

**FIBROUS GLASS DUCT SYSTEM INSTALLATION CHECK LIST**

All comments should be in the "YES OR NOT APPLICABLE" column. If a check mark appears in the "NO" column, bring it to the attention of the HVAC Contractor.

Project name and number \_\_\_\_\_  
 HVAC contractor \_\_\_\_\_  
 Mechanical contractor \_\_\_\_\_  
 General contractor \_\_\_\_\_  
 Engineer \_\_\_\_\_ Checklist compiled by \_\_\_\_\_ Date \_\_\_\_\_

**Materials needed**

- \_\_\_ Latest edition, NAIMA Fibrous Glass Duct Construction Standard
- \_\_\_ Manufacturer's recommendations (where applicable)
- \_\_\_ Manufacturer's installation instruction sheets
- \_\_\_ Submittal drawings
- \_\_\_ Plans and specifications for job
- \_\_\_ Measuring tape
- \_\_\_ Approved closure materials to be used to close any opening made in duct during inspection. (See Section IV, CLOSURE)

**General**

- |   | <b>YES/NA</b> | <b>NO</b> |
|---|---------------|-----------|
| ___ Is fibrous glass duct system installed under conditions permitted in NAIMA manual, pages 1-6 and 1-7? | ( )           | ( )       |
| ___ Is system operating within the design limitations for which it was built?                             | ( )           | ( )       |
| ___ Have all tears or punctures of facing material been repaired using proper techniques?                 | ( )           | ( )       |
| ___ Are all sheet metal accessory items galvanized or plated?   | ( )           | ( )       |

**Product**

- |   |     |     |
|---|-----|-----|
| ___ Is product used identified as duct board by facing imprint?                                       | ( ) | ( ) |
| ___ Is UL label present? (While each board has one UL label, not every duct section will be labeled.) | ( ) | ( ) |
| ___ Are there NO visual signs of facing delamination (ballooning, condensation if system operating)?  | ( ) | ( ) |

**Fabrication and installation (See Sections II and III)**

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|--|-----|-----|
| ___ Are turning vanes installed in accordance with NAIMA standard? (Pressing your hand into the cheek of the ell will reveal if specified turning vanes are being used.) | ( ) | ( ) |
| ___ When metal parts are attached, are 2 1/2" (64mm) square or 3" (76mm) diameter galvanized or plated steel washers installed on 16" (410mm) (max.) centers?            | ( ) | ( ) |
| ___ Is system completely free from tears or punctures in the facing? (These are readily repaired following procedures given in Section VIII of this Standard.)           | ( ) | ( ) |
| ___ Is system free from areas where excessive amounts of closure materials, such as several wraps around a joint, may have been used to conceal potential problem areas? | ( ) | ( ) |
| ___ Are all system joints tight, free from bulges, with joint closures showing good workmanship?   | ( ) | ( ) |
| ___ Are all fittings fabricated in accordance with instructions in Section III, and do they demonstrate good workmanship?  | ( ) | ( ) |
| ___ Have offsets been installed so duct sections aren't forced to bend around obstructions?  | ( ) | ( ) |
| ___ Are all panels in any fitting at least 6" (150mm) (min.) long, including male or female joints?  | ( ) | ( ) |

**Dampers:** See NAIMA FGDCS, pages 3-22.

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|--|-----|-----|
| ___ If a motorized damper is being used, is the sheet metal sleeve extended so the operator is mounted on the same sleeve with the damper? | ( ) | ( ) |
| ___ On a manual damper, does the quadrant move a full 90 degrees?  | ( ) | ( ) |

**Fire dampers:** See NAIMA FGDCS, page 3-23.

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|--|-----|-----|
| ___ Is sheet metal sleeve present, and is duct properly attached to it with fasteners on 12" (300mm) (max.) centers? (Fibrous glass ducts must not penetrate assemblies required to have a fire damper.) | ( ) | ( ) |
| ___ Is interior sleeve present and properly attached with screws and washers on 16" (400mm) (max.) centers?  | ( ) | ( ) |

**Flanged heaters:** See NAIMA FGDCS, page 3-24.

- |   |     |     |
|---|-----|-----|
| ___ Are interior sleeves present and properly attached with screws and washers on 16" (400mm) (max.) centers? | ( ) | ( ) |
| ___ Is heater properly supported?   | ( ) | ( ) |

	YES/NA	NO
<b>Slip-in heaters:</b> See NAIMA FGDCS, page 3-25.		
___ Is interior sleeve present and properly attached with screws and washers on 16" (400mm) (max.) centers? Is heater properly supported?	( )	( )
<b>Access doors:</b> See FGDCS, pages 3-26 and 3-27.		
___ Is installation in accordance with NAIMA Standard?	( )	( )
<b>Grilles, diffusers, registers:</b> See NAIMA FGDCS, pages 3-28 and 3-29.		
___ Is the extra weight of the item being separately supported and not dependent on the duct alone for support? (Exception: Registers not greater than 150 square inches may be attached to the duct wall with metal channel, and without other support.)	( )	( )
<b>Unit connection:</b> See NAIMA FGDCS, page 3-30.		
___ Are connections to unit or sheet metal ducts in accordance with NAIMA manual standards? (Securing duct to unit flange without mechanical fasteners is insufficient.)	( )	( )
<b>Closure: See NAIMA FGDCS, Section IV.</b>		
___ Are all longitudinal seams and circumferential joints properly taped or closed with glass fabric and mastic?	( )	( )
___ Is the closure system listed under UL 181A, Parts I (P), II (H), or III (M)?	( )	( )
___ Are staples of the outward clinching type?	( )	( )
___ When staples are not used, are 8" (200mm) (min.) tape tabs of approved type used in place of staples? (Tab spacing requirements are 12" (300mm) on centers, minimum 1 per side.)	( )	( )
___ Are staples or tape tabs correctly spaced on circumferential joints?	( )	( )
___ Are all pressure sensitive tape closures made with tape of proper width, rubbed down adequately, with staples or scrim in facing clearly visible?	( )	( )
___ Are heat activated closures applied correctly, as shown by changing dot color?	( )	( )
___ Does tape show manufacturer name, UL 181A nomenclature, and date code?	( )	( )
___ If glass fabric and mastic are used, is the mesh of the glass fabric completely filled with mastic?	( )	( )
<b>Reinforcement: See NAIMA FGDCS, Section V.</b>		
___ Is reinforcement system of a recommended type (formed metal channel, tie rod, or both)?	( )	( )
___ Is tie rod wire galvanized, and 12 gauge?	( )	( )
___ Is tie rod spacing correct according to duct span, board type, and static pressure?	( )	( )
___ Are tie rod washers 2½" (64mm) square or 3" (76mm) diameter, of galvanized or plated steel, and of proper thickness?	( )	( )
___ Do tie rod washers have turned edges facing away from duct board so they will not cut into it?	( )	( )
___ If tie rods reinforce a butt joint, are they used on both sides of the joint?	( )	( )
___ Is tie rod termination one of those documented in NAIMA FGDCS, or by manufacturer's recommendations?	( )	( )
___ Are sag support devices used on ducts of 48" (1220mm) span or greater, to support top panels?	( )	( )
___ Do tie rods run straight through ducts and not at angles except as provided for in reinforcing certain fittings?	( )	( )
___ Are heels of tees and elbows, and end caps, reinforced when necessary to meet NAIMA FGDCS, Section V requirements?	( )	( )
___ When formed sheet metal channel reinforcement is used, are sheet metal gauges, dimensions and spacing correct and is sheet metal galvanized?	( )	( )
___ On supply ducts, is reinforcing member on the female side of the shiplap joint?	( )	( )
___ On return ducts, is reinforcing member on the male side of the shiplap joint?	( )	( )
___ On return ducts, are sheet metal channel reinforcements attached to ducts with screws and washers, or with 2" x 6" (50mm x 150mm) clips when located at circumferential joint?	( )	( )
<b>Hangers and supports: See NAIMA FGDCS, Section VI.</b>		
___ Are hangers installed in accordance with the hanger schedule published in NAIMA FGDCS, Section VI?	( )	( )
___ Are hanger designs in accordance with those shown in the NAIMA standard?	( )	( )
___ Are accessories that add weight to the system separately supported so as not to stress the system?	( )	( )
___ Are vertical risers limited to systems serving two stories and supported on 12 foot (3.7 m) (max.) centers?	( )	( )
___ If formed sheet metal reinforcements are used as hangers, are attachments within 6" (150mm) (nom.) of duct sides?	( )	( )
___ Are all fittings supported by hangers in accordance with NAIMA FGDCS, Section VI?	( )	( )
___ In humid climates, is system separated at least 1" (25mm) within crawl space or above ceiling insulation?	( )	( )