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June 6, 2011

Jon Jungers  
AQC Industries  
4600 Churchill Street  
Shoreview, MN 55126

RESEARCH REPORT: RR 8467  
EFFECTIVE DATE: 06/06/11  
EXPIRATION DATE: 11/01/11  
Telephone: 651-209-0050

**GENERAL APPROVAL - Modification** - "A. K. Duct™" and fittings for underground air duct, manufactured by AQC Industries. See attached pages for list of approved models.

**DETAILS**

These products are blue colored plastic ducts, and fittings made of high-density polyethylene (HDPE) liner cover with a layer of air-entrained polyethylene. It is a recyclable material. These products are available in 6, 8, 10, 12, 14, 16, and 18 inches dia. Minimum wall thickness of pipe is 0.40." Joints are made using clamps, gaskets, and screws. Before overlapping the gasket, a bead of caulking material is applied along the leading edge, and then clamp is placed around the gasket. Clamps are tightened using screws. After installing ducts and fittings, trenches are backfilled using pea gravel, or sand.

This approval is subject to the following conditions:

1. These products may be used in underground forced-air heating and cooling systems outside of the building structure.
2. Plans of ventilation system utilizing these products shall be drawn and approved by Mechanical Plan Check prior to beginning construction.
3. Air pressure in duct system shall not exceed 4" w.c.
4. Air duct systems shall be sized in accordance with Sec. 603.2 of International Mechanical Code, 2008 Edition.
5. Underground air duct located below base flood elevation shall be designed and installed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during occurrence of flooding to design floor elevation, in accordance with Sec. 603.13 of International Mechanical Code.
6. Ambient temperature shall not be less than 32° F and shall not exceed 100° F during installation of clamps.

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7. These products shall not be installed where temperature exceeds 150 °F or within any air duct or plenum.
8. The ducts shall be installed in compliance with Section 95.602.4 of Los Angeles Mechanical Code (LAMC), 2008 Edition.
9. The ducts and fittings shall be supported continuously.
10. The pipe shall slope to allow drainage to a point provided with access. Condensate waste and disposal shall be in accordance with Section 95.310.0 of LAMC , 2008 Edition.
11. The products shall be installed in accordance with the manufacturer's recommendations.
12. Each product shall be identified with a label showing the name "A.K.DUCT," "UNDERGROUND DUCT," appropriate size and fitting number. This information shall be visible for inspection purposes.

**Modification: The research report has been updated.**

## DISCUSSION

A representative production sample of these products was examined. The report, PMG-1023 from ICC Evaluation Services, Inc. was reviewed. by Mechanical Testing Laboratory. The materials and construction are equivalent to that prescribed by the Los Angeles Municipal Code in quality, strength, effectiveness, durability and safety.

For this General Approval to be valid on any individual construction project in the City of Los Angeles, an engineer or inspector of the Department of Building and Safety must make a determination that all conditions of the General Approval required to provide equivalency have been met in the case of each construction project under consideration.

This approval is granted under Sections 95.105, 95.310.0, 95. 601.2, 95.602.4, 95.604.3 and 95.604.5 of the Los Angeles Mechanical Code(LAMC), 2008 Edition.

Approved by:



Thomas Liu  
Mechanical Testing Laboratory  
Engineering Bureau

Concurred by:



Plumbing / Mechanical Inspection Division  
Inspection Bureau