

AEROFIN

NON-FREEZE

PIPING DIAGRAMS

BULLETIN P-56

AEROFIN

4621 Murray Place

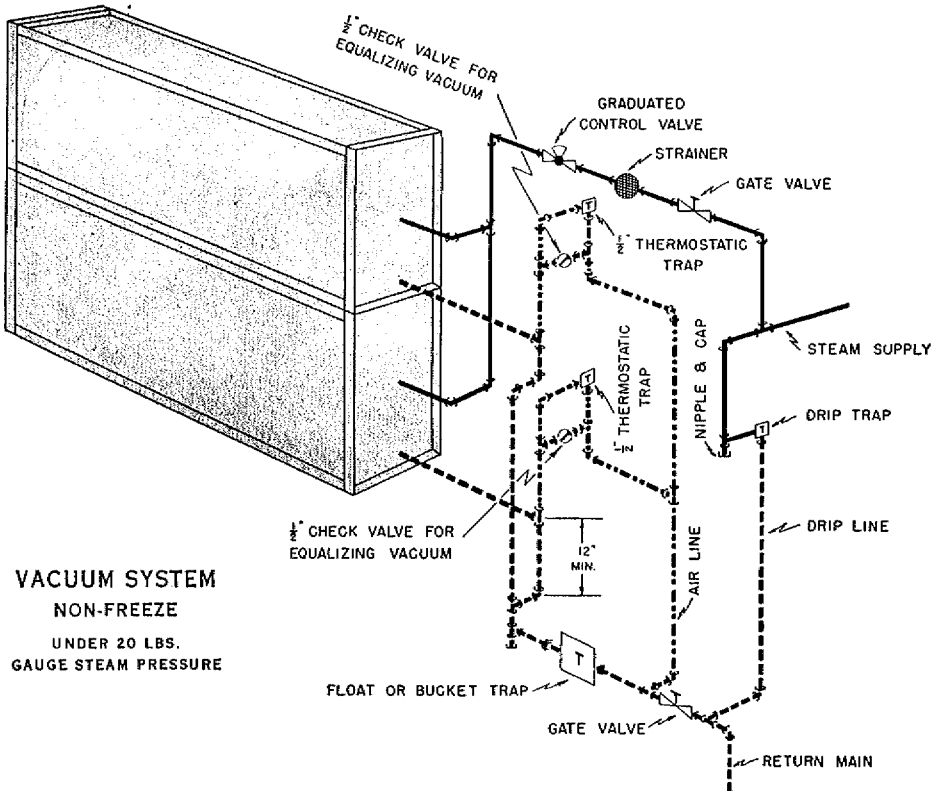
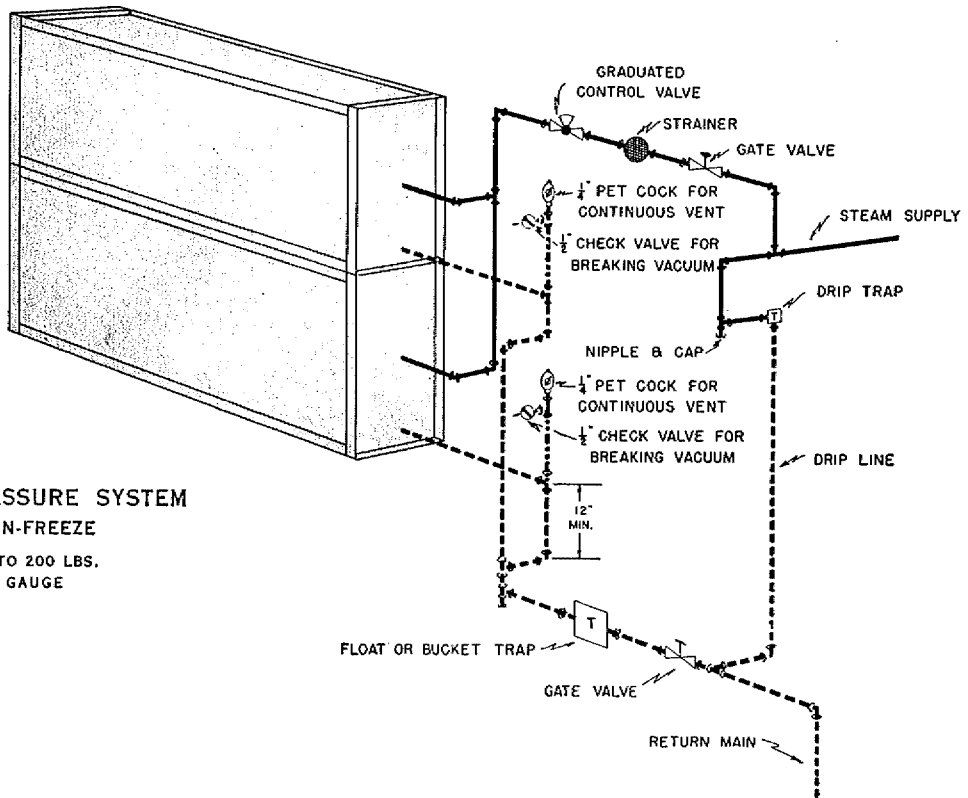
804-845-7081

LYNCHBURG, VIRGINIA

Fax 528-6242

Dial 1-800-AEROFIN In Continental U S A

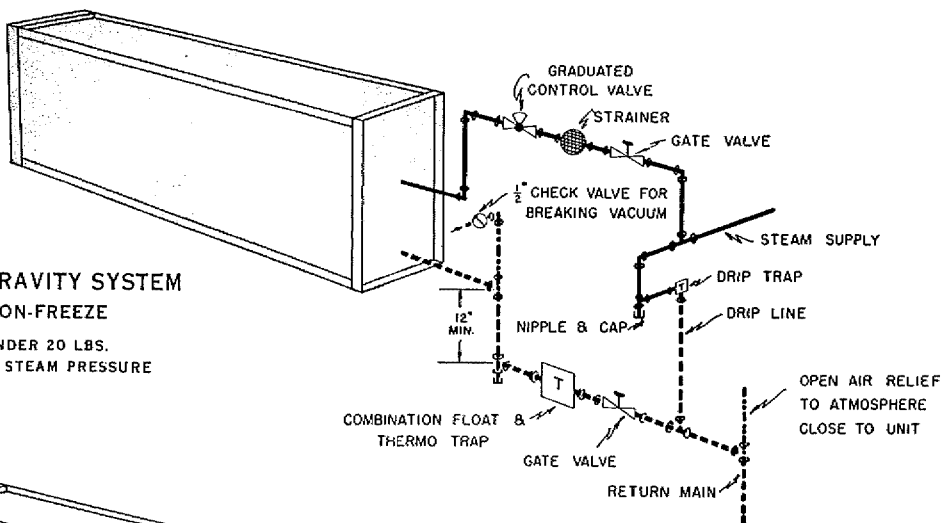
**HIGH PRESSURE SYSTEM
NON-FREEZE
UP TO 200 LBS.
GAUGE**



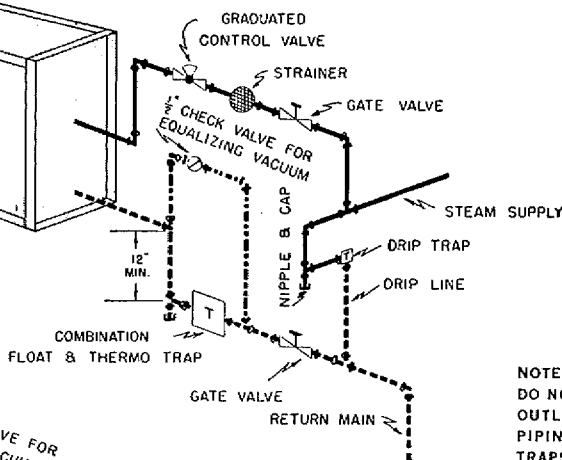
**VACUUM SYSTEM
NON-FREEZE
UNDER 20 LBS.
GAUGE STEAM PRESSURE**

NOTE —
DO NOT BUSH COIL
OUTLETS. MAKE RETURN
PIPING FULL SIZE TO
TRAPS

**OPEN GRAVITY SYSTEM
NON-FREEZE
UNDER 20 LBS.
GAUGE STEAM PRESSURE**

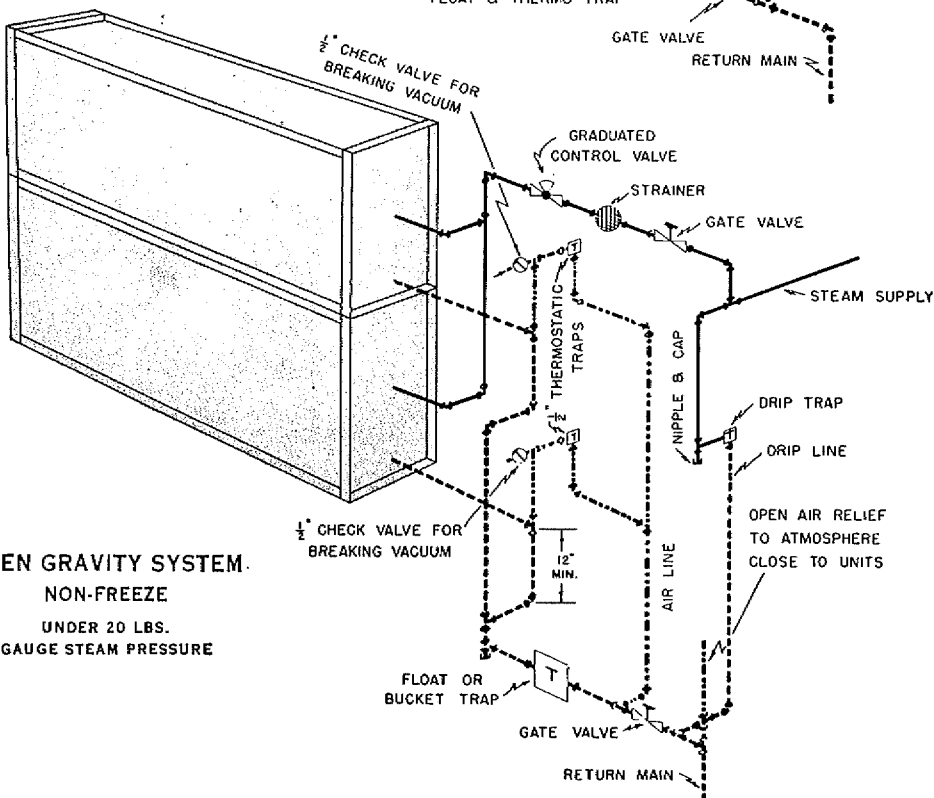


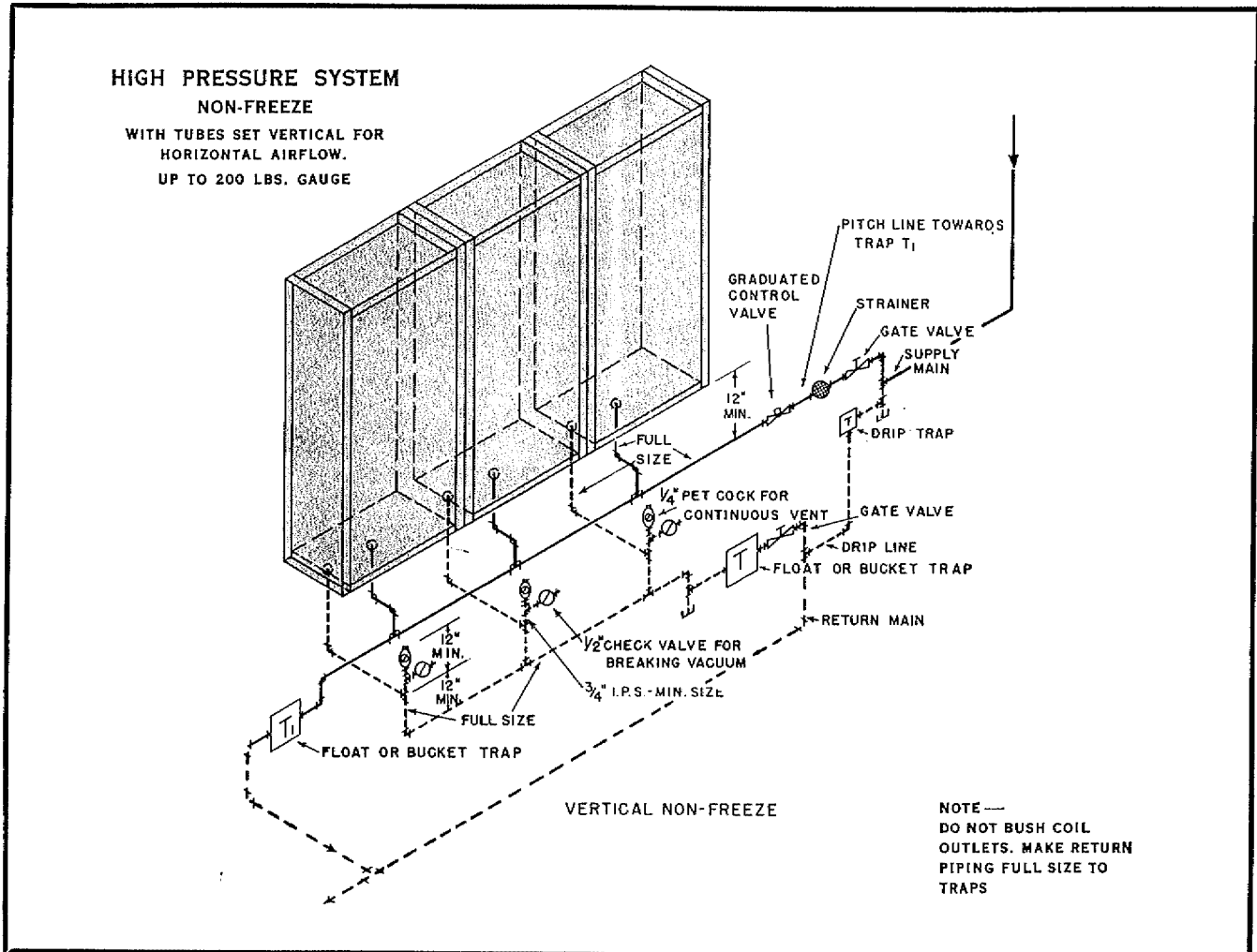
**VACUUM SYSTEM
NON-FREEZE
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NOTE —
DO NOT BUSH COIL
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PIPING FULL SIZE TO
TRAPS

**OPEN GRAVITY SYSTEM.
NON-FREEZE
UNDER 20 LBS.
GAUGE STEAM PRESSURE**





PIPING CONNECTIONS • IMPORTANT NOTES

1. Don't bush return outlets of Heaters. Make connection full size of Heater Return, reducing at trap.
 2. Use Thermostatic Traps for venting only. Use only float, bucket or float and thermostatic traps for removing condensate. These traps should be selected to handle 2 1/2 times the rated condensate from the coils. The trap should be selected for the actual pressure under which it must operate. This pressure is not the boiler pressure, but is the gauge pressure at the trap, plus the vacuum in the return main or minus the pressure in this main. Assurance must be made that the trap will handle all ranges of loads, at the various pressure differentials, required of a modulated system.
 3. Don't use 45° or vertical lift Check Valves. Use only 15° Check Valves as they open with lower head of water.
 4. Don't drip stream mains into coil sections, drip them on pressure side of control valve and trap into return main beyond trap from coil.
 5. Don't oversize control valve, select valve from steam load and not from coil supply connection.
 6. Don't use a single trap for 2 or more coils installed in series. Each group or bank of coils under separate control must have a separate trap.
 7. A separate trap on each coil is recommended for best results.
 8. Don't try to lift condensate above coil return into overhead main, or drain into mains under pressure with modulating or on and off steam control valves. A pump and receiver or boiler return trap should be installed between coil condensate traps and overhead mains and return mains under pressure.
 9. Don't fail to use strainer (3/16" Mesh) as shown by piping diagrams on steam supply side, to avoid collection of scale or other foreign matter in distributing orifices.
- NOTE: *Non-Freeze, laid flat for vertical airflow, must be installed with tubes draining downward toward the header end of the coil.*
10. Don't fail to provide all coils with proper air vents to eliminate non-condensable gases.
 11. Don't fail to provide vacuum breaker as shown in piping diagrams.
 12. Don't support steam piping from Aerofin units. Both mains and coil sections should be supported independently.