

HANGING AND SUPPORTING FIBROUS GLASS DUCT SYSTEMS

Fibrous glass ducts are light in weight and, to a large degree, self-supporting. They can be supported with a minimum of hangers if care is taken as to placement of the supports. NAIMA has conducted a study to determine the proper placement of supports for horizontal and vertical straight duct modules as well as fittings. The support techniques recommended in this Standard were demonstrated to be able to sustain static loads equivalent to three times the duct module weight. During the testing, twice the duct weight was placed in the most critical position, at the mid-point between supports.

Other hanging systems may work equally well. However, it must be demonstrated that alternate methods can provide the same load-bearing capability without undue stress to either the hanger or the fibrous glass duct system. Use of alternate methods without careful consideration of the long term stability of the technique is discouraged.

The charts and examples illustrated in this section show that the hanger treatment and spacing required depends on duct dimensions. Channels suspended trapeze-style

using 12 gauge (minimum) hanger wire are the preferred method of support. Channel gauge and profile vary with duct size. In no case should the supporting channel be less than 2" (50mm) wide for rectangular fibrous glass ducts.

When channel reinforcement members occur within maximum hanger spacing as shown on page 6-3, sheet metal straps may be attached to the channel reinforcement as shown in Fig. 6-2. Unless local codes prohibit, 12 gauge (minimum) hanger wire may be used in place of hanger strap.

The illustrations below provide examples of proper support configurations for rectangular fibrous glass ducts.

Recommendations for hanging and support of ten sided and rigid round fibrous glass ducts may be found on page 6-8. Recommendations for hanging and support of flexible duct may be found on page 6-9.

Hanging fibrous glass duct systems in humid climates: In high humidity areas, duct systems must be suspended or elevated at least 1" (25mm) above ceiling insulation.

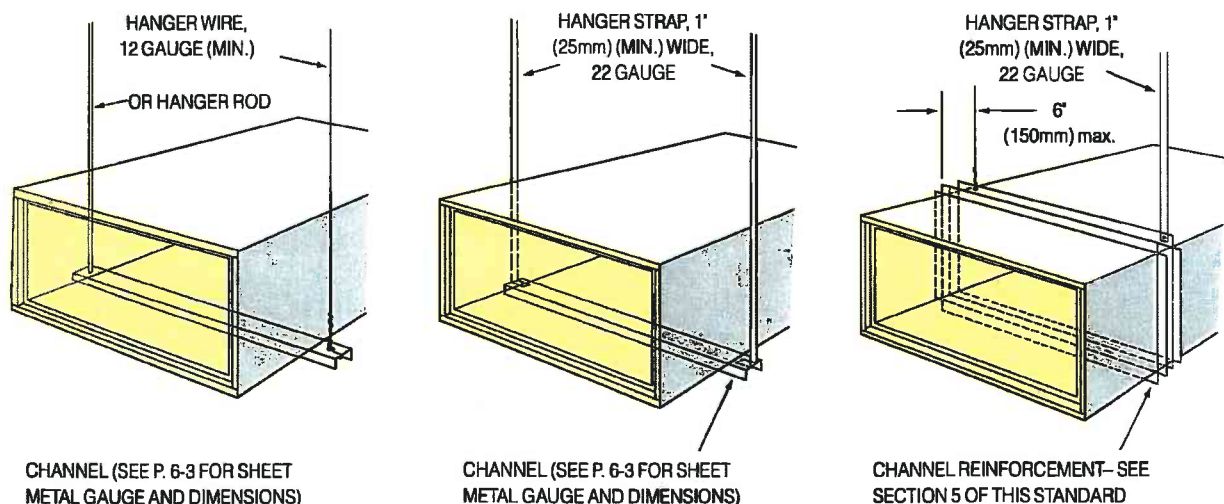


Fig. 6-2. Approved hanger configurations for rectangular fibrous glass ducts.

**STANDARD 3" (75mm) HANGERS FOR
RECTANGULAR DUCTS**

Hanger extension is defined as the sum of the distances between the hanging wires and the duct walls (both sides).

IFTOTAL EXTENSION IS NO GREATER THAN:	MINIMUM CHANNEL GAUGE	MINIMUM CHANNEL PROFILE
6" (150mm)	24	3" x 1 1/2" (75mm x 35mm)
18" (450mm)	22	3" x 2" (75mm x 50mm)
30" (750mm)	18	3" x 2" (75mm x 50mm)

Table 1. CHANNEL SELECTION

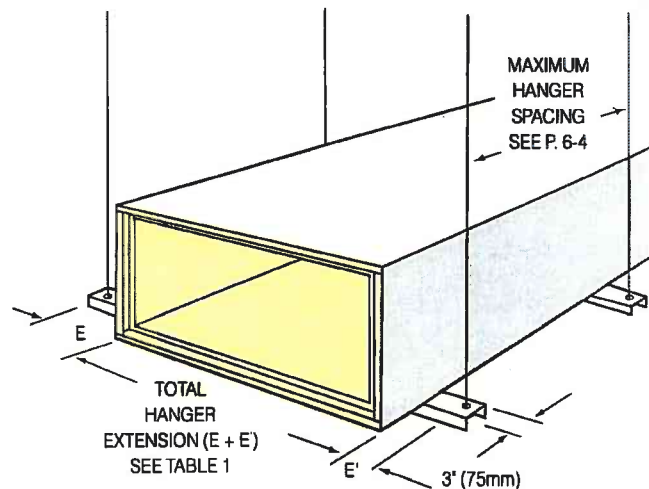


Fig. 6-3A. Hanger spacing and extension, 3" (75mm) wide channels.

Use of 2" (50mm) wide hangers

22 gauge, 2" x 1 1/2" (50mm x 35mm) hangers may be substituted for 3" (75mm) hangers for ducts not over 48" (1200mm) wide and 24" (600mm) high. 2" (50mm) hangers must be spaced at 4 foot (1.2m) (max.) intervals.

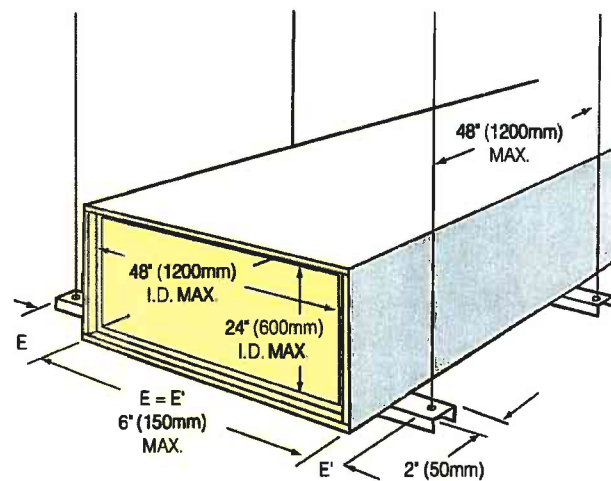


Fig. 6-3B. Use of 2" (50mm) wide hanger channels for ducts of less than 48" (1200mm) width x 24" (610mm) height.

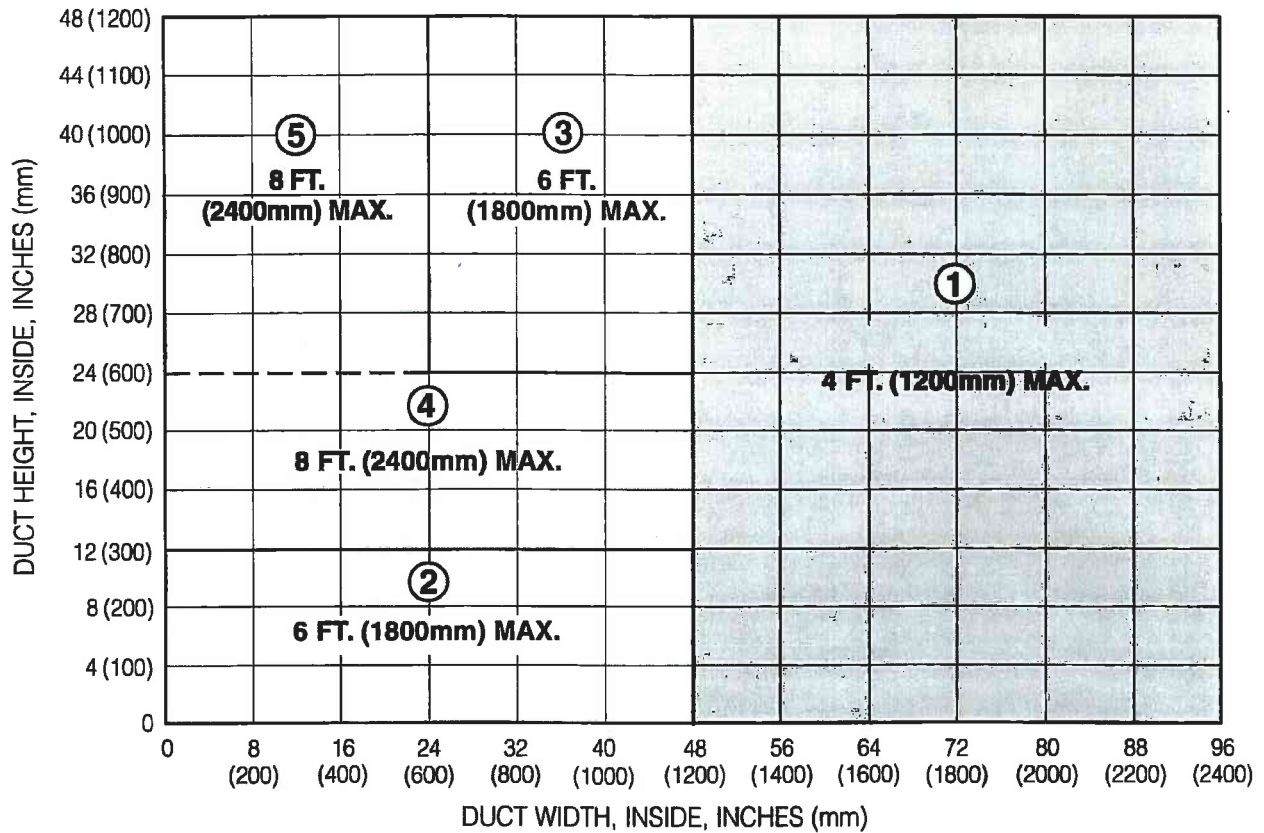


Fig. 6-4. Maximum hanger spacing chart for straight duct, 3" (75mm) wide channel.

DUCT SIZE, IN. (mm)	MAXIMUM HANGER SPACING
① Width 48" (1200mm) or greater	4 ft. (1200mm)
② < 48" (1200mm) wide & < 12" (300mm) high	6 ft. (1800mm)
③ Width >24" (600mm) & <48" (1200mm), height >24" (600mm)	6 ft. (1800mm)
④ Width < 48", height > 12" (300mm) and < 24" (600mm)	8 ft. (2400mm)
⑤ Width < or = 24" (600mm), height > 12" (300mm)	8 ft. (2400mm)

Table 2. MAXIMUM HANGER SPACING BY DUCT SIZE