

**Compliance Criteria – Prescriptive Sizing****TABLE 150.0-C: Return Duct Sizing for Single Return Duct Systems**

Return duct length shall not exceed 30 feet and shall contain no more than 180 degrees of bend. If the total bending exceeds 90 degrees, one bend shall be a metal elbow.

Return grille devices shall be labeled in accordance with the requirements in Section 150.0(m)12A to disclose the grille's design airflow rate and a maximum allowable clean-filter pressure drop of 12.5 Pa (0.05 inches water) for the air filter media as rated in accordance with AHRI Standard 680 for the design airflow rate for the return grille.

System Nominal Cooling Capacity (Ton)*	Minimum Return Duct Diameter (inch)	Minimum Total Return Filter Grille Gross Area (inch <sup>2</sup> )
1.5	16	500
2.0	18	600
2.5	20	800

\*Not applicable to systems with nominal cooling capacity greater than 2.5 tons or less than 1.5 ton

**TABLE 150.0-D: Return Duct Sizing for Multiple Return Duct Systems**

Each return duct length shall not exceed 30 feet and shall contain no more than 180 degrees of bend. If the total bending exceeds 90 degrees, one bend shall be a metal elbow.

Return grille devices shall be labeled in accordance with the requirements in Section 150.0(m)12A to disclose the grille's design airflow rate and a maximum allowable clean-filter pressure drop of 12.5 Pa (0.05 inches water) for the air filter media as rated in accordance with AHRI Standard 680 for the design airflow rate for the return grille.

System Nominal Cooling Capacity (Ton)*	Return Duct 1 Minimum Diameter (inch)	Return Duct 2 Minimum Diameter (inch)	Minimum Total Return Filter Grille Gross Area (inch <sup>2</sup> )
1.5	12	10	500
2.0	14	12	600
2.5	14	14	800
3.0	16	14	900
3.5	16	16	1000
4.0	18	18	1200
5.0	20	20	1500

\*Not applicable to systems with nominal cooling capacity greater than 5.0 tons or less than 1.5 tons.

**Prescriptive Sizing Example**

For a 2-ton system with a single return the HERS Rater must visually verify the following elements from Table 150.0-C:

1. Less than 30 linear feet of return ducting.
2. Less than 180° of bend in the return ducting.
3. If > 90° of bend in the return, one bend must be a metal elbow.
4. Return permanently labeled: design airflow, clean filter pressure drop.
5. Return duct ≥ 18" dia. (ref: Table 150.0-C)
6. Filter grille surface area ≥ 600 sq.in. (ref: Table 150.0-C)