

IGEM Standards

March 2018 V2



*Founded 1863
Royal Charter 1929
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ABOUT IGEM STANDARDS

Since the 1960s, IGEM has published technical Standards that are now recognised as trusted industry Standards, used to assist in compliance with national legislation and official approved codes of practice and guidance. IGEM Standards relate to aspects of the Pipelines Safety Regulations; Pressure Systems Safety Regulations; Gas Safety (Management) Regulations; Gas Safety (Installation and Use) Regulations; Dangerous Substances and Explosive Atmospheres Regulations; Reporting of Injuries, Diseases and Dangerous Occurrences Regulations; Building Regulations; Health and Safety at Work etc. Act; Management of Health and Safety at Work Regulations; Pressure Equipment Regulations, Electricity at Work Regulations and so on.

The Standards are drafted by expert Panels representing a cross-section of the relevant parts of the gas industry. Regulatory bodies such as HSE, Ofgem and Gas Safe Register contribute to the drafting process. The drafts are issued to the industry and other stakeholders for review and comment prior to publication and, thus, take into account the sometimes broad range of views on the content. The professional status of IGEM ensures its Standards reflect the best possible levels of safety, practice and quality within reasonable cost.

In general, IGEM Standards and guidance documents do not overlap the scope of British Standards (BS) but they do often mirror the scope of British European Standards (BS EN) adding much more detail in many cases. There is no intent to contradict other such standards, and it is IGEM's policy to ensure this does not occur.

IGEM's Standards and guidance documents are all available in hard copy. IGEM does also offer online access to the standards, the benefits of this service are:

- the Standards are always up to date
- search facility in the Standards is provided
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- the company does not have to manage a 'library'
- is accessible through the internet, so not confined to the office
- a Help page is provided.

The price of this service is determined by what standards are required, for how many users and for how long (typically terms of 12 months or 3 years are offered).

In order to subscribe to the full service please contact technical@igem.org.uk for a quotation. The scopes for all of the standards are also available on the IGEM website <http://www.igem.org.uk/technical-standards/introduction.aspx>

ABOUT THIS LIST

The list uses the following terms:

Edition X Where an edition number is stated, the previous edition is superseded i.e. is not current and is obsolete.

Set of Amendments The edition is issued with separate amendments to bring it up to date. These amendments are issued with every Standard purchased but, where this was purchased prior to issue of amendments, they are available for downloading from the IGEM website (www.igem.org.uk) or by email to technical@igem.org.uk.

Reprint with Amendments The edition has been reprinted to contain amendments (and enhancements if applicable). Owners of the previous version of the same edition will have to insert amendments (see above) to bring that version up to date. It is not essential to insert enhancements.

Nth Refers to a re-print with enhancements. Previous impressions remain current.

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IGEM STANDARDS

| ITEM and EDITION | TITLE (COMMUNICATION NO.) | DATE | STANDARD 2017 PRICE £ | MEMBER/IA 2017 PRICE £ |
|--|---|------|-----------------------|------------------------|
| TRANSMISSION AND DISTRIBUTION | | | | |
| IGEM/TD/1 Ed 5 | Steel pipelines and associated installations for high pressure gas transmission (1735) | 2008 | 302 | 202 |
| IGEM/TD/1 Ed 5 Amendments | Set of amendments 2009,2010, 2016 (1735) Download at www.igem.org.uk | 2016 | Free | Free |
| IGEM/TD/1 Ed 5 with amendments July 2016 | Steel pipelines for high pressure gas transmission (1789) | 2016 | Online Access | Online Access |
| IGEM/TD/1 Ed 5 Supp 1 | Handling, transport and storage of steel pipe, bends and fittings (1736) | 2008 | 76 | 52 |
| IGEM/TD/2 Ed 2 | Assessing the risks from high pressure Natural Gas pipelines (1764) | 2013 | 131 | 88 |
| IGEM/TD/2 Ed 2 Amendments | Set of Amendments 2015 (1764) Download at www.igem.org.uk | 2015 | Free | Free |
| IGEM/TD/2 Ed 2 with amendments July 2015 | Assessing the risks from high pressure Natural Gas pipelines (1779) | 2015 | Online Access | Online Access |
| IGEM/TD/3 Ed 5 | Steel and PE pipelines for gas distribution (1770) | 2014 | 199 | 133 |
| IGEM/TD/3 Ed 5 Amendments | Set of Amendments 2015(1770) Download at www.igem.org.uk | 2015 | Free | Free |
| IGEM/TD/3 Ed 5 with Amendments Oct 2015 | Steel and PE pipelines for gas distribution (1780) | 2015 | Online Access | Online Access |
| IGEM/TD/4 Ed 4 | PE and steel gas services and service pipework (1725) | 2007 | 199 | 133 |
| IGEM/TD/12 Ed 2 Reprint with Amendments 2012 | Pipework stress analysis for gas industry plant (1757) | 2012 | 161 | 108 |
| IGEM/TD/13 Ed 2 | Pressure regulating installations for Natural Gas, Liquefied Petroleum Gas and Liquefied Petroleum Gas/Air (1755) | 2011 | 256 | 172 |
| IGEM/TD/16 | Biomethane injection (1768) | 2014 | 105 | 70 |
| IGEM/TD/17 | Steel and PE pipelines for biogas distribution (1769) | 2014 | 76 | 51 |
| IGEM/TD/101 Ed 2 | Adoption of pipe systems by a GT – management of UIP activities (1740) | 2009 | 97 | 65 |
| IGEM/TD/102 | Competence framework (1761) | 2012 | 97 | 65 |
| GAS MEASUREMENT | | | | |
| IGEM/GM/4 Ed 2 | Flowmetering practices. Inlet pressure exceeding 38 bar and not exceeding 100 bar (1719) | 2006 | 191 | 128 |
| IGEM/GM/5 Ed 3 | Electronic gas meter volume conversion systems (1730) | 2008 | 121 | 80 |
| IGEM/GM/6 Ed 2 | Non-domestic meter installations. Standard designs (1750) | 2011 | 191 | 128 |
| IGEM/GM/7A Ed 2 | Electrical connections for gas metering equipment (1803) | 2018 | 105 | 70 |
| IGEM/GM/7B Ed 2 | Hazardous area classification for gas metering equipment (1804) | 2018 | 131 | 88 |
| IGEM/GM/8 Part 1 Ed 2 | Non-domestic meter installations. Flow rate exceeding 6 m ³ h ⁻¹ and inlet pressure not exceeding 38 bar Design (1795) | 2016 | 199 | 133 |
| IGEM/GM/8 Part 2 Ed 2 | Locations, housings and compounds (1796) | 2016 | 97 | 65 |
| IGEM/GM/8 Part 3 Ed 2 | Fabrication, installation, testing and commissioning (1797) | 2016 | 121 | 80 |
| IGEM/GM/8 Part 4 Ed 2 | Operation and maintenance (1798) | 2016 | 97 | 65 |
| IGEM/GM/8 Part 5 Ed 2 | Notices and labels (1799) | 2016 | 97 | 65 |
| IGEM/GM/PRS/1 | Meter Installation fittings (1793) | 2017 | 110 | 73 |
| IGEM/GM/PRS/3 | Meter Regulators for gas flow rates not exceeding 6m ³ h ⁻¹ and inlet pressures not exceeding 75 mbar (1805) | 2017 | 74 | 49 |
| IGEM/GM/PRS/6 | Meter connectors (1794) | 2016 | 91 | 60 |
| IGEM/GM/PRS/28 | Medium pressure single-stage regulators for gas flow rates not exceeding 6m ³ h ⁻¹ (1791) | 2016 | 99 | 66 |
| IGEM/GM/PRS/29 | Medium pressure two-stage meter regulators for gas flow rates not exceeding 6m ³ h ⁻¹ (1790) | 2016 | 99 | 66 |
| IGEM/GM/PRS/33 | Meter regulators of nominal diameter 32mm (1 1/4 inch) and not exceeding 150mm (6 inch) and for inlet pressures not exceeding 75 mbar (1792) | 2016 | 71 | 47 |
| UTILISATION | | | | |
| IGEM/UP/1 Ed 2 Reprint with Amendments | Strength testing, tightness testing and direct purging of industrial and commercial gas installations (1716) | 2005 | 138 | 93 |
| IGEM/UP/1 Ed 2 Amendments | Set of amendments 2005 (1683) Download at www.igem.org.uk | 2005 | Free | Free |

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|--|--|------|------|------|
| IGEM/UP/1A Ed 2 Reprint with Amendments | Strength and tightness testing and direct purging of small low pressure industrial and commercial Natural Gas installations (1717) | 2005 | 110 | 74 |
| IGEM/UP/1A Ed 2 Amendments | Set of amendments 2005 (1701) Download at www.igem.org.uk | 2005 | Free | Free |

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|---|---|------|---------------|---------------|
| IGEM/UP/1B Ed 3 | Tightness testing and direct purging of small Liquefied Petroleum Gas/Air, Natural Gas and Liquefied Petroleum Gas installations. (1759). Set of amendments issued 2012 | 2012 | 128 | 85 |
| IGEM/UP/1B Ed 3 Amendments | Set of amendments 2012 (1759) Download at www.igem.org.uk | 2012 | Free | Free |
| IGEM/UP/1C | Strength testing, tightness testing and direct purging of Natural Gas and LPG meter installations (1751) | 2011 | 105 | 70 |
| IGEM/UP/2 Ed 3 | Installation pipework on industrial and commercial premises (1771) | 2014 | 250 | 168 |
| IGEM/UP/3 Ed 3 | Gas fuelled spark ignition and dual fuel engines (1781) | 2015 | 121 | 80 |
| IGEM/UP/4 Ed 4 | Commissioning of gas fired plant on industrial and commercial premises (1801) | 2016 | 75 | 50 |
| IGEM/UP/6 Ed 2 | Application of compressors to Natural Gas fuel systems (1741) | 2009 | 121 | 80 |
| IGEM/UP/7 Ed 2 | Gas installations in timber framed and light steel framed buildings (1722). Set of amendments issued 2008 | 2006 | 121 | 80 |
| IGEM/UP/9 Ed 2 | Application of Natural Gas and fuel oil systems to gas turbines and supplementary and auxiliary fired burners (1705) | 2004 | 121 | 80 |
| IGEM/UP/10 Ed 4 with amendments 2017 | Installation of flued gas appliances in industrial and commercial premises (1800) | 2017 | 180 | 121 |
| IGEM/UP/10 Ed 4 Amendments | Set of amendments 2016 (1786) Download at www.igem.org.uk | 2017 | Free | Free |
| IGEM/UP/11 Ed 2 | Gas installations for educational establishments (1744) | 2010 | 101 | 68 |
| IGEM/UP/12 Ed 2 | Application of burners and controls to gas fired process plant (1778) | 2015 | 172 | 115 |
| IGEM/UP/12 Ed 2 Amendments | Set of amendments 2009 (1778) Download at www.igem.org.uk | 2009 | Free | Free |
| IGEM/UP/16 | Design for Natural Gas installations on industrial and commercial premises with respect to hazardous area classification and preparation of risk assessments (1756) Set of amendments issued 2013 | 2011 | 121 | 80 |
| IGEM/UP/16 Amendments | Set of amendments 2013 (1756) Download at www.igem.org.uk | 2013 | Free | Free |
| IGEM/UP/17 | Shared chimney and flue systems for domestic gas appliances (1754) | 2011 | 128 | 85 |
| IGEM/UP/18 | Gas installations for vehicle repair and body shops (1758) | 2012 | 75 | 50 |
| IGEM/UP/19 | Design and application of interlock devices and associated systems used with gas appliance installations in commercial catering establishments (1777) | 2015 | 105 | 70 |
| IGEM/UP/19 Amendments | Set of Amendments 2015 (1777) | 2015 | Free | Free |
| IGEM/UP/19 with Amendments Jan 2015 | Design and application of interlock devices and associated systems used with gas appliance installations in commercial catering establishments (1777) | 2015 | Online Access | Online Access |
| IGEM/UP/20 | CNG Fuelling Stations (1775) | 2014 | 126 | 84 |

GAS LEGISLATION

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|-----------------------|---|------|------|------|
| IGEM/GL/1 Ed 2 | Planning of gas distribution systems of MOP not exceeding 16 bar (1718) | 2005 | 105 | 70 |
| IGEM/GL/2 Ed 3 | Planning of transmission and storage systems operating at pressures exceeding 16 bar (1816) | 2018 | 75 | 50 |
| IGEM/GL/4 Ed 3 | Gas system assets – safety management system (1820) | 2018 | 105 | 70 |
| IGEM/GL/5 Ed 3 | Procedures for managing new works, modifications and repairs (1783) | 2015 | 91 | 61 |
| IGEM/GL/6 Ed 2 | Permitry for the safe flow of gas (1747) | 2010 | 97 | 65 |
| IGEM/GL/8 Ed 3 | Reporting and investigation of gas related-incidents (1776) | 2007 | 121 | 80 |
| IGEM/GL/9 Ed 2 | Guidance for large consumers in dealing with Natural Gas supply emergencies. (1806) Download at www.igem.org.uk | 2018 | Free | Free |

GENERAL

| | | | | |
|---------------------------|---|------|------|------|
| IGEM/G/0 | A Standard for Igem Standards (1782). | 2015 | Free | Free |
| IGEM/G/1 Ed 2 | Defining the end of the Network, a meter installation and installation pipework (1765). Download at www.igem.org.uk | 2013 | 97 | 65 |
| IGEM/G/4 Edition 2 | Definitions for the gas industry (1763). Download at www.igem.org.uk | 2012 | Free | Free |
| IGEM/G/5 Ed 2 | Gas installations in multi-occupancy buildings (1762) | 2012 | 168 | 112 |
| IGEM/G/6 | Gas supplies to mobile dwellings (1728) | 2009 | 97 | 65 |
| IGEM/G/7 | Risk assessment techniques (1655) | 2016 | 141 | 95 |
| IGEM/G/8 | Handling, transport and storage of PE pipe and fittings (1749) | 2010 | 97 | 65 |
| IGEM/G/10 | Non-return valves (1785) | 2016 | 73 | 49 |

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|---|--|------|---------------|---------------|
| IGEM/G/11 | Gas Industry Unsafe Situations Procedure (1819) | 2018 | Free | Free |
| IGEM/G/11 Amendments | Set of Amendments 2018 (1819) Download at www.igem.org.uk | 2018 | Free | Free |
| IGEM/G/11 with Amendments 11th April 2018 | Gas Industry Unsafe Situations Procedure (1822) | 2018 | Free | Free |
| SAFETY | | | | |
| IGEM/SR/4 Ed 3 | Variable volume gasholders storing lighter than air gases (1752) | 2011 | 145 | 97 |
| IGEM/SR/14 Edition 2 | Fixed volume storage for lighter than air gases (1742) | 2010 | 121 | 80 |
| IGEM/SR/15 Ed 5 | Integrity of safety-related systems in the gas industry (1746) | 2010 | 131 | 88 |
| IGEM/SR/15 Ed 5 Amendments | Set of Amendments 2015 (1746) Download at www.igem.org.uk | 2015 | Free | Free |
| IGEM/SR/15 Ed 5 with Amendments Dec 2015 | Integrity of safety-related systems in the gas industry (1784) | 2015 | Online Access | Online Access |
| IGEM/SR/16 Ed 2 | Odorant systems for gas transmission and distribution (1734) | 2008 | 97 | 65 |

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|---|---|------|------|------|
| IGEM/SR/18 Ed 2 | Safe working practices to ensure the integrity of gas pipelines and associated installations (1678) | 2002 | 75 | 50 |
| IGEM/SR/22 3rd Impression | Purging operations for fuel gases in transmission, distribution and storage (1625) | 1999 | 105 | 70 |
| IGEM/SR/23 2nd Impression | Venting of Natural Gas (1623) | 1995 | 105 | 70 |
| IGEM/SR/25 Ed 2 | Hazardous area classification of Natural Gas installations (1748) | 2010 | 211 | 141 |
| IGEM/SR/25 Amendments | Set of amendments 2013 (1748) Download at www.igem.org.uk | 2013 | Free | Free |
| IGEM/SR/28 Ed 2 | Trenchless techniques (1753) | 2011 | 145 | 97 |
| IGEM/SR/29 | Dealing with gas escapes (1760) | 2012 | 97 | 65 |

INDUSTRY GUIDANCE

| | | | | |
|-------------------------|---|------|------|------|
| IGEM/UP/1101 | Guidance on gas installations for the management and staff within educational establishments (1745) | 2010 | 23 | 15 |
| IGEM/G/101 | Onshore natural gas extraction and route to use (1766) | 2013 | Free | Free |
| IGEM/IG/1 | Standards of training in gas work Download at www.igem.org.uk (1767) | 2014 | 24 | 16 |
| IGEM/IG/1 Supp 1 | Non Domestic Training Specification (1788) Download at www.igem.org.uk | 2016 | 24 | 16 |
| IGEM/IG/2 | Catering equipment engineers guide to relevant sections of IGE/UP/19 Download at www.igem.org.uk (1772) | 2014 | 23 | 15 |

ONSITE GUIDES

| | | | | |
|---------------|---|------|----|----|
| NICEIC | Domestic gas safety onsite guide- part 1 and 2 V4 | 2015 | 48 | 48 |
| NICEIC | Non-Domestic gas safety onsite guide part1 and 2 V5 | 2015 | 48 | 48 |

CERTIFICATES OF STRENGTH AND TIGHTNESS TESTING AND DIRECT PURGING TO IGE/UP/1 EDITION 2 AND IGE/UP/1A EDITION 2 (shrink wrapped pads of 25 triplicate certificates)

| | | | | |
|------------------|--|------|----|----|
| StT/UP/1A | Certificate of strength testing for IGE/UP/1A | 2004 | 23 | 15 |
| TT/UP/1A | Certificate of tightness testing for IGE/UP/1A | 2004 | 23 | 15 |
| DP/UP/1A | Certificate of direct purging for IGE/UP/1A | 2004 | 23 | 15 |
| StT/UP/1 | Certificate of strength testing for IGE/UP/1 | 2004 | 23 | 15 |
| TT/UP/1 | Certificate of tightness testing for IGE/UP/1 | 2004 | 23 | 15 |
| DP/UP/1 | Certificate of direct purging for IGE/UP/1 | 2004 | 23 | 15 |

Ed = Edition. Imp = Impression. Supp = Supplement.

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The list of Standards (on page 2, 3 and 4) will be updated when amendments and new editions have been issued. Prices are reviewed annually (1st January) but IGEM reserves the right to change prices at other times and without notice.

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| IGEM/TD/1 Ed 5 Supp 1 | | IGE/GM/8 Part 5 | | IGEM/UP/1101 | | IGE/SR/23 | |
| IGEM/TD/2 Ed 2 | | IGE/UP/1 Ed 2 RWA | | IGE/GL/1 Ed 2 | | IGEM/SR/25 Ed 2 | |
| IGEM/TD/3 Ed 5 | | IGE/UP/1A Ed 2 RWA | | IGE/GL/2 Ed 2 | | IGEM/SR/28 Ed 2 | |
| IGE/TD/4 Ed 4 | | IGEM/UP/1B Ed 3 | | IGEM/GL/4 Ed 2 | | IGEM/SR/29 | |
| IGE/TD/12 Ed 2 RWA | | IGEM/UP/1C | | IGE/GL/5 Ed 3 | | StT/UP/1A | |
| IGEM/TD/13 Ed 2 | | IGEM/UP/2 Ed 3 | | IGEM/GL/6 Ed 2 | | TT/UP/1A | |
| IGEM/TD/16 | | IGEM/UP/3 Ed 3 | | IGEM/GL/8 Ed 3 | | DP/UP/1A | |
| IGEM/TD/17 | | IGEM/UP/4 Ed 3 | | IGE/GL/9 | | StT/UP/1 | |
| IGEM/TD/101 Ed 2 | | IGEM/UP/6 Ed 3 | | IGEM/G/1 Ed 2 | | TT/UP/1 | |
| IGEM/TD/102 | | IGE/UP/7 Ed 2 | | IGEM/G/4 Ed 2 | | DP/UP/1 | |
| IGE/GM/4 Ed 2 | | IGE/UP/9 Ed 2 | | IGEM/G/5 Ed 2 | | IGEM/G/101 | |
| IGEM/GM/5 Ed 3 | | IGEM/UP/10 Ed 4 RWA | | IGEM/G/6 | | IGEM/IG/1 | |
| IGEM/GM/6 Ed 2 | | IGEM/UP/11 Ed 2 | | IGEM/G/7 | | IGEM/IG/1 Supp 1 | |
| IGEM/GM/7A | | IGEM/UP/12 Ed 2 | | IGEM/G/8 | | IGEM/IG/2 | |
| IGEM/GM/7B | | IGEM/UP/16 | | IGEM/G/10 | | IGEM/IG/2 | |
| IGE/GM/8 Part 1 | | IGEM/UP/17 | | IGEM/SR/4 Ed 3 | | NICEIC Domestic on-site | |
| IGE/GM/8 Part 2 Ed 2 | | IGEM/UP/18 | | IGEM/SR/14 Ed 2 | | id | |
| IGE/GM/8 Part 3 Ed 2 | | IGEM/UP/19 | | IGEM/SR/15 Ed 5 | | NICEIC Non domestic on-site guide | |
| IGEM/PRS/28 | | | | IGEM/SR/16 Ed 2 | | | |
| IGEM/PRS/29 | | | | IGE/SR/18 Ed 2 | | | |
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