

Integrated helmet for manual laser welding (PROTOTYPE)

A solution that provides effective protection against reflected laser radiation for the eyes and face of the welder during manual laser welding



Integrated system combines protection for welding using any conventional method (MIG / MAG, TIG, MMA) with protection against reflected radiation generated during manual laser welding.



The helmet is equipped with an auto-darkening filter in the highest optical class 1/1/1/1 with protection against IR and UV radiation and stepless adjustment of sensitivity, delay and shade level in the ranges DIN 4-8/9-13.

A green laser protection window is mounted inside on the filter cassette and provides protection against reflected and scattered laser radiation. Prototype.

Advantages of the solution:

- ✓ effective protection of eyes and face against reflected laser radiation with wavelengths in the range 900-1080 nm
- ✓ protection of the welder in manual laser welding, as well as in MIG / MAG, TIG, MMA welding and in grinding works
- ✓ flexible head harness adjustment system that allows it to comfortably fit the welder's head
- ✓ lightweight construction
- ✓ simple and stable filter mounting system allowing for quick replacement of the filter
- ✓ space between the filters allows for easy cleaning and effective drainage of moisture

Main technical parameters:

- application: **manual laser welding, arc welding MIG / MAG, TIG, MMA**
- expected protection levels against laser radiation (EN 207):
 - >900-1070 D LB7 + I LB8 + R LB7 (OD 8+)
 - >1070-1075 DIR LB6 (OD 6+)
 - >1075-1080 DIR LB5 (OD 5+)
- size of the active field of view: **100 x 65 mm**
- size of the filter cassette: **125 x 106 x 10 mm**
- optical class of the filter: **1/1/1/1**
- protection level against UV/IR radiation: **DIN 16**
- shade level (operating mode): **DIN 4-8/9-13**
- time of darkening: **1/30 000 s**
- time of lightening: **0.25 – 0.80 s**
- filter power supply: **solar cells, lithium battery 1xCR2450 3V**
- mass: about **600 g**
- colour: **black, red**

More information at: www.laser-pro.pl