TABLE 4a. Pressure-Temperature Ratings of Soldered and Brazed Joints

Joining Material[4]	Service Temperature, °F	Fitting Type	Maximum Working Gage Pressure (psi), for Standard Water Tube Sizes[1]				
			Nominal or Standard Size, inches				
			1/8 through 1	1 1/4 through 2	2 1/2 through 4	5 through 8	10 through 12
Alloy Sn50 50-50 Tin-Lead Solder[5]	100	Pressure[2]	200	175	150	135	100
		DWV[3]	—	95	80	70	—
	150	Pressure[2]	150	125	100	90	70
		DWV[3]	—	70	55	45	—
	200	Pressure[2]	100	90	75	70	50
		DWV[3]	—	50	40	35	—
	250	Pressure[2]	85	75	50	45	40
		DWV[3]	—	—	—	—	—
	Saturated Steam	Pressure	15	15	15	15	15
Alloy Sb5 95-5 Tin-Antimony Solder	100	Pressure[2]	1090	850	705	660	500
		DWV[3]	—	390	325	330	—
	150	Pressure[2]	625	485	405	375	285
		DW[3]	—	225	185	190	—
	200	Pressure[2]	505	395	325	305	230
		DWV[3]	—	180	150	155	—
	250	Pressure[2]	270	210	175	165	125
		DWV[3]	—	95	80	80	—
	Saturated Steam	Pressure	15	15	15	15	15
Alloy E	100	Pressure[2]	710	555	460	430	325
		DWV[3]	—	255	210	215	—
	150	Pressure[2]	475	370	305	285	215
		DWV[3]	—	170	140	140	—
	200	Pressure[2]	375	290	240	225	170
		DWV[3]	—	135	110	115	—
	250	Pressure[2]	320	250	205	195	145
		DWV[3]	—	115	95	95	—
	Saturated Steam	Pressure	15	15	15	15	15
Alloy HB	100	Pressure[2]	1035	805	670	625	475
		DWV[3]	—	370	310	315	—
	150	Pressure[2]	710	555	460	430	325
		DWV[3]	—	255	210	215	—
	200	Pressure[2]	440	345	285	265	200
		DWV[3]	—	155	130	135	—
	250	Pressure[2]	430	335	275	260	195
		DWV[3]	—	155	125	130	—
	Saturated Steam	Pressure	15	15	15	15	15
Joining materials melting at or above 1100° F[6]	Pressure-temperature ratings consistent with the materials and procedures employed (see Table 3, Annealed).						
	Saturated Steam	Pressure	120	120	120	120	120

For extremely low working temperatures in the 0°F to minus 200°F range, it is recommended that a joint material melting at or above 1100°F be employed (see reference[6]).

[1] Standard water tube sizes per ASTM B88.

[2] Ratings up to 8 inches in size are those given in ASME B16.22 *Wrought Copper and Copper Alloy Solder Joint Pressure Fittings* and ASME B16.18 *Cast Copper and Copper Alloy Solder Joint Fittings*. Rating for 10- to 12-inch sizes are those given in ASME B16.18 *Cast Copper and Copper Alloy Solder Joint Pressure Fittings*.

[3] Using ASME B16.29 *Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings — DWV*, and ASME B16.23 *Cast Copper Alloy Solder Joint Drainage Fittings — DWV*.

[4] Alloy designations are per ASTM B32.

[5] The Safe Drinking Water Act Amendment of 1986 prohibits the use in potable water systems of any solder having a lead content in excess of 0.2%.

[6] These joining materials are defined as *brazing alloys* by the American Welding Society.