



CRITICAL DETAIL: PRESSURE BALANCING

SUCCESS WITH AFFORDABLE HOUSING

SystemVision

Small pressure differentials between the interior and exterior of a house, or between spaces within the house, can have a significant impact on human health and safety and on the durability of the building.

For all rooms within the conditioned space – except baths and laundry – include properly sized returns, transfer grilles, or jump ducts.

Check the chart below for the size transfer grille needed, depending on the air supplied to the room or suite in question. If there is more than one supply in the room or suite in question, remember to add all of the supply flows and size the transfer grille on that total. Always go up a size in transfer grille if you find that the chart leaves you between regular sizes.

Sizing chart for transfer grilles:

| Room/ Suite supply air flow (CFM) | Net free area required (in ²) | Area required after door undercut (in ²) | Transfer grille height required for listed width in inches | | | Jump Duct Diameter Required (in) |
|---|--|--|---|---------|---------|---|
| | | | 10 (in) | 12 (in) | 14 (in) | |
| 50 | 27 | 3 | 0.4 | 0.3 | 0.3 | 6 |
| 75 | 40.5 | 16.5 | 2.2 | 1.9 | 1.6 | 6 |
| 100 | 54 | 30 | 4 | 3.4 | 2.6 | 8 |
| 125 | 67.4 | 43.4 | 5.8 | 4.9 | 4.2 | 8 |
| 150 | 80.9 | 56.9 | 7.6 | 6.4 | 5.5 | 12 |
| 175 | 94.4 | 70.4 | 9.4 | 7.9 | 6.7 | 12 |
| 200 | 107.9 | 83.8 | 11.2 | 9.4 | 8 | 12 |

Assuming ¾" door undercut and net free area as 0.75 of total grille area.

