

Supply air disc valve

1.1 Air Flow Data

Neck size in mm dia	Position of disc	Air flow rate								
		L/s	5	10	20	30	40	50	60	70
80	A = +10	Ps (Pa)	7.45	17.95	54.92					
		NC	< 20	22	36					
	A = 0	Ps (Pa)	11.96	33.34	94.14					
		NC	< 20	25	42					
	A = -10	Ps (Pa)	20.01	54.92	> 200					
		NC	< 20	33	> 45					
100	A = +10	Ps (Pa)	5.00	10.98	33.93	64.72				
		NC	< 20	< 20	30	37				
	A = 0	Ps (Pa)	6.96	20.01	59.92	109.93				
		NC	< 20	20	36	42				
	A = -10	Ps (Pa)	14.02	40.01	119.94	> 200				
		NC	< 20	30	43	> 45				
125	A = +10	Ps (Pa)	4.02	10.98	30.01	55.02	90.22			
		NC	< 20	< 20	25	33	42			
	A = 0	Ps (Pa)	8.04	17.95	55.02	92.18	144.94			
		NC	< 20	< 20	32	38	> 45			
	A = -10	Ps (Pa)	11.96	30.01	86.98	159.85	> 200			
		NC	< 20	26	40	> 45	> 45			
160	A = +10	Ps (Pa)	< 4	5.98	17.95	42.17	55.90	90.22	124.54	
		NC	< 20	< 20	20	23	30	35	40	
	A = 0	Ps (Pa)	< 4	11.96	37.07	80.41	109.83	179.46	> 200	
		NC	< 20	< 20	23	33	39	43	> 45	
	A = -10	Ps (Pa)	9.81	26.97	80.41	159.85	> 200	> 200	> 200	
		NC	< 20	28	40	> 45	> 45	> 45	> 45	
200	A = +10	Ps (Pa)	< 4	< 4	8.04	15.98	30.40	40.21	50.01	77.47
		NC	< 20	< 20	< 20	< 20	21	24	32	35
	A = 0	Ps (Pa)	< 4	6.96	17.95	40.21	55.02	89.24	104.93	179.46
		NC	< 20	< 20	< 20	22	30	35	39	45
	A = -10	Ps (Pa)	< 4	11.96	42.17	74.53	104.93	179.46	> 200	> 200
		NC	< 20	< 20	26	34	38	43	> 45	> 45

• P_s : Static pressure drop in Pascal.

• Noise Criteria (NC) based on room attenuation of 10 dB.

• A = + 10, 0 & - 10 = Position of the disc 10 mm down of normal position, at normal position, and 10 mm above position.