

Sizing 3065 Aspirator Mixers - Table 1

Table 1 is used to size a single 3065 for any North American 4651, 4659, or 4682 premix burner, which all share the same capacity rating system. Mixer/burner recommendations in Table 1 maintain the required relationship between the mixer orifice size and burner port size for use with zero governor ratio control. To use this table, find burner size in the third column from the left, then read across to the mixer designation that appears to the left that matches the fuel being used.

Aspirator Mixer for 3/4" Premix Pilot Tips:

The premix capacity of 3/4" 4021 and 4027 premix pilot tips is similar to the 4651-01-A burner. So use the -01-A data in Table 1 for 3/4" pilot mixer sizing. Consult the pilot bulletin for actual pilot capacities. The 4031 pilot mixer is often preferred for use with a single 3/4" pilot tip. For better pilot tip reliability, pilot ratio regulators should be cross-connected downstream of the pilot air control valve to a pilot mixture or air pressure tap.

TABLE 1. Capacities* scfh air of 3065 Mixers with North American burner nozzles.
(for Btu/h, multiply by 100)‡

Complete 3065 Mixer Designation		North American Premix Burner Size #	Required Air Pressure in osi for Natural Gas							
			2	4	6	8	10	12	14	16
Manufactured or Coke Oven Gas	Natural Gas		2.3	4.6	6.8	9.1	11.4	13.7	16	18.3
		Mixture Pressure in inches of Water Column**								
		1	2	3	4	5	6	7	8	
3065-0-10	3065-0-9	-01-A	130	180	230	260	290	320	340	370
3065-0-9	3065-0-8	-0-A	200	280	350	400	450	490	530	570
3065-0-8	3065-0-6	-0-B	250	350	430	500	560	610	660	710
3065-0-7	3065-0-5	-0-C	280	400	480	560	630	690	740	790
3065-1-9	3065-1-7	-1-A	350	490	610	700	780	860	930	990
3065-1-8	3065-1-5	-1-B	440	620	760	880	980	1 080	1 160	1 240
3065-2-13	3065-2-12	-2-A	560	790	970	1 120	1 250	1 370	1 480	1 580
3065-2-12	3065-2-10	-2-B	650	920	1 130	1 300	1 450	1 590	1 720	1 840
3065-2-10	3065-2-6	-2-C	780	1 100	1 350	1 560	1 740	1 910	2 060	2 210
3065-2-6	3065-2-0	-2-D	880	1 240	1 520	1 760	1 970	2 160	2 330	2 490
3065-3-14	3065-3-11	-3-A	980	1 390	1 700	1 960	2 190	2 400	2 590	2 770
3065-3-11	3065-3-6	-3-B	1 200	1 700	2 080	2 400	2 680	2 940	3 170	3 390
3065-4-18	3065-4-16	-4-A	1 500	2 120	2 600	3 000	3 350	3 670	3 970	4 240
3065-4-14	3065-4-10	-4-B	1 900	2 690	3 290	3 800	4 250	4 650	5 030	5 370
3065-4-12	3065-4-8	-4-C	2 050	2 900	3 550	4 100	4 580	5 020	5 420	5 800
3065-5-18	3065-5-14	-5-A	2 450	3 460	4 240	4 900	5 480	6 000	6 480	6 930
3065-5-13	3065-5-10	-5-B	2 900	4 100	5 000	5 800	6 500	7 100	7 700	8 200
3065-6-24	3065-6-20	-6-A	3 200	4 500	5 500	6 400	7 200	7 800	8 500	9 100
3065-6-18	3065-6-10	-6-B	3 850	5 400	6 700	7 700	8 600	9 400	10 200	10 900
3065-6-16	3065-6-0	-6-C	4 250	6 000	7 400	8 500	9 500	10 400	11 200	12 000
3065-7-38	3065-7-34	-7-A	4 750	6 700	8 200	9 500	10 600	11 600	12 600	13 400
3065-7-32	3065-7-26	-7-B	6 000	8 500	10 400	12 000	13 400	14 700	15 900	17 000
3065-7-26	3065-7-18	-7-C	7 050	10 000	12 200	14 100	15 800	17 300	18 700	19 900
3065-8-68	3065-8-64	-8-A	10 500	14 800	18 200	21 000	23 500	25 700	27 800	29 700
3065-8-60	3065-8-56	-8-B	13 000	18 400	22 500	26 000	29 100	31 800	34 400	36 800
3065-8-52	3065-8-36	-8-C	18 000	25 500	31 200	36 000	40 200	44 100	47 600	51 000
3065-8-28	3065-8-0	-8-D	21 500	30 400	37 200	43 000	48 100	52 500	57 000	60 800
3065-9-64	3065-9-56	-9	37 700	53 500	65 000	75 500	84 500	92 000	99 500	107 000

NOTES:

* Air flow capacity data assumes stoichiometric ratio with natural gas, air flow increases with excess air and decreases with excess fuel.

‡ Capacities with 100% combustion air through mixer and nozzle. Burners can be operated with "rich" mixture if secondary air is available in vicinity of nozzle, which increases Btu/h capacities.

** Not every size premix burner capacity is available for every burner type, or stable at every pressure on this table. Consult the individual burner bulletin and sheets for details and operating stability range.

^ Multiply air pressure in osi by 1.73 to convert pressure in osi to pressure in inches wc (16 osi = 27.7"wc.)