



Blendaire2™

Blendaire2 is a second generation, “parallel pipe” design Synthetic Natural Gas mixer. Blendaire2 evolved from our famous Blendaire series mixer that dominated the industrial and utility SNG markets for nearly 50 years.

Operational Overview

Blendaire2™ mixes LPG vapor and air to simulate the combustion characteristics of natural gas. Pressure regulators are installed upstream of the **Blendaire2™**. These regulators determine the discharge pressure from system. The LPG regulator alone, however, establishes the SNG discharge pressure. During operation, the Blendaire2 functions much like a pressure regulator. When operating in a piped network, as network pressure decreases, the SNG flow rate will increase to maintain pressure. Alternatively, when the network pressure rises, for example as consumption is reduced, the SNG flow will decrease.

During operation LPG vapor and air flow through pressure and temperature compensated flow meters. The volumetric flows of both gas streams are converted to molar values, taking into

account compressibility. The ratio of these two flow rates is then compared to the calculated ratio of flow rates required to achieve a Wobbe value match to the natural gas being simulated.

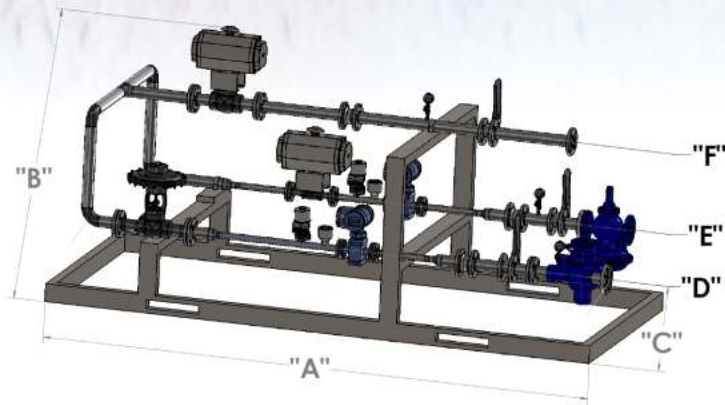
Adjustment of the ratio is made by adjusting the air flow only. As the flow of SNG increases or decreases, the Air Flow Control Valve modulates to maintain the correct and constant mixing ratio between the LPG and air stream. Resulting Wobbe values typically vary less than 1%.

Adjustments to the Wobbe Value can be performed manually or automatically. Both adjustments are performed via the touch screen HMI (Human Machine Interface).

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Blendaire2™ MODEL DATA

MODEL		A	B	C	D	E	F
B2	Ft./In	6'-0"	2'-6"	1'-6"	2"	2"	4"
	mm	1829	762	457	150#RF	150#RF	150#RF
B3	Ft./In	6'-0"	2'-6"	1'-6"	2"	2"	4"
	mm	1829	762	457	150#RF	150#RF	150#RF
B4	Ft./In	7'-0"	3'-3"	2'-1"	3"	3"	6"
	mm	2134	991	635	150#RF	150#RF	150#RF
B5	Ft./In	7'-6"	3'-3"	2'-1"	4"	4"	6"
	mm	2286	991	635	150#RF	150#RF	150#RF
B6	Ft./In	9'-6"	4'-0"	2'-6"	6"	6"	8"
	mm	2896	1219	762	150#RF	150#RF	150#RF
B7	Ft./In	12'-6"	4'-2"	2'-6"	8"	8"	10"
	mm	3810	1270	762	150#RF	150#RF	150#RF
B8	Ft./In	Contact Factory for Sizing and Dimensions					
	mm						

Dimensions are approximate.

All dimensions in imperial and metric units

Flange Types

LPG = 150#RF Air = 150#RF SNG = 150#RF

CAPACITIES BASED ON HD5 PROPANE

MODEL

DISCHARGE		B2		B3		B4		B5		B6		B7		B8	
PSIG	Mpa	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h	MMBTU/h	NM ³ /h
20	0.14	28	536	70	1317	116	2196	261	4928	452	8537	1029	19419	CONTACT FACTORY	
30	0.21	36	674	88	1657	146	2764	329	6202	569	10742	1294	24437		
40	0.28	43	813	106	1998	176	3331	396	7475	686	12948	1560	29455		
50	0.35	50	951	124	2338	207	3899	463	8748	803	15154	1826	34473		
60	0.41	58	1090	142	2678	237	4466	531	10022	920	17360	2092	39491		
70	0.48	64	1217	158	2991	264	4987	593	11191	1027	19385	2336	44096		
80	0.55	71	1341	175	3297	291	5498	654	12338	1132	21372	2575	48618		
90	0.62	78	1464	191	3598	318	6000	713	13464	1235	23324	2810	53057		
100	0.69	84	1584	206	3894	344	6493	772	14571	1337	25240	3041	57416		
110	0.76	90	1702	222	4184	370	6978	829	15657	1437	27122	3268	61697		
120	0.83	96	1818	237	4170	395	7453	886	16724	1534	28971	3491	65902		
130	0.90	102	1932	252	4750	420	7921	941	17773	1631	30787	3709	70034		

CAPACITIES BASED ON 40% BUTANE / 60% PROPANE

20	0.14	33	606	80	1490	134	2484	300	5574	520	9655	1183	21963	CONTACT FACTORY	
30	0.21	40	748	99	1839	165	3067	371	6881	642	11920	1460	27116		
40	0.28	48	882	117	2168	195	3615	437	8111	757	14050	1721	31961		
50	0.35	55	1017	135	2500	225	4169	504	9354	873	16204	1985	36861		
60	0.41	62	1144	152	2813	253	4690	567	10525	982	18231	2233	41473		
70	0.48	69	1278	169	3142	282	5240	633	11757	1097	20366	2495	46329		
80	0.55	75	1398	185	3436	309	5729	692	12855	1199	22268	2728	50655		
90	0.62	82	1526	202	3751	337	6255	756	14035	1309	24313	2978	55307		
100	0.69	89	1652	219	4061	365	6772	818	15196	1417	26322	3224	59878		
110	0.76	96	1776	235	4366	392	7280	880	163361	1524	28298	3466	64373		
120	0.83	102	1898	251	4666	419	7780	940	17458	1628	30241	3704	68792		
130	0.90	109	2018	267	4960	445	8271	999	18560	1731	32151	3938	73137		

* The final sizing to be confirmed by Algas-SDI Factory and may vary from "typical" sizing shown above. * Dimensions are not for engineering or design use.
 * Product improvement is a continuing goal at Algas-SDI. Design and specifications are subject to change without notice.

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