

▲ CSA Codes

To assure the safe installation of Nitrous Oxide Sedation Systems some provinces have recently adopted "C.S.A. STANDARD Z305.1-1992 Nonflammable Medical Gas Piping Systems" as a mandatory requirement within their Building Code. Porter Instrument Company sedation systems are designed to meet or exceed the C.S.A. equipment specifications for a single health care facility containing 10 or less use points. For complete installation details, system designers and installers are urged to order a copy of the C.S.A. Standard from:

**Canadian Standards Association
178 Rexdale Blvd., Etobicoke, Ontario M9W IR3 (416) 747-4044**

Summary of Requirements:

1. No more than 2000 cubic feet total capacity of all gas connected to pipeline in the tank room.
2. Gas stored in a locked cabinet or room. Room must not communicate with anaesthetizing locations.
3. At least 72 sq. inches of vent area in the cabinet or room.
4. Supplies 10 or less terminal units within a single health care facility.
5. A decrease in oxygen pressure shall cause either a proportional decrease in nitrous oxide supply or shut-off the nitrous oxide supply completely.
6. A single set of zone valves shall be required for each suite on one level. Multilevel facilities will require more than one zone valve.
7. Pressure relief valves set at approximately 75 psi for oxygen and 60 psi for nitrous oxide shall be installed downstream of the pressure regulators and upstream of any shut-off valve.
8. Nitrous oxide pipelines may be 1/4" or larger, oxygen pipelines MUST be a minimum of 1/2".
9. A service isolation shut-off valve for each medical gas pipeline shall be installed in the line as close as possible to the regulator. The cylinder valve is considered an isolation shut-off valve if system has one nitrous oxide cylinder.
10. An audible and visual alarm, set at 40 psi low, and 60 psi high, must be in a constantly monitored area. Alarm sensors shall be downstream of system Zone Valve.
11. Type "K" or "L" seamless, precleaned, degreased capped and hard temper copper tubing only. Soft temper tubing is NOT PERMITTED.
12. During the brazing of pipe connections a small purge of dry nitrogen shall be used.
13. All joints must be silver brazing alloy conforming to AWS Classification BCuP-5.
14. Flexible hoses must NOT penetrate walls, floors, ceilings or partitions. Maximum length is 5 feet.
15. System must be tested for leaks with dry nitrogen for a minimum of 6 hours at 150 psi.
16. Prior to being commissioned for use, the medical gas piping system shall be certified by a testing agency employed directly by the health care facility or the Regulatory Authority. The test agency must meet the requirement of the Standards Council of Canada.
17. An alternate source of oxygen shall be readily available for use in the event of a failure of the medical gas piping system. Order PORTER Emergency Resuscitation System #1536-1 or alternative oxygen administration equipment shown on page 10.

NOTE: Requirements 5, 7, 9 and 10 are accommodated by design into the Canadian Porter Manifold System and Zone Valve.

**For full information concerning installation procedures or requirements,
contact your full service dental dealer or Benson Medical Industries, Inc.**