



3065 Aspirator Mixers use the energy of blower air passing through a venturi to entrain a proportional flow of gas at atmospheric (zero gauge) pressure. Btu input to nozzles fed by the 3065 thus can be controlled by a single manual or motorized air valve.

Proper air/gas ratio, set by adjusting the integral V-port† valve in the mixer, is maintained from high fire to low by an "atmospheric regulator" or "zero governor" (e.g., North American's 7218).

A definite relationship should be maintained between mixer orifice size and burner port size. Within limits, the mixer orifice size can be altered by exchanging displacement rods. Several rods are available for each size mixer--see Instructions and Parts List 3065. Rod diameter, in 32nds of an inch, is stamped on the rod nut.

For coke oven, manufactured, and other gases corrosive to brass, specify 3065- -K Mixer with all iron parts.



Figure 1. Typical arrangement of 3065 Aspirator Mixer with burner, atmospheric regulator, and air valve.

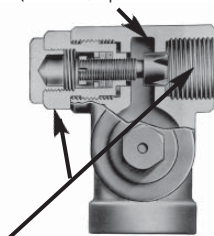
TABLE 1. Capacities of 3065 Mixers with North American nozzles.
scfh air (for Btu/hr, multiply by 100)‡

Complete 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		Required Air Pressure in osi for Manufactured or Coke Oven Gas							
			2.3	5.7	6.8	9.1	11.4	13.7	16.00	18.3
			Mixture Pressure in inches of Water Column							
			1	2.5	3	4	5	6	7	8
-	-	-01	130	210	220	260	290	320	340	360
3065-0-8	3065-0-7	-0-A	200	320	340	390	440	480	520	550
3065-0-7	3065-0-5	-0-B	250	400	430	500	560	610	660	710
3065-0-5	3065-0-0	-0-C	280	450	490	570	640	700	750	810
3065-1-11	3065-1-9	-1-A	350	560	600	700	790	860	920	990
3065-1-9	3065-1-6	-1-B	440	700	760	880	990	1 070	1 160	1 240
3065-2-13	3065-2-12	-2-A	560	880	960	1 120	1 260	1 370	1 480	1 580
3065-2-12	3065-2-10	-2-B	650	1 030	1 120	1 300	1 460	1 590	1 720	1 840
3065-1-20	3065-2-6	-2-C	780	1 230	1 340	1 560	1 750	1 910	2 060	2 190
3065-2-6	3065-2-0	-2-D	880	1 390	1 510	1 760	1 980	2 150	2 320	2 480
3065-3-14	3065-3-11	-3-A	980	1 550	1 690	1 960	2 200	2 390	2 590	2 760
3065-3-11	3065-3-6	-3-B	1 200	1 900	2 060	2 400	2 690	2 930	3 170	3 380
3065-4-18	3065-4-16	-4-A	1 500	2 380	2 580	3 000	3 360	3 660	3 960	4 240
3065-4-14	3065-4-10	-4-B	1 900	3 010	3 280	3 800	4 270	4 650	5 000	5 350
3065-4-12	3065-4-8	-4-C	2 050	3 240	3 530	4 100	4 610	5 000	5 400	5 800
3065-5-18	3065-5-14	-5-A	2 450	3 880	4 220	4 900	5 500	5 990	6 500	6 900
3065-5-13	3065-5-10	-5-B	2 900	4 600	5 000	5 800	6 500	7 100	7 650	8 200
3065-6-24	3065-6-20	-6-A	3 200	5 050	5 500	6 400	7 200	7 800	8 450	9 000
3065-6-18	3065-6-10	-6-B	3 850	6 100	6 600	7 700	8 650	9 400	10 200	10 800
3065-6-16	3065-6-0	-6-C	4 250	6 700	7 300	8 500	9 550	10 300	11 200	12 000
3065-7-38	3065-7-34	-7-A	4 750	7 500	8 500	9 500	10 600	11 600	12 600	13 400
3065-7-32	3065-7-26	-7-B	6 000	9 500	10 300	12 000	13 400	14 700	15 800	16 900
3065-7-26	3065-7-18	-7-C	7 050	11 100	12 100	14 100	15 800	17 200	18 600	19 800
3065-8-68	3065-8-64	-8-A	10 500	16 600	18 100	21 000	23 600	25 600	27 000	29 600
3065-8-60	3065-8-56	-8-B	13 000	20 600	22 400	26 000	29 300	31 800	34 400	36 800
3065-8-52	3065-8-36	-8-C	18 000	28 400	31 100	36 000	40 500	44 000	47 500	51 000
3065-8-28	3065-8-0	-8-D	21 500	34 000	37 000	43 000	48 400	52 500	56 500	60 500
3065-9-64	3065-9-56	-9	37 000	58 500	64 000	74 000	82 500	90 000	98 000	104 000

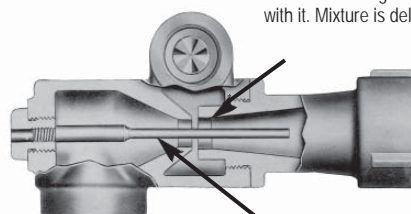
† 3065-9 Mixers have separate 1122-7-F Limiting Orifice Butterfly Valve for installation in the gas line upstream of the mixer.

‡ 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/hr capacities.

Sensitive V-Port adjustment for positive setting of gas/air ratio with any gas from 500 to 3200 Btu/ft³ (20 turns, open to closed).



Compact, flexible construction for greatest ease of installation. Mount in any position. Gas adjustment cartridge and gas inlet are interchangeable. Mixer length is reasonable.



Efficient design and precision manufacture of internal parts enable air flowing through the mixer to entrain gas and mix intimately with it. Mixture is delivered to burners at workable pressure.

Interchangeable displacement rods permit altering mixer orifice size to provide optimum mixture pressure and suction ratio. Rods can be changed, without breaking piping, to give greater mixture pressure with lower suction or lower mixture pressure with greater suction.

Selection. Size and number of premix burners determine mixer selection. Table 2 lists proper selection if several nozzles are fed from a single mixer. To use this table, find burner size in left-hand column, then read across to the mixer designation that appears under the number of nozzles to be fed. The table is limited to 4" pipe size and smaller mixers--larger mixture lines are prone to flashback. If size and number of nozzles require a mixer outside the range of the table, divide the burners among two or more mixers, and select the mixers from Table 2.

TABLE 2. Recommended Mixer Selections for Multiple Burners Using Natural Gas

Burner Size designation	Number of Burners per Aspirator Mixer									
	1	2	3	4	5	6	7	8	9	10
-01	-	3065-0-5	3065-1-9	3065-1-6	3065-2-12	3065-2-10	3065-2-6	3065-2-0	3065-3-11	3065-3-6
-0-A	3065-0-7	3065-1-10	3065-1-5	3065-2-8	3065-3-13	3065-3-9	3065-3-5	3065-4-16	3065-4-14	3065-4-12
-0-B	3065-0-5	3065-1-8	3065-2-8	3065-3-12	3065-3-7	3065-4-16	3065-4-14	3065-4-10	3065-5-18	3065-5-16
-0-C	3065-0-0	3065-2-10	3065-3-13	3065-3-6	3065-4-15	3065-4-11	3065-5-18	3065-5-15	3065-5-10	3065-6-24
-1-A	3065-1-9	3065-2-9	3065-3-10	3065-4-17	3065-4-13	3065-4-5	3065-5-15	3065-5-10	3065-6-22	3065-6-20
-1-B	3065-1-6	3065-2-4	3065-3-4	3065-4-13	3065-5-18	3065-5-13	3065-6-24	3065-6-20	3065-6-15	3065-6-10
-2-A	3065-2-12	3065-3-9	3065-4-14	3065-5-17	3065-5-9	3065-6-20	3065-6-15	3065-6-6	3065-7-36	3065-7-34
-2-B	3065-2-10	3065-4-18	3065-4-8	3065-5-12	3065-6-22	3065-6-14	3065-7-38	3065-7-34	3065-7-32	3065-7-28
-2-C	3065-2-6	3065-4-15	3065-5-15	3065-6-24	3065-6-13	3065-7-36	3065-7-32	3065-7-28	3065-7-24	3065-7-18
-2-D	3065-2-0	3065-4-11	3065-5-9	3065-6-18	3065-7-38	3065-7-32	3065-7-28	3065-7-20	3065-7-12	-
-3-A	3065-3-11	3065-4-8	3065-6-24	3065-6-13	3065-7-36	3065-7-30	3065-7-24	3065-7-15	-	-
-3-B	3065-3-6	3065-5-15	3065-6-18	3065-7-36	3065-7-30	3065-7-20	3065-7-4	-	-	-
-4-A	3065-4-16	3065-6-22	3065-7-38	3065-7-28	3065-7-18	-	-	-	-	-
-4-B	3065-4-10	3065-6-14	3065-7-30	3065-7-16	-	-	-	-	-	-
-4-C	3065-4-8	3065-6-9	3065-7-28	3065-7-4	-	-	-	-	-	-
-5-A	3065-5-14	3065-7-34	3065-7-16	-	-	-	-	-	-	-

NOTE: Multiple burners above size -5-A are not recommended for use with a single mixer.

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of a combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.

Fives North American Combustion, Inc., 4455 East 71st Street, Cleveland, OH 44105 USA, Phone 216.271.6000
Fax 216.641.7852 email: fna.sales@fivesgroup.com • www.fivesgroup.com/fivesna