

DIN EN 1866:2006-03 (E)

Mobile fire extinguishers

Contents		Page
Foreword		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Symbols and abbreviations	9
5	Description of an extinguisher	9
6	Requirements	10
6.1	Effective range of operating temperatures	10
6.1.1	General	10
6.1.2	Requirements	10
6.2	Filling specifications	11
6.2.1	Nominal charges	11
6.2.2	Filling tolerances	11
6.3	Duration of operation, residual mass and discharge range	11
6.3.1	Duration of operation	11
6.3.2	Maximum residual mass	12
6.3.3	Discharge range	12
6.4	Retention of charge	12
6.4.1	General	12
6.4.2	Propellant container	12
6.4.3	Stored pressure extinguishers	12
6.4.4	Acceptance levels	13
6.5	Control valve	13
6.6	Working position	14
6.7	Hose and coupling	14
6.8	Propelling agent	14
6.9	Operation devices	14
6.9.1	General	14
6.9.2	Operating and jet control mechanisms devices	15
6.9.3	Safety devices	15
6.9.4	Discharge from water, water base, and foam extinguishers	15
6.9.5	Pressure gauge	15
6.9.6	Other characteristics	17
6.10	Identification	17
6.10.1	Colour	17
6.10.2	Marking	18
6.11	Periodical checking	21
7	Materials	21
7.1	Materials for bodies	21
7.2	Materials for operating devices and filling caps	21
7.3	Materials for other components	21
8	Design and prototype testing	22
8.1	Calculation design method	22
8.2	Experimental design method	22

8.3	Prototype testing	22
8.3.1	Pressure test	22
8.3.2	Burst test	22
8.4	Macroscopic examination	23
8.5	Attached parts	23
8.6	Overfill pressure test	23
8.7	Requirements for components subject to pressure	23
8.7.1	Test conditions	23
8.7.2	Requirements	23
9	Manufacturing	24
9.1	General requirements	24
9.2	Welded and brazed parts	24
9.2.1	General	24
9.2.2	Welding procedures	24
9.2.3	Welding personnel	24
9.2.4	Brazing procedures	24
9.2.5	Brazing personnel	24
9.3	Traceability	24
9.3.1	Pressure retaining parts	24
9.3.2	Operating devices, filling caps and hose assemblies	24
9.3.3	Marking of the body	25
10	Inspection and testing during manufacturing	25
10.1	Extinguisher bodies	25
10.1.1	Non destructive examination personnel	25
10.1.2	Non destructive testing	25
10.1.3	Requirements	25
10.2	Accessories and Fittings (excluding pressure relief devices and fittings to be ruptured on over pressure)	25
10.3	Assemblies	25
11	Tests	26
11.1	Temperature test	26
11.2	Corrosion tests	26
11.2.1	External corrosion test	26
11.2.2	Internal corrosion test for water, water base and foam extinguishers	26
11.3	Dielectric test	26
12	Fire performances	26
12.1	Class A fire test object	26
12.1.1	Powder extinguishers	27
12.1.2	Water, water based and foam extinguishers	27
12.2	Class B fire test object	27
12.2.1	Powder extinguishers	27
12.2.2	Water, water base and foam extinguishers	27
Annex A (informative)	Classification of the different parts of an extinguisher subject to internal pressure	28
Annex B (normative)	Specifications for plastics components (except hoses, pistols and nozzles) ...	29
B.1	General	29
B.2	Requirements for plastics components subject to pressure	29
B.2.1	General	29
B.2.2	Burst under pressure	29
B.2.3	Temperature conditioning 60 °C	29
B.2.4	Ageing test - Xenon arc	30
B.2.5	Impact test after ageing at 20 °C	30
B.2.6	Plastic/metal thread design (jet control devices at the end of hoses are excluded)	31
Annex C (normative)	Symbols of pressures	32

Annex D (normative) Test methods	33
D.1 Test methods	33
D.2 Duration of operation and residual mass	33
D.3 Measurement of the force	33
D.4 Measurement of the energy	33
D.5 Measurement of leakage of the control valve	33
D.6 Temperatures test	34
D.7 Internal corrosion test	34
Annex E (normative) Overfill pressure test	35
Annex F (normative) Test for burst pressure of hose and hose assembly and attached components	36
Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive 97/23/EC	37
Bibliography	38