

Section 6.7. Piping Systems

6.7.1. Piping for Heating and Cooling Systems

6.7.1.1. Piping Materials and Installation

- 1) Piping shall be made from materials designed to withstand the effects of temperatures and pressures that may occur in the system. (See Articles 3.1.5.19., 3.1.9.1., 9.10.9.6. and 9.10.9.7. for fire safety requirements.)
- 2) Every pipe used in a heating or air-conditioning system shall be installed to allow for expansion and contraction due to temperature changes.
- 3) Supports and anchors for piping in a heating or air-conditioning system shall be designed and installed to ensure that undue stress is not placed on the supporting structure.

6.7.1.2. Clearances

- 1) Clearances between *combustible* material and bare pipes carrying steam or hot water shall conform to Table 6.7.1.2.

Table 6.7.1.2.
Clearance Between Steam or Hot Water Pipes and Combustible Material
 Forming Part of Articles 6.4.2.1. and 6.7.1.2., and Sentence 6.4.3.1.(2)

Steam or Water Temperature, °C	Minimum Clearance, mm
Up to 95	No clearance
Above 95 to 120	15
Above 120	25

6.7.1.3. Surface Temperature

- 1) The exposed surface temperature of a steam or hot water radiator shall not exceed 70°C unless precautions are taken to prevent human contact. (See Note A-6.5.1.1.(3).)

6.7.1.4. Protection

- 1) Where a pipe carrying steam or hot water at a temperature above 120°C passes through a *combustible* floor, ceiling or wall, the construction shall be protected by a sleeve of metal or other *noncombustible* material not less than 50mm larger in diameter than the pipe.

6.7.1.5. Piping in Shafts

- 1) Where piping for heating or air-conditioning systems is enclosed in a shaft, the requirements of Article 3.6.3.1. for shafts shall apply.

6.7.2. Storage Bins

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- 1) Service pipes passing through a storage bin for solid fuel shall be protected or so located as to avoid damage to the pipes.
- 2) Except for fuel-thawing pipes, every pipe designed to operate at a temperature of 50°C or above shall be located where solid fuel cannot be stored in contact with it.