

# HEAT LOSS CALCULATING SHEET

AMERICAN FOUNDRY & FURNACE CO. BLOOMINGTON - ILLINOIS  
 LOCATION \_\_\_\_\_ ARCHITECT \_\_\_\_\_ FIGURED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BUILDING \_\_\_\_\_ DEALER \_\_\_\_\_ CHECKED BY \_\_\_\_\_ DWG. NO. \_\_\_\_\_

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CHART A					
TEMPERATURE			RISE CHART		
1	2	3	4	5	6
BASEMENT WALL	FLOOR	EXPOSED WALLS ABOVE DECK	EXPOSED FLOORS	EXPOSED CEILING	
INSIDE TEMP					
OUTSIDE TEMP					
TEMP RISE					

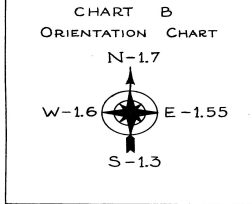


CHART C	
GRAVITY	<input type="checkbox"/> FORCED AIR
REGISTER TEMPERATURE	$\frac{175}{250}$
EQUIPMENT USED	
HEATER NO.	
BLOWER NO.	
STATIC PRESSURE	

CHART D				
BUILDING WALL		FACTORS		
1	2	3	4	5
No.	CONSTRUCTION	AVE. COEFF.	70° TEMP. RISE	80° TEMP. RISE
SIDED FRAME WALL				
1	PLASTER ON METAL LATH INSULATION	.260	18	21
2	1/2" RIGID INSULATION	.190	13	15
3	1" RIGID INSULATION	.150	11	12
4	ONE SIDE FACED WITH ALUMINUM FOL.	.200	16	16
5	1/2" FLEXIBLE INSULATION	.190	11	12
6	ROCK WOOL FILL - 3 3/8" THICK	.072	3	6
STUCCO FRAME WALL				
8	PLASTER ON METAL LATH NO INSULATION	.310	22	25
9	1/2" RIGID INSULATION	.230	15	18
10	1" RIGID INSULATION	.160	11	13
11	ROCK WOOL FILL - 3 3/8" THICK	.076	3	6
BRICK VENEER FRAME WALL				
13	PLASTER ON METAL LATH NO INSULATION	.290	20	23
14	1/2" RIGID INSULATION	.200	14	16
15	1" RIGID INSULATION	.160	11	12
16	ONE SIDE FACED WITH ALUMINUM FOL.	.210	18	17
17	1/2" FLEXIBLE INSULATION	.180	11	12
18	ROCK WOOL FILL - 3 3/8" THICK	.074	3	6
8" BRICK WALL				
20	PLAIN WALLS - NO FINISH	.500	36	40
21	PLASTER ON WALLS	.460	32	36
22	PLASTER ON METAL LATH - FURRED	.320	22	26
23	1/2" RIGID INSULATION	.220	15	18
24	1" RIGID INSULATION	.160	11	13
25	ROCK WOOL FILL - 3 3/8" THICK	.120	8	10
12" BRICK WALL				
27	PLAIN WALLS - NO FINISH	.360	25	29
28	PLASTER ON WALLS	.340	24	27
29	PLASTER ON METAL LATH - FURRED	.250	18	20
30	1/2" RIGID INSULATION	.140	10	11
31	1" RIGID INSULATION	.110	8	9
32	ROCK WOOL FILL - 3 3/8" THICK	.110	8	9
34				

CHART E				
CEILING		FACTORS		
1	2	3	4	5
No.	CONSTRUCTION	AVE. COEFF.	70° TEMP. RISE	80° TEMP. RISE
PITCHED ROOF - UNHEATED ATTIC				
36	NO CEILING - RAFTERS EXPOSED	.480	32	36
37	PLASTER ON METAL LATH - NO INSULATION	.300	21	24
38	1/2" RIGID INSULATION	.210	15	17
39	1" RIGID INSULATION	.160	11	13
40	ROCK WOOL FILL - 3 3/8" THICK	.063	4	5
FLAT WOOD ROOF - NO CEILING				
41	NO INSULATION	.450	30	34
42	1/2" RIGID INSULATION	.280	20	23
43	1" RIGID INSULATION	.200	14	16
FLAT WOOD ROOF - WITH CEILING				
45	NO INSULATION	.320	22	26
46	1/2" RIGID INSULATION	.210	15	17
47	1" RIGID INSULATION	.160	11	13
49				

CHART F				
FLOOR		FACTORS		
1	2	3	4	5
No.	CONSTRUCTION	AVE. COEFF.	70° TEMP. RISE	80° TEMP. RISE
CONCRETE FLOOR ON GROUND				
50	BARE	1.07	21	22
51	FLOOR ON SLEEPERS	.550	7	11
CONCRETE FLOOR OVER CINDER FILL				
52	BARE	.660	13	20
53	1" FLOOR ON SLEEPERS	.240	6	9
DOUBLE FLOOR OVER UNHEATED SPACES				
54	NO CEILING	.460	9	14
55	CEILING BENEATH - PLASTER ON METAL LATH	.500	6	9
56	CEILING BENEATH - PLASTER ON 1/2" RIGID INS.	.210	4	6
58				

CHART G				
BASEMENT WALL		FACTORS		
1	2	3	4	5
No.	CONSTRUCTION	AVE. COEFF.	50° TEMP. RISE	60° TEMP. RISE
8" BRICK WALL				
59	NO INTERIOR FINISH	.500	28	30
60	1/2" PLASTER	.460	25	28
12" BRICK WALL				
62	NO INTERIOR FINISH	.360	16	22
63	1/2" PLASTER	.340	17	23
8" CINDER BLOCK				
65	NO INTERIOR FINISH	.430	21	25
66	1/2" PLASTER	.390	20	23
12" CINDER BLOCK				
68	NO INTERIOR FINISH	.370	19	22
69	1/2" PLASTER	.350	18	21
8" CONCRETE BLOCK				
71	NO INTERIOR FINISH	.560	28	34
72	1/2" PLASTER	.530	26	31
12" CONCRETE BLOCK				
74	NO INTERIOR FINISH	.410	25	29
75	1/2" PLASTER	.400	23	28
8" CONCRETE WALL				
77	NO INTERIOR FINISH	.620	34	41
78	1/2" PLASTER	.620	31	37
12" CONCRETE WALL				
80	NO INTERIOR FINISH	.550	28	33
81	1/2" PLASTER	.480	24	27
82				

CHART H																												
1		2		DETAILS OF HEAT LOSS												CALCULATION AND DESIGN												
				GLASS WALL		FLOOR		CEILING		B.T.U. LOSS		E. D. R.		C.C.M. LOSS		WARM AIR		RETURN AIR										
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
No.	NAME OF ROOM	Length	Width	Height	CUBIC CONTENT	30 FT. PANEL	36 FT. PANEL	42 FT. PANEL	48 FT. PANEL	54 FT. PANEL	60 FT. PANEL	66 FT. PANEL	72 FT. PANEL	BTU. LOSS	5 TEAM	HOT WATER	C.C.M. LOSS	5 FT. DIA.	PIPE DIA.	WALL DIA.	STACK DIA.	GRILLE DIA.	5 FT. DIA.	PIPE DIA.	WALL DIA.	STACK DIA.	GRILLE DIA.	
1	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
21	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	Basement	10	10	8	800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25	Basement	10	10	8	800	10	10																					