

JVB Slip Jointed Enclosure

Specification

ENCLOSURE:

- STYLE: Flat Top, Rounded Outlet
- OUTLET: Stamped Louvers
Pencil Proof
- LENGTHS: 2'0" thru 8'0" in 6" Increments
- MAT'L: 16 Ga. CRS (Std)
 14 Ga. Aluminum (Opt'l)
- HEIGHT: 24"
 30"
 36"
- FINISH: Baked Powder (Std)
 Baked Enamel (Opt'l)

ACCESSORIES:

- JV Overlapping Type
- All accessories return to the wall at the bottom and have pre-punched holes for fastening to the wall.

ELEMENT:

- TYPE: Cu/Al (Mechanically Expanded)
- LENGTHS: 2'0" thru 12'6" in 1" Increments for 1" & 1-1/4" Cu.
2'0" thru 8'0" in 1" Increments for 3/4" Cu.
- One End Flared (Std)
- See Catalog for Working Pressures

DAMPER:

- Damper Blades Factory Installed
- Knob Damper (Opt'l)
- Tamper Resistant (Opt'l)

BACKPLATE:

- TYPE: Partial B/P
- LENGTHS: 8'0" Only
- MAT'L: 20 Ga. Prepainted (Std)
 18 Ga. Galvannealed (Opt'l)
- TYPE: Full Ht. B/P (Opt'l)
- LENGTHS: 2'0" thru 8'0" in 6" Increments
- MAT'L: 20 Ga. Galvannealed (Opt'l)
 20 Ga. Painted (Opt'l)
 18 Ga. Painted (Opt'l)

AIRSEAL:

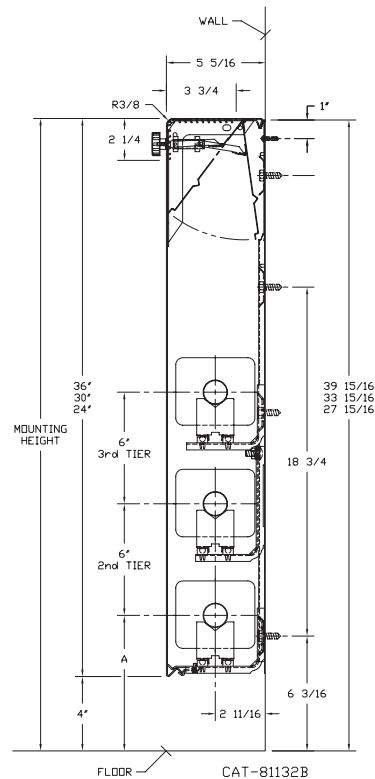
- 1/8" x 3/8" Closed Cell (Opt'l)

BRACKETS:

- Water Bracket (with Stand-Off) Stand-Off not required 24" height
- B.B. Hanger, Bracket Mtd
- B.B. Hanger, Wall Mtd
- Wall Mtd B.B. Hanger required for 3rd Tier Element

ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4" COPPER	3-5/8 x 4-1/4	2	7"
3/4" COPPER	4-1/4 x 4-1/4	3A	7-3/8"
1" COPPER	3-5/8 x 4-1/4	2	7-3/16"
1" COPPER	4-1/4 x 4-1/4	2	7-3/16"
1-1/4" COPPER	3-5/8 x 4-1/4	2	7-5/16"
1-1/4" COPPER	4-1/4 x 4-1/4	2	7-5/16"
1" STEEL	4-1/4 x 4-1/4	2	7-5/16"
1-1/4" STEEL	4-1/4 x 4-1/4	2	7-1/2"
2" STEEL	4-1/4 x 4-1/4	1	7-1/4"

- JVB-RD 24
- JVB-RD 30
- JVB-RD 36



260 North Elm St., Westfield, MA 01085
(413) 564-5535
www.sterlingheat.com



PROJECT: _____ DATE: _____
 LOCATION: _____
 ARCHITECT: _____
 ENGINEER: _____
 CONTRACTOR: _____
 PO NUMBER: _____

JVB-RD Style "RD" Flat Top Enclosures

COPPER/ALUMINUM ELEMENT RATINGS

STYLE LT Series "RD"

ALL RATINGS ARE BASED ON 3 FPS WATER VELOCITY, 65°EAT

TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FIN PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215°F FACTOR	HOT WATER (AVG.)																	
									200°F	190°F	180°F	170°F	160°F	150°F	140°F	130°F	120°F	110°F	100°F							
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES																	
3/4"	C3/4-433	3-5/8" x 4-1/4"	32	.020	24B	1	28	1565	1350	1220	1080	950	830	700	630	520	410	310	230							
						24B	2-6 CL	28	2215	1900	1730	1530	1350	1170	1000	890	730	580	440	330						
						24B	3-6 CL	28	2550	2190	1990	1760	1560	1350	1150	1020	840	660	510	380						
						30B	1	34	1740	1500	1360	1200	1060	920	780	700	570	450	350	260						
						30B	2-6 CL	34	2300	1980	1790	1590	1400	1220	1040	920	760	600	460	350						
						30B	3-6 CL	34	2650	2280	2070	1830	1620	1400	1190	1060	870	690	530	400						
						36B	1	40	1920	1650	1500	1320	1170	1020	860	770	630	500	380	290						
						36B	2-6 CL	40	2540	2180	1980	1750	1550	1350	1140	1020	840	660	510	380						
						36B	3-6 CL	40	2920	2510	2280	2010	1780	1550	1310	1170	960	760	580	440						
						24B	1	28	1870	1610	1460	1290	1140	990	840	750	620	490	370	280						
						24B	2-6 CL	28	2590	2230	2020	1790	1580	1370	1170	1040	850	670	520	390						
						24B	3-6 CL	28	2950	2540	2300	2040	1800	1560	1330	1180	970	770	590	440						
30B	1	34	2080	1790	1620	1440	1270	1100	940	830	690	540	420	310												
30B	2-6 CL	34	2750	2370	2150	1900	1680	1460	1240	1100	910	720	550	410												
30B	3-6 CL	34	3130	2690	2440	2160	1910	1660	1410	1250	1030	810	630	470												
36B	1	40	2290	1970	1790	1580	1400	1210	1030	920	760	600	460	340												
36B	2-6 CL	40	3030	2610	2360	2090	1850	1610	1360	1210	1000	790	610	450												
36B	3-6 CL	40	3450	2970	2690	2380	2100	1830	1550	1380	1140	900	690	520												
3/4"	C3/4-434	3-5/8" x 4-1/4"	40	.020	24B	1	28	2210	1900	1720	1520	1350	1170	990	880	730	570	440	330							
						24B	2-6 CL	28	2820	2430	2200	1950	1720	1490	1270	1130	930	730	560	420						
						24B	3-6 CL	28	3190	2740	2490	2200	1950	1690	1440	1280	1050	830	640	480						
						30B	1	34	2460	2120	1920	1700	1500	1300	1110	980	810	640	490	370						
						30B	2-6 CL	34	3260	2800	2540	2250	1990	1730	1470	1300	1080	850	650	490						
						30B	3-6 CL	34	3680	3160	2870	2540	2240	1950	1660	1470	1210	960	740	550						
						36B	1	40	2710	2330	2110	1870	1650	1440	1220	1080	890	700	540	410						
						36B	2-6 CL	40	3590	3090	2800	2480	2190	1900	1620	1440	1180	930	720	540						
						36B	3-6 CL	40	4060	3490	3170	2800	2480	2150	1830	1620	1340	1060	810	610						
						3/4"	C3/4-435	3-5/8" x 4-1/4"	50	.020	24B	1	28	2210	1900	1720	1520	1350	1170	990	880	730	570	440	330	
												24B	2-6 CL	28	2820	2430	2200	1950	1720	1490	1270	1130	930	730	560	420
												24B	3-6 CL	28	3190	2740	2490	2200	1950	1690	1440	1280	1050	830	640	480
30B	1	34	2460	2120	1920							1700	1500	1300	1110	980	810	640	490	370						
30B	2-6 CL	34	3260	2800	2540							2250	1990	1730	1470	1300	1080	850	650	490						
30B	3-6 CL	34	3680	3160	2870							2540	2240	1950	1660	1470	1210	960	740	550						
36B	1	40	2710	2330	2110							1870	1650	1440	1220	1080	890	700	540	410						
36B	2-6 CL	40	3590	3090	2800							2480	2190	1900	1620	1440	1180	930	720	540						
36B	3-6 CL	40	4060	3490	3170							2800	2480	2150	1830	1620	1340	1060	810	610						
1"	C433	3-5/8" x 4-1/4"	32	.020	24B							1	28	1650	1420	1290	1140	1010	870	740	660	540	430	330	250	
												24B	2-6 CL	28	2560	2200	2000	1770	1560	1360	1150	1020	840	670	510	380
												24B	3-6 CL	28	2940	2530	2290	2030	1790	1560	1320	1180	970	760	590	440
						30B	1	34	1830	1570	1430	1260	1120	970	820	730	600	480	370	270						
						30B	2-6 CL	34	2420	2080	1890	1670	1480	1280	1090	970	800	630	480	360						
						30B	3-6 CL	34	2780	2390	2170	1920	1700	1470	1250	1110	920	720	560	420						
						36B	1	40	2010	1730	1570	1390	1230	1070	900	800	660	520	400	300						
						36B	2-6 CL	40	2660	2290	2070	1840	1620	1410	1200	1060	880	690	530	400						
						36B	3-6 CL	40	3060	2630	2390	2110	1870	1620	1380	1220	1010	800	610	460						
						1"	C434	3-5/8" x 4-1/4"	40	.020	24B	1	28	1950	1680	1520	1350	1190	1030	880	780	640	510	390	290	
												24B	2-6 CL	28	2720	2340	2120	1880	1660	1440	1220	1090	900	710	540	410
												24B	3-6 CL	28	3100	2670	2420	2140	1890	1640	1400	1240	1020	810	620	470
30B	1	34	2170	1870	1690							1500	1320	1150	980	870	720	560	430	330						
30B	2-6 CL	34	2870	2470	2240							1980	1750	1520	1290	1150	950	750	570	430						
30B	3-6 CL	34	3270	2810	2550							2260	1990	1730	1470	1310	1080	850	650	490						
36B	1	40	2390	2060	1860							1650	1460	1270	1080	960	790	620	480	360						
36B	2-6 CL	40	3160	2720	2460							2180	1930	1670	1420	1260	1040	820	630	470						
36B	3-6 CL	40	3600	3100	2810							2480	2200	1910	1620	1440	1190	940	720	540						
1"	C435	3-5/8" x 4-1/4"	50	.020	24B							1	28	2330	2000	1820	1610	1420	1230	1050	930	770	610	470	350	
												24B	2-6 CL	28	2970	2550	2320	2050	1810	1570	1340	1190	980	770	590	450
												24B	3-6 CL	28	3360	2890	2620	2320	2050	1780	1510	1340	1110	870	670	500
						30B	1	34	2590	2230	2020	1790	1580	1370	1170	1040	850	670	520	390						
						30B	2-6 CL	34	3430	2950	2680	2370	2090	1820	1540	1370	1130	890	690	510						
						30B	3-6 CL	34	3880	3340	3030	2680	2370	2060	1750	1550	1280	1010	780	580						
						36B	1	40	2850	2450	2220	1970	1740	1510	1280	1140	940	740	570	430						
						36B	2-6 CL	40	3770	3240	2940	2600	2300	2000	1700	1510	1240	980	750	570						
						36B	3-6 CL	40	4260	3660	3320	2940	2600	2260	1920	1700	1410	1110	850	640						
						1-1/4"	C1433	3-5/8" x 4-1/4"	32	.020	24B	1	28	1630	1400	1270	1120	990	860	730	650	540	420	330	240	
												24B	2-6 CL	28	2580	2220	2010	1780	1570	1370	1160	1030	850	670	520	390
												24B	3-6 CL	28	2970	2550	2320	2050	1810	1570	1340	1190	980	770	590	450
30B	1	34	1810	1560	1410							1250	1100	960	810	720	600	470	360	270						
30B	2-6 CL	34	2400	2060	1870							1660	1460	1270	1080	960	790	620	480	360						
30B	3-6 CL	34	2760	2370	2150							1900	1680	1460	1240	1100	910	720	550	410						
36B	1	40	1990	1710	1550							1370	1210	1050	900	800	660	520	400	300						
36B	2-6 CL	40	2630	2260	2050							1810	1600	1390	1180	1050	870	680	530	390						
36B	3-6 CL	40	3020	2600	2360							2080	1840	1600	1360	1210	1000	790	600	450						
1-1/4"	C1434	3-5/8" x 4-1/4"	40	.020	24B							1	28	1920	1650	1500	1320	1170	1020	860	770	630	500	380	290	
												24B	2-6 CL	28	2750	2370	2150	1900	1680	1460	1240	1100	910	720	550	410
												24B	3-6 CL	28	3130	2690	2440	2160	1910	1660	1410	1250	1030	810	630	470
						30B	1	34																		

JVB-RD Style "RD" Flat Top Enclosures

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STYLE LT Series "RD"

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TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FIN PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215°F FACTOR	HOT WATER (AVG.)																	
									200°F	190°F	180°F	170°F	160°F	150°F	140°F	130°F	120°F	110°F	100°F							
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES																	
3/4"	C3/4-43	4-1/4" SQ.	32	.020	24B	1	28	1685	1450	1310	1160	1030	890	760	670	560	440	340	250							
						24B	2-6 CL	28	2435	2090	1900	1680	1490	1290	1100	970	800	630	490	370						
						24B	3-6 CL	28	2800	2410	2180	1930	1710	1480	1260	1120	920	730	560	420						
						30B	1	34	1870	1610	1460	1290	1140	990	840	750	620	490	370	280						
						30B	2-6 CL	34	2480	2130	1930	1710	1510	1310	1120	990	820	640	500	370						
						30B	3-6 CL	34	2850	2450	2220	1970	1740	1510	1280	1140	940	740	570	430						
						36B	1	40	2060	1770	1610	1420	1260	1090	930	820	680	540	410	310						
						36B	2-6 CL	40	2730	2350	2130	1880	1670	1450	1230	1090	900	710	550	410						
						36B	3-6 CL	40	3140	2700	2450	2170	1920	1660	1410	1260	1040	820	630	470						
						24B	1	28	2350	2020	1830	1620	1430	1250	1060	940	780	610	470	350						
						24B	2-6 CL	28	3270	2810	2550	2260	1990	1730	1470	1310	1080	850	650	490						
						24B	3-6 CL	28	3730	3210	2910	2570	2280	1980	1680	1490	1230	970	750	560						
30B	1	34	2610	2240	2040	1800	1590	1380	1170	1040	860	680	520	390												
30B	2-6 CL	34	3460	2980	2700	2390	2110	1830	1560	1380	1140	900	690	520												
30B	3-6 CL	34	3940	3390	3070	2720	2400	2090	1770	1580	1300	1020	790	590												
36B	1	40	2870	2470	2240	1980	1750	1520	1290	1150	950	750	570	430												
36B	2-6 CL	40	3800	3270	2960	2620	2320	2010	1710	1520	1250	990	760	570												
36B	3-6 CL	40	4330	3720	3380	2990	2640	2290	1950	1730	1430	1130	870	650												
3/4"	C3/4-44	4-1/4" SQ.	40	.020	24B	1	28	2550	2190	1990	1760	1560	1350	1150	1020	840	660	510	380							
						24B	2-6 CL	28	3380	2910	2640	2330	2060	1790	1520	1350	1120	880	680	510						
						24B	3-6 CL	28	3820	3290	2980	2640	2330	2020	1720	1530	1260	990	760	570						
						30B	1	34	2840	2440	2220	1960	1730	1510	1280	1140	940	740	570	430						
						30B	2-6 CL	34	3760	3230	2930	2590	2290	1990	1690	1500	1240	980	750	560						
						30B	3-6 CL	34	4250	3660	3320	2930	2590	2250	1910	1700	1400	1110	850	640						
						36B	1	40	3130	2690	2440	2160	1910	1660	1410	1250	1030	810	630	470						
						36B	2-6 CL	40	4140	3560	3230	2860	2530	2190	1860	1660	1370	1080	830	620						
						36B	3-6 CL	40	4680	4020	3650	3230	2850	2480	2110	1870	1540	1220	940	700						
						3/4"	C3/4-45	4-1/4" SQ.	50	.020	24B	1	28	2810	2420	2190	1940	1710	1490	1260	1120	930	730	560	420	
												24B	2-6 CL	28	3230	2780	2520	2230	1970	1710	1450	1290	1070	840	650	480
												30B	1	34	2010	1730	1570	1390	1230	1070	900	800	660	520	400	300
30B	2-6 CL	34	2660	2290	2070							1840	1620	1410	1200	1060	880	690	530	400						
30B	3-6 CL	34	3060	2630	2390							2110	1870	1620	1380	1220	1010	800	610	460						
36B	1	40	2210	1900	1720							1520	1350	1170	990	880	730	570	440	330						
36B	2-6 CL	40	2930	2520	2290							2020	1790	1550	1320	1170	970	760	590	440						
36B	3-6 CL	40	3370	2900	2630							2330	2060	1790	1520	1350	1110	880	670	510						
1"	C43	4-1/4" SQ.	32	.020	24B							1	28	2140	1840	1670	1480	1310	1130	960	860	710	560	430	320	
												24B	2-6 CL	28	2990	2570	2330	2060	1820	1580	1350	1200	990	780	600	450
												24B	3-6 CL	28	3410	2930	2660	2350	2080	1810	1530	1360	1130	890	680	510
												30B	1	34	2380	2050	1860	1640	1450	1260	1070	950	790	620	480	360
						30B	2-6 CL	34	3150	2710	2460	2170	1920	1670	1420	1260	1040	820	630	470						
						30B	3-6 CL	34	3590	3090	2800	2480	2190	1900	1620	1440	1180	930	720	540						
						36B	1	40	2620	2250	2040	1810	1600	1390	1180	1050	860	680	520	390						
						36B	2-6 CL	40	3470	2980	2710	2390	2120	1840	1560	1390	1150	900	690	520						
						36B	3-6 CL	40	3960	3410	3090	2730	2420	2100	1780	1580	1310	1030	790	590						
						1"	C44	4-1/4" SQ.	40	.020	24B	1	28	2550	2190	1990	1760	1560	1350	1150	1020	840	660	510	380	
												24B	2-6 CL	28	3250	2800	2540	2240	1980	1720	1460	1300	1070	850	650	490
												24B	3-6 CL	28	3670	3160	2860	2530	2240	1950	1650	1470	1210	950	730	550
30B	1	34	2840	2440	2220							1960	1730	1510	1280	1140	940	740	570	430						
30B	2-6 CL	34	3760	3230	2930							2590	2290	1990	1690	1500	1240	980	750	560						
30B	3-6 CL	34	4250	3660	3320							2930	2590	2250	1910	1700	1400	1110	850	640						
36B	1	40	3130	2690	2440							2160	1910	1660	1410	1250	1030	810	630	470						
36B	2-6 CL	40	4140	3560	3230							2860	2530	2190	1860	1660	1370	1080	830	620						
36B	3-6 CL	40	4680	4020	3650							3230	2850	2480	2110	1870	1540	1220	940	700						
1"	C45	4-1/4" SQ.	50	.020	24B							1	28	2810	2420	2190	1940	1710	1490	1260	1120	930	730	560	420	
												24B	2-6 CL	28	3230	2780	2520	2230	1970	1710	1450	1290	1070	840	650	480
												30B	1	34	2010	1730	1570	1390	1230	1070	900	800	660	520	400	300
						30B	2-6 CL	34	2660	2290	2070	1840	1620	1410	1200	1060	880	690	530	400						
						30B	3-6 CL	34	3060	2630	2390	2110	1870	1620	1380	1220	1010	800	610	460						
						36B	1	40	2210	1900	1720	1520	1350	1170	990	880	730	570	440	330						
						36B	2-6 CL	40	2930	2520	2290	2020	1790	1550	1320	1170	970	760	590	440						
						36B	3-6 CL	40	3370	2900	2630	2330	2060	1790	1520	1350	1110	880	670	510						
						1-1/4"	C143	4-1/4" SQ.	32	.020	24B	1	28	1780	1530	1390	1230	1090	940	800	710	590	460	360	270	
												24B	2-6 CL	28	2720	2340	2120	1880	1660	1440	1220	1090	900	710	540	410
												24B	3-6 CL	28	3130	2690	2440	2160	1910	1660	1410	1250	1030	810	630	470
												30B	1	34	1980	1700	1540	1370	1210	1050	890	790	650	510	400	300
30B	2-6 CL	34	2620	2250	2040							1810	1600	1390	1180	1050	860	680	520	390						
30B	3-6 CL	34	3010	2590	2350							2080	1840	1600	1350	1200	990	780	600	450						
36B	1	40	2180	1870	1700							1500	1330	1160	980	870	720	570	440	330						
36B	2-6 CL	40	2890	2490	2250							1990	1760	1530	1300	1160	950	750	580	430						
36B	3-6 CL	40	3320	2860	2590							2290	2030	1760	1490	1330	1100	860	660	500						
1-1/4"	C144	4-1/4" SQ.	40	.020	24B							1	28	2160	1860	1680	1490	1320	1140	970	860	710	560	430	320	
												24B	2-6 CL	28	2940	2530	2290	2030	1790	1560	1320	1180	970	760	590	440
												24B	3-6 CL	28	3350	2880	2610	2310	2040	1780	1510	1340	1110	870	670	500
						30B	1	34	2400	2060	1870	1660	1460	1270	1080	960	790	620	480	360						
						30B	2-6 CL	34	3180	2730	2480	2190	1940	1690	1430	1270	1050	830	640	480						
						30B	3-6 CL	34	3630	3120																

JVB-RD Style "RD" Flat Top Enclosures

STYLE LT Series "RD"

STEEL ELEMENT RATINGS

ALL RATINGS ARE BASED ON 3 FPS WATER VELOCITY, 65°EAT

TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FIN PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215°F FACTOR	HOT WATER (AVG.)										
									200°F	190°F	180°F	170°F	160°F	150°F	140°F	130°F	120°F	110°F	100°F
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES										
1"	S43	4-1/4" SQ.	32	.032	24B	1	28	1520	1310	1190	1050	930	810	680	610	500	400	300	230
					24B	2-6 CL	28	2255	1940	1760	1560	1380	1200	1010	900	740	590	450	340
					24B	3-6 CL	28	2590	2230	2020	1790	1580	1370	1170	1040	850	670	520	390
					30B	1	34	1690	1450	1320	1170	1030	900	760	680	560	440	340	250
					30B	2-6 CL	34	2240	1930	1750	1550	1370	1190	1010	900	740	580	450	340
					30B	3-6 CL	34	2580	2220	2010	1780	1570	1370	1160	1030	850	670	520	390
					36B	1	40	1860	1600	1450	1280	1130	990	840	740	610	480	370	280
					36B	2-6 CL	40	2460	2120	1920	1700	1500	1300	1110	980	810	640	490	370
					36B	3-6 CL	40	2830	2430	2210	1950	1730	1500	1270	1130	930	740	570	420
					24B	1	28	1765	1520	1380	1220	1080	940	790	710	580	460	350	260
					24B	2-6 CL	28	2470	2120	1930	1700	1510	1310	1110	990	820	640	490	370
					24B	3-6 CL	28	2820	2430	2200	1950	1720	1490	1270	1130	930	730	560	420
30B	1	34	1960	1690	1530	1350	1200	1040	880	780	650	510	390	290					
30B	2-6 CL	34	2600	2240	2030	1790	1590	1380	1170	1040	860	680	520	390					
30B	3-6 CL	34	2960	2550	2310	2040	1810	1570	1330	1180	980	770	590	440					
36B	1	40	2160	1860	1680	1490	1320	1140	970	860	710	560	430	320					
36B	2-6 CL	40	2860	2460	2230	1970	1740	1520	1290	1140	940	740	570	430					
36B	3-6 CL	40	3260	2800	2540	2250	1990	1730	1470	1300	1080	850	650	490					
1"	S45	4-1/4" SQ.	50	.032	24B	1	28	1850	1590	1440	1280	1130	980	830	740	610	480	370	280
					24B	2-6 CL	28	2535	2180	1980	1750	1550	1340	1140	1010	840	660	510	380
					24B	3-6 CL	28	2860	2460	2230	1970	1740	1520	1290	1140	940	740	570	430
					30B	1	34	2060	1770	1610	1420	1260	1090	930	820	680	540	410	310
					30B	2-6 CL	34	2730	2350	2130	1880	1670	1450	1230	1090	900	710	550	410
					30B	3-6 CL	34	3080	2650	2400	2130	1880	1630	1390	1230	1020	800	620	460
					36B	1	40	2270	1950	1770	1570	1380	1200	1020	910	750	590	450	340
					36B	2-6 CL	40	3010	2590	2350	2080	1840	1600	1350	1200	990	780	600	450
					36B	3-6 CL	40	3400	2920	2650	2350	2070	1800	1530	1360	1120	880	680	510
					24B	1	28	1320	1140	1030	910	810	700	590	530	440	340	260	200
					24B	2-6 CL	28	2120	1820	1650	1460	1290	1120	950	850	700	550	420	320
					24B	3-6 CL	28	2440	2100	1900	1680	1490	1290	1100	980	810	630	490	370
30B	1	34	1470	1260	1150	1010	900	780	660	590	490	380	290	220					
30B	2-6 CL	34	1950	1680	1520	1350	1190	1030	880	780	640	510	390	290					
30B	3-6 CL	34	2240	1930	1750	1550	1370	1190	1010	900	740	580	450	340					
36B	1	40	1620	1390	1260	1120	990	860	730	650	530	420	320	240					
36B	2-6 CL	40	2140	1840	1670	1480	1310	1130	960	860	710	560	430	320					
36B	3-6 CL	40	2460	2120	1920	1700	1500	1300	1110	980	810	640	490	370					
1-1/4"	S143	4-1/4" SQ.	32	.032	24B	1	28	1680	1440	1310	1160	1020	890	760	670	550	440	340	250
					24B	2-6 CL	28	2510	2160	1960	1730	1530	1330	1130	1000	830	650	500	380
					24B	3-6 CL	28	2860	2460	2230	1970	1740	1520	1290	1140	940	740	570	430
					30B	1	34	1870	1610	1460	1290	1140	990	840	750	620	490	370	280
					30B	2-6 CL	34	2480	2130	1930	1710	1510	1310	1120	990	820	640	500	370
					30B	3-6 CL	34	2830	2430	2210	1950	1730	1500	1270	1130	930	740	570	420
					36B	1	40	2060	1770	1610	1420	1260	1090	930	820	680	540	410	310
					36B	2-6 CL	40	2730	2350	2130	1880	1670	1450	1230	1090	900	710	550	410
					36B	3-6 CL	40	3110	2670	2430	2150	1900	1650	1400	1240	1030	810	620	470
					24B	1	28	1835	1580	1430	1270	1120	970	830	730	610	480	370	280
					24B	2-6 CL	28	2485	2140	1940	1710	1520	1320	1120	990	820	650	500	370
					24B	3-6 CL	28	2810	2420	2190	1940	1710	1490	1260	1120	930	730	560	420
30B	1	34	2040	1750	1590	1410	1240	1080	920	820	670	530	410	310					
30B	2-6 CL	34	2700	2320	2110	1860	1650	1430	1220	1080	890	700	540	410					
30B	3-6 CL	34	3050	2620	2380	2100	1860	1620	1370	1220	1010	790	610	460					
36B	1	40	2250	1940	1760	1550	1370	1190	1010	900	740	590	450	340					
36B	2-6 CL	40	2980	2560	2320	2060	1820	1580	1340	1190	980	770	600	450					
36B	3-6 CL	40	3370	2900	2630	2330	2060	1790	1520	1350	1110	880	670	510					
2"	S242	4-1/4" SQ.	25	.032	24B	1	28	1250	1080	980	860	760	660	560	500	410	330	250	190
					24B	2-6 CL	28	2000	1720	1560	1380	1220	1060	900	800	660	520	400	300
					24B	3-6 CL	28	2300	1980	1790	1590	1400	1220	1040	920	760	600	460	350
					30B	1	34	1390	1200	1080	960	850	740	630	560	460	360	280	210
					30B	2-6 CL	34	1840	1580	1440	1270	1120	980	830	740	610	480	370	280
					30B	3-6 CL	34	2120	1820	1650	1460	1290	1120	950	850	700	550	420	320
					36B	1	40	1530	1320	1190	1060	930	810	690	610	500	400	310	230
					36B	2-6 CL	40	2030	1750	1580	1400	1240	1080	910	810	670	530	410	300
					36B	3-6 CL	40	2330	2000	1820	1610	1420	1230	1050	930	770	610	470	350
					24B	1	28	1480	1270	1150	1020	900	780	670	590	490	380	300	220
					24B	2-6 CL	28	2220	1910	1730	1530	1350	1180	1000	890	730	580	440	330
					24B	3-6 CL	28	2550	2190	1990	1760	1560	1350	1150	1020	840	660	510	380
30B	1	34	1650	1420	1290	1140	1010	870	740	660	540	430	330	250					
30B	2-6 CL	34	2180	1870	1700	1500	1330	1160	980	870	720	570	440	330					
30B	3-6 CL	34	2510	2160	1960	1730	1530	1330	1130	1000	830	650	500	380					
36B	1	40	1820	1570	1420	1260	1110	960	820	730	600	470	360	270					
36B	2-6 CL	40	2410	2070	1880	1660	1470	1280	1080	960	800	630	480	360					
36B	3-6 CL	40	2770	2380	2160	1910	1690	1470	1250	1110	910	720	550	420					

Design Data

COMMERCIAL FINNED TUBE CHARTS FOR RATING CORRECTIONS

For assistance with ratings and selection, please use our online Specifier.

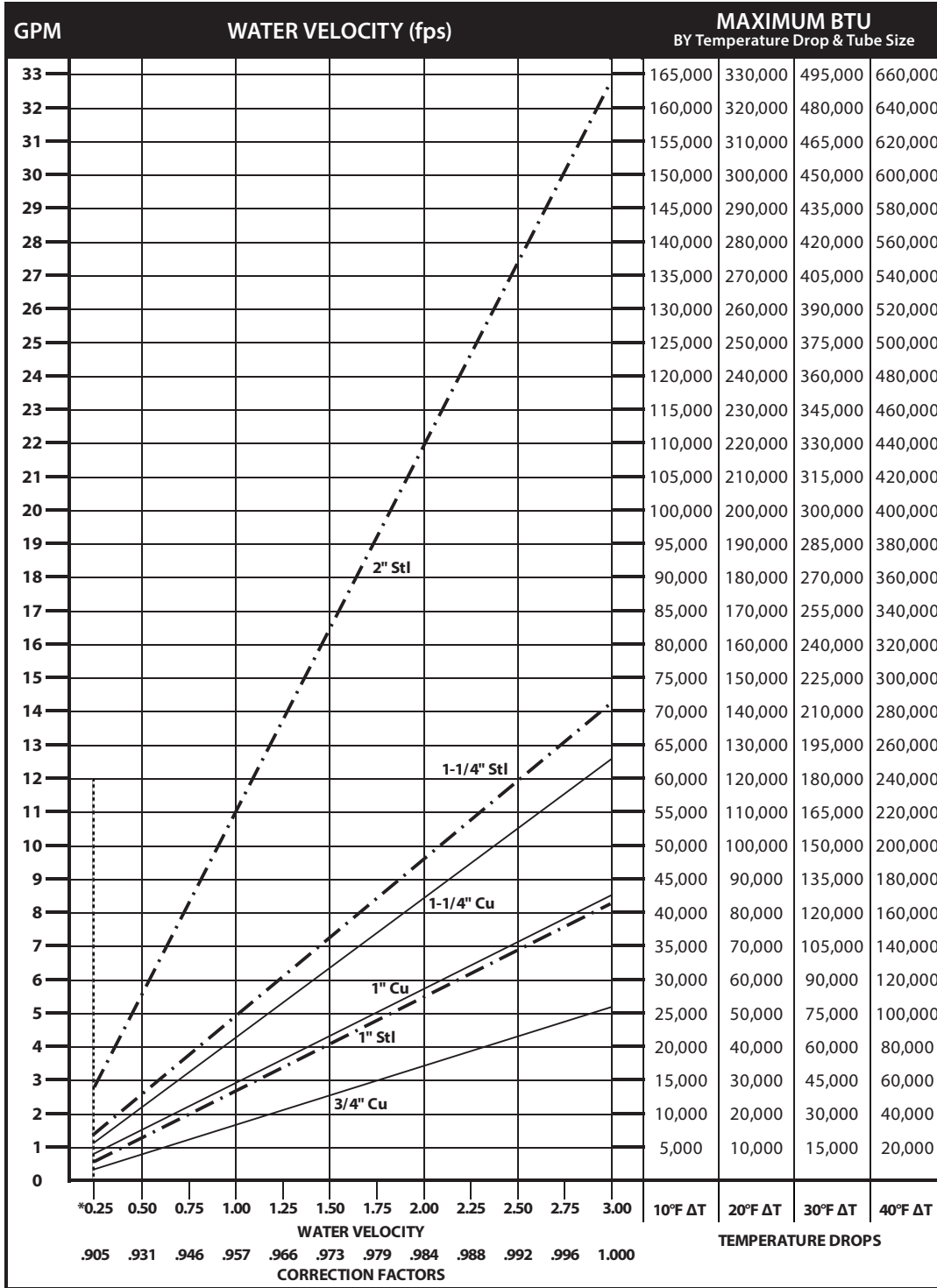
CORRECTION FACTORS FOR WATER TEMPERATURES AND AIR TEMPERATURES OTHER THAN STANDARD															
AVERAGE WATER TEMP. °F	ENTERING AIR TEMPERATURE °F														
	45	55	STD 65	70	75	80	85	90	95	100	110	120	130	140	150
90	.19	.13	.11	.06											
100	.25	.19	.15	.11	.08	.06									
110	.31	.25	.20	.16	.13	.11	.08	.06							
120	.38	.31	.26	.21	.19	.16	.13	.11	.08	.06					
130	.45	.38	.33	.28	.25	.21	.19	.16	.13	.11	.06				
140	.53	.45	.40	.34	.31	.28	.25	.21	.19	.16	.11	.06			
150	.61	.53	.45	.41	.38	.34	.31	.28	.25	.21	.16	.11	.06		
160	.69	.61	.53	.49	.45	.41	.38	.34	.31	.28	.21	.16	.11	.06	
170	.77	.69	.61	.57	.53	.49	.45	.41	.38	.34	.28	.21	.16	.11	.06
180	.86	.77	.69	.65	.61	.57	.53	.49	.45	.41	.34	.28	.21	.16	.11
190	.95	.86	.78	.73	.69	.65	.61	.57	.53	.49	.41	.34	.28	.21	.16
200	1.05	.95	.86	.82	.77	.73	.69	.65	.61	.57	.49	.41	.34	.28	.21
210	1.14	1.05	.95	.91	.86	.82	.77	.73	.69	.65	.57	.49	.41	.34	.28
▶ 215 (STD.)	1.19	1.09	1.00	.95	.91	.86	.82	.77	.73	.69	.61	.53	.45	.38	.31
220	1.24	1.14	1.05	1.00	.95	.91	.86	.82	.77	.73	.65	.57	.49	.41	.34
230	1.34	1.24	1.14	1.09	1.05	1.00	.95	.91	.86	.82	.73	.65	.57	.49	.41
240	1.44	1.34	1.25	1.19	1.14	1.09	1.05	1.00	.95	.91	.82	.73	.65	.57	.49
250	1.55	1.44	1.34	1.29	1.24	1.19	1.14	1.09	1.05	1.00	.91	.82	.73	.65	.57
260	1.66	1.55	1.44	1.39	1.34	1.29	1.24	1.19	1.14	1.09	1.00	.91	.82	.73	.65
270	1.76	1.66	1.55	1.50	1.44	1.39	1.34	1.29	1.24	1.19	1.09	1.00	.91	.82	.73
280	1.87	1.76	1.66	1.60	1.55	1.50	1.44	1.39	1.34	1.29	1.19	1.09	1.00	.91	.82
290	1.99	1.87	1.76	1.71	1.66	1.60	1.55	1.50	1.44	1.39	1.29	1.19	1.09	1.00	.91
300	2.10	1.99	1.87	1.82	1.76	1.71	1.66	1.60	1.55	1.50	1.39	1.29	1.19	1.09	1.00

CORRECTION FACTORS FOR STEAM PRESSURES AND AIR TEMPERATURES OTHER THAN STANDARD																
STEAM		TEMP. °F	ENTERING AIR TEMPERATURE °F													
PRESSURE			45	55	STD 65	70	75	80	85	90	100	110	120	130	140	150
GAUGE	ABS. PSI															
(VAC) 15" HG	7.32	178.9	0.90	0.80	0.70	0.65	0.60	0.56	0.51	0.45	0.39	0.32	0.25	0.18	0.13	0.08
(VAC) 10" HG	9.78	192.2	1.02	0.91	0.81	0.76	0.71	0.66	0.62	0.55	0.48	0.40	0.33	0.26	0.20	0.14
(VAC) 5" HG	12.25	202.9	1.11	1.00	0.90	0.85	0.79	0.75	0.70	0.63	0.56	0.48	0.40	0.33	0.27	0.20
▶ 0 PSI	14.696	212.0	1.19	1.09	0.97	0.92	0.87	0.82	0.77	0.70	0.63	0.54	0.46	0.38	0.31	0.25
.899	15.595	215.0	1.22	1.11	1.00	0.95	0.90	0.84	0.80	0.75	0.65	0.57	0.48	0.40	0.33	0.26
5	19.70	227.1	1.34	1.22	1.11	1.05	1.00	0.95	0.90	0.81	0.75	0.66	0.57	0.49	0.41	0.34
10	24.70	239.4	1.45	1.33	1.22	1.17	1.11	1.05	1.00	0.91	0.85	0.75	0.66	0.58	0.50	0.42
15	29.70	249.8	1.55	1.43	1.31	1.26	1.20	1.14	1.09	1.00	0.94	0.84	0.75	0.66	0.57	0.49
20	34.70	258.5	1.63	1.52	1.40	1.33	1.28	1.23	1.17	1.07	1.02	0.92	0.82	0.73	0.64	0.55
25	39.70	266.8	1.71	1.59	1.47	1.41	1.36	1.30	1.25	1.15	1.09	0.98	0.89	0.80	0.71	0.62
30	44.70	274.0	1.78	1.66	1.54	1.48	1.42	1.37	1.31	1.21	1.15	1.05	0.95	0.85	0.76	0.68
40	54.70	286.7	1.91	1.79	1.66	1.61	1.54	1.49	1.43	1.32	1.27	1.16	1.06	0.97	0.87	0.78
50	64.70	297.7	2.02	1.90	1.77	1.71	1.65	1.60	1.54	1.42	1.37	1.26	1.16	1.06	0.96	0.87
60	74.70	307.3	2.10	2.00	1.87	1.81	1.75	1.69	1.63	1.51	1.47	1.35	1.25	1.15	1.05	0.95
70	84.70	316.0	2.20	2.09	1.95	1.89	1.83	1.77	1.71	1.59	1.55	1.44	1.33	1.23	1.12	1.03
80	94.70	323.9	2.27	2.17	2.03	1.97	1.91	1.85	1.80	1.69	1.63	1.52	1.41	1.31	1.20	1.10
90	104.70	331.2	2.36	2.24	2.11	2.05	1.98	1.93	1.87	1.74	1.70	1.59	1.48	1.38	1.28	1.17
100	114.70	337.9	2.43	2.31	2.18	2.11	2.05	2.00	1.94	1.81	1.77	1.65	1.54	1.44	1.33	1.23
125	139.70	352.9	2.59	2.47	2.33	2.27	2.21	2.16	2.10	1.96	1.92	1.80	1.69	1.59	1.48	1.38
150	164.70	365.9	2.73	2.62	2.47	2.43	2.35	2.29	2.23	2.08	2.05	1.94	1.82	1.72	1.61	1.51
175	189.70	377.4	2.86	2.74	2.60	2.54	2.47	2.41	2.35	2.21	2.17	2.05	1.95	1.85	1.73	1.63
200	214.70	387.8	2.95	2.85	2.71	2.63	2.58	2.52	2.47	2.31	2.29	2.17	2.06	1.96	1.84	1.75

From Keenan and Keyes — Linear Interpolation. NOTE: Gauge pressure should be corrected for altitude.

Rate of pitch for steam 1/2" drop over 20-foot run.

Design Data



DYNAMIC FORMULAS

$$\text{BTU} = \text{GPM} \times 500 \times \text{TD}$$

$$\text{GPM} = \left(\frac{\text{BTU}}{500} \right) \div \text{TD}$$

$$\text{TD} = \left(\frac{\text{BTU}}{500} \right) \div \text{GPM}$$

*Do not design below .25 fps.

Pressure Drop at Given Water Velocities (Feet of Water per 100 ft. of pipe) based on Hazen - Williams calculation

Nominal Pipe Size	Water Velocity (ft/sec)											
	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
3/4" Copper	0.06	0.20	0.42	0.72	1.09	1.53	2.04	2.61	3.25	3.95	4.71	5.53
1" Copper	0.04	0.15	0.32	0.54	0.81	1.14	1.52	1.94	2.42	2.94	3.50	4.11
1 1/4" Copper	0.03	0.12	0.25	0.43	0.64	0.90	1.20	1.54	1.92	2.33	2.78	3.26
1" Steel	0.04	0.15	0.32	0.54	0.81	1.14	1.52	1.95	2.42	2.94	3.51	4.12
1 1/4" Steel	0.03	0.11	0.23	0.40	0.60	0.84	1.12	1.44	1.79	2.17	2.59	3.05
2" Steel	0.02	0.07	0.14	0.25	0.37	0.52	0.69	0.89	1.10	1.34	1.60	1.88

Design Data

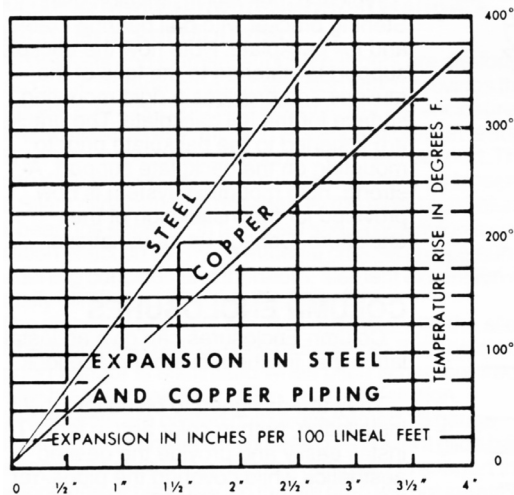
GUARANTEED WORKING PRESSURES

- 1" IPS – 780 at Temperatures up to 650°F.
- 1-1/4" IPS – 660 at Temperatures up to 650°F.
- 2" IPS – 405 at Temperatures up to 650°F.
- 1-1/4" CU – 194 at Temperatures up to 300°F.
- 1" CU 204 at Temperatures up to 300°F.
- 3/4" CU 218 PSI at Temperatures up to 300°F.

MAXIMUM PRESSURES AT OTHER TEMPERATURES
ARE AVAILABLE UPON REQUEST.

Pipe Water Capacities and Quantities Circulated at Velocity of 3 Feet Per Second

Nominal Pipe Size	Pipe I.D. (inches)	Gals Per Lin. Ft.	GPM @ 3' per sec Velocity
3/4" Copper	0.835	0.028	5.12
1" Copper	1.077	0.047	8.52
1 1/4" Copper	1.315	0.071	12.70
1" Steel	1.075	0.047	8.49
1 1/4" Steel	1.395	0.079	14.29
2" Steel	2.115	0.183	32.85



Glycol Correction Factors

Fluid Temperature 200°F

% Solution	Ethylene Glycol	Propylene Glycol
20	.952	.988
30	.921	.968
40	.888	.943
50	.852	.912

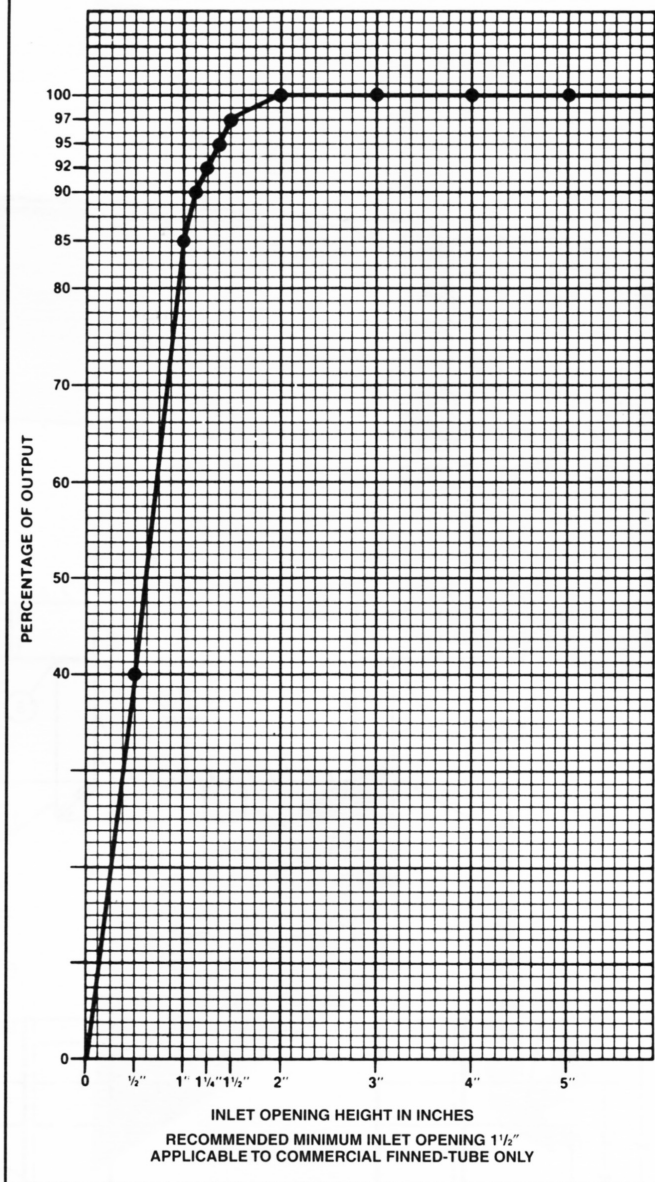
Fluid Temperature 180°F

% Solution	Ethylene Glycol	Propylene Glycol
20	.946	.982
30	.913	.961
40	.879	.934
50	.842	.902

Fluid Temperature 140°F

% Solution	Ethylene Glycol	Propylene Glycol
20	.934	.97
30	.898	.946
40	.861	.916
50	.821	.881

INLET VS. OUTPUT/BTUH CAPACITY REDUCTION



ALTITUDE FACTORS

Approximate factors for convective heat value at varying altitudes

Altitude	Ferrous Units	Copper Alum. Units
Sea Level	1.000	1.000
1,000 ft.	.984	.969
2,000 ft.	.968	.938
3,000 ft.	.952	.908
4,000 ft.	.936	.878
5,000 ft.	.920	.850
6,000 ft.	.904	.822
7,000 ft.	.889	.795
8,000 ft.	.874	.768
9,000 ft.	.859	.743
10,000 ft.	.844	.718
15,000 ft.	.771	.603
20,000 ft.	.703	.502