

SUPPORT TABLE FOR THE DESIGN OF TURBOFOG SYSTEM INSTALLATION (Pat. Pending)

Working parameters: operating pressure, liquid flow rate, air consumption, spray distance, droplet size, and cooling capacity for the 0.8mm TURBOFOG air-water FOGGER with LPD

ITEM	AIR SUPPLY PRESSURE (Bar)	LIQUID SUPPLY PRESSURE (Bar)	AIR COMSUMPTION PER FOGGER (M3/H)	LIQUID FLOW RATE PER FOGGER (LPH)	AIR over LIQUID FLOW RATE RATIO (M3/H : LPH)	COOLING CAPACITY PER FOGGER (frigor/h). See note 2	FOG SPRAY DISTANCE (m) See note 3	MEAN DROPLET SIZE (microns) See note 4	APPLICATION EXAMPLE
1	0,5	MIN	-	-	-	-	-	-	Ver nota 1
2	0,5	1,2	-	-	-	-	-	-	Ver nota 1
3	0,5	1,5	0,4	1,32	0,30	711	2,5	17	
4	0,5	2	0,23	3,12	0,07	1682	3	48	
5	0,5	3	0,13	5,49	0,02	2959	3	71	
6	0,5	4	0,11	6,84	0,02	3687	2,5	80	
7	1	1,2	-	-	-	-	-	-	Ver nota 1
8	1	1,5	0,47	1,92	0,24	1035	4	18	
9	1	2	0,31	3,84	0,08	2070	3,5	61	
10	1	3	0,25	5,40	0,05	2911	3,5	80	
11	1	4	0,21	6,84	0,03	3687	3,5	94	
12	1	5	0,18	8,40	0,02	4528	3,5	105	
13	1,5	1,6	0,58	2,10	0,28	1132	5,5	17	
14	1,5	2	0,52	3,06	0,17	1649	6	32	
15	1,5	3	0,41	5,07	0,08	2733	6,5	62	
16	1,5	4	0,34	6,52	0,05	3514	6	74	
17	1,5	5	0,29	7,90	0,04	4258	5,5	86	
18	1,5	6	0,25	9,36	0,03	5045	5	96	
19	2	2,5	0,71	3,00	0,24	1617	7	19	
20	2	3	0,58	4,14	0,14	2231	7	39	
21	2	4	0,47	5,94	0,08	3202	7	58	
22	2	5	0,40	7,46	0,05	4021	6,5	77	
23	2	6	0,35	8,61	0,04	4641	6,5	84	
24	2,5	3	0,80	3,18	0,25	1714	7,5	17	
25	2,5	4	0,67	5,31	0,13	2862	8	43	
26	2,5	5	0,57	7,02	0,08	3784	7,5	60	
27	2,5	6	0,50	8,10	0,06	4366	7,5	71	

Comments on notes above:

- All the data provided above has been measured on a specific laboratory installation. Air-water fogger technical parameters may vary due to installation type, supply pipe connection, temperature, relative humidity, ventilation flow rate and any other relevant working variable.
- At go-live, please do adjust compressed air and liquid pressures, sensors, programmer, ventilation etc. in order to get the most out of the system with reduced operating and maintenance costs.
- Data measure has been performed at a range of 20°C a 24°C and a relative humidity range between 50% and 60%
- *Note1* : Do not operate the nozzle at this position.
- *Note2* : We estimate that all the water is evaporated into the air. For every kg. of water evaporated into the air, 539 Kcal of heat are absorbed from the environment.
- *Note3* : Spray distance has been measured by installing the spray nozzles at 2,5 above ground level.
- *Note4* : Droplet size refers to DMN. DMN is the droplet diameter, which results when the number of droplets over DMN equals the number of droplets under DMN..