

# MONT SELAS

INDUSTRIAL GAS ENGINEERS

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## **TYPE 525 AIR BLAST INJECTORS** **FOR NATURAL GAS ~ PROPANE ~ BUTANE**



Air blast injectors are designed for mixing gas with air under pressure to produce high mixture pressure ensuring rapid combustion and high working temperatures. Most air blast injectors are held in stock.

### **OPERATION**

Air enters through a nozzle discharging into a venturi and inducing gas to flow into the injector through a restrictor and discharging the mixture at the outlet. The mixture ratio is determined by setting the gas restrictor. When altering the output both air and gas valves must be adjusted to maintain correct air/gas ratio.

### **SPECIFICATION**

The injector body forming the venturi is cast iron and fitted with an air nozzle and gas restrictor. Three sizes of air nozzle are available to suit specific requirements. An indicator plate with reference numbers is fitted to the restrictor and can be fitted either side of the injector.

### **CAPACITIES**

Air blast injectors normally operate with gas at mains or zero pressure and air pressure between 1/4 and 1 lb/in<sup>2</sup> can be accommodated where necessary. The output capacities are for Natural gas, Propane and Butane based on a stoichiometric mixture at a pressure approximately 25% of initial air pressure. Conditions other than this will affect capacities.

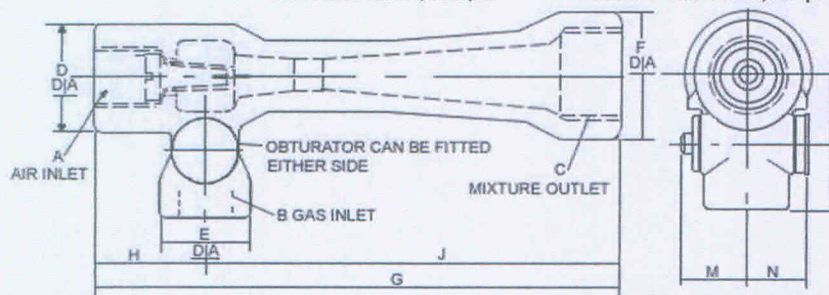
When used in conjunction with a zero governor the mixture pressure must not exceed 30% of initial air pressure.

Size B.S.P in.	Air Nozzle		Output in 1000BTU/hr @ ¼ p.s.i.g. (176mm W.G.) air pressure	Output in 1000BTU/hr @ ½ p.s.i.g. (352mm W.G.) air pressure	Output in 1000BTU/hr @ ¾ p.s.i.g. (528mm W.G.) air pressure	Output in 1000BTU/hr @ 1 p.s.i.g. (704mm W.G.) air pressure	Part No.
	Size	Dia. In.					
¼	A	0.12	6.2	8.7	10.7	12.4	6174-197
	B	0.136	8	11.3	13.8	16	6174-198
	STD	0.14	8.5	12	14.7	17	6174-199
¾	A	0.16	11	15.7	19	22	6174-297
	B	0.18	13.2	18.5	23	26.4	6174-298
	STD	3/16	14.8	21	26	29.9	6174-299
½	A	0.24	25	35	43	50	6174-397
	B	17/64	30	42.5	52	60	6174-398
	STD	9/32	34	48	59	68	6174-399
¾	A	21/64	45.5	65	79	91.5	6174-497
	B	0.35	51.5	73	89.5	103	6174-498
	STD	3/8	60	85	104	120	6174-499
1	A	13/32	71	100	123	142	6174-597
	B	7/16	82	117	143	165	6174-598
	STD	15/32	95	133	163	189	6174-599
1¼	A	1/2	107	151	185	214	6174-697
	B	17/32	120	170	208	241	6174-698
	STD	9/16	135	191	234	270	6174-699
1½	A	5/8	167	240	289	333	6174-797
	B	11/16	202	286	350	404	6174-798
	STD	3/4	240	339	416	480	6174-799
2	A	13/16	278	393	481	555	6174-897
	B	7/8	322	456	559	644	6174-898
	STD	15/16	375	530	650	750	6174-899
2½	A	31/32	400	565	694	800	6174-997
	B	1.1/16	480	680	835	960	6174-998
	STD	1.1/8	540	765	935	1080	6174-999
3	A	1.19/64	720	1020	1250	1430	6175-197
	B	1.13/32	845	1200	1470	1690	6175-198
	STD	1.1/2	960	1350	1668	1920	6175-199

#### DIMENSIONS

Calorific Value, Btu/ft<sup>3</sup>

Natural Gas 1000; Propane 2500; Butane 3200



Size in.	A in.	B in.	C in.	D mm	E mm	F mm	G mm	H mm	J mm	K mm	L mm	M mm	Nett Weight
¼	¼	⅛	⅜	21	19	26	102	14	88	36	24	21	0.3kg
½	⅜	¼	½	26	26	32	121	16	115	44	24	21	0.5kg
1	½	⅜	¾	32	26	41	159	38	121	51	24	21	0.7kg
¾	¾	½	1	41	32	51	203	45	159	63	32	28	1.5kg
1	1	¾	1¼	51	41	60	244	52	192	67	32	29	2.2kg
1¼	1¼	1	1½	60	51	70	286	59	227	83	41	37	3.4kg
1½	1½	1¼	2	70	60	89	324	67	257	95	46	41	5.7kg
2	2	1½	2½	89	70	108	403	73	330	114	51	46	9kg
2½	2½	2	3	108	89	124	473	86	388	133	62	56	14kg
3	3	2½	4	124	108	146	553	92	461	159	75	65	20kg

#### ORDERING

For prompt execution please state the following: Number and size of Injector, size of Air Nozzle, required capacity, gas and air pressure available, type of gas.