

JIS

JAPANESE INDUSTRIAL STANDARD

Warm air furnaces

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Warm air furnaces

A 4003-1995

1. Scope This Japanese Industrial Standard specifies warm air furnaces with a rated heating capacity not less than 18.6 kW {16000 kcal/h} employing kerosine, fuel oil, town gas or liquefied petroleum gas as the fuel and mainly used for heating. However, space heaters specified in JIS S 2039 and JIS S 2122 are excluded.

Remarks 1. The standards cited in this Standard are shown in Attached Table 1.

2. The units and numerical values in { } in this Standard are based on the traditional units and are appended for informative reference.

2. Definitions For the purpose of this Standard, in addition to the definitions specified in JIS B 0113, and JIS S 2091, the following principal definitions apply.

- (1) gas duct A path which leads the flue gas from the heat exchanger to the exhaust pipe or chimney in a warm air furnace.
- (2) chimney A path through which flue gas is exhausted outdoors which has a rising part and on which draft effect can be expected.
- (3) non-ignition Such a phenomenon that the fuel is not ignited in the igniting operation.
- (4) dew formation Such an atmospheric phenomenon that the temperature of air or flue gas which comes in contact with the surface of a cool substance decreases and water drops are formed due to condensation of water vapor when the humidity at that part becomes 100 %.

3. Classification and symbolization Warm air furnaces are classified in accordance with the type and the fuel to be used, and symbolized as stated below.

3.1 Classification by type The classification by type shall be as stated in Table 1.

Table 1. Classification by type

Type		Symbol	Informative reference
Direct blow-out type	A furnace which is installed in a room to be heated, directly blows out warm air in the room, and in which the warm air blower is built-in the appliance body.	P	Attached Fig. 1
Duct connection type with built-in blower	A furnace which sends warm air to the room to be heated through a duct and in which the warm air blower is built-in the appliance body.	D	Attached Fig. 2
Duct connection type with separate blower	A furnace which sends warm air to the room to be heated through a duct and in which the warm air blower is separately installed without built-in the appliance body.	S	Attached Fig. 3