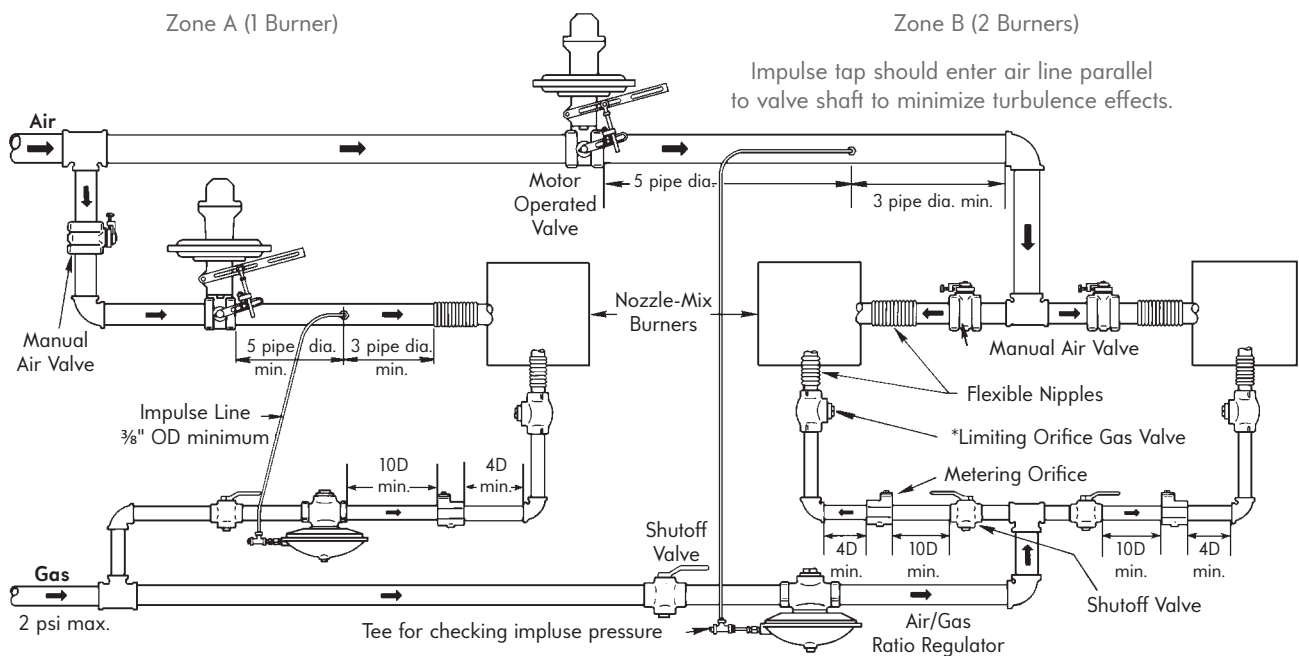


suggested piping



*Limiting orifice gas valves must be mounted as close to the burner as possible.

INSTALLATION

To minimize leaks around tile and to prevent cracking of tile by thermal expansion in the wall, see Supplements DF-M1 (for hard refractory lined furnaces) and DF-M2 (for fiber lined furnaces) for installation recommendations.

LIGHTING AND ADJUSTMENT

WARNING: Startup and adjustment of combustion equipment should only be done by trained personnel familiar with combustion technology, combustion equipment, and with the particular burner system, equipment, and controls.

1. Make sure all fuel shutoff valves are closed. Close limiting orifice gas valves on initial lighting. Open furnace doors and flue dampers.
2. Start blower and check direction of blower rotation. Monitor motor amperage during initial starting and adjustment periods.
3. Open manual and motorized combustion air valves wide to purge furnace.
4. Adjust motorized valve linkage for desired high and low fire.
5. When furnace is purged of all combustion gases and vapors, turn air control valves back to low fire position, leaving individual burner air valves wide open. Light pilots in accord with pilot instructions.
6. Use a screwdriver to open the limiting orifice valve 3-4 turns (counterclockwise). Open gas shutoff valve. If burner does not light within a few seconds, close shutoff valve. Open limiting orifice 1-2 more turns. Purge furnace again.

Open gas shutoff valve. Repeat procedure until flame lights. Adjust as needed while slowly turning motorized air valve to high fire.

7. Make final limiting orifice valve setting by reading high fire gas flow across metering orifice and comparing it to catalog air flow through burner at indicated inlet pressure. Replace cover on limiting orifice gas valve.
8. To adjust burner for low fire, return motorized air valve to low fire without changing limiting orifice gas valve setting; then adjust ratio regulator for desired flame (see Instructions 7218).
9. If other burners are supplied by the same ratio regulator, settings for their limiting orifice valves can be approximated by counting the number of turns the adjusting screw on the first valve (step 6) was opened.
10. Turn all burners to high fire and, if necessary, readjust limiting orifice gas valves.
11. Turn all burners back to low fire, and if necessary, readjust the regulator spring as in step 8.

If flame supervision is used, refer to Bulletin 8832 and Supplement 8832-1.

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Components in combustion systems may exceed 160°F (71°C) surface temperatures and present hot surface contact hazard. Fives North American Combustion, Inc. suggests the use of combustion systems that are in compliance with all Safety Codes, Standards, Regulations and Directives; and care in operation.

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