

DIN EN 1775:2007-10 (E)

Gas supply - Gas pipework for buildings - Maximum operating pressure less than or equal to 5 bar - Functional recommendations

Contents		Page
Foreword		4
1	Scope	6
2	Normative references	7
3	Terms and definitions	7
3.1	Definitions relating to pressures	7
3.2	Definitions relating to the gas installation	8
3.3	Definitions relating to means of isolation	9
3.4	Definitions relating to jointing methods	9
3.5	Definitions relating to fittings	10
3.6	Definitions relating to tests	11
3.7	Definitions relating to commissioning, operation and maintenance	11
3.8	Definitions relating to assembling processes	12
3.8.1	Definitions for welding	12
3.8.2	Definitions for soldering and brazing	12
4	Design	12
4.1	General	12
4.2	Selection of components	13
4.3	Location	13
4.4	Protection in case of fire	14
4.5	Sizing	14
4.6	Safety devices	15
5	Construction	16
5.1	Installation	16
5.2	Pipework jointing methods	16
5.2.1	Threaded joints	16
5.2.2	Welded, brazed, soldered and fusion joints	17
5.2.3	Mechanical joints	17
5.2.4	Pressed joints	17
5.2.5	Stainless steel pliable corrugated tubing system jointing	18
5.3	Entries through walls and floors	18
5.4	Corrosion	18
5.5	Means of isolation	18
5.6	Regulators and meters	19
5.7	Flexible appliance connectors	19
6	Testing	20
6.1	General recommendations	20
6.2	Recommendations relating to the safety of persons and property during testing	20
6.3	Test fluids	20
6.3.1	Fluids used	20
6.3.2	Use of inert gas	21
6.3.3	Utilisation of the gas to be distributed	21
6.4	Test conditions	21
6.5	Strength testing	21
6.6	Tightness testing	21
6.7	Additional tests	22

7	Commissioning	22
7.1	General	22
7.2	Admission of gas	23
8	Operation and maintenance	23
8.1	General	23
8.2	Maintenance	24
8.3	Abnormal situations	24
8.4	Leak detection	25
8.5	Work on operating pipework	25
8.6	Purging from gas	25
Annex A (informative) Resistance to high temperatures		27
A.1	General	27
A.2	Procedure A	27
A.2.1	Test criteria	27
A.2.2	Test method	27
A.3	Procedure B	28
A.3.1	Test criteria	28
A.3.2	Test method	29
Annex B (informative) General guidelines for the construction of joints		30
B.1	General	30
B.2	Installation operatives	30
B.3	Quality Control	31
B.4	Documentation	31
Annex C (informative) Guidelines for the construction of welded, brazed, soldered joints, and polyethylene fusion joints		32
C.1	Welding of steel	32
C.1.1	Materials	32
C.1.2	Approval of the welding procedure	32
C.1.3	Pipework with a maximum operating pressure (MOP) up to and including 0,1 bar and a wall thickness less than 4mm	32
C.1.4	Pipework with a maximum operating pressure (MOP) over 0,1 bar or wall thickness including and above 4 mm	33
C.2	Brazing and soldering of copper and copper alloys	34
C.2.1	Materials	34
C.2.2	Brazing and soldering procedure	34
C.2.3	Pipework with a maximum operating pressure (MOP) up to and including 0,1 bar	34
C.2.4	Pipework with a maximum operating pressure (MOP) over 0,1 bar	35
C.3	Fusion jointing of polyethylene	35
C.3.1	Materials	35
C.3.2	Polyethylene fusion jointing procedure	36
C.3.3	Qualification of personnel	36
C.3.4	Quality control	36
Annex D (informative) Guidelines for the construction of pressed joints		39
D.1	Jointing procedure with press fittings on copper pipes	39
D.1.1	General	39
D.1.2	Installation process	39
D.2	Jointing procedure with press fittings on multi-layer and PEX	40
D.2.1	General	40
D.2.2	Installation process	40
Annex E (informative) Guidelines for the construction of stainless steel pliable corrugated tubing systems		41

E.1	General	41
E.2	Components of the system	41
E.3	Stainless steel pliable corrugated tubing systems jointing procedure	41
E.3.1	General	41
E.3.2	Training of personnel	41
E.3.3	Quality control	42
	Bibliography	43