



Gas Distribution Solutions Ltd.

Appendix 5 - Extract from IGE/TD/4 Edition 1

Services to Multi-storey Buildings

VII SERVICES TO MULTI-STOREY BUILDINGS

7.1 RISERS

7.1.1 *Materials*

Risers should be of:

- (a) Heavy quality steel tube and tubulars to BS 1387 'Steel tubes and tubulars suitable for screwing to BS 21 pipe threads', with screwed taper threads to BS 21 'Pipe threads';

or

- (b) Carbon steel to BS 3601 'Steel pipes and tubes for pressure purposes: Carbon steel – ordinary duties', welded to either BS 2640 'Class II oxy-acetylene welding of steel pipelines and pipe assemblies for carrying fluids' or to BS 2971 'Class II metal-arc welding of steel pipelines and pipe assemblies for carrying fluids';

or

- (c) Copper tube to BS 2871 'Copper and copper alloys, tubes' Part 1 'Copper tubes for water, gas and sanitation', with capillary fittings to BS 864 'Capillary and compression tube fittings of copper and copper alloy' Part 2 'Metric units';

or

- (d) Copper tube to BS 659 'Light gauge copper tube (light drawn)', with capillary fittings to BS 864 'Capillary and compression fittings of copper and copper alloy for use with copper tube complying with BS 659, BS 1386 and BS 3931'.*

Other materials should be used only with the agreement of the gas undertaking.

7.1.2 *Sizes*

Risers should not normally be larger than 108 mm (or 4 in) nominal diameter. Sizes larger than 108 mm (or 4 in) require special design features and the gas undertaking should always be consulted. Where one riser will not be sufficient to satisfy the load requirement, provision should be made for the required number of risers to suit the gas load.

7.1.3 *Design*

- 7.1.3.1 Every riser should be supported at its base by a duckfoot or similar flanged device, capable of supporting the total weight of the riser. (See Figure 19.) This should preferably be sited on the building foundation or on a properly constructed raft or pillar. Where this is not practicable the support should be located no higher than the level of the first floor of the building.

*BS 659 and BS 864 are being superseded by the metric standards BS 2871 Part 1 and BS 864 Part 2 respectively. (See 7.1.1, (c) above)



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- 7.1.3.2 A dust trap in an accessible position, in the form of a tee with a plugged outlet, or similar, should be provided at or near the base of the riser to facilitate removal of foreign matter. (See Figure 19.)
- 7.1.3.3 The riser should rise in a vertical line from its point of support to its highest point without any changes in direction. The riser should be secured clear of the duct wall with suitable pipe clips to prevent lateral movement. These should permit thermal movement and on no account should the riser be clamped at these supports. Where the riser passes through each floor, a sleeve should be provided. No joint should be sited within the sleeve. The sleeve should be suitably plugged to produce a 'fire stop' in accordance with building regulations.
- 7.1.3.4 Wherever possible, the use of a ventilated duct to accommodate the riser is recommended. (See the British Standard Code of Practice CP 413 'Design and construction of ducts for services'.) Ducts should be so sited that pipework may be inspected and any work carried out with a minimum of inconvenience to the consumer.
- 7.1.3.5 A service valve should be fitted in the service pipe supplying every riser in an accessible position outside the building.
- 7.1.4 *Proximity to other services*
A riser should not be fitted alongside hot water or steam pipes or in any position where it is likely to be subjected to fluctuating temperatures.
- 7.2 **LATERALS**
- 7.2.1 Precautions should be taken to prevent stresses caused by relative movement between the riser and the building being applied at the junction of the lateral and the riser. Such stresses are likely to occur at the junction where a lateral passes through and is restrained by a duct wall, or where a meter is fitted adjacent to the riser.
- 7.2.2 Flexible connectors of types accepted by the gas undertaking should be used. These should be fitted so that they are not subject to movements other than those for which they were designed.
Examples of the use of flexible connectors to protect the pipework against stresses are illustrated in Figure 20.
(i) and (ii) illustrate two types of flexible connector: It should be noted that a flexible connector suitable for type (i) is not necessarily suitable for use as type (ii) and vice-versa.
(iii) illustrates the use of a flexible connector fitted adjacent to a riser passing through a meter cupboard and affording protection to the pipework and the meter.
Flexible connectors should be fitted in positions easily accessible for inspection and should be protected against damage.
- 7.2.3 A cock or valve should be fitted in an accessible position on every lateral.
- 7.3 **PRESSURE LEVELS**
The gas pressure in a service pipe supplying a multi-storey building should not exceed 75 mbar (30 in w.g.) where the pipe enters the building.