

HEATING VENTILATING AIR CONDITIONING GUIDE 1944

generally used because it is simplest to install. Blanket type insulations are applied only to round or curved surfaces, and are secured with twine and lagged with sewed-on canvas. Semi-rigid type insulation, secured by adhesive, flat wire bands, and corner clips, is lagged with canvas only where exposed. Blanket type insulation is at least 1 in. thick. The thickness of semi-rigid insulation is frequently selected in accordance with the values given in Table 2.

TABLE 2. DUCT INSULATION THICKNESS FOR USE IN SHIPS

APPLICATION	THICKNESS IN.
Tempered air ducts in unheated spaces where a temperature differential greater than 35 F exists.....	1/2
Cold air ducts, supply and exhaust passing through heated spaces.....	1
Exposed ducts in heated spaces, carrying reheated air.....	1/2
Concealed ducts carrying reheated air, adjacent structure exposed.....	1
Concealed ducts carrying reheated air, adjacent structure not exposed.....	1/2
Ducts serving only the space in which they are located.....	None
Exhaust ducts carrying hot gases (galley, forges, etc.), in living and working spaces.....	1
Supply ducts in machinery spaces and similar hot spaces, serving spaces other than the hot spaces through which they pass.....	1
Heaters.....	1
Ducts subject to excessive sweating.....	1/2

Fans are seldom insulated. Preheaters are frequently located close to the fresh air intake in order to conserve insulation, and for the same reason zone reheaters are located as close to the zone as possible. Where a reheater serves only one space, the heater is commonly located in the space.

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EMERGENCY WAR PRACTICES

INFORMATION given in the Technical Data Section of THE GUIDE is based on standard and commonly accepted good practices. Due to war conditions and in order to save critical materials for war service many substitutions in materials and changes in methods have been necessary. Recent changes in priority regulations have had a tendency to relax some of the restrictions that have been placed upon the use of some metals in producing heating and air conditioning equipment, but nevertheless it will undoubtedly be necessary to continue the use of substitute materials wherever feasible during the emergency.

Regulations by the War Production Board have banned the manufacture, installation and sale of heating, ventilating, air conditioning and refrigeration equipment of almost all kinds except for essential war and civilian use. Interpretation of the regulations discloses that all air conditioning for personal comfort is eliminated, and equipment for supplying preference orders only can be made available. In this way, the most essential needs of the war program, by virtue of their high priority rating, have first access to whatever equipment is available. Provision has been made for securing materials to permit emergency repair services to be rendered on existing equipment.

As amendments to these orders are made from time to time to meet current needs, it is not feasible to include a list of these regulations but they are available at all regional and local offices of W. P. B.

Whereas, there was a tendency at first to reduce ventilation standards as a means of saving fuel during the emergency, greater emphasis is now being placed upon intelligent operation of heating, ventilating, and air conditioning systems. Public attention is being directed to correction of fuel burning equipment and to the advisability of maintaining temperatures at the minimum allowable value for reasonable comfort. The emphasis upon saving fuel is being continued in Government publicity, and consequently the engineer must continue to seek out ways and means of accomplishing the necessary fuel economy in every type of plant as fuel is a weapon of war.