

HEARING PROTECTION / EYE & FACE PROTECTION

E

§1926.101 Hearing Protection.

(a) Wherever it is not feasible to reduce the noise levels or duration of exposures to those specified in Table D-2, Permissible Noise Exposures, in §1926.52, ear protective devices shall be provided and used.

(b) Ear protective devices inserted in the ear shall be fitted or determined individually by competent persons.

(c) Plain cotton is not an acceptable protective device.

Stat. Auth.: ORS 654.025(2) and 656.726(3).

Hist: APD Admin. Order 4-1989, f. 3/31/89, ef. 5/1/89 (temp).

APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).

§1926.102 Eye and Face Protection.

(a) General.

(1) Employees shall be provided with eye and face protection equipment when machines or operations present potential eye or face injury from physical, chemical, or radiation agents.

(2) Eye and face protection equipment required by this Part shall meet the requirements specified in American National Standards Institute, Z87.1-1968, Practice for Occupational and Educational Eye and Face Protection.

(3) Employees whose vision requires the use of corrective lenses in spectacles, when required by this regulation to wear eye protection, shall be protected by goggles or spectacles of one of the following types:

(i) Spectacles whose protective lenses provide optical correction;

(ii) Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles;

(iii) Goggles that incorporate corrective lenses mounted behind the protective lenses.

(4) Face and eye protection equipment shall be kept clean and in good repair. The use of this type equipment with structural or optical defects shall be prohibited.

(5) Table E-1 shall be used as a guide in the selection of face and eye protection for the hazards and operations noted.

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(6) Protectors shall meet the following minimum requirements:

- (i)** They shall provide adequate protection against the particular hazards for which they are designed.
- (ii)** They shall be reasonably comfortable when worn under the designated conditions.
- (iii)** They shall fit snugly and shall not unduly interfere with the movements of the wearer.
- (iv)** They shall be durable.
- (v)** They shall be capable of being disinfected.
- (vi)** They shall be easily cleanable.

(7) Every protector shall be distinctly marked to facilitate identification only of the manufacturer.

(8) When limitations or precautions are indicated by the manufacturer, they shall be transmitted to the user and care taken to see that such limitations and precautions are strictly observed.

Table E-1 – Eye and Face Protector Selection Guide



1.	GOGGLES, Flexible Fitting, Regular Ventilation	**8.	WELDING GOGGLES, Coverspec Type, Tinted Lenses (Illustrated)
2.	GOGGLES, Flexible Fitting, Hooded Ventilation	8a.	CHIPPING GOGGLES, Coverspec Type, Clear Safety Lenses (Not Illustrated)
3.	GOGGLES, Cushioned Fitting, Rigid Body	**9.	WELDING GOGGLES, Coverspec Type, Tinted Plate Lens
*4.	SPECTACLES, Metal Frame, with Sideshields	10.	FACE SHIELD (Available with Plastic or Mesh Window)
*5.	SPECTACLES, Plastic Frame, with Sideshields	**11.	WELDING HELMETS
6.	SPECTACLES, Metal-Plastic Frame, with Sideshields		
**7.	WELDING GOGGLES, Eyecup Type, Tinted Lenses (Illustrated)		
7a.	CHIPPING GOGGLES, Eyecup Type, Clear Safety Lenses (Not Illustrated)		

* Non-side shield spectacles are available for limited hazard use requiring only frontal protection.
** See Table E-2, in paragraph (b) of this section, Filter Lens Shade Numbers for Protection Against Radiant Energy.

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APPLICATIONS

Operation	Hazards	Recommended protectors: Bold type numbers signify preferred protection
Acetylene – Burning, Acetylene – Cutting, Acetylene – Welding.	Sparks, harmful rays, molten metal, flying particles.	7, 8, 9.
Chemical Handling	Splash, acid burns, fumes	2, 10 (For severe exposure add 10 over 2).
Chipping	Flying particles	1, 3, 4, 5, 6, 7A, 8A.
Electric (arc) welding	Sparks, intense rays, molten metal	9, 11 (11 in combination with 4, 5, 6, in tinted lenses, advisable).
Furnace operations	Glare, heat, molten metal	7, 8, 9 (For severe exposure add 10).
Grinding – Light	Flying particles	1, 3, 4, 5, 6, 10.
Grinding – Heavy	Flying particles	1, 3, 7A, 8A (For severe exposure add 10).
Laboratory	Chemical splash, glass breakage	2 (10 when in combination with 4, 5, 6).
Machining	Flying particles	1, 3, 4, 5, 6, 10.
Molten metals	Heat, glare, sparks, splash	7, 8 (10 in combination with 4, 5, 6, in tinted lenses).
Spot welding	Flying particles, sparks	1, 3, 4, 5, 6, 10.

(b) Protection against radiant energy.

(1) Selection of shade numbers for welding filter. Table E-2 shall be used as a guide for the selection of the proper shade numbers of filter lenses or plates used in welding. Shades more dense than those listed may be used to suit the individual's needs.

Table E-2 –Filter Lens Shade Numbers for Protection Against Radiant Energy

Welding operation	Shade Number
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (nonferrous 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes	12
5/16-, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10-14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 inch to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light), up to 1/8-inch	4 or 5
Gas welding (medium), 1/8-inch to 1/2-inch	5 or 6
Gas welding (heavy), over 1/2-inch	6 or 8

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EYE & FACE PROTECTION / RESPIRATORY PROTECTION

Oregon Administrative Rules
Oregon Occupational Safety
and Health Division

(9) Laser protection.

(i) Employees whose occupation or assignment requires exposure to laser beams shall be furnished suitable laser safety goggles which will protect for the specific wavelength of the laser and be of optical density (O.D.) adequate for the energy involved. Table E-3 lists the maximum power or energy density for which adequate protection is afforded by glasses of optical densities from 5 through 8.

Table E-3 – Selecting Laser Safety Glass

Intensity CW maximum power density (watts/cm ²)	Attenuation	
	Optical density (O.D.)	Attenuation factor
10 ⁻²	5	10 ⁵
10 ⁻¹	6	10 ⁶
1.0	7	10 ⁷
10.0	8	10 ⁸

Output levels falling between lines in this table shall require the higher optical density.

(ii) All protective goggles shall bear a label identifying the following data:

- (a) The laser wavelengths for which use is intended;
- (b) The optical density of those wavelengths;
- (c) The visible light transmission.

Stat. Auth.: ORS 654.025(2) and 656.726(3).

Stats. Implemented: ORS 654.001 through 654.295.

Hist: APD Admin. Order 4-1989, f. 3/31/89, ef. 5/1/89 (temp).

APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).

OR-OSHA Admin. Order 3-2000, f. 2/8/00, ef. 2/8/00.

§1926.103 Respiratory Protection.

Note: The requirements applicable to construction work under this section are identical to those set forth at 29 CFR 1910.134 of this chapter.

(a) Permissible practice.

(1) In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.