



State of Ohio
Weatherization Program
Standards

Section	MECHANICAL SYSTEMS FINAL INSPECTION
Subject	Heat Distribution Systems

FORCED-AIR DISTRIBUTION SYSTEM 401-5.1

Ensure that the blower motor and fan are clean and operating properly.

**fan operation/
condition**
401-5.1a

Ensure that the fan control properly activates the fan.

fan control
401.5.1b

Ensure that none of the registers are blocked. Ensure that there are no open ducts or registers either exhausting heat or drawing in return air from outside the heated area. Ensure that the resident knows why it is important that registers are not to be blocked.

**register locations
and blockage**
401-5.1c

CEE

Ensure that any existing asbestos has not been disturbed (see 114-1.4a).

asbestos
401-5.1d

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Ensure that all the ductwork is connected and in good condition.

**condition/
disconnected sections**
401-5.1e

Ensure that all the existing flex duct is in good condition and without any restrictions. Ensure that all the suspended ductwork has proper hangers, which do not restrict air flow.

flex duct
401-5.1f

Ensure that all return ducts are in good condition, that they are sealed and complete, running from the return grill in the living space to the furnace.

return ducts
401-5.1g

Ensure that all the supply ducts are in good condition and that there are no leaks in non-conditioned or unintentionally conditioned areas.

supply ducts
401-5.1h

Ensure that return and supply ducts in nonconditioned areas are insulated with vinyl-backed R-6 fiberglass duct insulation. Ensure that proper clearances from vent pipes have been observed.

duct insulation
401-5.1i

WARNING: Make sure that no duct work on a solid fuel furnace system is insulated because of possible high temperatures.

furnace filter
401-5.1j



Ensure that the furnace filter has been changed or is in new condition, and the customer has been instructed on how to change the filter.

GRAVITY DISTRIBUTION SYSTEM 401-5.2

register locations and blockage
401-5.2a



Ensure that none of the registers are blocked. Ensure that there are no open ducts or registers either exhausting heat or drawing in return air from outside the heated area.

asbestos
401-5.2b



Ensure that any existing asbestos has not been disturbed (see 114-1.4a).

condition/disconnected sections
401-5.2c

Ensure that all the ductwork is connected and in good condition.

flex duct
401-5.2d

Ensure that all the existing flex duct is in good condition, and that there are no runs longer than 14 feet without rigid-metal connectors present. Ensure that all the suspended ductwork has proper hangers which do not restrict air flow.

return ducts
401-5.2e

Ensure that all the return ducts are in good condition, that they are sealed and complete, running from the grill in the living space to the furnace.

supply ducts
401-5.2f

Ensure that all the supply ducts are in good condition, and that there are no supply air leaks in non-conditioned or unintentionally conditioned areas.

duct insulation
401-5.2g



Ensure that supply and return ducts which pass through non-conditioned areas are insulated with vinyl-backed R-6 fiberglass duct insulation. Maintain proper clearances from the vent pipe.

WARNING: Make sure that no duct work on a solid fuel furnace system is insulated because of possible high temperatures.

BOILER DISTRIBUTION SYSTEM 401-5.3

Ensure that all the distribution water lines including valves, joints, etc. are in good condition and free of leaks.

distribution water lines
401-5.3a

Ensure that all the heat distribution water pipes running through non-conditioned areas are insulated with foam pipe wrap. Where the distribution pipes run near any combustion appliance vent pipes, ensure that the required distances to combustible surfaces is observed.

water lines insulation
401-5.3b

Ensure that all the radiators and heat transfer fin connections are free of leaks. Ensure that the heat transfer fins are clean and not bent.

heat transfer fins, radiators
401-5.3c

Ensure that the bleeder valves are not leaking or defective.

bleeder valves
401-5.3d

Ensure that there are no leaking or corroded zone valves.

zone valves
401-5.3e

CEE

ELECTRIC BASEBOARD DISTRIBUTION SYSTEM 401-5.4

Ensure that the baseboard distribution system is in good working condition. Ensure that the heat transfer fins are clean and not bent. Ensure that the customer has been informed about the importance of keeping the fins clean and that the heaters should not be blocked with furniture or other objects.

heat transfer fins
401-5.4a