Superheated Steam Table

Basis: IAPWS IF97 industrial formulation for water and steam. Saturation temperature is shown beside each pressure.

instrumentationblog.in/downloads/engineering-reference-tables/superheated-steam-table/

Enthalpy h in kJ/kg

P bar a (T sat)	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C	450 °C	500 °C	550 °C	600 °C
1 (99.6 °C)	2776.6	2875.5	2974.5	3074.5	3175.8	3278.5	3382.8	3488.7	3596.3	3705.6
2 (120.2 °C)	2769.1	2870.8	2971.3	3072.1	3173.9	3277.0	3381.5	3487.6	3595.4	3704.8
5 (151.8 °C)		2855.9	2961.1	3064.6	3168.1	3272.3	3377.7	3484.4	3592.6	3702.5
10 (179.9 °C)		2828.3	2943.2	3051.7	3158.2	3264.4	3371.2	3479.0	3588.1	3698.6
15 (198.3 °C)		2796.0	2924.0	3038.3	3148.0	3256.4	3364.7	3473.6	3583.5	3694.6
20 (212.4 °C)			2903.2	3024.3	3137.6	3248.2	3358.1	3468.1	3578.9	3690.7
30 (233.9 °C)			2856.5	2994.3	3116.1	3231.6	3344.7	3457.0	3569.6	3682.8
40 (250.4 °C)				2961.7	3093.3	3214.4	3331.0	3445.8	3560.2	3674.8
60 (275.6 °C)				2885.5	3043.9	3178.2	3302.8	3422.9	3541.2	3658.8
80 (295.0 °C)				2786.4	2988.1	3139.3	3273.2	3399.4	3521.8	3642.4
100 (311.0 °C)					2924.0	3097.4	3242.3	3375.1	3501.9	3625.8

Specific volume v in m^3/kg

P bar a (T sat)	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C	450 °C	500 °C	550 °C	600 °C
1 (99.6 °C)	1.9367	2.1725	2.4062	2.6389	2.8710	3.1027	3.3342	3.5656	3.7968	4.0279
2 (120.2 °C)	0.9599	1.0805	1.1989	1.3162	1.4330	1.5493	1.6655	1.7814	1.8973	2.0130
5 (151.8 °C)		0.4250	0.4744	0.5226	0.5701	0.6173	0.6642	0.7109	0.7576	0.8041
10 (179.9 °C)		0.2060	0.2327	0.2580	0.2825	0.3066	0.3304	0.3541	0.3777	0.4011
15 (198.3 °C)		0.1324	0.1520	0.1697	0.1866	0.2030	0.2192	0.2352	0.2510	0.2668
20 (212.4 °C)			0.1115	0.1255	0.1386	0.1512	0.1635	0.1757	0.1877	0.1996
30 (233.9 °C)			0.0706	0.0812	0.0906	0.0994	0.1079	0.1162	0.1244	0.1324
40 (250.4 °C)				0.0589	0.0665	0.0734	0.0800	0.0864	0.0927	0.0989
60 (275.6 °C)				0.0362	0.0423	0.0474	0.0522	0.0567	0.0610	0.0653
80 (295.0 °C)				0.0243	0.0300	0.0343	0.0382	0.0418	0.0452	0.0485
100 (311.0 °C)					0.0224	0.0264	0.0298	0.0328	0.0357	0.0384

Notes

- Density = 1 ÷ specific volume.
- Degree of superheat = steam temperature − saturation temperature.

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