

Model Series:

- 3000** Single Duct
- 3210** Dual Duct
- 35STL** Series Fan Powered w/ O.A. Damper
- 38S** Underfloor Fan Powered

Inlet Size	Type	Duct Area (sq. ft.)	K-Factor (cfm)	Velocity (fpm)	F-Factor (amp.)
4	ROUND	0.087	182	2092	3.67
5		0.136	325	2390	2.81
6		0.196	455	2321	2.98
7		0.267	657	2461	2.65
8		0.349	899	2576	2.42
9		0.442	1158	2620	2.34
10		0.545	1497	2747	2.13
12	OVAL	0.754	2058	2729	2.15
14		0.970	2554	2633	2.31
16		1.186	3035	2559	2.45
24 x 16	RECT.	2.667	6797	2549	2.47

Model Series:

- 36VRS** Square/Retangular Retrofit

Unit Size	Type	Damper (valve) Size (inches)	Damper (valve) Area (sq. ft.)	K-Factor (cfm)	Velocity (fpm)	F-Factor (amp.)
7	SQUARE OR RECT.	5 x 5	0.174	479	2753	2.12
8		6 x 6	0.250	689	2756	2.11
9		8 x 6	0.333	919	2760	2.11
10		10 x 8	0.555	1531	2759	2.11
11		14 x 8	0.778	2150	2763	2.10
11A		18 x 6	0.750	2068	2757	2.11
12		12 x 10	0.833	2297	2758	2.11
13		18 x 10	1.250	3446	2757	2.11
14		18 x 12	1.500	4135	2757	2.11
15		20 x 14	1.944	5360	2757	2.11
15A		30 x 12	2.500	6892	2757	2.11
16		22 x 16	2.444	6739	2757	2.11
17		24 x 18	3.000	8270	2757	2.11
18		30 x 20	4.167	11486	2756	2.11
19		40 x 20	5.555	15315	2757	2.11

Model Series:

- 3100** Single Duct
- 3230** Dual Duct
- 3240** "Blendmaster" Dual Duct
- 35N** Parallel Fan Powered
- 35S** Series Fan Powered
- 35SST** "Stealth™" Series Fan Powered
- 36VRR** Round Retrofit

Inlet Size	Type	Duct Area (Sq. ft.)	K-Factor (cfm)	Velocity (fpm)	F-Factor (amp.)
4	ROUND	0.087	182	2092	3.67
5		0.136	325	2390	2.81
6		0.196	455	2321	2.98
7		0.267	657	2461	2.65
8		0.349	899	2576	2.42
9		0.442	1158	2620	2.34
10		0.545	1497	2747	2.13
12		0.785	2048	2609	2.36
14		1.069	2742	2565	2.44
16		1.395	3683	2640	2.30
18	OVAL	1.683	4323	2569	2.43

Model Series:

- 37S** Low Profile Fan Powered
- 37SST** Low Profile "Stealth™" Fan Powered

Inlet Size	Type	Duct Area (Sq. ft.)	K-Factor (cfm)	Velocity (fpm)	F-Factor (amp.)
4	ROUND	0.087	182	2092	3.67
5		0.136	325	2390	2.81
6		0.196	455	2321	2.98
8		0.349	899	2576	2.42
10		0.545	1497	2747	2.13
14 x 10	RECT.	0.972	2417	2487	2.59

Equations:

$$Q = K \times \sqrt{\Delta P} \quad \Delta P = \left(\frac{Q}{K} \right)^2 \quad F = \left(\frac{4005 \times A}{K} \right)^2$$

Where: Q = Airflow Rate (cfm)

ΔP = Sensor Differential Pressure ("w.g.)

K = K-Factor Calibration Constant (standard air)

F = Amplification Factor (sensor gain)

A = Nom. Duct Area (sq. ft.)

The K-Factors tabulated in the above tables are the airflow required to produce a 1.0" w.g. differential pressure at the Diamond Flow Sensor.

Model Series:
30HQX Single Duct Exhaust (Hospital Grade)
30X Single Duct Exhaust

Unit Size	Type	Valve Inlet Size (inches)	Valve Inlet Area (sq. ft.)	K-Factor (cfm)	Velocity (fpm)	F-Factor (amp.)
4	SQUARE OR RECT.	3.4 x 3.4	0.082	210	2561	2.44
5		4.3 x 4.3	0.128	345	2695	2.21
6		5.5 x 5.5	0.210	580	2762	2.10
7		5.8 x 6.3	0.254	680	2677	2.24
8		6.7 x 7.2	0.335	970	2896	1.91
9		8.6 x 7.1	0.424	1209	2851	1.97
10		9.5 x 8.0	0.528	1539	2915	1.89
12		13.6 x 8.1	0.765	2269	2966	1.82
14		12.9 x 10.8	0.968	2521	2604	2.36
16		18.3 x 10.8	1.410	3586	2543	2.48
24 x 16		26.1 x 16.3	2.954	7009	2373	2.85

Equations:

$$Q = K \times \sqrt{\Delta P} \quad \Delta P = \left(\frac{Q}{K} \right)^2 \quad F = \left(\frac{4005 \times A}{K} \right)^2$$

Where: Q = Airflow Rate (cfm)

ΔP = Sensor Differential Pressure ("w.g.)

K = K-Factor Calibration Constant (standard air)

F = Amplification Factor (sensor gain)

A = Nom. Duct Area (sq. ft.)

The K-Factors tabulated in the above tables are the airflow required to produce a 1.0" w.g. differential pressure at the Diamond Flow Sensor.



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