

BCBC DUCT SIZING - BRANCH DUCT

for design and performance of residential ventilation systems to BCBC 2018 - 9.32

1. Design Condition	2. Equipment
Location: _____ System: _____	HRV/ERV Inline Fan
Design Airflow: _____ cfm ESP: _____ " w.c.	Make: _____
	Model: _____
	Equipment Rated Airflow: _____ cfm @ _____ " w.c.

3. Branch Duct Sizing - Table 9.32.3.8.(3)

Branch ID	Location	Max Length of Duct, ft (from ext. hood to int. grille)					Airflow	Diameter		Duct Shape and Size
		Length	+	Ext. Hood	+ [10 ×	# of Elbows] =		Equivalent Length	Flex	
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			
			+	33	+ [10 ×		=			

4. Trunk Duct Sizing - Table 9.32.3.8.(3)

Trunk ID	Servicing Branch IDs	Max. of Branch Length, ft	Airflow CFM	Diameter		Duct Shape and Size
				Flex	Rigid	

BCBC Duct Sizing Table 9.32.3.8.(3) (Imperial Conversion) - For Reference

Maximum Equivalent Duct Length ⁽¹⁾ , ft Table 9.32.3.8.(3)							
Equivalent Diameter, inches	Cross Section Area, in ²	Fan Capacity, CFM					
		50	80	100	120	140	160
Flexible Duct							
5	20	105	49	-	-	-	-
6	28	151	131	92	59	43	-
7	38	151	151	151	151	151	79
8	50	151	151	151	151	151	151
Rigid Duct							
4	13	105	49	-	-	-	-
5	20	151	131	92	59	43	-
6	28	151	151	151	138	112	79
7	38	151	151	151	151	151	151

Notes: 1. The equivalent length of a duct is the length of the duct plus 33 ft for the exterior hood and 10 ft for each 90° elbow.

Prepared By: _____	HRAI #: _____	Job Name: _____
Signature: _____	Date: _____	Official Use: _____

