



# SERVICE SIZING GUIDE

ELECTRIC	MAIN SERVICE SYSTEM CAPACITY	TOTAL KW IN RACEWAY						
		DOMESTIC				INTERNATIONAL		
		120/208/1	120/208/3	120/240/1	120/240/3	277/480/3	220/380/3	230/400/3
30	6.2	10.8	7.2	12.5	24.9	19.7	20.8	21.5
50	10.4	18.0	12.0	20.8	41.5	32.9	34.6	35.9
80	16.6	28.8	19.2	33.2	66.4	52.6	55.4	57.4
100	20.8	36.0	24.0	41.5	83.0	65.7	69.2	71.8
125	-	45.0	-	51.9	103.8	82.2	86.5	89.7
150	-	54.0	-	62.3	124.6	98.6	103.8	107.7
175	-	63.0	-	72.7	145.3	115.1	121.1	125.6
200	-	72.0	-	83.0	166.1	131.5	138.4	143.6
225	-	81.0	-	93.4	186.8	147.9	155.7	161.5
250	-	90.0	-	103.8	207.6	164.4	173.0	179.5
300	-	108.0	-	124.6	249.1	197.2	207.6	215.4
350	-	125.9	-	145.3	290.6	230.1	242.2	251.3
400	-	143.9	-	166.1	332.2	263.0	276.8	287.2
450	-	161.9	-	186.8	373.7	295.8	311.4	323.1
500	-	179.9	-	207.6	415.2	328.7	346.0	359.0
550	-	197.9	-	228.4	456.7	361.6	380.6	394.9
600	-	215.9	-	249.1	498.2	394.4	415.2	430.8
750	-	269.9	-	311.4	622.8	493.1	519.0	538.5
1000	-	359.8	-	415.2	830.4	657.4	692.0	718.0

GAS	PIPE SIZE IN AVTEC RACEWAY	BTU/HR (000'S) PER LENGTH OF RACEWAY - 7" W.C. PRESSURE					
		10 FT	15 FT	20 FT	30 FT	40 FT	50 FT
		SINGLE SERVICE (ONE END)					
1-1/2"	975	790	675	550	-	-	
2"	2050	1700	1450	1175	990	900	
LOOPED SERVICE (BOTH ENDS)							
1-1/4"	1200	960	840	700	590	540	
1-1/2"	1950	1580	1350	1100	930	850	
2"	4100	3400	2900	2350	1980	1800	

Based on connection size for natural gas at 7" w.c. pressure. 0.6 sp. gr. Main service size from meter dependent on building piping system and pressure. Main service looped to feed both ends when more than three appliances in 10 ft. (to equalize flow and increase capacity) Pressure drop varies according to number of appliances and quick-disconnects; normal pressure drop is 0.3" to .65" w.c.

STEAM	SERVICE REQUIRED (NPT DIA)	*STEAM (LBS/HR) PER BUILDING PRESSURE					
		10 PSIG		25 PSIG		45 PSIG	
		SUPPLY	RETURN	SUPPLY	RETURN	SUPPLY	RETURN
1"	60	250	135	400	250	550	
1-1/4"	150	500	300	800	450	1100	
1-1/2"	200	800	450	1300	700	1800	
2"	400	1500	700	2500	1225	4000	
2-1/2"	650	2200	1025	4000	2100	6000	
3"	1000	3500	1650	7000	3325	12000	
4"	1750	5500	3150	10000	5050	17000	

STEAM	STEAM REQUIREMENTS FOR KETTLES & STEAMERS			
		2.6	3.8	5.2
	Kettle - Per Each Gal. Capacity			
	Steamer - For Each Compartment (0-12 PSIG)	35	35	35

\* Steam (lbs/hrs) = Boiler horsepower x 34.5. Above figures based on 5% pressure drop per 100 ft.

