                                                                | 2718.1            | 2949.2            | 5.5968                |
| 520                                                                    | 0.01020                        | 2906.8            | 3192.3            | 5.9566                | 0.00853                                                                | 2860.7            | 3133.7            | 5.8357                |
| 560                                                                    | 0.01136                        | 3015.7            | 3333.7            | 6.1307                | 0.00963                                                                | 2979.0            | 3287.2            | 6.0246                |
| 600                                                                    | 0.01241                        | 3115.6            | 3463.0            | 6.2823                | 0.01061                                                                | 3085.3            | 3424.6            | 6.1858                |
| 640                                                                    | 0.01338                        | 3210.3            | 3584.8            | 6.4187                | 0.01150                                                                | 3184.5            | 3552.5            | 6.3290                |
| 700                                                                    | 0.01473                        | 3346.1            | 3758.4            | 6.6029                | 0.01273                                                                | 3325.4            | 3732.8            | 6.5203                |
| 740                                                                    | 0.01558                        | 3433.9            | 3870.0            | 6.7153                | 0.01350                                                                | 3415.9            | 3847.8            | 6.6361                |
| 800                                                                    | 0.01680                        | 3563.1            | 4033.4            | 6.8720                | 0.01460                                                                | 3548.0            | 4015.1            | 6.7966                |
| 900                                                                    | 0.01873                        | 3774.3            | 4298.8            | 7.1084                | 0.01633                                                                | 3762.7            | 4285.1            | 7.0372                |