

## Flexible Duct Friction Loss Calculator

1. Enter Friction Loss (inches of water), Duct Airflow (CFM), Duct Length and the number of bends.
2. Read Duct Diameter (inches) and Duct Velocity (FPM).

Friction Loss (inches of water)	Duct Airflow (CFM)	Duct Length (feet)	90° Bends (quantity)	45° Bends (quantity)	180° Bends (quantity)	Duct Diameter (inches)	Duct Velocity (FPM)
0.10	5000	100				29.8	1033

1. Enter Round Duct Diameter (inches), Duct Airflow (CFM), Duct Length and the number of bends.
2. Read Friction Loss (inches of water) and Duct Velocity (FPM).

Duct Diameter (round) (inches)	Duct Airflow (CFM)	Duct Length (feet)	90° Bends (quantity)	45° Bends (quantity)	180° Bends (quantity)	Friction Loss Per 100' of duct (inches of water)	Duct Velocity (FPM)
20	5000	100				0.750	2293

## Sheet Metal Duct Friction Loss Calculator

1. Enter Duct Airflow (CFM), Duct Velocity (FPM), Duct Length and the number of bends.
2. Read Round Duct Diameter (inches) and Friction Loss (inches of water).

Duct Velocity (FPM)	Duct Airflow (CFM)	Duct Length (feet)	90° Bends (quantity)	45° Bends (quantity)	180° Bends (quantity)	Duct Diameter (inches)	Friction Loss Per 100' of duct (inches of water)
2548	2000	100				12	0.87

1. Enter Friction Loss (inches of water), Duct Airflow (CFM), Duct Length and the number of bends.
2. Read Duct Diameter (inches) and Duct Velocity (FPM).

Friction Loss Per 100' of duct (inches of water)	Duct Airflow (CFM)	Duct Length (feet)	90° Bends (quantity)	45° Bends (quantity)	180° Bends (quantity)	Duct Diameter (inches)	Duct Velocity (FPM)
0.87	2000	100				12	2548

1. Enter Round Duct Diameter (inches), Duct Airflow (CFM), Duct Length and the number of bends.
2. Read Friction Loss (inches of water) and Duct Velocity (FPM).

Duct Diameter (round) (inches)	Duct Airflow (CFM)	Duct Length (feet)	90° Bends (quantity)	45° Bends (quantity)	180° Bends (quantity)	Friction Loss Per 100' of duct (inches of water)	Duct Velocity (FPM)
12	2000	100				0.87	2548

## Equivlent Rectangular Duct

1. Enter Round Duct Diameter.
2. Enter the Desired Length of the Rectangular Duct.

Round Duct Diameter (Inches)	Rectangular Duct Length (Inches)	Rectangular Duct Width (Inches)
16	4	50

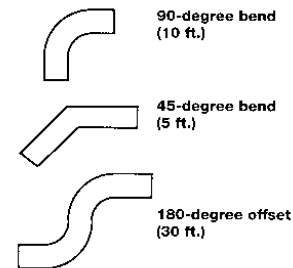
## Equivlent Round Duct Diameter

1. Enter the Length of the Rectangular Duct.
2. Enter the Width of the Rectangular Duct.

Rectangular Duct Length (Inches)	Rectangular Duct Width (Inches)	Round Duct Diameter (Inches)
14	4	8

## Approximate Dynamic Loss Coefficients

### APPROXIMATE DYNAMIC LOSS COEFFICIENTS



### Maximum Recommended Supply Velocity

	Main Duct	Branch
Residential	900 fpm	600 fpm
Commercial	1,300 fpm	900 fpm
Industrial	1,800 fpm	1,000 fpm