

CLEARANCES

In all buildings more than one story in height and in buildings where the roof-ceiling assembly is required to have a fire resistance rating, the duct must be enclosed in a continuous enclosure from the lowest fire-rated ceiling or floor above the hood, through any concealed spaces, to or through the roof to maintain the integrity of the fire separations required by the applicable building code provisions. If the building is less than 4 stories in height, the enclosure shall have a fire resistance rating of not less than 1 hour. If the building is 4 stories or more in height, the enclosure shall have a fire resistance rating of not less than 2 hours. Single wall grease duct is primarily intended for use in non-combustible surroundings. When installed in an open room where enclosure is not required, double wall grease duct or chimney may be located at clearance to combustibles in accordance with **Table 1**.

Table 1 – Grease Duct Clearances

DUCT MODEL	INNER DIAMETER (ID)	OUTSIDE DIAMETER	CLEARANCE TO COMBUSTIBLES	CLEARANCE TO NON-COMBUSTIBLES
DW	8" - 24"	= ID	18"	0"
DW - 2R	8" - 16"	ID + 4	3/4" ⁽¹⁾	0"
	18"	ID + 4	1" ⁽²⁾	0"
DW - 2R TYPE HT	8" - 16"	ID + 4	2" ⁽³⁾	0"
DW - 3R	8" - 24"	ID + 6	3/4" ⁽⁴⁾	0"
DW - 3Z	8" - 36"	ID + 6	0"	0"

The above figures represent air space, in inches, to surrounding.

Refer to the latest edition of NFPA 96, Chapter 3 Definitions. This chapter explains the definitions on combustible, non-combustible and limited combustible material.

- (1) DW - 2R: 3/4" clearance to combustibles from the surface of the duct outer shell; zero inch clearance from combustibles from the tip of the outer V Band.
- (2) DW - 2R: 1" clearance to combustibles from the surface of the duct outer shell; zero inch clearance from combustibles from the tip of the outer V-band.
- (3) DW - 2R TYPE HT: 2" clearance to combustibles from the surface of the duct outer shell.
- (4) DW - 3R: 3/4" clearance to combustibles from the surface of the duct outer shell; zero inch clearance from combustibles from the tip of the outer V Band.

NOTE: Double wall duct systems with reduced clearance "R" have been tested using Condition B – installed within non-ventilated combustible enclosure. See **Figure 1** and **Figure 2** below for representation of reduced clearance. Note that the V-band may be in contact with a combustible surface. DW-2R TYPE HT must maintain a 2-inch clearance to combustibles.

Figure 1 – Duct Reduced Clearance

- 1. Combustible Surface
- 2. Duct
- 3. Double V-band
- A. Reduced Clearance
 - 2R 8"-16" Diameter = 3/4"
 - 2R 18" Diameter = 1"
 - 3R All Diameters = 3/4"

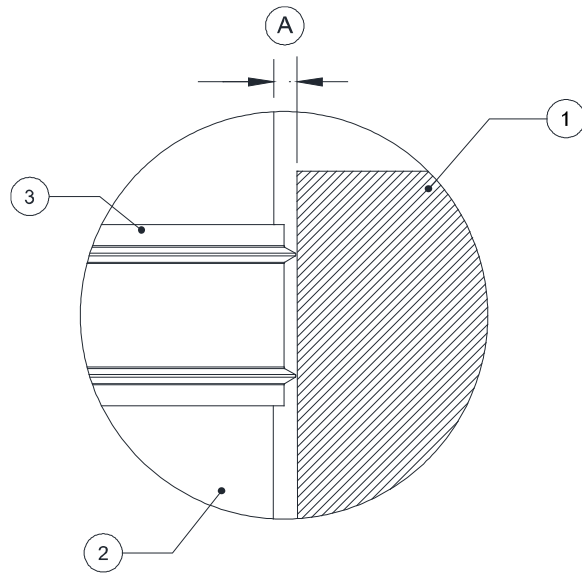


Figure 2 – 2R TYPE HT Chimney Reduced Clearance

