Performance Data – Metric

Model RNS3 • 610 x 610 (600 x 600) Face Size

Nominal Neck Size (mm)	Neck Velocity, M/S	2.04	2.54	3.05	3.56	4.07	4.58	5.08	6.1	7.12	8.13
	VP	2	4	6	8	10	13	16	22	30	40
152 Dia.	TP	4	7	9	13	17	21	26	38	52	68
	Airflow, L/S	38	47	57	66	76	85	94	111	130	149
	T	.3-.3-1.2	.3-.6-1.5	.3-.6-1.8	.3-.9-2.1	.6-1.2-2.7	.6-1.5-2.7	.9-1.8-3.4	.9-1.8-3.7	1.2-2.1-4.3	1.8-2.4-4.6
	NC	—	—	—	—	16	19	23	29	34	37
203 Dia.	TP	5	7	10	14	19	24	29	42	57	75
	Airflow, L/S	66	83	99	116	132	149	165	198	231	264
	T	.3-.3-1.5	.3-.6-1.8	.3-.9-2.4	.6-1.2-2.4	.9-1.5-3.1	.9-1.8-3.1	1.2-1.8-4	1.5-2.4-4	1.8-2.4-4.9	2.1-3.1-5.2
	NC	—	—	—	15	19	22	26	32	37	40
254 Dia.	TP	5	8	11	16	21	26	32	46	63	82
	Airflow, L/S	104	127	156	179	205	231	257	309	361	411
	T	.3-.9-1.8	.6-1.2-2.4	.9-1.5-2.7	1.2-1.8-3.7	1.5-1.8-3.7	1.5-2.1-4.3	1.8-2.7-4.6	1.8-3.1-4.6	2.4-4-5.2	2.7-4-5.5
	NC	—	—	—	17	22	25	29	35	39	43
305 Dia.	TP	6	9	13	18	23	29	36	52	71	93
	Airflow, L/S	149	184	222	260	297	333	370	467	519	592
	T	.6-.9-2.1	.9-1.2-2.7	.9-1.5-3.1	1.2-1.8-4	1.5-2.1-4	1.5-2.4-4.6	1.5-2.4-4.9	2.1-2.7-5.5	2.7-3.4-5.5	3.1-3.7-5.8
	NC	—	—	15	20	25	28	31	37	41	44
356 Dia.	TP	7	10	15	20	27	34	42	60	82	107
	Airflow, L/S	201	250	300	352	401	451	500	599	703	800
	T	.9-1.2-2.7	1.2-1.5-3.4	1.2-2.1-4	1.5-2.1-4.9	1.8-2.7-4.9	2.1-3.4-4.9	2.1-3.4-5.8	2.7-4-5.8	3.4-4.9-5.8	3.4-4.9-8.2
	NC	—	—	19	24	27	31	34	39	43	47
381 Dia.	TP	7	11	16	22	29	37	45	65	89	116
	Airflow, L/S	231	290	347	406	465	524	580	694	812	930
	T	1.5-2.1-3.1	1.8-2.4-3.4	2.1-2.7-4.3	2.4-3.1-5.2	2.4-4-5.5	3.1-4.6-5.8	3.4-4.9-6.7	3.7-5.5-8.2	4-6.1-9.8	4.6-6.7-10
	NC	—	15	21	25	28	32	35	40	44	48

L/S - liters per second
M/S - meters per second velocity
VP - velocity pressure - Pa
SP - static pressure - Pa
T - throw in meters
NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. Throws are given at .51, .38 and .25 m/s terminal velocities, under isothermal conditions.

2. If the diffuser is mounted on an exposed duct, multiply throw values by x 0.70.

3. All pressures are in pascals. To obtain static pressure, subtract the velocity pressure from the total pressure.

4. NC (Noise Criteria) values are based upon 10dB room absorption, re 10^{-12} watts. Dash (-) in space indicates an NC of less than 15.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

6. The addition of quadrant blanks reduces the effective area and for a given air volume, increases the discharge velocity. This will result in an increase in throw, pressure drop and sound level. To determine throw, select the diffuser as if it were supplying a larger volume of air. The table shows the percentage increase required to determine selection of diffuser size and throw. To correct pressure drop and NC, use correction factors as shown for 4-way blow values.

Neck Size Diameter in mms	Nominal Overall Face Size	Ak Factor
152	610 x 610	0.16
203	610 x 610	0.26
254	610 x 610	0.37
305	610 x 610	0.49
356	610 x 610	0.62
381	610 x 610	0.68

Quadrant Blanks (Blow)	% Increase in Air Volume for Throw Determination	% Increase in Static Pressure Drop	NC Sound Level Increase
1 (3-way)	35	125	8
2 (2-way)	100	450	19