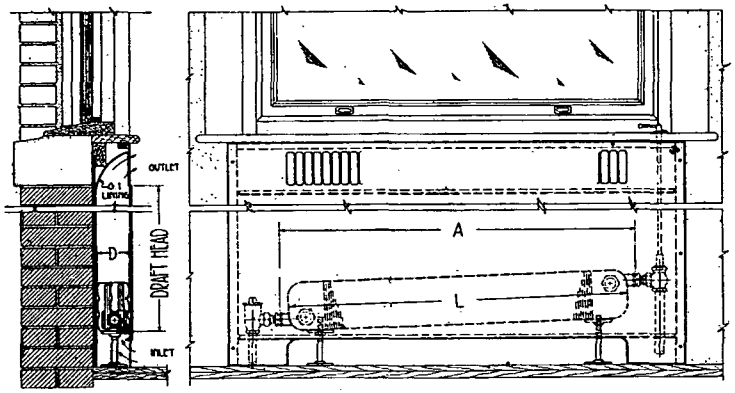


Typical One Tier ROBRAS 20–20 Installation Showing Front Elevation and Section

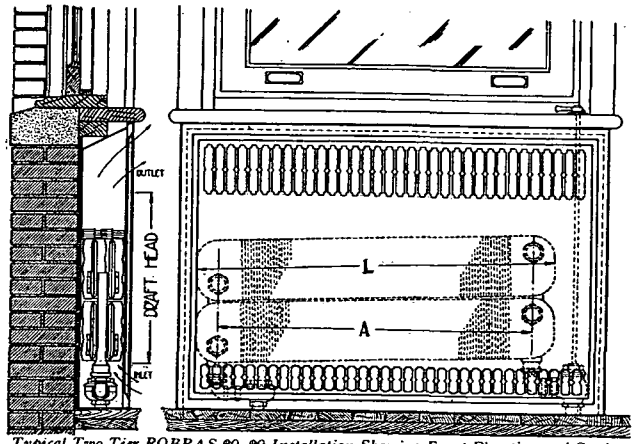
Capacities of Enclosed ONE TIER ROBRAS 20–20 RADIATORS

Capacities are shown in the square foot equivalent of standard direct cast iron radiation. One square foot equals 240 B.t.u. per hour in a 70 deg. room with steam at 215 deg. and one pound pressure.

TABLE NO. 1

L—Section Length		18″		22″		26″		32″		38″		44″		50″		60″		70″	
Total No. of Sections in Rad.	A—Face to Face of Tappings 1″ Tap	19¼″		23¼″		27¼″		33¼″		33¼″		45¼″		51¾″		61¾″		71¾″	
	A—Face to Face of Tappings 1½″ Tap	20½″		24½″		28½″		34½″		40½″		46½″		52½″		62½″		72½″	
	D—Overall Depth of Rad.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.
12 in. Draft Head																			
2	3¾″	2160	9	2760	11½	3240	13½	4140	17¼	5040	21	5880	24½	6720	28	8160	34	9600	40
3	5¼″	3240	13½	4140	17¼	4860	20¼	6210	25¾	7560	31½	8820	36¾	10080	42	12240	51	14400	60
4	6¾″	4320	18	5520	23	6480	27	8280	34½	10080	42	11760	49	13440	56	16320	68	19200	80
5	8¼″	5400	22½	6900	28¾	8100	33¾	10350	43	12600	52½	14700	61¼	16800	70	20400	85	24000	100
6	9¾″	6480	27	8280	34½	9720	40½	12420	51¾	15120	63	17640	73½	20160	84	24480	102	28800	120
18 in. Draft Head																			
2	3¾″	2280	9½	3000	12½	3600	15	4560	19	5400	22½	6360	26½	7320	30½	8880	37	10440	43½
3	5¼″	3420	14¼	4500	18¾	5400	22½	6840	28½	8100	33¾	9540	39¾	10980	45¾	13320	55½	15660	65¼
4	6¾″	4560	19	6000	25	7200	30	9120	38	10800	45	12720	53	14640	61	17760	74	20880	87
5	8¼″	5700	23¾	7500	31¼	9000	37½	11400	47½	13500	56¼	15900	66¼	18300	76¼	22200	92½	26100	108¾
6	9¾″	6840	28½	9000	37½	10800	45	13680	57	16200	67½	19080	79½	21960	91½	26640	111	31320	130½
24 in. Draft Head																			
2	3¾″	2520	10½	3240	13½	3840	16	4800	20	5880	24½	6960	29	7920	33	9600	40	11280	47
3	5¼″	3780	15¾	4860	20¼	5760	24	7200	30	8820	36¾	10440	43½	11880	49½	14400	60	16920	70½
4	6¾″	5040	21	6480	27	7680	32	9600	40	11760	49	13920	58	15840	66	19200	80	22560	94
5	8¼″	6300	26¼	8100	33¾	9600	40	12000	50	14700	61¼	17400	72½	19800	82½	24000	100	28200	117½
6	9¾″	7560	31½	9720	40½	11520	48	14400	60	17640	73½	20880	87	23760	99	28800	120	33840	141
30 in. Draft Head																			
2	3¾″	2640	11	3360	14	4080	17	5160	21½	6240	26	7320	30½	8400	35	10200	42½	12000	50
3	5¼″	3960	16½	5040	21	6120	25½	7740	32¼	9360	39	10980	45¾	12600	52½	15300	63¾	18000	75
4	6¾″	5280	22	6720	28	8160	34	10320	43	12480	52	14640	61	16800	70	20400	85	24000	100
5	8¼″	6600	27½	8400	35	10200	42½	12900	53¾	15600	65	18300	76¼	21000	87½	25500	106¼	30000	125
6	9¾″	7920	33	10080	42	12240	51	15480	64½	18720	78	21960	91½	25200	105	30600	127½	36000	150
40 in. Draft Head																			
2	3¾″	2880	12	3600	15	4440	18½	5520	23	6720	28	7920	33	9120	38	11040	46	12960	54
3	5¼″	4320	18	5400	22½	7760	27¾	8280	34½	10080	42	11880	49½	13680	57	16560	69	19440	81
4	6¾″	5760	24	7200	30	8880	37	11040	46	13440	56	15840	66	18240	76	22080	92	25920	108
5	8¼″	7200	30	9000	37½	11100	46¼	13800	57½	16800	70	19800	82½	22800	95	27600	115	32400	135
6	9¾″	8640	36	10800	45	13320	55½	16560	69	20160	84	23760	99	27360	114	33120	138	38880	162
50 in. Draft Head																			
2	3¾″	3000	12½	3840	16	4680	19½	5880	24½	7080	29½	8400	35	9600	40	11640	48½	13680	57
3	5¼″	4500	18¾	5760	24	7020	29¼	8820	36¾	10620	44¼	12600	52½	14400	60	17460	72¾	20520	85½
4	6¾″	6000	25	7680	32	9360	39	11760	49	14160	59	16800	70	19200	80	23280	97	27360	114
5	8¼″	7500	31¼	9600	40	11700	48¾	14700	61¼	17700	73¾	21000	87½	24000	100	29100	121¼	34200	142½
6	9¾″	9000	37½	11520	48	14040	58½	17640	73½	21240	88½	25200	105	28800	120	34920	145½	41040	171
60 in. Draft Head																			
2	3¾″	3120	13	3960	16½	4800	20	6120	25½	7320	30½	8640	36	9960	41½	12000	50	14160	59
3	5¼″	4680	19½	5940	24¾	7200	30	9180	38¼	10980	45¾	12960	54	14940	62¼	18000	75	21240	88½
4	6¾″	6240	26	7920	33	9600	40	12240	51	14640	61	17280	72	19920	83	24000	100	28320	118
5	8¼″	7800	32½	9900	41¼	12000	50	15300	63¾	18300	76¼	21600	90	24900	103¾	30000	125	35400	147½
6	9¾″	9360	39	11880	49½	14400	60	18360	76½	21960	91½	25920	108	29880	124½	36000	150	42480	177

Where top outlets are used, decrease amount of required effective radiation 10 per cent and use capacities shown above.



Typical Two Tier ROBRAS 20–20 Installation Showing Front Elevation and Section

Capacities of Enclosed TWO TIER ROBRAS 20–20 RADIATORS

Capacities are shown in the square foot equivalent of standard direct cast iron radiation. One square foot equals 240 B.t.u. per hour in a 70 deg. room with steam at 215 deg. and one pound pressure.

TABLE NO. 2

Section Length—L		18″		22″		26″		32″		38″		44″		50″		60″		70″	
Total No. of Sections in Rad.	Center Supply To A Center Return	14⅛″		18⅛″		22⅛″		28⅛″		34⅛″		40⅛″		46⅛″		56⅛″		66⅛″	
	D—Overall Depth of Rad.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.	B.t.u.	Sq. Ft.
12 in. Draft Head																			
4	3¾″	3480	14½	4320	18	5280	22	6720	28	8160	34	9600	40	10920	45½	13200	55	15600	65
6	5¼″	5220	21¾	6480	27	7920	33	10080	42	12240	51	14400	60	16380	68¼	19800	82½	23400	97½
8	6¾″	6960	29	8640	36	10560	44	13440	56	16320	68	19200	80	21840	91	26400	110	31200	130
10	8¼″	8700	36¼	10800	45	13200	55	16800	70	20400	85	24000	100	27300	113¾	33000	137½	39000	162½
12	9¾″	10440	43½	12960	54	15840	66	20160	84	24480	102	28800	120	32760	136½	39600	165	46800	195
18 in. Draft Head																			
4	3¾″	3960	16½	4920	20½	6000	25	7560	31½	9240	38½	10800	45	12360	51½	15000	62½	17640	73½
6	5¼″	5940	24¾	7380	30¾	9000	37½	11340	47¼	13860	57¾	16200	67½	18540	77¼	22500	93¾	26460	110¼
8	6¾″	7920	33	9840	41	12000	50	15120	63	18480	77	21600	90	24720	103	30000	125	35280	147
10	8¼″	9900	41¼	12300	51¼	15000	62½	18900	78¾	23100	96¼	27000	112½	30900	128¾	37500	156¼	44100	183¾
12	9¾″	11880	49½	14760	61½	18000	75	22680	94½	27720	115½	32400	135	37080	154½	45000	187½	52920	220½
24 in. Draft Head																			
4	3¾″	4200	17½	5400	22½	6600	27½	8280	34½	9960	41½	11760	49	13440	56	16320	68	19200	80
6	5¼″	6300	26¼	8100	33¾	9900	41¼	12420	51¾	14940	61¼	17640	73½	20160	84	24480	102	28800	120
8	6¾″	8400	35	10800	45	13200	55	16560	69	19920	83	23520	98	26880	112	32640	136	38400	160
10	8¼″	10500	43¾	13500	56¼	16500	68¾	20700	86¼	24900	103¾	29400	122½	33600	140	40800	170	48000	200
12	9¾″	12600	52½	16200	67¾	19800	82½	24840	103½	29880	124½	35280	147	40320	168	48960	204	57600	240
30 in. Draft Head																			
4	3¾″	4680	19½	5880	24½	7200	30	9000	37½	10920	45½	12840	53½	14640	61	17880	74½	21000	87½
6	5¼″	7020	29¼	8820	36¾	10800	45	13500	56¼	16380	68¼	19260	80¼	21960	91½	26820	111¾	31500	131¼
8	6¾″	9360	39	11760	49	14400	60	18000	75	21840	91	25680	107	29280	122	35760	149	42000	175
10	8¼″	11700	48¾	14700	61¼	18000	75	22500	93¾	27300	113¾	32100	133¾	36600	152½	44700	186¼	52500	218¾
12	9¾″	14040	58½	17640	73½	21600	90	27000	112½	32760	136½	38520	160½	43920	183	53640	223½	63000	262½
40 in. Draft Head																			
4	3¾″	5040	21	6240	26	7680	32	9600	40	11640	48½	13800	57½	15720	65½	19200	80	22440	93½
6	5¼″	7560	31½	9360	39	11520	48	14400	60	17460	72¾	20700	86¼	23580	98¼	28800	120	33660	140¼
8	6¾″	10080	42	12480	52	15360	64	19200	80	23280	97	27600	115	31440	131	38400	160	44880	187
10	8¼″	12600	52½	15600	65	19200	80	24000	100	29100	121¼	34500	143¾	39300	163¾	48000	200	56100	233¾
12	9¾″	15120	63	18720	78	23040	96	28800	120	34920	145½	41400	172½	47160	196½	57600	240	67320	280½
50 in. Draft Head																			
4	3¾″	5280	22	6600	27½	8040	33½	10080	42	12240	51	14400	60	16440	68½	20040	83½	23520	98
6	5¼″	7920	33	9900	41¼	12060	50¼	15120	63	18360	76½	21600	90	24660	102¾	30060	125¼	35280	147
8	6¾″	10560	44	13200	55	16080	67	20160	84	24480	102	28800	120	32880	137	40080	167	47040	196
10	8¼″	13200	55	16500	68¾	20100	83¾	25200	105	30600	127½	36000	150	41100	171¼	50100	208¾	58800	245
12	9¾″	15840	66	19800	82½	24120	100½	30240	126	36720	153	43200	180	49320	205½	60120	250½	70560	294
60 in. Draft Head																			
4	3¾″	5400	22½	6720	28	8280	34½	10320	43	12600	52½	14760	61½	16800	70	20640	86	24240	101
6	5¼″	8100	33¾	10080	42	12420	51¾	15480	64½	18900	78¾	22140	92¼	25200	105	30960	129	36360	151½
8	6¾″	10800	45	13440	56	16560	69	20640	86	25200	105	29520	123	33600	140	41280	172	48480	202
10	8¼″	13500	56¼	16800	70	20700	86¼	25800	107½	31500	131¼	36900	153¾	42000	175	51600	215	60600	252½
12	9¾″	16200	67½	20160	84	24840	103½	30960	129	37800	157½	44280	184½	50400	210	61920	258	72720	303

Where top outlets are used, decrease amount of required effective radiation 10 per cent and use capacities shown above.