

Sheet Metal Work and Ducts

1. Gage and kind of metal.
2. Joints and seams.
3. Stiffeners and supports.
4. Access doors.
5. Encasements and housings as for convectors.
6. Inlet and outlet hoods, louvers, etc.
7. Dampers and damper controls.

Registers, Grilles and Diffusers

1. Where required.
2. Kinds, material, design, etc.
3. Finish.
4. Define where registers with bodies and where plain grilles without louvers are to be used.

Unit Ventilating Machines

1. Type and capacity.
2. Control of output.
3. Type of electric current, wiring, switches, etc.
4. Intake hoods, dampers and control.
5. Auxiliaries, as humidifiers, dust filters, etc.
6. Sound proofing.

Unit Heating Machines

1. Type and capacity.
2. Control of output.
3. Pipe connections, valves, traps, etc.
4. Type of electric current, wiring, switches, etc.
5. Auxiliaries, as humidifiers, dust filters, etc.
6. Sound proofing.

Belts, Chain Drives, Etc.

1. Make.
2. Number.
3. Size and thickness.
4. Speeds and horsepower to be transmitted.

Automatic Heat Control

1. Make and kind of system; electric, compressed air, etc.
2. How blast convectors are to be controlled.
3. How dampers are to be controlled.
4. Transformers, air compressor, etc.
5. Piping or wiring.
6. Schedule of thermostats, valves and dampers.

Indicating and Recording Equipment

1. Thermometers.
2. Pressure gages.
3. Meters.
4. Scales.

Equipment for Maintenance

1. Tools.
2. Packing and gaskets.
3. Lubrication.

Underground Piping

1. Material.
2. Supports, anchors and expansion devices.
3. Insulation and covering.
4. Drainage and waterproofing.

Trenches and Trench Covers

1. Furnished by whom.
2. Material, size, etc.
3. Provision for drainage.

Railings, Machinery Guards, Bird Screens, Etc.

1. Material.
2. Method of fastening.

Painting

1. What is to be painted.
2. Materials and workmanship.
3. Painting of insulation.

GENERAL NOTES

1. There is a tendency to use boilers with jackets of metal outside of the insulation, built on at the point of manufacture. Light, steel casings to prevent unauthorized air infiltration often are used outside of brick encasement for horizontal return tubular and firebox boilers. Steel is used in place of the non-fireproof canvas on the outside of the insulation for large steel-heating boilers.

2. The insulation on a breeching should be kept at least $\frac{1}{2}$ in. away from the flat hot surface of the breeching. An excellent way to accomplish this is to provide rings of angle or tee steel around the breeching about 30 in. apart, with $\frac{3}{8}$ in. or $\frac{1}{2}$ in. steel rods between them, the blocks of insulation being wired to the rods. Provision for expansion and contraction of the insulation always should be made on large breechings.

3. Light weight copper tubing and bronze fittings, also special cast metal piping, are available and may be used where rapid corrosion is apprehended, or where the pipes will be inaccessible due to the exigencies of building construction.

Heating pipes should not be buried in tile, as for instance, under a concrete floor. If some unusual condition should require that pipes be buried, it is advisable to use an extra-durable construction such as copper, brass or cast iron, making provision for expansion and contraction and for drainage.

4. If an air washer or a water tank is located above inhabited quarters in a building, it is recommended that the floor under the entire equipment be made water tight with copper or a membrane waterproofing course, and that all service pipes be brought around this roof rather than through it. Inasmuch as it is difficult to make and to maintain watertight tanks, pipe sleeves, overflow boxes, etc., it is recommended that an artificial roof be installed under them.

5. It is suggested that automatic water feeders be installed where automatic fuel burning equipment such as electric stokers, oil burners and gas burners are used, with boilers which depend on a locally-pumped supply of feed water, so as to save the boilers in case of pump failure. There should also be provided thermostatically-influenced devices which will stop the fire in case the products of combustion leave the boiler at a temperature so high as to indicate low water.

It is practical to pump all of the boiler feed water through a pneumatic tank or through a hydrostatic pressure tank, allowing the automatic boiler feeders to handle all