



## ALITA INDUSTRIES, INC.

13311 Brooks Dr Ste B, Baldwin Park, CA 91706, USA  
 Tel: (626) 962-2116 Fax: (626) 962-2177

Web: [www.alita.com](http://www.alita.com)  
 E-mail: [sales@alita.com](mailto:sales@alita.com)

Revised 9/14/09

### Air Diffuser Sizing

- Use 0.06 to 0.10 CFM per Inch as basis for estimating the number of airstones required.

Following chart uses 0.08 CFM/in to estimate how many airstones can be used with each of the ALITA air pump models.

LOAD	Pump Models	AL-6A	AL-15A	AL-40	AL-60	AL-80	AL-100	AL-120	AL-150	AL-200	AL-400
	Airstones										
1 PSI ≈ 2.3 ft H <sub>2</sub> O	ASD-100C (3.75")	2 ~ 3	3 ~ 4	10 ~ 15	12 ~ 18						
	C30D-106CN (6")	2	2	4 ~ 5	6 ~ 8						
	C30D-109CN (9")	1	1	3 ~ 4	4 ~ 5						
	C30D-112CN (12")	1	1	2 ~ 3	3 ~ 4						
2 PSI ≈ 4.6 ft H <sub>2</sub> O	Pump Capacity	0.2 CFM	0.5 CFM	2.0 CFM	2.5 CFM	3.0 CFM	3.7 CFM	4.8 CFM	6.7 CFM	7.9 CFM	17 CFM
	C30D-106CN (6")	1	1	4	5	6	8	10	14	16	35
	C30D-109CN (9")	1	1	3	3	4	5	7	9	11	24
	C30D-112CN (12")	1	1	2	3	3	4	5	7	8	18
3 PSI ≈ 6.9 ft H <sub>2</sub> O	Pump Capacity	-	-	1.6 CFM	2.0 CFM	2.5 CFM	3.5 CFM	4.2 CFM	5.8 CFM	7.4 CFM	14 CFM
	C30D-106CN (6")	/		3	4	5	7	9	12	15	29
	C30D-109CN (9")			2	3	3	5	6	8	10	19
	C30D-112CN (12")			2	2	3	4	4	6	8	15

The above information is for reference only, actual number of diffusers required for each system will depend on a number of factors particular to each application. Always use as many airstones as possible.

Wide range of air flow can pass through porous sintered airstone media. Operating under the bursting pressure of the air tubing and all the connection fittings, flow rate through each sintered airstone can be under 0.001 CFM or over 100 CFM.

With good ventilation and proper sizing of air tubing and fittings, insufficient number of airstones is not detrimental to the air pump. However, such setup normally produces large air bubble sizes that offers poor aeration efficiency and not very cost effective in the long run.