



## PNEUMATIC CONVEYING QUICK SIZING GUIDELINES

NOTE: To provide ballpark sizing information we assume the following system parameters:

SYSTEM LAYOUT: **200 Ft. Horizontal, 50 Ft. Vertical, Four 90 Degree Elbows**

MATERIAL DENSITY: **40 Pounds per Cubic Foot (PCF)**

A PRESSURE DILUTE PHASE CONVEYING SYSTEM WITH A DUROFLOW  
POSITIVE DISPLACEMENT BLOWER OPERATING AT 9 PSIG.

Line Size	CFM Required	Possible Conveying Rate	HP RQD.
2"	100-150	3,000 LB/HR	~7-1/2
3"	250-300	11,000 LB/HR	~15
4"	450-550	29,000 LB/HR	~ 30
5"	700-840	36,000 LB/HR	~ 40
6"	1000-1200	50,000 LB/HR	~ 60
8"	1750-2100	80,000 LB/HR	~100
10"	2750-3300	120,000 LB/HR	~150

**RULE OF THUMB:  $HP = (CFM \times PSI) / 172$**

**SQ. FT. Pipe Area =  $(LB/MIN \times 2 \text{ CFM/LB}) / 5000 \text{ FPM}$**

**DISCLAIMER:** While these guidelines are conservative they should be used as rough estimations only in the conceptual stage of a project. Please contact us for exact sizing of your system and for testing of your material in our pneumatic conveying lab. Dense phase (including vacuum dense phase and continuous low pressure dense phase) pneumatic conveying is also available - **please contact us to discuss.**

**1-888-9-CONVEY**

**Representing:**

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