

BTU ANALYSIS FOR L&L JUPITER KILNS FOR HVAC CALCULATIONS

These tables can be used to calculate maximum BTU output into a room when firing a kiln at various temperatures. It is meant for HVAC calculations.

The following table is for Jupiter kilns with 2-1/2" thick brick:

MODEL NUMBER	INTERIOR DIMENSIONS		CUBIC FEET	K.W	Total Internal Sq Feet	Total Internal Sq Inches	Watts per internal Sq Inch	Total BTU loss/Hr at 1800F	Total BTU loss/Hr at 2000F	Total BTU loss/Hr at 2350F
	DIAM	HIGH								
J18	17 1/2	18	2.6	5.5	10.8	1552	3.54	6723	7876	9772
J18X	17 1/2	27	4.0	8.3	14.4	2074	4.00	8985	10526	13060
J23	23 3/8	18	4.6	7.0	15.7	2265	3.09	9816	11499	14267
J230	23 3/8	27	7.0	10.6	20.5	2952	3.59	12791	14985	18593
J236	23 3/8	36	9.3	14.0	25.3	3639	3.85	15767	18471	22918
J245	23 3/8	45	11.6	17.6	30.0	4325	4.07	18743	21957	27243
J2918	29	18	7.0	9.1	21.0	3023	3.02	13098	15343	19038
J2927	29	27	10.5	13.7	26.8	3860	3.55	16725	19592	24309
J2936	29	36	14.0	18.2	32.6	4697	3.88	20352	23841	29581
J2945	29	45	17.6	22.8	38.4	5534	4.12	23979	28090	34853

BTU'S HEAT LOSS PER SQ FT PER HOUR AT 1800 DEGF:	624	BTU's per Square Foot per hour with 2-1/2" brick
BTU'S HEAT LOSS PER SQ FT PER HOUR AT 2000 DEGF:	731	BTU's per Square Foot per hour with 2-1/2" brick
BTU'S HEAT LOSS PER SQ FT PER HOUR AT 22350 DEGF:	907	BTU's per Square Foot per hour with 2-1/2" brick

The following table is for Jupiter kilns with 3" thick brick:

MODEL NUMBER	INTERIOR DIMENSIONS		CUBIC FEET	K.W	Total Internal Sq Feet	Total Internal Sq Inches	Watts per internal Sq Inch	Total BTU loss/Hr at 1800F	Total BTU loss/Hr at 2000F	Total BTU loss/Hr at 2350F
	DIAM	HIGH								
J18-3	16 1/2	18	2.5	5.5	10.6	1523	3.61	5561	6502	8067
J18X-3	16 1/2	27	3.7	8.3	14.2	2045	4.06	7468	8732	10833
J23-3	22 3/8	18	4.4	7.0	15.5	2227	3.14	8135	9511	11800
J230-3	22 3/8	27	6.7	10.6	20.2	2914	3.64	10643	12444	15439
J236-3	22 3/8	36	8.9	14.0	25.0	3600	3.89	13151	15377	19077
J245-3	22 3/8	45	11.1	17.6	29.8	4287	4.11	15660	18310	22716
J2918-3	28	18	6.8	9.1	20.7	2976	3.06	10871	12710	15769
J2927-3	28	27	10.2	13.7	26.5	3813	3.59	13928	16285	20204
J2936-3	28	36	13.6	18.2	32.3	4650	3.91	16985	19859	24639
J2945-3	28	45	17.0	22.8	38.1	5487	4.16	20043	23434	29073

BTU'S HEAT LOSS PER SQ FT PER HOUR AT 1800 DEGF:	526	BTU's per Square Foot per hour with 3" brick
BTU'S HEAT LOSS PER SQ FT PER HOUR AT 2000 DEGF:	615	BTU's per Square Foot per hour with 3" brick
BTU'S HEAT LOSS PER SQ FT PER HOUR AT 22350 DEGF:	763	BTU's per Square Foot per hour with 3" brick