

DEPARTMENT OF PUBLIC WORKS
Building Inspection Division



February 26, 2004

MEMORANDUM

BULLETIN M-01-04

To: All Permit Applicants

From: Thomas H. Goldsbury, P.E., C.B.O.
Chief, Building Inspection Division

Subject: **Minimum Return Air for Heat Pumps**

All stand alone Mechanical permits applied for after April 1, 2004, and all Mechanical Permits associated to a Building Permit applied for after April 1, 2004, must comply with the following:

In order to comply with section **M918.3** of the **Florida Building Code - Mechanical**, all heat pumps shall have a minimum unobstructed total area of the outside and return air ducts or openings as described in this code section, or as per the listing of the heat pump. If the listing of the heat pump is to be used, a copy of the installation instructions shall be attached to the appliance at the time of the final inspection. The free area of a louver door shall be calculated by the methods outlined in section **M706** of the **Florida Building Code Mechanical**.

§M918.3 Heat pumps. The minimum unobstructed total area of the outside and return air ducts or openings to a heat pump shall be not less than **6 square inches per 1,000 Btu/h** (13 208 mm²/kW) output rating or as indicated by the conditions of listing of the heat pump. Electric heat pumps shall be tested in accordance with UL 559 or UL 1995. *We have developed a chart (see attached) for your ready reference which our inspectors will use if no installation instructions are provided on site.*

SECTION M706 LOUVERS AND GRILLES

In calculating free area in §M703, consideration shall be given to the blocking effect of louvers, grilles, or screens protecting openings. If the free area through a design of louver or grille is known, it shall be used in calculating the size opening required to provide the free area specified. If the design and free area are not known, it shall be assumed that wood louvers will have 20-25 percent free area and metal louvers and grilles will have 60-75 percent free area. Louvers and grilles shall be fixed in the open position or interlocked with the equipment so that they are opened automatically during equipment operation.

Attachment:



Xc: James Schock
Eric Pardee

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BTU	Return air duct minimum size Square Inches
12,000	72
18,000	108
24,000	144
30,000	180
36,000	216
42,000	252
48,000	288
54,000	324
60,000	360

Duct Diameter (Inches)	Area (Square Inches)
4	13
5	20
6	28
7	38
8	50
9	64
10	78
11	95
12	113
13	133
14	154
15	177
16	201
17	227
18	255
19	284
20	315
21	347
22	381
23	416
24	453
25	492

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