



PLANT PURCHASING SPECIFICATION

HEEP – HARDWAR

AUTO DARKENING WELDING HELMET

1.0 Scope

This standard covers the requirement of Auto Darkening Welding Helmet designed for most of the welding applications, specifically for MIG and TIG welding.

2.0 Compliance with Standards

It shall comply with EN 166, EN 175, EN 379, and EN 12941.

3.0 Technical Requirement

Auto Darkening Welding Helmet unit should consist of Headpiece (Helmet), auto darkening Welding Filter(Lens), Breathing tube, Turbo unit, battery, airflow indicator, Filter etc. All the components of the unit shall be approved in conjunction for use.

3.0.1 SPECIFICATIONS FOR HEADPIECE (HELMET)

1. The headpiece should be of modular construction based on durable cradle.
2. The headpiece should be made up of Plastics/ Polyamide/ Polycarbonate and its outer protection plate should be made up of scratch resistant polycarbonate and can be replaced easily if required
3. The inner and outer protection plate should be approved to EN standard.
4. The headpiece should have a combined unit for protection of face and powered air purifying respiratory systems.
5. The Auto-Darkening Welding Filter helmet should be provided with provision for including respiratory systems.
6. The Auto darkening welding helmet should have five selectable dark shades 9, 10, 11, 12 and 13 and four user selectable levels of sensitivity to ensure reliable arc detection.
7. The viewing area of the welding filter should be as per relevant standard and weight of the headpiece including the welding filter should not be more than 550 gms.
8. The switching time between the light-dark shades should not be more than 0.1 millisecond.
9. The operating system should have one touch soft button/Push button type /Rotatory Knob type and unit should have auto switch-off facility which switches off the system if system is not operational.
10. The auto-darkening filter lens unit should have Power Supply of 3V Replaceable Battery.
11. The unit should ensure reliable arc detection and having excellent visibility in light state, for easy welding preparation and after-treatment.
12. The welding shield and auto darkening welding Filter should be approved to EN standard.

3.0.2 SPECIFICATIONS FOR POWERED AIR PURIFYING RESPIRATOR

1. The Powered Air Purifying Respirator unit must be a waist mounted battery operated system which should provide a continuous supply of filtered air to a headpiece as a part of a respiratory system.
2. The unit must be designed for improved access to tight spaces with smooth contoured surface. The unit should have a spatter proof belt.

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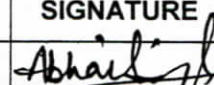


SUPERSEDES INVENTORY NO.

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INVENTORY NO.

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3. The unit should have spark arrestor which should safeguard the main particulate filter from burning if spatters fall on the unit.
4. The unit should have a Continuous filter life indicator/mechanism to check the life of filter.
5. The Powered Air Purifying Respirator unit should incorporate an electronic control unit (ECU) that ensures that the blower unit supplies a constant flow of air at normal speed and should have a provision to increase the speed if required. An airflow indicator should be provided along with the system to ensure that required flow rate is maintained.
6. The Powered air purifying system should have audio and visual alarms which alerts the user of low battery or motor malfunctioning.
7. The Powered Air Purifying Respirator should be powered by a rechargeable battery pack fitted to the unit.
8. Battery Pack should be a NiMH type and be available in 8 hours and 14hrs options.

4.0 Authorization Certificate:

Vendor should be authorized distributor / dealer and Authorization Certificate should be provided by the Manufacturer specifying the BHEL tender/enquiry number.

5.0 Test certificate:

The supplier shall furnish two sets of ink signed, original test certificates of the equipment as per requirements of relevant Indian standard/EN/CE. One set of test certificates will be required along with dispatch documents and the other along with supply of the equipment.

6.0 Guarantee:

The supplier shall furnish guarantee against any design /manufacturing defect and performance guarantee of the auto darkening welding helmet as per quoted performance parameters for a period of 12 months from the date of acceptance of the equipment at our end.

7.0 Document and Literature:

Four copies of descriptive leaflets, technical literature, operation and maintenance manual are to be supplied along with each equipment.

8.0 Packing and Dispatch: The equipment /accessories shall be suitably packed.**9.0 Installation & Training:**

The supplier shall commission/install the equipment at our site and provide necessary training/demonstration on correct way of using and maintaining the equipment, to our staff at our site, free of cost.

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SIGN &
DATE

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