



NYC Department of Buildings
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Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 162-05-M Vol. 2

Manufacturer: DuraSystems Barriers Inc., 199 Courtland Avenue, Vaughan, Ontario L4K 4T2 CANADA

Trade Name(s): DuraDuct

Product: UL Listed 2-hour fire-rated ventilation duct system
MEA Index #310-115 – Ducts, Fire Protection

Pertinent Code Section(s): 27-353, 27-766

Prescribed Test(s): ISO 6944, ASTM E814 / ULC-S115-95

Laboratory: Underwriters Laboratories of Canada

Test Report(s): UL File MH26975/R19476 / Project 06CA59852 and per UL Letter, reference file R19476, dated May 13, 2008.

Description: DuraDuct is a UL Listed 2-hour fire-rated duct system that appears in UL design V-25.

The DuraDuct system is comprised of individual duct sections that are joined together, the duct support or hanger system, and the fire-stopping system used to maintain the fire rating when the duct penetrates as fire-rated barrier. The individual duct sections are comprised of a variety of fittings and shapes common to the HVAC industry, such as straights, elbows, offset, transitions, etc.

Sections are sealed together by applying a bead of silicone sealant to the mating faces of the joining flanges immediately prior to assembly.

HNLJ.V-25

Ventilation Duct Assemblies

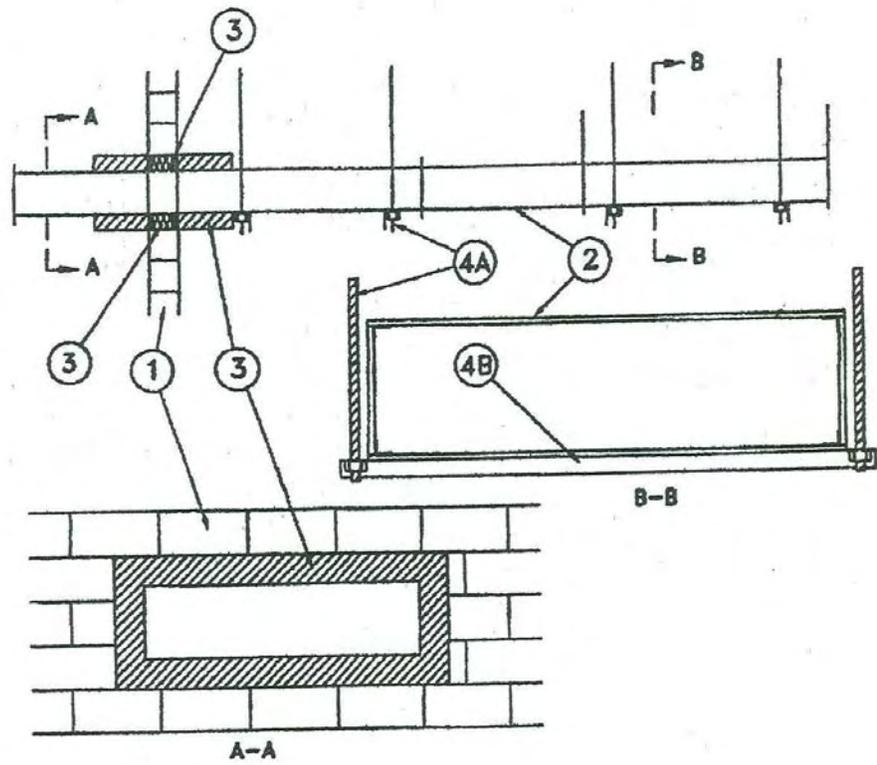
Assembly No. V-25

Duct A

Stability Rating 2Hr

Integrity Rating 2Hr

Insulation Rating 2Hr



1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced concrete floor or wall. Wall may also be constructed of min 7-1/2 in. UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Duct Panel*** —Max duct cross-sectional area 483 in², with no dimension exceeding 42 in. Prefabricated flanged duct sections with an overall wall thickness of 0.681 in., comprising a 20 ga galvanized steel inner liner, a 0.394 in. thick calcium silicate board and 1/4 in. thick fibre cement panel with metal facing, designated "DuraSteel". A 1/4 in. bead of UL Classified Tremco Fyre-Sil sealant is applied to the flange face and compressed between flange faces of adjacent duct sections. Flanges fixed to each other with # 12-24 by 1-1/2 in. long self-drilling screws installed at max 6 in. OC. Flange corners fixed to each other using 3/8 in. diam carriage bolts and nuts.

DURASYSTEMS BARRIERS INC - Type DuraSteel Panels

3. **Firestop System** —. When the ventilation duct passes through a fire rated floor or wall assembly, the through openings shall be firestopped in accordance with System No. C-AJ-7127.

See Through-Penetration Firestop Systems in Vol. 2 of the Fire Resistance Directory.

4. **Hanger System** - The hanger system shall consist of the following:

- A. **Support Rod** — Steel threaded rod 1/2 in. min diam threaded through holes in cradle (Item 4B) and mounted to concrete floor by passing through predrilled holes and bolting with nuts and washers on top of floor, or installed using 1/2 in. diam drop-in anchors or 1/2 in. diam by 3-3/4 in. long wedge anchors. For ducts with a max cross-sectional area of 218 in² and no dimension exceeding 29 in., 3/8 in diam steel threaded rods may be used. Where drop-in anchors are used, they are to be recessed into the concrete slab allowing for a min penetration of 3 in. Max 48 in. spacing between support rods.

- B. **Cradle** — Steel angle 2 in. by 2 in. by 1/4 in. thick to support duct at 48 in. OC (max). Duct assembly may also be supported using a 1-1/2 in. by 1-1/2 in. by 12 ga Unistrut cradle.

Pursuant to "Promulgation of the Rules relating to Material and Equipment Application Procedures" dated November 5, 1992, the Bureau of Fire Prevention has no objections (email correspondence dated April 14, 2008).

Terms and Conditions: The above-described duct system is accepted on the following conditions:

1. Installation, maintenance, cleaning procedures and use shall comply with Sections 27-353, 27-766 and RS 13-1 of the New York City Building Code and all applicable New York City codes, rules, regulations and maintenance requirements.
2. Maximum duct cross section shall be 483 inches square with no dimension exceeding 42 inches.
3. Ducts are approved for operational pressures as per SMACNA Duct Construction Standards.
4. Ducts shall be manufactured in accordance with Underwriters Laboratories' instructions.
5. The ducts shall not be used as Grease ducts.
6. Manufacturer's installation and maintenance procedures shall be complied with.
7. All supports, including hangers for duct, shall be 2-hour fire-rated.
8. Smoke and fire damper requirements shall be in accordance with New York City Building Code requirements.
9. All shipments and deliveries of such materials shall be labeled certifying that the materials shipped or delivered are equivalent to those tested and accepted for use, as provided in Section 27-131 of the New York City Building Code.

Final Acceptance July 23, 2008

Examined By Suen Derphudam

