

SYSTEM TYPE	SYSTEM ALLOWABLE STATIC PRESSURE (WITHOUT DUCTING)	ALLOWABLE EXTERNAL STATIC PRESSURE (DUCTING & REGISTERS)	MAXIMUM ALLOWABLE EXTERNAL PRESSURE (DUCTING & REGISTERS)	CFM (HIGH FAN SPEED)	SUPPLY DUCT SIZE (INCHES)	RETURN DUCT SIZE (INCHES)	REGISTER SIZE (INCHES)	REGISTER FREE AREA (SQ INCHES)	MAXIMUM LENGTH (FEET)
FD EXTREME 3500 tIR	0.4	0.25	0.65	323	8"	8"	10" x 10"	100in ²	25' each side
FD EXTREME 5000 tIR	0.4	0.25	0.65	323	8"	8"	10" x 10"	100in ²	25' each side
FD EXTREME 8000 tIR	0.25	0.25	0.5	400	8"	10"	12" x 12"	144in ²	25' each side
PHANTOM 3500	0.4	0.25	0.65	400	8"	10"	12" x 12"	144in ²	25' each side
PHANTOM 5000	0.25	0.25	0.5	400	8"	10"	12" x 12"	144in ²	25' each side
PHANTOM 8000	0.25	0.25	0.5	400	8"	10"	12" x 12"	144in ²	25' each side
FD PLATINUM SPLIT 4000	0.27	0.2	0.47	290	8"	10"	12" x 12"	144in ²	25' each side
FD PLATINUM SPLIT 8000	0.27	0.2	0.47	290	8"	10"	12" x 12"	144in ²	25' each side
FD PLATINUM SPLIT TWIN (PER EVAP)	0.27	0.2	0.47	290	8"	10"	12" x 12"	144in ²	25' each side
QUANTUM 9000	0.7	0.35	1.05	830	14"	14"	14" x 14"	196in ²	25' each side
QUANTUM 12000	0.7	0.35	1.05	830	14"	14"	14" x 14"	196in ²	25' each side
QUANTUM TWIN 18000 (PER EVAP)	0.7	0.35	1.05	830	14"	14"	14" x 14"	196in ²	25' each side
QUANTUM TWIN 24000 (PER EVAP)	0.7	0.35	1.05	830	14"	14"	14" x 14"	196in ²	25' each side

Note: Use this chart as a guideline only. Actual static pressure and system performance will vary based on duct construction, length, fittings, and installation conditions. It is the installer's responsibility to verify airflow and performance in the field. No performance guarantees are implied.

DEFINITIONS:

MAXIMUM ALLOWABLE STATIC PRESSURE (WITHOUT DUCTING)

The external static pressure produced by the unit's blower with no field-installed ductwork, boots, registers, or grilles attached. This represents the blower's available pressure at the unit outlet/inlet only.

MAXIMUM ALLOWABLE EXTERNAL PRESSURE (DUCTING & REGISTERS)

The maximum external static pressure allowed with the entire installation in place – ductwork plus termination devices (supply registers, return grilles, boots, diffusers). This is what you should see in the field during commissioning.

AIRFLOW (CFM)

The air volume of the system is moving, in cubic feet per minute (CFM), under load.

SUPPLY DUCT SIZE (INCHES)

Recommended inside diameter (or rectangular equivalent) for the supply (discharge) duct leaving the unit. Sized to carry the stated CFM without exceeding the allowable static pressure or creating excessive air velocity/noise. Do not choke the supply. Starving supply air will spike static pressure and can void performance expectations.

RETURN DUCT SIZE (INCHES)

Recommended inside diameter (or rectangular equivalent) for the return (inlet) duct bringing air back to the unit. Usually equal to or larger than supply to keep return velocity low and prevent blower starvation. Do not choke the return. Starving return air will spike static pressure and can void performance expectations.

REGISTER / GRILLE SIZE OR EQUIVALENT FREE AREA REQUIRED FOR ALLOWABLE AIRFLOW

The required outlet/inlet opening size – or an equivalent register/grille with enough free area – that can pass the listed CFM without creating excessive face velocity or adding extra static pressure. This includes supply registers and return grilles. How to use it: Installer can use a different style register as long as the free area and airflow rating match. Under sizing this is the fastest way to exceed allowable static in the field.

MAX RECOMMENDED DUCT LENGTH

The longest total equivalent run (straight length plus fittings/elbow losses) the system can support while staying at or below the System Maximum Allowable External Static Pressure. How to use it: This is the hard limit. If your run is longer, you must upsize the duct or reduce restrictions. Don't exceed without engineering approval.