Georgia State Amendments to the International Mechanical Code

(2006 Edition)

Georgia Department of Community Affairs
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Revised January 1, 2007

GEORGIA STATE MINIMUM STANDARD
MECHANICAL CODE
(INTERNATIONAL MECHANICAL CODE WITH GEORGIA STATE AMENDMENTS)

The INTERNATIONAL MECHANICAL CODE, 2006 Edition, published by the International Code Council, when used in conjunction with these Georgia State Amendments, shall constitute the official *Georgia State Minimum Standard Mechanical Code*.

GEORGIA STATE AMENDMENTS

CODE REFERENCE:

(a) Replace all references to the ICC *Electrical Code* with references to the *Georgia State Minimum Standard Electrical Code* (*National Electrical Code with Georgia State Amendments*).

(b) Replace all references to the *International Energy Conservation Code* (*IECC)* with references to the *Georgia State Minimum Standard Energy Code (IECC with Georgia State Supplements and Amendments).* The *Georgia State Minimum Standard Energy Code* shall be used for efficiency and coefficient of performance ratings of mechanical equipment.

SCOPE:

The provisions of the *Georgia State Minimum Standard Mechanical Code* shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the Georgia State Minimum Standard *Gas Code (International Fuel Gas Code with Georgia Amendments*.

APPENDICES:

Appendices are not enforceable unless they are specifically referenced in the body of the code or adopted by the Department of Community Affairs or the authority having jurisdiction.

GEORGIA STATE MINIMUM
REQUIREMENTS FOR BOILERS/WATER HEATERS AND PRESSURE VESSELS

The State's minimum requirements for boilers/water heaters and pressure vessels over 200,000 BTU/h (58.61 kW), 210 degrees Fahrenheit or 120 gallons capacity shall be established by O.C.G.A. Title 34, Chapter 11 and the Rules and Regulations of the Georgia Department of Labor.

Revise the International Mechanical Code, 2006 Edition, as follows:

CHAPTER 1
ADMINISTRATION

*Delete Chapter 1 'Administration' without substitution. Chapter 1 to remain in the Code as a *reference and* guide for local governments in the development of their own *Administrative Procedures*.
(Effective January 1, 2007

CHAPTER 3
GENERAL REGULATIONS

SECTION 301
GENERAL

*Add new Section 301.16 'Related Fire Codes' to read as follows:

301.16 Related fire codes. Any reference to the *International Fire Code* and/or NFPA standards in any chapter of this code shall be to the latest edition as adopted and amended by the Georgia Insurance and Safety Fire Commissioner.
(Effective January 1, 2007)

SECTION 303
EQUIPMENT AND APPLIANCE LOCATION

*Revise Section 303.3 'Prohibited locations' as follows:

303.3 Prohibited locations.
Exception #4. Refer to the *International Fuel Gas Code* for gas-fired appliances.
(Effective January1, 2007)

*Delete Section 303.5 'Indoor locations' and substitute the following:

303.5 Indoor locations. Fuel-fired furnaces and boilers installed in closets and alcoves shall be listed for such installation.
(Effective January 1, 2007)

SECTION 304
INSTALLATION

*Revise Section 304.9 'Clearances from grade' to read as follows:

304.9 Clearances from grade. Equipment and appliances installed at grade level shall be

supported on a level concrete slab or other approved material extending above adjoining grade minimum of 2 inches (51 mm) or shall be suspended a minimum of 6 inches (152 mm) above adjoining grade.
(Effective January 1, 2007)

SECTION 306
ACCESS AND SERVICE SPACE

*Delete second and third paragraphs of Section 306.5 'Equipment and appliances on roofs or elevated structures' to read as follows:

306.5 Equipment and appliances on roofs or elevated structures. First paragraph left unchanged.)
(Effective January 1, 2007)

SECTION [B] 309
TEMPERATURE CONTROL

*Revise Section [B] 309.1 'Space-heating systems' to add exceptions as follows:

[B] 309.1 Space-heating systems.
Exception #2: Semi-heated spaces as listed in ANSI/ASHRAE/IESNA 90.1.
Exception #3: In unfinished basements and enclosed unvented crawlspaces where the wall is insulated in lieu of the floor.
(Effective January 1, 2007)

CHAPTER 4
VENTILATION

SECTION 401
GENERAL

*Add a new Section 401.7 'Alternate Ventilation Procedure' to read as follows:

401.7 Alternate Ventilation Procedure. As an alternate to ventilation rates listed in Table 403.3, Required Outdoor Ventilation Air, designers may utilize ventilation rate procedures and tables in ASHRAE Standard 62.1. If the ASHRAE 62.1 method is used, the entire building shall comply with ASHRAE 62.1 and any additional equipment and/or systems required by ASHRAE 62.1 shall be installed.
(Effective January 1, 2007)

SECTION 405
SYSTEM CONTROL

*Add a new Section 405.2 'CO2 Sensors' to read as follows:

405.2 CO2 Sensors. Carbon dioxide sensors shall be utilized for control of ventilation systems, as outlined in ASHRAE Standard 62.1.
(Effective January 1, 2007)

CHAPTER 5
EXHAUST SYSTEMS

SECTION 502
REQUIRED SYSTEMS

*****Revise Section [F] 502.5 'Valve-regulated lead-acid batteries in cabinets' to read as follows:

[F] 502.5 Valve-regulated lead-acid batteries in cabinets. Valve-regulated lead-acid (VRLA) batteries installed in cabinets, as regulated by the *International Fire Code*, shall be provided with ventilation in accordance with Section 502.5.1 or 502.5.2.
(Effective January 1, 2007)

SECTION 505
DOMESTIC KITCHEN EXHAUST EQUIPMENT

*Add new Section 505.2 **'**Commercial Installations of Domestic Systems' to read as follows:

505.2 Commercial Installations of domestic systems. Commercial installations of domestic systems shall comply with the current NFPA standards as adopted and amended by the Georgia Insurance and Safety Fire Commissioner.
(Effective January 1, 2007)

*Add new Section 505.3 'Exhaust Ducts' to read as follows:

505.3 Exhaust ducts. Exhaust ducts for domestic range hoods, installed in commercial applications shall be vented to the outside and shall be constructed of Type B vent or smooth-wall duct constructed of 0.0157 inch (0.4mm) galvanized steel.
(Effective January 1, 2007).

SECTION 506
COMMERCIAL KITCHEN HOOD VENTILATION SYSTEM DUCTS AND EXHAUST EQUIPMENT

*Delete Section 506.1 'General' and substitute the following to read:

506.1 General. The State's minimum requirements for Type I commercial kitchen hood ventilation system ducts and exhaust equipment shall be designed, constructed and installed in accordance with the Life Safety Code NFPA 101 and NFPA 96. Other commercial kitchen hood ventilation system ducts and exhaust equipment shall comply with the requirements of this section.
(Effective January 1, 2007)

SECTION 507
COMMERCIAL KITCHEN HOODS

*Delete Section 507.1 ‘General’ and substitute the following:

507.1 General. The State’s minimum requirements for Type I commercial kitchen hoods shall be designed, constructed and installed in accordance with the Life Safety Code NFPA 101 and NFPA 96. Other commercial kitchen hoods shall comply with the requirements of this section.
(Effective January 1, 2007)

*Delete Section 507.2.3 **‘**Domestic cooking appliances used for commercial purposes’ without substitution.
(Effective January 1, 2007)

SECTION 508
COMMERCIAL KITCHEN MAKEUP AIR

*Renumber Section 508.1 ‘Makeup air as 508.2, renumber Section 508.2 ‘Compensating Hoods as 508.3, and add new section 508.1 ‘General’ as follows:

508.1 General. The State’s minimum requirements for commercial kitchen makeup air Type I hoods shall be in accordance with the Life Safety Code NFPA 101 and NFPA 96. Commercial kitchen makeup air for Type II hoods shall comply with the requirements of this section.
(Effective January 1, 2007)

SECTION 509
FIRE SUPPRESSION SYSTEMS

*Delete Section 509.1 ‘Where required’ and substitute the following to read:

509.1 Where required. The State’s minimum requirements for fire suppression systems for commercial cooking equipment shall be established by the Life Safety Code and NFPA 96.
(Effective January 1, 2007)

CHAPTER 6
DUCT SYSTEMS

SECTION 603
DUCT CONSTRUCTION AND INSTALLATION

*Revise the first sentence Section 603.2 ‘Duct sizing’ to read as follows:

603.2 Duct sizing. Ducts installed within a one-or two-family dwelling unit shall be designed and sized in accordance with ACCA Manual D or other approved methods. (Remainder of section left unchanged).
(Effective January 1, 2007)

*Revise section 603.6 ‘Flexible air ducts and flexible air connectors’ to read as follows:

603.6 Flexible air ducts and flexible air connectors.
(Beginning of section left unchanged.)
…Sections 606.6.2 through 603.6.4, Flexible air ducts and flexible air connectors, both metallic and nonmetallic, shall be installed and supported as specified in the SMACNA HVAC *Duct Construction Standards-Metal and Flexible* and the Air Diffusion Council *Flexible Duct Performance and Installation Standards.*
(Effective January 1, 2007)

*****Revise second sentence of Section 603.9 ‘Joints, seams and connections’ to read as follows:

603.9 Joints seams and connections. (First sentence left unchanged)….Duct construction standards. When required to be sealed, joints, longitudinal and transverse seams and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics, (adhesives), mastic-plus-embedded-fabric systems or tapes, tape and mastics… … (Remainder of section left unchanged).
(Effective January 1, 2007)

*Add new Section 603.9.1 **‘**Sealing of low pressure metallic duct systems’ to read as follows:

603.9.1 Sealing of low pressure metallic duct systems. Metallic ducts, fittings, elbows, register boots and boxes classified by a pressure rating of positive or negative 0.5 or 1.0 inches of water column, shall be sealed as specified for a Seal Class C in the SMACNA standard, HVAC Duct Construction Standards-Metal and Flexible. Longitudinal seams using a machine-made locking seam are not required to be sealed for these pressure classes.
Exception: Sealing is not required for negative low pressure exhaust ductwork.
(Effective January 1, 2007)

SECTION 606
SMOKE DETECTION SYSTEMS CONTROL

*Rename Section 606.2.1 ‘Return air systems’ as ‘Supply air systems’ and revise first paragraph to read as follows:

606.2.1 Supply air systems: Smoke detectors shall be installed in supply air systems with a design capacity greater than 2,000 cfm (0.9 m/s)….
(Effective January 1, 2007)

*Revise Section 606.2.2 ‘Common supply and return air systems’ as ‘Common supply air systems’ and delete all occurrences of the word “return” from the text.
(Effective January 1, 2007)

CHAPTER 8
CHIMNEYS AND VENTS

SECTION 804
DIRECT-VENT, INTEGRAL VENT AND MECHANICAL DRAFT SYSTEMS

*Revise requirement #3 of Section 804.3.8 'Mechanical draft systems for manually fired appliances and fireplaces to read as follows:

804.3.8 Mechanical draft systems for manually fired appliances and fireplaces. Requirement #3. A smoke detector powered by the building wiring and equipped with a battery back-up shall be installed in the room with the appliance or fireplace.
(Effective January 1, 2007)

CHAPTER 9
SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

SECTION 917
COOKING APPLIANCES

*Delete Section 917.2 'Prohibited location' without substitution.
(Effective January 1, 2007)

*Delete Section 917.3 'Domestic appliances' without substitution.
(Effective January 1, 2007)

CHAPTER 10
BOILERS, WATER HEATERS AND PRESSURE VESSELS

SECTION 1001
GENERAL

*Revise Section 1001.1 'Scope' to add at the end of first paragraph as follows:

1001.1 Scope. …and pressure vessels. The State's minimum requirements for boilers/water heaters and pressure vessels over 200,000 BTU/h (58.61 kW), 210 degrees Fahrenheit or 120 gallons capacity shall be established by O.C.G.A. Title 34, Chapter 11 and the Rules and Regulations of the Georgia Department of Labor.
(Effective January 1, 2007)

SECTION 1007
BOILER LOW-WATER CUTOFF

*Revise Section 1007.1 'General' to add at the end as follows:

1007.1 General. …low-water cutoff control. In lieu of the low-water cutoff control, a flow switch or other mechanism as recommended by the manufacturer shall be allowed for water tube boilers.
(Effective January 1, 2007)

CHAPTER 11
REFRIGERATION

SECTION 1105
MACHINERY ROOM, GENERAL REQUIREMENTS

*Renumber Section [F] 1105.3 **'**Refrigerant detector' as 1105.3 and revise to read as follows:

[F] 1105.3 Refrigerant detector. Refrigerant detectors in machinery rooms shall be provided as required in accordance with ASHRAE 15.
(Effective January 1, 2007)

SECTION 1106
MACHINERY ROOM, SPECIAL REQUIREMENTS

*Renumber Section [F] 1106.5 **'**Remote Controls' to read as follows:

1106.5 Remote controls. Remote control of the mechanical equipment and appliances located in the machinery room shall be provided as required by "ASHRAE Standard 15".
(Effective January 1, 2007)

*Revise Section [F] 1106.6 **'**Emergency signs and labels' as 1106.6 and revise to read as follows:

[F] 1106.6 Emergency signs and labels. Refrigeration units and systems shall be provided with approved emergency signs, charts, and labels in accordance with ASHRAE 15.
(Effective January 1, 2007)

CHAPTER 12
HYDRONIC PIPING

SECTION 1206
PIPING INSTALLATION

*Revise Section 1206.8 'Steam piping pitch' to add at the end as follows:

1206.8 Steam piping pitch. …the steam piping**.** Branch piping from steam mains shall be taken off at the top of the pipe.
(Effective January 1, 2007)

CHAPTER 13
FUEL OIL PIPING AND STORAGE

SECTION 1301
GENERAL

*Revise Section 1301.1 'Scope' to add at the end as follows:

1301.1 Scope. …International Fire Code. The State's minimum requirements for fuel oil piping and storage shall be as established by the Georgia State Minimum Fire Safety Standards and the Rules and Regulations of the Georgia Insurance and Safety Fire Commissioner. Any areas not addressed by the Georgia State Minimum Fire Safety Standards shall be regulated by this chapter.
(Effective January 1, 2007)

CHAPTER 14
SOLAR SYSTEMS

SECTION 1402
INSTALLATION

*Add new Section 1402.8 'Protection of drains' to read as follows:

1402.8 Protection of drains. Drains serving heat transfer fluids over 140°F (60°C) or which are toxic or corrosive shall be protected in accordance with the requirements of *The International Plumbing Code*.
(Effective January 1, 2007)

*Add new Section 1402.9 'Warning label' to read as follows:

1402.9 Warning label. Drains in solar systems where high temperature, high pressure, or hazardous fluids are discharged shall have a warning label. For hazardous fluids, the label shall describe the hazardous properties of the fluid and emergency first aid procedures.
Valves regulating such a discharge shall not be readily accessible to unauthorized personnel.
(Effective January 1, 2007)

CHAPTER 15
REFERENCED STANDARDS

*Revise Chapter 15 'Referenced Standards' to add as follows:

Air Diffusion Council
1000 East Woodfield Road

ADC

Schaumburg, IL 60173-5921

Standard reference number	Title	Referenced in code section number
	Flexible Duct Performance and Installation Standards (Fourth Edition2003)	603.6, GA Amendments

American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc.
1791 Tullie Circle, NE

ASHRAE

Atlanta, GA 30329-2305

Standard reference number	Title	Referenced in code section number
90.1--2004	Energy Standard for Buildings Except Low-rise Residential Buildings	309.1, GA Amendments
62.1--2004	Ventilation for Acceptable Indoor Air Quality	401.7, GA Amendments 405.2, GA Amendments
15--2001	Safety Standard for Refrigeration Systems	1105.3, 1106.5, 1106.6, GA Amendments

National Fire Protection Association
Battery march Park

NFPA

Quincy, MA 02269

Standard reference number	Title	Referenced in code section number
96	Standard for Ventilation and Fire Protection of Commercial Cooking Operations	506.1, 507.1, 508.1, 509.1, GA Amendments
101	Life Safety Code	506.1, 507.1, 508.1, 509.1, GA Amendments

Sheet Metal & Air Conditioning Contractors National Assoc. Inc.
4021 Fafayette Center Road

SMACNA

Chantilly, VA 22021

Standard reference number	Title	Referenced in code section number
SMACNA--95	HVAC Duct Construction Standards-Metal and Flexible	603.6, GA Amendments

(Effective January 1, 2007)

*Add new Appendix C 'Design and Installation of Residential Flexible Ductwork Systems.' ***This appendix is not enforceable unless it has been specifically adopted by the authority having jurisdiction.***
(Effective January 1, 2007)

APPENDIX C

DESIGN AND INSTALLATION OF RESIDENTIAL FLEXIBLE DUCTWORK SYSTEMS

A. SCOPE

1. This information is intended to assist contractors, installers and code officials in the proper design and installation of flexible ductwork systems. The information presented in this document comes primarily from sources in the International Mechanical Code including referenced standards and Georgia Amendments.

2. It is recommended as a guide that HVAC system documentation, including owner's manuals, manufacturer's installation instructions and a sketch of the duct system design that details duct size and approximate duct lengths be provided to the building owner or posted on the air handling unit or furnace. (See sample Duct System Design Sketch). Documentation should also include Manual J calculations.

B. GENERAL

1. The routing and length of flexible duct, the numbers of degrees of each bend and the amount of sag allowed between support joints will have serious effects on system performance due to the increased resistance each introduces. Use the minimum length of flexible duct to make connections. Do not install excess lengths of ducts to allow for possible future relocations of air terminal devices.

2. Flexible air duct trunk lines should not be limited in length. It is recommended as a guide that flexible air duct branch takeoffs (run-outs), flexible air ducts direct to boots from the plenum and flexible ducts in radial duct systems be limited in length to 25 feet (7620 mm). The preferred duct geometry is a "Trunk and Branch" system (see ACCA Manual D Figures 1-4 and 10-7).

3. Flexible air ducts, both metallic and nonmetallic, should be tested in accordance with UL 181. Such ducts should be listed and labeled as Class 0 or Class 1 flexible air ducts.

4. Flexible duct is for indoor use only; do not install product where exposure to direct sunlight can occur. Prolonged exposure to sunlight may cause deterioration of vapor barrier.

5. The inner core may degrade if the duct is positioned near a bio-treatment lamp (UV emitter) installed within the HVAC system.

6. Terminal devices should be supported independently of the flexible duct.

7. Repair torn or damaged vapor barrier/jacket with duct tapes listed and labeled to UL 181B; if internal core is penetrated, replace flexible duct or treat as a splice (see Section E below).

C. SYSTEM SIZING AND DESIGN

Flexible air duct systems should be sized and designed in accordance with ACCA Manual D for residential duct systems or other ICC referenced engineering standards based on the following:

1. Calculation of the supply air for each room should be based on the greater of the heating load or sensible cooling load for that room as determined by a heat loss-heat gain calculation per ACCA Manual J or the ASHRAE Handbook of Fundamentals.

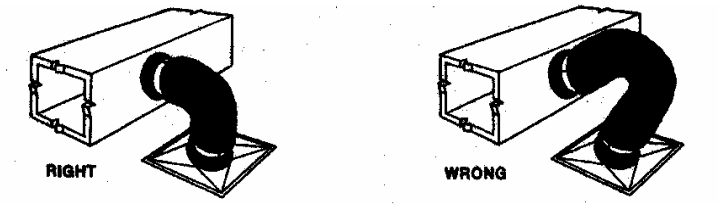
2. Duct size should be determined by:
    a) The supply air requirements of each room.
    b) The available static pressure of the blower.
    c) The total equivalent length of the various duct runs, duct fittings and terminal devices.

3. Flexible duct and flexible connectors should be sized to deliver the required airflow (as calculated in Step 1 above) in strict accordance with the manufacturer's sizing recommendations, the ACCA Manual D friction chart (Appendix 2, Chart 7) or other appropriate IMC standards. (Flexible duct sizing calculators are available from manufacturers or industry associations).
4. The dwelling should be constructed with adequate space and chases to accommodate all flex ducts without them being compressed or bent in a radius less than one duct diameter, and to avoid bending across sharp corners or incidental contact with metal fixtures, pipes or conduits.

5. Sufficient space should be provided adjacent to all mechanical components located in or forming a part of the air distribution system to assure adequate access for:
    a) Construction and sealing
    b) Inspection
    c) Cleaning and maintenance

D. INSTALLATION

1. Install duct fully extended; do not install in the compressed state or use excess lengths. This will noticeably decrease friction losses.



2. Avoid bending ducts across sharp corners or incidental contact with metal fixtures, pipes or conduits. Radius at center line should not be less than one duct diameter.

3. Do not install near hot equipment (e.g., furnaces, boilers, steam pipes, etc.) that is above the recommended flexible duct use temperature.

4. Do not use for vertical risers in air ducts systems serving more than two floors.

5. Avoid installations where exposure to direct or indirect sunlight or UV producing air treatment devices can occur. Prolonged exposure to sunlight or UV light may cause degradation of the core material or the vapor barrier.

6. Should not be installed within 4 inches (101.6 mm) of hot equipment (furnaces, boilers, steam pipes, etc.) that is above 250^{o} F (121^{o} C).

7. Should not penetrate walls where fire dampers are required.

8. Should not be installed in concrete, buried below grade or in contact with the ground.

E. CONNECTING AND SPLICING FLEXIBLE DUCT

1. All connections, joints and splices should be made in accordance with the manufacturer's installation instructions. (See flexible duct connections and splicing diagrams below).

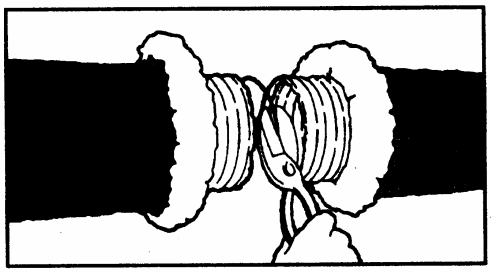
2. All tapes, mastics and non-metallic fasteners (plastic clamps) used for field installation of flexible ducts should be listed and labeled to UL 181B, *Closure Systems for Use With Flexible Air Ducts and Air Connectors*. Non- metallic fasteners are limited to 6 inch w.g. (water gauge) maximum positive pressure.

3. Sheet metal collars to which flexible ducts are attached should be a minimum of 2 inches (50.8 mm) in length and should be beaded.

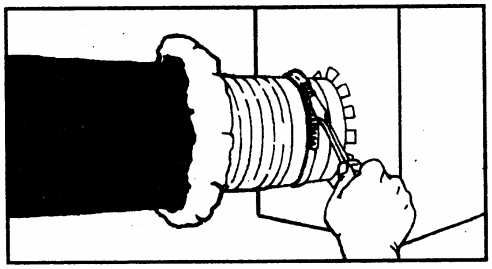
4. Sheet metal sleeves used for joining two sections of flexible duct should be a minimum of 4 inches (101.6 mm) in length and should be beaded on both ends.

Connections

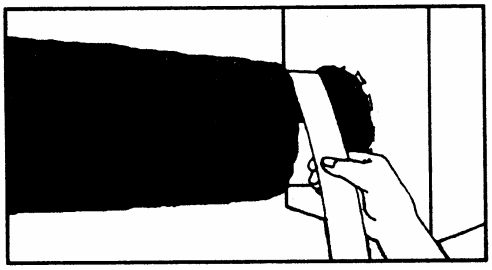
1. After desired length is determined, cut completely around and through duct with knife or scissors. Cut wire with wire cutters. Fold back jacket and insulation.



2. Slide at least 1" [25 mm] of core over fitting and past the bead. Seal core to collar with at least 2 wraps of duct tape. Secure connection with clamp placed over the core and tape and past the bead.

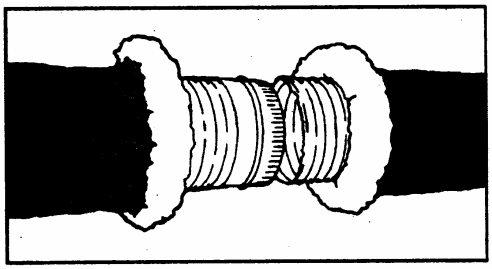


3. Pull jacket and insulation back over core. Tape jacket with at least 2 wraps of duct tape. A clamp may be used in place of or in combination with the duct tape.

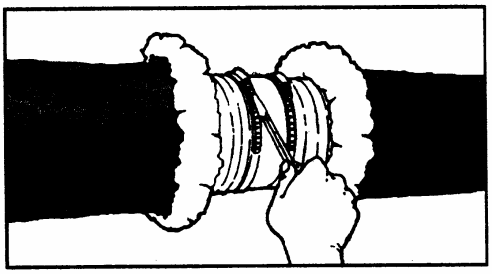


Splices

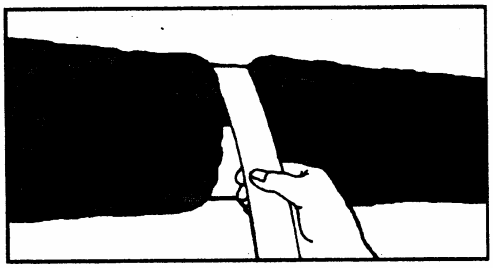
1. Fold back jacket and insulation from core. Butt two cores together on a 4" [100 mm] length metal sleeve.



2. Tape cores together with at least 2 wraps of duct tape. Secure connection with 2 clamps placed over the taped core ends and past the beads.

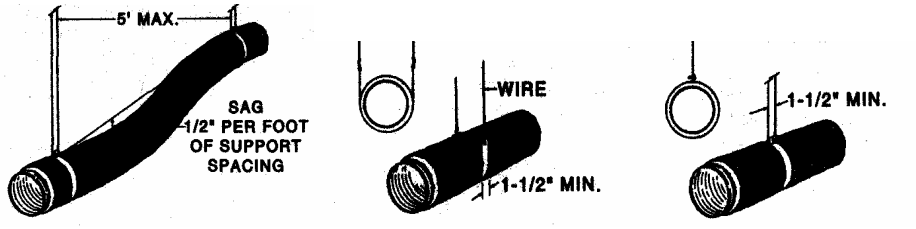


3. Pull jacket and insulation back over cores. Tape jackets together with at least 2 wraps of duct tape.



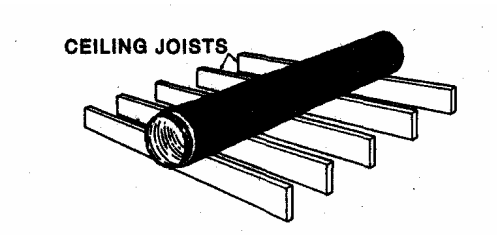
F. SUPPORTING FLEXIBLE DUCT

1. Flexible duct shall be supported at manufacturer's recommended intervals, but at no greater distance than 5 feet (1524 mm). Maximum permissible sag is ½ inch per foot of spacing between supports.

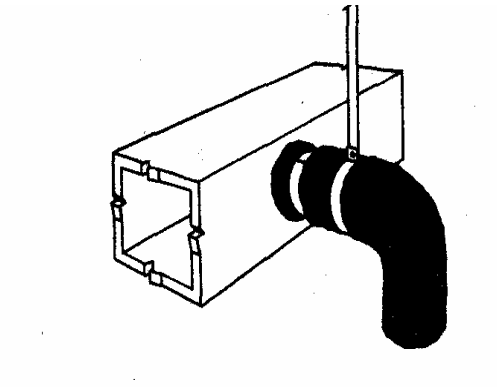


2. Hanger or saddle material in contact with the flexible duct should be of sufficient width (minimum 1 ½" (38 mm)) to prevent any restriction of the internal diameter of the duct when the weight of the supported section rests on the hanger. Individual ducts should be separately supported.

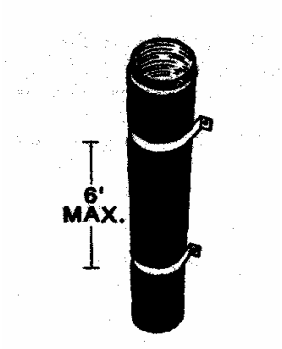
3. Flexible ducts may rest on ceiling joists or truss supports. Maximum spacing between supports should not exceed the maximum spacing per manufacturer's installation instructions.



4. Support the duct between a metal connection and a bend by allowing the duct to extend straight for a few inches before making the bend.



5. Vertically installed duct should be stabilized by support straps at a maximum of 6 feet (1829 mm) on center.



G. SOURCE MATERIAL

Information for these recommendations was compiled from these code sources:

- *International Mechanical Code, 2006 Edition,* with *Georgia Amendments.*
- *Flexible Duct Performance and Installation Standards (4th ed.)* – Air Diffusion Council
- *Manual D—Residential Duct Systems* – Air Conditioning Contractors of America (ACCA)
- *HVAC Duct Construction Standards—Metal and Flexible (1995 ed.)* – Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA)

Additional information was also compiled from these documents

- *Uniform Mechanical Code, 2003 Edition, Appendix A: Standard for Installation of Factory-Made Air Ducts*
- *Florida Mechanical Code, Section 610: Air Distribution Systems*

End of Amendments.