



SHGM – Features

- Uses most commercial fuel gases
- High air entrainment
- Requires no combustion air fan
- Single valve control
- Manual or automatic operation
- Easy to adjust
- Ideal for portable burner applications
- Efficient – simple – rugged

High pressure gas Venturi mixers are for use where a gas supply pressure in excess of 0.1 bar is available. The mixer uses the energy contained in the gas supply to inspire the required air for combustion. The Venturi mixer is designed such that the amount of air pulled in by the gas is directly proportional to the volume of gas passing into/through the mixer, allowing air/gas ratio to remain constant throughout the mixer capability range.

The induced air volume can be regulated by simple adjustment of the air shutter and locked into position once the selected air/gas ratio is achieved. After setting a single gas inlet valve will regulate the mixture output.

This mixer is a quality product that offers an efficient operation targeted at heavy industrial use. The machining of the internal parts ensures smooth, accurate operation without turbulence.

Options

The SHGM is available with a regulating valve and a pressure gauge with connecting tee as optional extras. This additional equipment allows accurate control with a visual indication of the gas pressure.

Ordering Information

In order to determine the correct mixer for the application, the following information is required:

- a) Maximum capacity per mixer
- b) Available gas pressure at the mixer
- c) Fuel analysis (SG and CV)
- d) Number and type of burner nozzles to be used with each mixer.
- e) Furnace pressure
- f) Application temperature
- g) Type of furnace and production rate

Maintenance

Under normal circumstances, the SHGM will require very little maintenance. It is advisable to ensure that the gas jet orifice is clean and free from dirt particles as this can reduce the capacity of the mixer.

Spares

Due to the simple design of the SHGM there are limited spares available for the series of inspirator. Refer to FNAC.

Capacities

For Natural Gas – CV8320Kcal/Nm³ – S.G. 0.56

Mixer outlet	Rc1/2	Rc3/4	Rc1	Rc1 ¹ /4	Rc1 ¹ /2	Rc2	Rc3	Rc4
Spud Size (mm)	0.65	0.90	1.10	1.80	2.10	2.6	3.3	4.60
Gas Pressure (bar)	Gas Capacity Nm ³ /h							
0.35	0.37	0.59	0.93	2.29	3.43	5.92	9.40	18.10
0.42	0.40	0.65	1.02	2.52	3.74	6.49	10.31	19.82
0.49	0.42	0.68	1.10	2.72	4.05	7.02	11.16	21.47
0.56	0.45	0.74	1.16	2.92	4.33	7.48	11.89	22.88
0.63	0.48	0.79	1.25	3.09	4.59	7.96	12.63	24.30
0.70	0.51	0.82	1.30	3.26	4.84	8.38	13.28	25.57
0.84	0.57	0.91	1.44	3.57	5.29	9.18	14.58	28.04
0.98	0.62	0.96	1.56	3.85	5.72	9.91	15.72	30.30
1.12	0.65	1.05	1.64	4.13	6.12	10.59	16.85	32.43
1.27	0.71	1.10	1.76	4.39	6.51	11.27	17.90	34.44
1.41	0.74	1.16	1.84	4.62	6.85	11.87	18.83	36.25
1.76	0.82	1.30	2.07	5.15	7.65	13.25	21.07	40.50
2.11	0.91	1.42	2.27	5.64	8.38	14.50	23.02	44.29

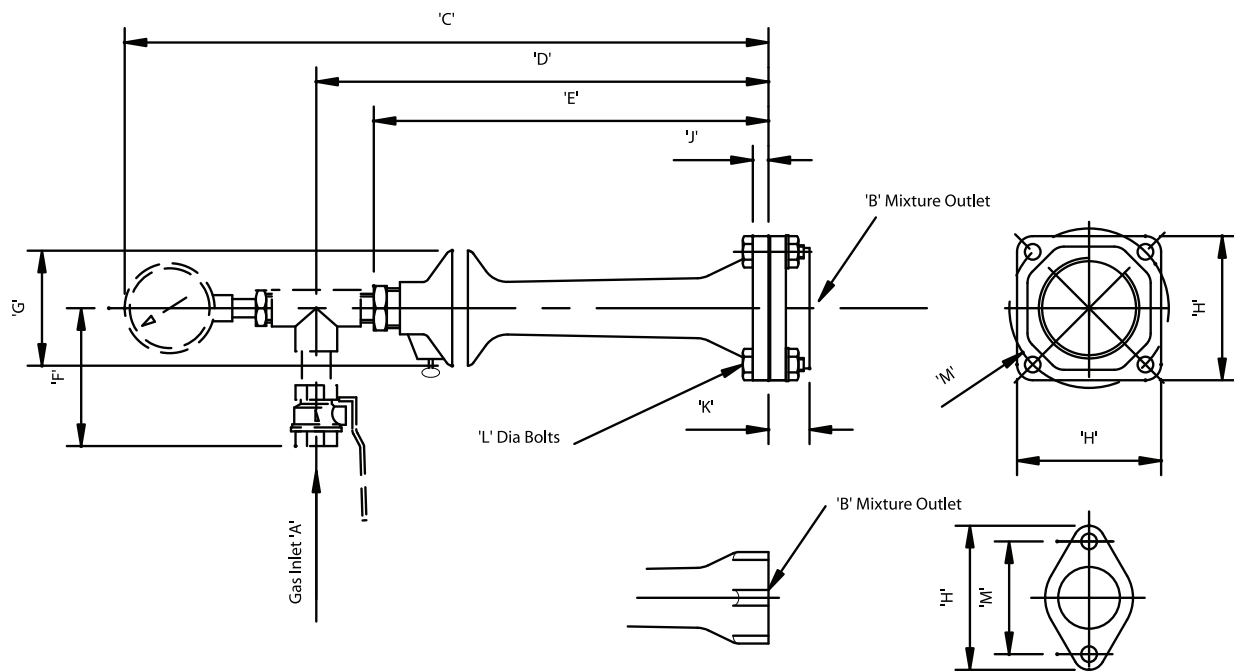
All of the above capacities are based upon the mixer supplying a burner of the proper size which is operated without back pressure or draught. Back pressure will decrease the capacity of the mixer and burner as much as 50% and draught will increase the capacity to 150% and more.

Correction factors for other gases (multiply above capacities)

Specific Gravity	Factor	Specific Gravity	Factor	Specific Gravity	Factor	Specific Gravity	Factor	Specific Gravity	Factor
0.44	1.13	0.52	1.04	0.60	0.96	0.68	0.90	0.90	0.79
0.46	1.10	0.54	1.02	0.62	0.95	0.70	0.89	1.00	0.74
0.48	1.08	0.56	1.00	0.64	0.93	0.75	0.86	1.52p	0.603
0.50	1.06	0.58	0.98	0.66	0.92	0.80	0.83	2.07b	0.52

p = propane
b = butane

Dimensions



Model No.	Part No.	A	B*	C	D	E	F	G	H	J	K	L	M	Weight (kg)
SHGM.15	3.28.041	Rc3/8	Rc1/2*	362	254	203	127	59	40	-	-	-	-	1.4
SHGM.20	3.28.042	Rc3/8	Rc3/4*	362	254	203	127	59	40	-	-	-	-	1.4
SHGM.25	3.28.043	Rc1/2	Rc1*	413	305	254	140	72	57	-	-	-	-	2.6
SHGM.32	3.28.044	Rc1/2	Rc1 1/4*	432	324	273	140	84	65	-	-	-	-	2.65
SHGM.40	3.28.045	Rc1/2	Rc1 1/2*	451	343	292	140	84	73	-	-	-	-	3.28
SHGM.50	3.28.046	Rc3/4	Rc2	524	406	340	162	114	106	11	22	8	91	6.25
SHGM.80	3.28.047	Rc3/4	Rc3	638	521	454	162	116	124	11	35	10	143	12.0
SHGM.100	3.28.049	Rc1	Rc4	743	613	553	175	151	140	14	38	10	162	14.5

* Threaded connection only on these sizes

WARNING: The data outlined is for information only and does not form part of any contract. Our policy is one of continuous improvement and we therefore reserve the right to modify specifications or dimensions without prior warning. Situations dangerous to personnel and property can develop from incorrect installation and operation of combustion equipment. Fives North American Combustion UK, Ltd urges compliance with International, National and Local Safety Standards and that installation is carried out by properly qualified personnel.

Fives North American Combustion UK, Ltd.

Heath Mill Road, Wolverhampton WV5 8BD England Tel +44 (0) 1902 891200 Fax +44 (0) 1902 895552

FNAC 8/2009 SHGM