

**BC BUILDING CODE INTERPRETATION COMMITTEE  
AIBC, APEGBC, BOABC, POABC**

**File No: 98-0143**

**INTERPRETATION**

**Page 1 of 1**

Interpretation Date: January 17, 2006

Building Code Edition: BC Building Code 1998

Subject: Fire stopping of duct penetrations at firewalls

Keywords: FT fire stopping, ducts, firewalls

Building Code Reference(s): 3.1.9.1.(2), 3.1.8.4.(1)(c), 3.1.8.8.

**Question:**

1. When a duct is provided with a fire damper where it penetrates a firewall, is a ULC listed fire stop system with an FT rating required at annular space between the duct sleeve and the opening in the wall as per Sentence 3.1.9.1.(2)?

**Interpretation:**

1. No

The fire damper itself maintains the required fire resistance rating at the duct penetration. The SMACNA guidelines for fire damper installation and the ULC listings for such dampers require clearances between the duct sleeve and the wall opening of 1/8" per lineal foot of duct dimension (e.g. a 24" x 24" duct requires a gap of 1/4" all around the duct). The purpose of this clearance to allow for thermal expansion of the duct sleeve in order to maintain proper operation of the fire damper assembly. Fire stop materials should not be installed within the annular space around the duct sleeve since this could interfere with the required thermal movement of the sleeve under fire conditions resulting in potential jamming of the fire damper.

Where fire dampers are waived in accordance with Article 3.1.8.8., an FT firestop system would be required for the duct penetration through the firewall. This is an unlikely scenario since there are currently no ULC listed assemblies for FT firestop systems for duct penetrations.



R. J. Light, Committee Chair