

**SS 548:2022**  
(ICS 13.340.30)

**SINGAPORE STANDARD**

**Code of practice for the selection, use and  
maintenance of respiratory protective devices**



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## Contents

	<b>Page</b>
Foreword _____	4
1 Scope _____	6
2 Normative references _____	6
3 Terms and definitions _____	7
4 Hazard identification, risk evaluation and control _____	11
5 Respiratory protection requirements _____	14
6 Respiratory protection programme _____	15
7 Types of respirators _____	17
8 Selection, use and limitation of respirators _____	27
9 Medical evaluation _____	34
10 Respirator fit testing _____	35
11 Training _____	36
12 Supervision of proper usage _____	38
13 Inspection and testing of self-contained breathing apparatus (SCBA) _____	38
14 Maintenance, inspection and storage of respirators _____	39
15 Regular monitoring of user exposure _____	42
16 Periodic evaluation and audit _____	43
 <b>Annexes</b>	
A Requirements for air quality (compressors or cylinders) for supplied-air respirators ____	44
B Protection factors (PF) _____	46
C Medical evaluation to use respirators _____	50
D Pre-donning and user seal checks for air-purifying and supplied-air respirators (SARs) _	55
E Respirator fit test methods and fit test operator training _____	58
F Checklist for inspection _____	64
G Checklist for review of respiratory protection programme _____	68
 <b>Tables</b>	
1 Example of filtration efficiency _____	25
2 Comparison of common gas and vapour filters used by industries in US and Europe ____	27
3 Task related selection factors, requirement and recommendations _____	31
4 Limitations related to operator's facial characteristics _____	33
B.1 APFs used in USA _____	47
B.2 APFs used in UK _____	47
C.1 Example of medical evaluation questionnaire for fitness to use respirators _____	51
C.2 Example of certificate: Fitness to use respirator _____	53

C.3	Medical conditions and considerations _____	54
E.1	Selection of fit testing method for US NIOH approved respirators _____	62
E.2	Selection of fit testing method for UK BS/EN approved respirators _____	62
E.3	Typical evaluation form for respirator fit-test operator _____	63

**Figures**

1	Relative sizes of common airborne particles _____	13
2	Respiratory protection signage _____	16
3	Types of respirators _____	17
4	Types of air purifying respirators _____	18
5	Types of supplied-air respirators _____	22
6	Types of respirator inlet coverings _____	24
7	Facial hair affecting the use of a respirator _____	34
B.1	PF of respirator _____	46
D.1	Negative pressure user seal check _____	55
D.2	Positive pressure user seal check _____	56
E.1	QLFT _____	59
E.2	Ambient aerosol CNC QNFT _____	61
E.3	Controlled Negative Pressure (CNP) REDON QNFT _____	61
	Bibliography _____	72

## Foreword

This Singapore Standard was prepared by the Working Group on Respiratory Protective Devices set up by the Technical Committee on Personal Safety and Health under the purview of the Quality and Safety Standards Committee (QSSC).

This is a revision of SS 548:2022, “Code of practice for the selection, use and maintenance of respiratory protective devices”. The main changes include the following:

- Additional information and clarification on use of respiratory protective devices in healthcare against biohazards.
- Further alignment of the components of a respiratory protection programme with global standards and local requirements.
- More information on fit test operator competency checklist, types and selection of fit test methods, medical evaluation to use respirators, proper selection, use and maintenance of respiratory protective devices.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations.

In preparing this standard, reference was made to the following publications:

1. AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment
2. EN 529:2005 Respiratory protective devices – Recommendations for selection, use, care and maintenance – Guidance document
3. OSHA 1910.134 (2019) Respiratory protection

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2. International Organization for Standardization (ISO)
  - Figure 2 from Table 5 of ISO 7010:2019 Graphical symbols – Safety colours and safety signs – Registered safety signs
  - Table E.3 from Annex A of ISO 16975-3:2017 Respiratory protective devices – Selection, use and maintenance – Part 3: Fit-testing procedures

ISO standards can be purchased from Enterprise Singapore.

3. MSA The Safety Company, Figures 4 (d) and 5 (a). Images courtesy of MSA Safety.
4. National Institute of Occupational Safety and Health (NIOSH)
  - Clause 3.8 from 3.2 of NIOSH-Certified Equipment, DHHS (NIOSH) Publication 2015-117, Hospital respiratory protection program toolkit: Resources for respirator program administrators
  - Clause 3.20 from Overview of immediately dangerous to life or health (IDLH) values

5. Occupational Health Dynamics (OHD), Figure E.3. Images courtesy of OHD.
6. Occupational Safety and Health Administration (OSHA), United States, Department of Labour
  - Clause 3.20 from OSHA 1910.134(b)
  - Table C.2, part C from OSHA 1910.134 App C – OSHA Respirator Medical Evaluation Questionnaire (Mandatory)
7. 3M Technologies, Figures 4 (a), 4 (b), 4 (c), 4 (e), 5 (d), 7, D.1, D.2. Images courtesy of 3M Technologies.
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# Code of practice for the selection, use and maintenance of respiratory protective devices

## 1 Scope

This standard sets out the requirements and recommendations for users of respiratory protective devices (RPDs) on the selection, use, and maintenance of respirators for establishing a respiratory protection programme. This standard also covers the use of respirators to protect persons against the inhalation of contaminants and oxygen-deficient atmospheres in the workplace.

This standard does not cover the following:

- a) Use of respirators under military combat conditions;
- b) Life support ventilators for medical or resuscitation purposes;
- c) Respirators used in a non-occupational setting (e.g. public health emergencies);
- d) Masks used for comfort or hygiene purposes, not designed as RPDs; and
- e) Surgical masks which are designed to reduce the user's respiratory emissions to others. These masks can provide users with some protection against large droplets, fluid splashes or sprays but do not offer a reliable level of protection from inhaling smaller airborne particles, gases or vapours. Leakages can also occur around the edge of the mask when the user inhales, therefore it is not considered respiratory protection.

NOTE – Surgical masks for use in the health care industry are subject to review/approval by the regulatory authorities.

## 2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

SS 508	Graphical symbols – Safety colours and safety signs Part 1: Design principles for safety signs and safety markings Part 2: Design principles for product safety labels Part 3: Design principles for graphical symbols for use in safety signs Part 4: Colorimetric and photometric properties of safety sign materials Part 5: Registered safety signs
SS 568	Code of practice for confined spaces
SS 639-1	Code of practice for the filling, inspection, testing and maintenance of gas cylinders for the storage and transport of compressed gases – Part 1: Seamless steel and aluminium alloy cylinders (excluding dissolved acetylene) – Inspection at the time of filling, periodic maintenance and testing