



***IGEM/GM/8 Part 2 Edition 2  
Communication 1796***

***Non-domestic meter installations  
Part 2 : Location, housings and compounds***



*Founded 1863  
Royal Charter 1929  
Patron: Her Majesty the Queen*



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Communication 1796**

## ***Non-domestic meter installations***

### ***Part 2 : Location, housings and compounds***



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**CONTENTS**

<b>SECTION</b>	<b>PAGE</b>
1 Introduction	1
2 Scope	4
3 Legal and allied considerations	5
• 3.1 General	5
• 3.2 Building Regulations	5
• 3.3 Confined Spaces Regulations	6
• 3.4 Construction (Design and Management) Regulations (CDM)	6
• 3.5 Control of Asbestos at Work Regulations	6
• 3.6 Control of Substances Hazardous to Health Regulations (COSHH)	7
• 3.7 Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)	7
• 3.8 Electricity at Work Regulations	7
• 3.9 Gas Act	7
• 3.10 Gas Safety (Installation and Use) Regulations (GS(I&U)R)	8
• 3.11 Health and Safety at Work etc. Act (HSWA)	8
• 3.12 Lifting Operations and Lifting Equipment Regulations	8
• 3.13 Management of Health and Safety at Work Regulations (MHSWR)	8
• 3.14 Manual Handling Operations Regulations	8
• 3.15 Provision and Use of Work Equipment Regulations (PUWER)	9
• 3.16 Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)	9
4 Objectives and principles	10
• 4.1 Objectives	10
• 4.2 Principles	10
5 Exchange of information	11
• 5.1 General	11
• 5.2 Materials and construction	11
• 5.3 Formal documentation	11
6 GT authorisations	13
7 General considerations	15
• 7.1 General	15
• 7.2 Safety and safe working access	15
• 7.3 Space heating	17
• 7.4 Labelling	17
• 7.5 Durability	17
• 7.6 Statutory Regulations	17
8 Location	18
9 Ventilation of housings	20

10	Thermal and acoustic insulation	22
11	Construction and materials for housings	23
	• 11.1 Design	23
	• 11.1.1 All housings	23
	• 11.1.2 Glass reinforced plastic (GRP) housings	24
	• 11.2 Foundations, bases and floor mounting	25
	• 11.2.1 All housings/compounds	25
	• 11.2.2 Pre-fabricated housings (including GRP)	26
	• 11.2.3 GRP housings	26
	• 11.3 Doors	26
	• 11.4 Walls	28
	• 11.4.1 All housings	28
	• 11.4.2 Pre-fabricated housings (including GRP)	29
	• 11.5 Roofs and lift off Panels	29
	• 11.6 Finish	29
	• 11.7 Performance	30
	• 11.7.1 All housings	30
	• 11.7.2 GRP housings	30
	• 11.8 Fire Resistance	30
12	Outdoor compounds	31
13	Pits	32
	• 13.1 General	32
	• 13.2 Ventilation	32
	• 13.2.1 Internal volume $\leq 0.5 \text{ m}^3$	32
	• 13.2.2 Internal volume $> 0.5 \text{ m}^3$	32
	• 13.3 Pit covers	34
14	Explosion reliefs	35
15	Lightning conductors	36
<b>APPENDIX</b>		
1	Glossary, acronyms, abbreviations, units and symbols	37
2	References	39
3	Design of explosion reliefs	43
4	Performance tests for GRP housings	45
<b>FIGURE</b>		
1	Lift off housings/covers. Ease of handling	16
2	Access classification	24
3	Provision of exits in long "walk-in" housings	27
4	Termination of ventilation ducts from a pit	33
5	Explosion relief roof design	44
6	Impact tool	46

## SECTION 1 : INTRODUCTION

- 1.1 This Standard supersedes IGE/GM/8 Part 2, Communication 1707, which is obsolete.
- 1.2 This Standard has been drafted by an Institution of Gas Engineers and Managers (IGEM) Panel, appointed by IGEM's Gas Measurement Committee and subsequently approved by that Committee, and has been approved by IGEM's Technical Co-ordinating Committee on behalf of the Council of IGEM.
- 1.3 IGEM/GM/8 is published in 5 parts:
- Part 1 covering design
  - Part 2 covering locations, housings and compounds
  - Part 3 covering installation and commissioning
  - Part 4 covering operation and maintenance
  - Part 5 covering notices and labels.

- 1.4 This Standard covers the design of gas supply meter installations (see Sub-Section 2.1) of capacity exceeding  $6 \text{ m}^3 \text{ h}^{-1}$  and maximum operating pressure (upstream) ( $\text{MOP}_u$ ) not exceeding 38 bar.

With the exception of the few installations of  $\text{MOP}_u$  exceeding 38 bar, the majority of industrial and commercial meter installations can be designed by following IGEM/GM/6 (for  $\text{MOP}_u$  not exceeding 100 mbar only) and/or IGEM/GM/8.

*Note: IGEM Standards use pressure breaks as adopted in European standards. However, in the UK, the actual limit of pressure for IGEM/GM/6 designs is 75 mbar. In practice, it is rare for a meter installation to have  $\text{MOP}_u$  lying between 75 mbar and 100 mbar, in the UK.*

It is the intention that IGEM/GM/6 be used for the largest proportion of installations that can be covered by "standard designs" for  $\text{MOP}_u$  not exceeding 100 mbar.

For  $100 \text{ mbar} < \text{MOP}_u \leq 38 \text{ bar}$  or where an installation is not a "standard design" as specified in IGEM/GM/6, IGEM/GM/8 applies (see also Note 4 to Sub-Section 2.1).

For a turbine meter installation of  $\text{MOP}_u$  not exceeding 100 mbar, there are no recognised standard designs i.e. IGEM/GM/6 does not apply. It is recommended that IGEM/GM/8 be used for all such installations.

For any meter installation of  $\text{MOP}_u$  exceeding 38 bar, IGE/GM/4 applies.

- 1.5 This Standard applies to new, onshore, gas supply installations only. It is not retrospective. However, where work needs to be undertaken on a meter installation, it is recommended that such an installation be brought into line with this Standard. In particular, any unregulated by-pass needs to be removed or a regulator installed in the by-pass.

When re-engineering or replacing legacy meter installations, consideration is to be given to bringing them in line with the standard arrangements within IGEM/G/1. Unless all involved parties are in agreement to continue the legacy arrangement, it is expected that if reasonably practicable such existing systems will be modified to meet the recommended approach.

Irrespective of whether an emergency control valve (ECV) is fitted to the inlet of the meter installation, it is recommended that modification work be undertaken in line with this Standard.

Over recent years ownership and responsibility for new installations covered by this Standard has been liberalised from gas transporters (GTs) to Meter Asset Managers (MAMs) and consumers. The Regulation Authority, the Office of Gas Supply (OFGAS), and later the Office of Gas and Electricity Markets (Ofgem) have required that MAMs and installers are separately accredited for the work they carry out. Approved MAMs have operational and management responsibility while Ofgem Approved Meter Installers (currently OAMIs) carry out meter work, installation, modification, repair, maintenance and removal activities, both work to the relevant Supply Point Administration Agreement (SPAA)/Ofgem Codes of Practice:

- SPAA Meter Asset Managers Code of Practice (MAMCoP)
- Ofgem Codes of Practice for Meter Installations (CoP/1a, CoP/1b and CoP/1c).

At the same time, new licence conditions have made gas suppliers responsible for co-ordinating the provision of metering services and have placed responsibilities on GTs to underpin the overall safety of the gas supply system from the distribution main to the outlet of the meter installation.

*Note: Under these arrangements, a SPAA approved MAM does not have to be an OAMI, but has an obligation to use an OAMI to carry out work on a meter installation.*

Notwithstanding Sub-Section 1.11, total compliance with IGEM/GM/8 is necessary for installations and modules where the meter installation has to comply with MAMCoP.

1.6 This Standard does not detail the management processes required for compliance with the Pressure Systems Safety Regulations (PSSR), such guidance is provided by IGEM/GL/5. It is intended that work carried out in accordance with this Standard and IGEM/GL/5 will conform to the requirements of the PSSR.

1.7 Terms such as "maximum operating pressure" (MOP), "maximum incidental pressure" (MIP) and "operating pressure" (OP) are used to reflect gas pressure terminology used in European standards. These terms are used in all relevant IGEM standards and, possibly, in other standards. Other terms have been introduced to assist in recognition of design information to be transferred between interested parties.

1.8 This Standard makes use of the terms "must", "shall" and "should" when prescribing particular procedures. Notwithstanding Sub-Section 1.11:

- the term "must" identifies a requirement by law in Great Britain (GB) at the time of publication
- the term "shall" prescribes a procedure which, it is intended, will be complied with in full and without deviation
- the term "should" prescribes a procedure which, it is intended, will be complied with unless, after prior consideration, deviation is considered to be acceptable.

Such terms may have different meanings when used in Legislation, or Health and Safety Executive (HSE) Approved Code of Practice (ACoPs) or guidance, and reference needs to be made to such statutory legislation or official guidance for information on legal obligations.

1.9 The primary responsibility for compliance with legal duties rests with the employer. The fact that certain employees, for example "responsible engineers", are allowed to exercise their professional judgement does not allow employers to abrogate their primary responsibilities. Employers must:

- have done everything to ensure, so far as it is reasonably practicable, that “responsible engineers” have the skills, training, experience and personal qualities necessary for the proper exercise of professional judgement
- have systems and procedures in place to ensure that the exercise of professional judgement by “responsible engineers” is subject to appropriate monitoring and review
- not require “responsible engineers” to undertake tasks which would necessitate the exercise of professional judgement that is not within their competence. There are written procedures defining the extent to which “responsible engineers” can exercise their professional judgement. When “responsible engineers” are asked to undertake tasks which deviate from this, they are to refer the matter for higher review.

1.10 It is now widely accepted that the majority of accidents in industry generally are in some measure attributable to human as well as technical factors in the sense that actions by people initiated or contributed to the accidents, or people might have acted in a more appropriate manner to avert them.

It is therefore necessary to give proper consideration to the management of these human factors and the control of risk. To assist in this, it is recommended that due regard be paid to HSG48.

1.11 Notwithstanding Sub-Section 1.8, this Standard does not attempt to make the use of any method or specification obligatory against the judgement of the responsible engineer. Where new and better techniques are developed and proved, they are to be adopted without waiting for modification to this Standard. Amendments to this Standard will be issued when necessary, and their publication will be announced in the Journal of the Institution and elsewhere as appropriate.

1.12 Requests for interpretation of this Standard in relation to matters within their scope, but not precisely covered by the current text, should be addressed in writing to Technical Services, The Institution of Gas Engineers and Managers, IGEM House, High Street, Kegworth, Derbyshire DE74 2DA, or emailed to [technical@igem.org.uk](mailto:technical@igem.org.uk), and will be submitted to the relevant Committee for consideration and advice, but in the context that the final responsibility is that of the engineer concerned. If any advice is given by or on behalf of IGEM, this does not relieve the responsible engineer of any of his or her obligations.

1.13 This Standard was published in September 2016.

**SECTION 2 : SCOPE**

- 2.1 This Standard applies to new locations, housings and compounds for gas supply meter installations (hereafter referred to as "installations" (and defined in IGEM/G/1)) of flow rate (capacity) exceeding  $6 \text{ m}^3 \text{ h}^{-1}$  and MOP upstream ( $\text{MOP}_u$ ) not exceeding 38 bar.
- Note 1: For installations of capacity not exceeding  $6 \text{ m}^3 \text{ h}^{-1}$ , intended to carry Natural Gas (NG), BS 6400-1 or BS 6400-2 apply, as appropriate for  $\text{MOP}_u$ . For non-domestic premises there are additional legal requirements that may have to be met, e.g. DSEAR.*
- The requirements of this document may be applied to installations of capacity not exceeding  $6 \text{ m}^3 \text{ h}^{-1}$  and  $\text{MOP}_u$  exceeding 2 bar.*
- Note 2: For installations of  $\text{MOP}_u$  exceeding 38 bar, IGE/GM/4 applies and IGEM/GM/8 Part 2 may be additionally applied.*
- Note 3: Principally IGEM/GM/8 has been produced for primary meters and other meters used for billing purposes. However, its principles may be applied for other meters, for example, appliance check meters or departmental charging meters, when certain requirements may not apply.*
- Note 4: IGEM/GM/6 provides procedures for "standard" installations of  $\text{MOP}_u$  not exceeding 100 mbar. For other, "non-standard" installations of  $\text{MOP}_u$  not exceeding 100 mbar, IGEM/GM/8 applies. See also the note within Sub-Section 1.4.*
- 2.2 This Standard applies to locations, housings and compounds for installations intended to carry NG (a 2<sup>nd</sup> family gas as defined by BS EN 437).
- Note: The Gas Safety (Installation and Use) Regulations (GS(I&U)R) define "gas" to include 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> family gases as well as other gases. The principles of IGEM/GM/8 may be used for gases other than NG but suitable adjustments to parameters and requirements will need to be considered by a competent person.*
- 2.3 This Part 2 of IGEM/GM/8 deals with the selection of location and the design of bases, housings and compounds for relevant installations.
- 2.4 All pressures are gauge pressures unless otherwise stated.
- 2.5 Italicised text is informative and does not represent formal requirements.
- 2.6 Appendices are informative and do not represent formal requirements unless specifically referenced in the main sections via the prescriptive terms "must", "shall" or "should".