

Personal Protective Equipment

Standard



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1 Introduction

This standard describes the minimum generic Personal Protective Equipment (PPE) requirements whilst working on Ericsson business, to ensure that the health and safety aspects are properly managed.

Where local legislation exceeds requirements in this standard, local legislative requirements shall apply.

2 Definitions

“ANSI” means American National Standards Institute

“AS” means American Standards

“BSI” means British Standards Institute

“EN” means European Norms

“ISEA” means International Safety Equipment Association

“ISO” means International Standards Organization

“PPE” means Personal Protective Equipment

3 Requirements

3.1 General requirements

All PPE shall meet recognized international standards such as but not limited to ANSI, AS, BSI, EN, ISEA, SABS and ISO

3.1.1 Responsibilities

The responsible manager shall ensure that:

- no person performs work without applicable, appropriate and approved PPE,
- PPE is available to all employees free of charge,
- all PPE is examined for faults before use and any defective PPE is replaced,
- all PPE shall be used for the intended purpose,
- adequate supervision and training are provided to end users of PPE before use, and



- PPE is in good condition, maintained, stored and tested according to manufacturer's recommendations.

All workers are responsible to:

- always use PPE when required by risk assessment,
- look after the PPE as instructed, and
- report any defects in their PPE.

3.2 Overview of mandatory use of PPE

The following table shows examples of when PPE shall be used:

TYPE OF PPE	PPE SHALL BE WORN WHEN
Fall arrest equipment	Climbing structures, ladders or working on mobile access platforms higher than two (2) meters. This can include working near excavations that are more than 2 (two) meters or more.
Foot protection	Climbing structures, repetitive lifting and carrying, or working on construction site. Any activity where there is a risk of foot injury from falling objects or sharp objects piercing the sole.
Safety helmet	Working on construction sites, climbing structures, working below climbers. On poles adjacent to live electricity.
Hand protection	Climbing structures, handling sharp objects or hazardous substances, and working in area where biological hazards are present.
Respiratory protection	Working in area where biological hazards are present, such as biological hazards, particles (when grinding, soldering, welding or changing air filters).
Hearing Protection	Where noise levels are at or above 80dB.



TYPE OF PPE	PPE SHALL BE WORN WHEN
Face and eye protection	Drilling into substances, using liquid hazardous substances, grinding, abrasive cut-off sawing, chipping.
Work clothing	Working outdoors in inclement weather. As dictated by the risk assessment.
High visibility vest/jacket	Shall always be worn when being on site.

3.3 Fall arrest equipment

The responsible manager shall ensure that as per the local risk assessment, fall protection systems appropriate for the application are selected and used as follows:

- full body harnesses are used (note: body belts are prohibited),
- only connectors which are self-closing and self-locking are used,
- personal fall arrest lanyard shall be rigged such that the employee can neither free fall more than two (2) meters nor contact any lower level,
- working in confined space shall wear a full body harness and standard lanyard as well,
- the anchorage point shall withstand the individual load multiplied by the maximum number of personal fall arrest equipment that may be attached to the anchorage connector,
- the anchorage point and lifeline shall be designed by certified engineer only and the capability of the anchorage shall be verified by 3rd party institute before using,
- not allowed to exceed the designed capability of the anchorage,
- safety harnesses shall be worn comfortable snug and tied off overhead or at least above the waist, and
- equipment shall be inspected at least once per year (depending on usage and local legal requirements may have to be sooner). The inspection is to be done by competent person who has been trained as per the manufacturer recommended internally or externally developed inspection program (depending on the local legal requirement) of fall arrest equipment.



Fall arrest equipment shall meet recognized international standards, such as, but not limited to AS/NZS 1891; AS/NZS 5532; ANSI/ASSE Z359; SANS 5036; PAS 59: 2014; KS C ISO 10333; JIS T 8165; GB/T24537; PN EN353; DIN EN 353-1; I.S. EN 33; DS EN 360; ISO 10333; GB 6095; CNS 7534; CNS 6701; CNS 14253; CNS 14253-1; and CNS 7535.

3.3.1 Harness

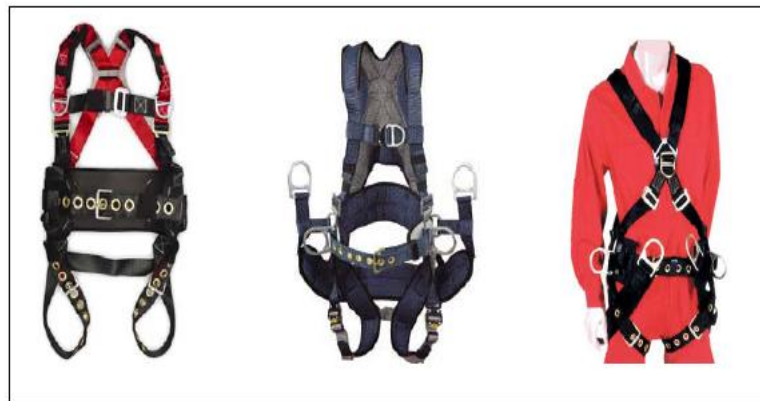


Figure 1



Figure 2

Harnesses shall meet the following requirements:

- The attachment point of the harness shall be located in the center of the wearer's back near shoulder level,
- adjusters shall be capable of withstanding a tensile load of 5,000 lbs (~2200 kg) of force per worker, and
- harnesses subjected to impact loading shall be removed from service.



Harness shall be worn when working on:

- an antenna pylon,
- a slope or roof without handrails and angle greater than 10 degrees to the horizontal,
- elevated equipment such as fan housings, pipes, motors, and switch gear without handrails, and
- on a ladder when the worker's waist is above a protective handrail on an upper level adjacent to the edge.

3.3.2

Lanyards



Figure 3

Lanyards shall meet the following requirements (or as per local requisites):

- Lanyards shall have a minimum breaking strength of 2,300 kg.
- Must be double or Y type to ensure 100% anchorage.
- Connectors shall be sized to be compatible with the connection point to prevent unintentional disengagement.
- Shock-Absorbing lanyards shall limit the maximum arresting force on an employee to 800 kg when used with a body harness.
- Shock-Absorbing Lanyards shall limit maximum deceleration distance to one (1) meter.
- Lanyards subjected to impact loading must be removed from service.



- Full-body harness lanyard shall be tied off as short as is practical but at least short enough to prevent a fall of more than two (2) meters.
- Mechanical rope grabs shall be used to attach the full-body harness lanyard to the lifeline where practical, otherwise the taut line hitch is to be used.

3.3.2.1 Safety harness and lanyard testing and inspection

Safety harness and lanyard shall be tested and inspected as below:

- Lanyards shall be inspected for cuts, excessive wear, loose splices, and defective hardware.
- Safety harnesses will be used only for the time recommended by the manufacturer. No harness (webbing) shall be used for more than 5 (five) years or local law requirement. The lanyards used in a full body harness will decrease its strength about 5 to 6 percent each year under perfect conditions.

3.3.3 Connectors



Figure 4

Connectors shall meet the following requirements:

- international standards as defined in section 3.1 and 3.3, and
- a connector shall be attached to no more than one fall arrest equipment unless certified for such purpose.



3.4 Foot Protection



Figure 5

Footwear shall be designed to provide protection in the following situations:

- manual handling or lifting activities,
- working with sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes,
- exposure to molten metal that might splash on feet or legs,
- working on or around hot, wet or slippery surfaces, and
- working when electrical hazards are present.

Footwear must include a safety toe feature were risk of falling object exist. Sneakers, tennis or sport shoes with safety caps, and canvas loafers are not acceptable as work shoes.

Footwear shall meet recognized international standards, such as, but not limited to AS/NZS 2210; BS EN ISO 20346; BS EN ISO 20345; ISO/TR 18690; ISO 20346; BIS IS 10667; CSAZ195; GB/T 28409; and JIS T 8101.

3.5 Head protection



Figure 6

The responsible manager shall ensure that all employees wear head protection if any of the following apply:



- objects might fall from above and strike them on the head,
- they might bump their heads against fixed objects, such as exposed pipes or beam, and
- there is a possibility of accidental head contact with electrical hazards.

NOTE: Metal or other alloy tin safety helmets are prohibited.

The head protection shall be appropriate for its use and consideration shall be given to commonly used industrial classes, such as but not limited to:

Class A Safety helmet provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).

Class B Safety helmet provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards by flying / falling objects.

Class C Safety helmet provide lightweight comfort and impact protection but offer no protection from electrical hazards.

Head protection shall meet recognized international standards, such as but not limited to ANSI Standard Z89.1-1986 (Protective Headgear for Industrial Workers); ISO 3873; BS 5240; AS 1800; AS 1801; GB 2811; CNS 4598Z2022; CNS 1336Z3001; and JIS T 8131.

Supplementary hardhat equipment includes winter liners, sweat bands, chin straps, and cloth caps. If a worker must work in an inverted position, then chinstraps are required.

Hearing protectors (ear plugs) can be used in conjunction with head protection (attached to the hard hat).

When using a face shield, welding hood or sandblasting hood, the type that combines with a safety helmet shall be used unless an alternative is designated.

Head protection shall be adjusted to fit properly and be worn correctly. The hat shall be squared off straight and not cocked at an angle or perched on the back of the head.

Head protection shall not be modified or painted.



3.6 Hand protection



Figure 7

Hand protection shall meet recognized international standards, such as but not limited to AS/NZS 2161; ISEA 105; GB 24541; and GB/T29512.

The selected Hand Protection shall be designed for protection against the identified risks, such as but not limited to:

- type of chemical handled,
- nature of contact (total immersion, splash, etc.),
- duration of contact,
- area requiring protection (hand only, forearm, arm),
- grip requirements (wet, dry, oily),
- thermal protection,
- size and comfort, and
- abrasion and cut resistance requirements.

3.7 Respiratory equipment



Figure 8



Respiratory equipment shall meet recognized international standards, such as but not limited to AS/NZS 1716; AS/NZS 1715; EN 133; GB 2890; ANSI Z88; ISO 16975; GB 262; and GB/T 18664.

The selected respirator shall be designed for protection against the identified risks, such as but not limited to

- insufficient oxygen environments,
- harmful dusts,
- fogs,
- smokes,
- mists,
- gases,
- vapors, and
- sprays.

Local legislation may require additional requirements for respirator wearers such as medical evaluation, fit testing, specific training, and facial hair policies.

3.8 Hearing protection



Figure 9

Hearing protection shall meet recognized international standards, such as but not limited to AS 1269; STANAG 2899; BIS IS 6229; CSA Z94; EN 352; and GB/T 23466.

The selected hearing protection shall be designed for protection against the identified risks, such as but not limited to:

- any noise level above 80 dB,
- the duration of the noise,
- whether employees move between work areas with different noise levels, and
- whether noise is generated from one or multiple sources.



3.9 Face and eye protection



Figure 10



Figure 11

Face and eye protection shall meet recognized international standards, such as but not limited to AS/NZS 1336; AS 1337; GB/T 3609; ISO 16321; ISO/DIS 19818; ISO 19734; EN ISO 20471:2013; BIS IS 8520; ANSI Z87; PN EN 1731; and JIS T 8147.

The selected face and eye protection shall be designed for protection against the identified risks, such as but not limited to:

- dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools,
- chemical splashes from corrosive substances, hot liquids, solvents or other hazardous solutions,
- objects swinging into the eye or face, such as tree limbs, chains, tools or ropes, and
- radiant energy from welding, harmful rays from use of lasers or other radiant light (as well as heat, glare, sparks, splash and flying article).



Individuals who wear prescription glasses shall comply by wearing prescription safety glasses with side shields or visitors' glasses over prescription glasses.

3.10 Work clothing

Work clothing shall be used appropriate to the local weather or working conditions and local risk assessment.

3.11 High visibility vest/jacket

High visibility vest or jacket shall be used when identified by local risk assessment.

High visibility vest/jacket shall meet recognized international standards, such as but not limited to AS/NZS 4602; ISEA 207; PAS 10412; BIS IS 15809.

4 Records

Records shall be kept of the issue, inspection, and maintenance of all PPE.

5 Change information

Summary of changes since last revision:

- 1 Introduction text updated
- 2 Added clarifying text to all paragraphs under 3
- 3 Clarification of competent person to inspect fall arrest equipment in 3.3.
- 4 Added examples of PPE standards
- 5 Update to 80 dBA (3.8) as per Ericsson standard