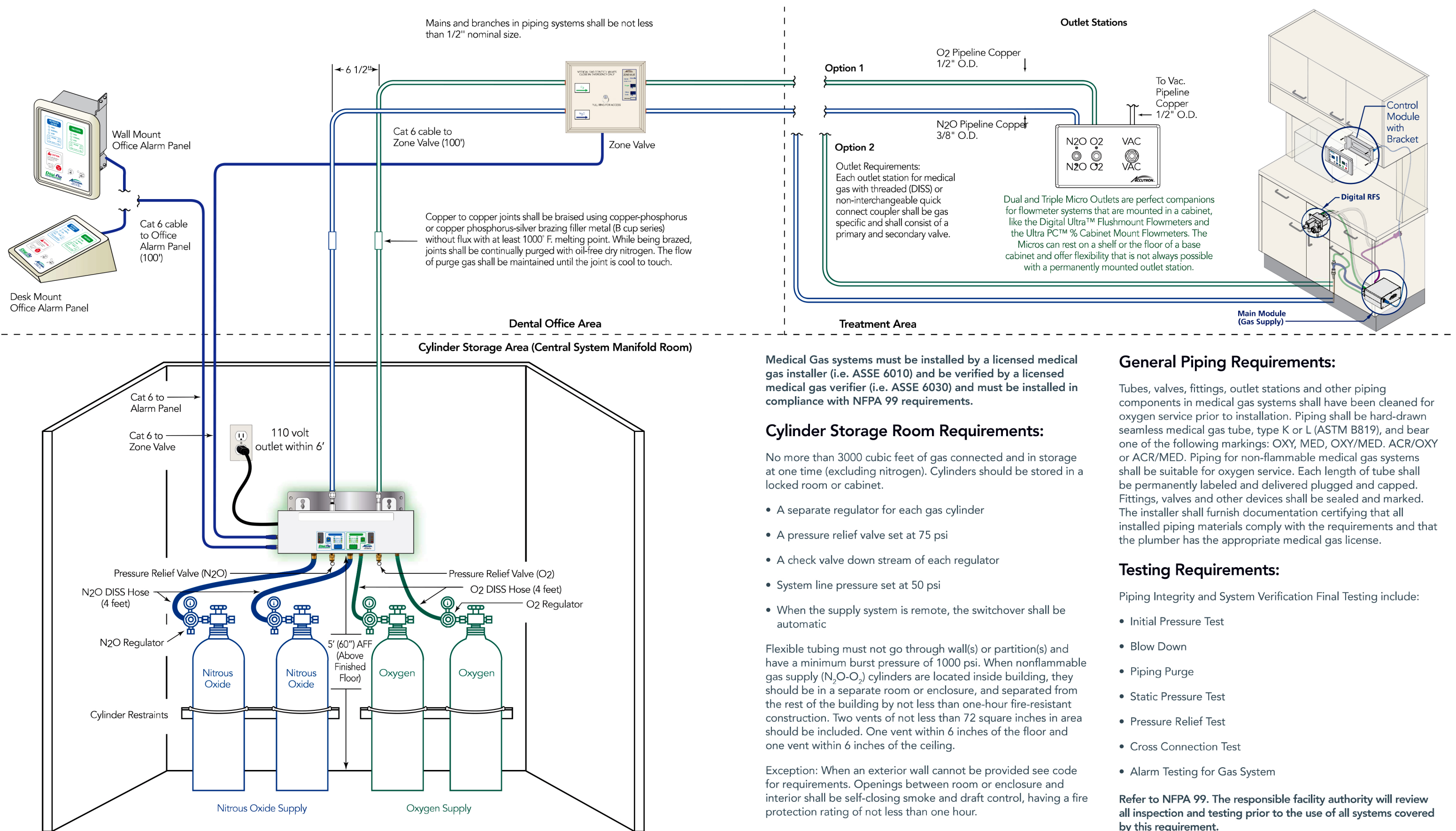


Central System Schematic



Medical Gas systems must be installed by a licensed medical gas installer (i.e. ASSE 6010) and be verified by a licensed medical gas verifier (i.e. ASSE 6030) and must be installed in compliance with NFPA 99 requirements.

Cylinder Storage Room Requirements:

- No more than 3000 cubic feet of gas connected and in storage at one time (excluding nitrogen). Cylinders should be stored in a locked room or cabinet.
- A separate regulator for each gas cylinder
- A pressure relief valve set at 75 psi
- A check valve down stream of each regulator
- System line pressure set at 50 psi
- When the supply system is remote, the switchover shall be automatic

Flexible tubing must not go through wall(s) or partition(s) and have a minimum burst pressure of 1000 psi. When nonflammable gas supply (N₂O-O₂) cylinders are located inside building, they should be in a separate room or enclosure, and separated from the rest of the building by not less than one-hour fire-resistant construction. Two vents of not less than 72 square inches in area should be included. One vent within 6 inches of the floor and one vent within 6 inches of the ceiling.

Exception: When an exterior wall cannot be provided see code for requirements. Openings between room or enclosure and interior shall be self-closing smoke and draft control, having a fire protection rating of not less than one hour.

General Piping Requirements:

Tubes, valves, fittings, outlet stations and other piping components in medical gas systems shall have been cleaned for oxygen service prior to installation. Piping shall be hard-drawn seamless medical gas tube, type K or L (ASTM B819), and bear one of the following markings: OXY, MED, OXY/MED, ACR/OXY or ACR/MED. Piping for non-flammable medical gas systems shall be suitable for oxygen service. Each length of tube shall be permanently labeled and delivered plugged and capped. Fittings, valves and other devices shall be sealed and marked. The installer shall furnish documentation certifying that all installed piping materials comply with the requirements and that the plumber has the appropriate medical gas license.

Testing Requirements:

Piping Integrity and System Verification Final Testing include:

- Initial Pressure Test
- Blow Down
- Piping Purge
- Static Pressure Test
- Pressure Relief Test
- Cross Connection Test
- Alarm Testing for Gas System

Refer to NFPA 99. The responsible facility authority will review all inspection and testing prior to the use of all systems covered by this requirement.

Note: At the time of this printing, NFPA 2005, 2012, 2015, and 2018 are in use in North America. It is important to consult with your local municipality to confirm which codes(s) they have currently adapted.