

003

## INSTALLATION INSTRUCTIONS

### GAZFLEX

#### DESCRIPTION

Gazflex is a flexible convoluted stainless steel tubing with a bright yellow PVC cover. The specifications and identification of Gazflex are continuously printed on this cover.

The stainless steel end fittings have an integral wrench hex and are supplied with male tapered pipe threads to conform to the ANSI B 1.20.1 code. These fittings are also internally beveled 30 degrees to mate with S.A.E. J-486 adapter unions.

Each Gazflex pre-assembled unit is pressure tested, capped and packaged at the factory and is ready for installation.

Gazflex is available from stock in lengths from 18" to 50' with increments as shown on chart "LENGTH AVAILABILITY". Lengths up to 800' are available on order from the factory.

Gazflex comes in 4 sizes :

- (1) Gazflex-9, 3/8" nom. i.d. (9mm) c/w 1/4" npt male e/e
- (2) Gazflex-13, 1/2" nom. i.d. (13mm) c/w 3/8" npt male e/e
- (3) Gazflex-19, 3/4" nom. i.d. (19mm) c/w 1/2" npt male e/e
- (4) Gazflex-25, 1" nom. i.d. (25mm) c/w 3/4" npt male e/e

Gazflex has a maximum working pressure of 125 psi (862 kPa) on all sizes.

All sizes have a safety factor of 1000 psi (6900 kPa)

#### APPLICATION

Gazflex is designed to facilitate permanent connections of gas appliances to a central manifold or meter.

Gazflex can be installed as easily as electrical wiring: routing, bending and clamping for neatness and safety.

Gazflex can be used indoors, outdoors and in underground applications.

Gazflex may be bent to the minimum radius specified in the "Recommended Minimum Bend Radius" chart, without damaging the tube and without causing restriction of the i.d.

#### RECOMMENDED MINIMUM BEND RADIUS

|            |                         |
|------------|-------------------------|
| Gazflex-9  | 1.25 inches ( 31.75 mm) |
| Gazflex-13 | 1.50 inches ( 38.10 mm) |
| Gazflex-19 | 2.00 inches ( 50.80 mm) |
| Gazflex-25 | 4.50 inches (114.30 mm) |

#### SELECTION

- 1) Order correct lengths: calculations should ensure that Gazflex assemblies are of sufficient length to be installed without any intermediate joining although joining is permitted using standard pipe threaded couplings. A slack allowance of 5 to 10 percent is recommended. See "Length Availability" chart.
- 2) To order the correct i.d.: refer to "Maximum Capacity Pressure Drop" chart, according to the pressure drop permitted by the CAN/CGA-B 149.1 code.
- 3) To order the correct unions, clamps and protective plates: refer to "Gazflex Accessories" chart.

#### INSTALLATION

Gazflex shall be installed according to the applicable construction codes and the requirements of the gas utility companies.

Gazflex has an abrasion resistant cover and like electrical wiring can be "fished" through existing structures.

Holes must be drilled 1/2" larger than the Gazflex o.d. to enable Gazflex to move freely. Gazflex clamps allow free movement when fully closed.

Gazflex should be supported at intervals not greater than 6 feet (2m) apart with galvanized steel clamps.

THE TUBING SUPPORTS SHALL HAVE A MELTING TEMPERATURE OF NOT LESS THAN 1000°F.

Gazflex installed through holes in joists and studs shall be considered to be supported.

Where possible, install Gazflex 2" (50mm) from outside surfaces of walls, floors, and ceilings.

If Gazflex must be installed closer than 2" (50mm) of any outside surface, it must be free to move to prevent mechanical injury.

If Gazflex movement is restricted, a protective plate, rigid pipe or flexible metallic conduit must be installed (see installation drawing).

Installations which permit Gazflex to move freely are preferable.

Gazflex must not be torqued (twisted) during installation. SAE J-846 unions may be used to finish off end connections. See "Gazflex Accessories" chart.

Gazflex may be used with other types of pipe and tubing to its maximum working pressure.

Where Gazflex is run through or along metal studs and joists, it shall be protected by an insert of insulating material or grommet adequately secured to the member where it passes through these materials, to protect it from mechanical injury.

Install Gazflex decals in a prominent location.

Gazflex tubing is not acceptable for liquid propane systems, because pressure requirement can exceed 125 p.s.i.

#### GAZFLEX AND FLEXIBLE APPLIANCE CONNECTORS:

Gazflex has been tested by C.G.A. and has passed the required tests for pressure, bending and torsion (Ref. C.G.A. - file S.T.P. 399 6-27-91) to standard CAN/CGA-6.10-M88, metal connectors for gas appliances.

This means Gazflex provide flexibility at the appliance and has the length selection to allow the installer to run from the meter to the appliance regardless of distance.

**Note:** Gazflex is not intended to be used as a connector for movable gas appliances (CAN/CGA-6.16-M87). Gas-fired commercial cooking equipment on casters and other large and heavy movable gas-fired equipment requires a heavy duty, approved connector complete with restraining device. Gazflex can be used up to this connector.

#### **OUTDOOR USE:**

Gazflex is coated with an ultra-violet resistant jacket to prevent sunlight deterioration. The stainless steel interior and the stainless steel fittings also resist atmospheric corrosion.

#### **Installation:**

- (1) Gazflex shall be mounted, braced, clamped and supported to provide for expansion, contraction, jarring, vibration and setting, and protected against damage or breakage due to strain, wear and mechanical impact.
- (2) Gazflex, when passing through exterior walls of either masonry or concrete, needs no additional sleeving or wrapping as the cover is an integral protective coating.
- (3) Gazflex, when used on roof-top installations shall be continuously supported with treated wood planks. Support clamps are required at least every 6 feet.

#### **UNDERGROUND USE:**

Gazflex is an excellent choice for underground service. The plastic jacket has additives to protect from bacterial and fungus attacks. The stainless steel interior and stainless steel fittings are corrosion resistant.

Gazflex can be used to connect remote from the meter appliances such as pool heaters, barbeques, gas lanterns, out-building heaters and home auto refueling centers.

Installation:

(1) Underground joining of Gazflex is not allowed. 50' is the maximum stock length. However, longer lengths from 55' through 800' can be supplied from the factory.

(2) Gazflex shall be buried a minimum of 15 inches. Under driveways and commercial parking lots Gazflex shall be buried a minimum of 24 inches.

(3) If expansion and contraction compensation is required, Gazflex can be formed into an appropriate loop where it rises above ground at the point of supply from the meter or to the appliance.