

# DIN EN 529:2006-01 (E)

## Respiratory protective devices - Recommendations for selection, use, care and maintenance - Guidance document

---

<b>Contents</b>		<b>Page</b>
Foreword .....		5
Introduction .....		6
1	Scope .....	7
2	Normative references .....	7
3	Terms and definitions .....	7
4	Classification .....	9
4.1	General classification .....	9
4.2	Main components .....	9
4.2.1	General .....	9
4.2.2	Facepieces .....	9
4.2.3	Filters .....	9
4.2.4	Breathable air or gas supply source for breathing apparatus .....	9
5	Programme process .....	10
5.1	Employers and self-employed persons responsibilities .....	10
5.1.1	Programme policy .....	10
5.1.2	Provision of respiratory protective devices .....	10
5.1.3	Organisation .....	10
5.1.4	Resources .....	10
5.1.5	Management review .....	10
5.1.6	Training .....	10
5.1.7	Supervision .....	10
5.2	Employees responsibilities .....	11
5.2.1	Wearers .....	11
5.2.2	Competent persons .....	11
5.3	Manufacturers' responsibilities .....	11
6	Risk assessment process .....	11
7	Criteria for using respiratory protective devices .....	12
8	Risk assessment for respiratory protective device use .....	12
8.1	Elements of respiratory protective device programme .....	12
8.2	Factors to consider in risk assessment .....	13
9	Adequacy and suitability .....	13
9.1	General .....	13
9.2	Adequacy .....	13
9.2.1	General .....	13
9.2.2	Assessing atmospheres immediately dangerous to life or health .....	13
9.2.3	Assessing the minimum required protection factor .....	14
9.3	Suitability .....	14
9.3.1	General .....	14
9.3.2	Assessing suitability for the workplace environment .....	14
9.3.3	Assessing suitability for the task .....	15
9.3.4	Assessing suitability for the wearer .....	15

9.3.5	CE-Marking .....	15
10	Use .....	16
11	Operating information, instruction and training .....	16
11.1	General .....	16
11.2	Employers .....	16
11.3	Wearers .....	16
11.4	Supervisors .....	17
12	Maintenance .....	17
13	Storage .....	17
13.1	Employers duties .....	17
13.2	Employees' duties .....	17
14	Record keeping .....	17
Annex A (informative) Types and components of respiratory protective devices .....		19
A.1	Facepieces .....	19
A.1.1	Half mask without inhalation valves and with separable filters to protect against gases or gases and particles and particles only (EN 1827) .....	19
A.1.2	Half masks and quarter masks (EN 140) .....	19
A.1.3	Full face Masks (EN 136) .....	19
A.2	Filters .....	20
A.2.1	General .....	20
A.2.2	Particle filters (EN 143, EN 12941 and EN 12942) .....	20
A.2.3	Gas filters and combined filters (EN 14387, EN 12941 and EN 12942) .....	20
A.2.4	Service life of filters .....	21
A.3	Filtering devices .....	22
A.3.1	General .....	22
A.3.2	Negative pressure devices .....	22
A.3.3	Assisted filtering devices .....	23
A.4	Breathing apparatus .....	24
A.4.1	Fresh air hose breathing apparatus .....	24
A.4.2	Compressed air line breathing apparatus (EN 14593-1, EN 14593-2, EN 14594, EN 1835 and EN 12419) .....	25
A.4.3	Self-contained breathing apparatus .....	26
A.4.4	Ventilated protective suits (EN 943-1 and EN 1073-1) .....	27
A.4.5	Compressed air for breathing apparatus (EN 12021) .....	27
Escape devices .....		30
Annex B (informative) Atmospheres immediately dangerous to life or health .....		32
B.1	General .....	32
B.2	Conditions .....	32
B.3	Situations likely to present atmospheres immediately dangerous to life or health .....	32
B.3.1	Confined spaces .....	32
B.3.2	Oxygen deficiency .....	32
B.3.3	Emergency situations created by hazardous substances .....	33
Annex C (informative) Protection factors .....		34
C.1	General .....	34
C.2	Using protection factors .....	34
Annex D (informative) Suitability factors .....		37
D.1	General .....	37
D.2	Environmental factors .....	37

D.2.1	Oxygen deficiency .....	37
D.2.2	Oxygen enrichment .....	37
D.2.3	Asphyxiants .....	37
D.2.4	Contaminant levels immediately dangerous to life or health .....	38
D.2.5	Potentially corrosive atmospheres .....	38
D.2.6	Potentially explosive atmospheres .....	38
D.2.7	Potentially permeating contaminants .....	39
D.2.8	Particulate contaminants (aerosols) .....	39
D.2.9	Gas and vapour contaminants .....	39
D.2.10	Climatic extremes .....	40
D.3	Task/job factors impacting on the wearer .....	40
D.3.1	Work rate .....	40
D.3.2	Visibility .....	41
D.3.3	Mobility .....	41
D.3.4	Communication .....	41
	.....	A46
D.3.5	Thermal stress .....	42
D.3.6	Duration of wear .....	42
D.3.7	Tools used .....	42
D.4	Wearer factors .....	43
D.4.1	Medical fitness .....	43
D.4.2	Facial characteristics .....	43
D.4.3	Spectacles .....	44
D.4.4	Contact lenses .....	44
D.4.5	Non PPE accessories .....	44
D.4.6	Interaction with other PPE .....	44
D.5	Legal factors .....	45
D.5.1	European Product Directives .....	45
D.5.2	European Standards .....	45
<b>Annex E (informative) Assessing the fit of tight fitting facepiece .....</b>		<b>46</b>
E.1	General .....	46
E.2	Fit checking .....	46
E.2.1	General .....	46
E.2.2	Negative pressure fit check .....	46
E.2.3	Positive pressure fit check .....	46
E.3	Fit test methods .....	46
E.3.1	Qualitative fit testing .....	46
E.3.2	Quantitative fit testing .....	47
<b>Annex F (informative) Respiratory protection passport .....</b>		<b>48</b>
<b>Bibliography .....</b>		<b>49</b>