

**lite** - Air fed, ear defender compatible

**scorpion** - Air fed, shotblasting helmet

INSTRUCTION SHEET



The Crusader Lite, air fed visor, is ideal for light finishing applications.

It allows the user to wear ear defenders.



The Scorpion helmet was specifically designed for shotblasting applications - highly visible, comfortable to wear and large enough to accommodate ear defenders. It has an inner helmet for stability, a tear off visor system and it is of robust heavy duty construction throughout.



**phoenix** - Air fed, metal spray visor



The Phoenix metal spray visor and hood combines air-fed respiration technology with a visor specifically developed for the metal spray industry.

Lightweight but robust the Phoenix was developed for this specialist industry to give the very best protection.

- Ready to use, fully assembled with belt, hose and adjustable regulator
- Safe, flame retardant cape
- Easy to read pressure gauge and audible whistle
- Comfortable fit belt adjustable from 22" - 48" waist
- Convenient easy to connect air feed with 1/4" BSP thread



**crusader range** (lite & phoenix)  
extreme sensory protection

**UNIT FITTINGS**

The unit comes complete and fully assembled with:

1. Browguard.
2. Breathing air hose with diffuser attached.
3. Adjustable or pre set regulator.
4. Visor, with two options :- Acetate and Polycarbonate both of which conform to BS EN 1835 :2000 Clause 8.5.
5. One pack of disposable visor covers.
6. Belt mounted air deficiency warning whistle.
7. Drawstring storage bag.
8. User instructions.
9. The Crusader range comes with hood options (fitted or disposable depending upon model) and 'rectus' type breathing air fittings.



**FIT OF THE MASK**

Ensure the foam face seal is touching the face all the way around.

The Crusader will not offer maximum protection for either spectaclewearers or people with facial hair. This may interfere with the foam face seal.

The belt is adjustable and the tidy slides are to prevent interference from the excess webbing.

**CLEANING, DISINFECTING & MAINTENANCE**

All components of the crusader may be cleaned with warm soapy water. If the foam face seal is wet it will needtime to dry. If it gets any oil onthe foam silencer or face seal the items should be replaced.

If there are any rips in the foam or sufficient scratches in the visor it should be replaced.



**REPLACEMENT PARTS**

See overleaf for the complete set of spares available from your nearest distributor.

**STORAGE**

When the unit is finished with thoroughly clean and dry, fold the cape into the helmet and place in a bag to protect the unit from dust. It should be stored in a cool dry room at 0-45 deg C out of direct sunlight.

**WARNING DEVICE**

A device is incorporated to warn the operator that an insufficient quantity of breathing air is being supplied to the apparatus.



Should the gauge indicate red during use, or the whistle sound, the operator should vacate the hazardous area immediately with the hood still on and check the air supply, i.e. look for crushed or cut supply hose.

Each time the hood is used the device should be checked, to do this the hood should be worn as normal and the air supply reduced to 10 psi or less, this will cause the gauge to indicate red, and the whistle will sound, when the pressure is restored to its normal level the gauge indicates green and the whistle stops.

COMPLETE INSTRUCTIONS OVERLEAF

www.supremevisors.com



## Introduction

Thank you for choosing this Crusader Air Fed Visor, we hope it will give numerous hours of trouble free service. Please read all the following instructions carefully and keep all literature safe as it will be necessary when ordering spares. The Crusader carries a CE mark and conforms to BSEN 1835:2000. EC type examination by SGS UK Ltd Western Super Mare B522 6WA, (Accredited Body Number 0120) Class LDH 3, the crusader is fitted with a belt mounted air deficiency alarm, this means the crusader is suitable for atmospheres where a TIL of up to 0.5% is permissible (Nominal Protection Factor 200). The Crusader is fully approved when used in accordance with these instructions. The materials selected to manufacture this product have been carefully chosen to provide maximum protection at a minimum weight. The Crusader is not designed to protect the operator from falling objects nor should it be used in atmospheres where there is an oxygen deficiency. The Crusader is designed to be used in temperatures between 0°C and 45°C. None of the materials used are known to have any ill - effects on health or cause skin irritations

## Description

This Crusader Lite respirator is specifically designed for use in painting and light finishing operations i.e. grinding and dusty atmospheres. It should not be used in atmospheres immediately dangerous to health or flammable atmospheres. The Crusader Phoenix is designed solely for metal spraying. At all times the user must be able to escape without the use of the apparatus. The Crusader is designed to be connected to a compressor which shall have suitable filters to provide respirable breathing air with no excessive moisture and contain no less than 19.5% Oxygen (for details refer to prEN 132). It is the operators responsibility to check the air supply, careful attention should be made as to the location of the compressor to ensure it draws in only clean air, i.e. site compressor away from vehicle exhausts, ventilation outlets and other toxic emissions of any nature. The Crusader must not be connected to any other gas supply i.e. Acetylene, Oxygen, Nitrogen, Argon or Oxygen enriched air. Adequate protection may not be provided in atmospheres that are immediately dangerous to life

## Start up

Ensure the foam face seal is touching the face all the way around. The Crusader will not offer maximum protection for either spectacle wearers or people with facial hair. This may interfere with the foam face seal. The regulator is fitted with a 1/4" B.S.P female air supply connection this should be connected to a compressed air line via a hand operated swivel connection. The crusader should be connected to a hose in accordance with BS EN 1835:2000 7.10. It shall be of 3/8" internal diameter 10 meters long and with a supply pressure of 3.0 bar (44psi). Longer hoses may be used providing it is determined that there is 3.0 bar of air pressure at a 10 meter distance from the belt mounted regulator, while in use. Users shall assure themselves that the pressure and air flow range of the air supply to the apparatus is within the limits recommended. The warning devices are sufficient to check the apparatus is passing the designed flow rate prior to use, to check the crusader is passing a flow rate in between the maximum and minimum flow rates as specified below. The belt is to be secured around the waist and the browguard to be adjusted with the rear knob for a comfortable fit around the forehead, i.e. so the head top stays fixed when you shake your head. Additionally the Phoenix headpiece comes complete with width spacers to ensure a good fit to the head, these can be inter-changed to achieve the most comfortable fit

## Width adjustment

HEAD WIDTH ADJUSTMENT	
Spacer Stud Colour	Head Size
RED	SMALL
YELLOW	MEDIUM
GREEN	LARGE
(No spacer required) BLACK	X-LARGE

Minimum flow rate : 170 litres per minute.  
Maximum flow rate : 230 litres per minute.

## Optional extra head

10mm spray hose with Rectus or similar fitting

## Warning

At very high work rates the pressure of the air inside the crusader may become negative at peak inhalation flow, if this is to be the case other forms of RPE may have to be considered, it is also recommended to increase the flow rate to the crusader in these circumstances. If using power tools or spray guns on this compressed air line, ensure the compressor has suitable remaining capacity to power the crusader. A spray hose is available as an option and is easily fitted in the blanked port opposite the warning whistle on the regulator housing. The crusader should only be used in areas where the risk of damage to the compressed air tube is low and movements of the wearer are limited. Adequate protection may not be provided by the crusader in certain highly toxic atmospheres. The shelf life is anticipated to be 5 years from date of manufacture (Ref CE label in head top). The air supply should be fitted with an appropriately rated and adjusted pressure relief safety valve.

## Low flow warning device

A device is incorporated to draw the operators attention if insufficient breathing air is being supplied to the crusader. If the alarm sounds during use, do not remove the head top until you have vacated the work area. Then investigate the air supply. The alarm can be tested prior to use by reducing the system pressure to 10 psi (approx. 0.9 bar), this will cause the alarm to sound.

## Adjustable regulator

The belt mounted regulator assembly has the facility for adjusting the air flow rate between the specified maximum and minimum range. To do so the operator must rotate the protruding black adjuster knob, clockwise for increasing flow, anti-clockwise for decreasing flow. Within the decompression chamber at the top of the plastic casing there is a sintered silencer / filter, this should be periodically inspected / replaced - every 200 hours minimum. Remove the headtop hose connection using a spanner, then remove the filter with a screwdriver. Any amount of contamination in this area it indicates that there is a problem with filtration of your breathing air, this must be investigated.

## Visors

### (i) Filter visor

Solvents must not be directly applied to this screen. Periodically this may need replacing i.e. if excessively scratched or contaminated, or if the foam face seal has failed in any way. To remove this, un-clip the visor at the sides, push with your fingers in the centre of the visor whilst holding the browguard and pull the bottom of the visor this will rotate the visor. Then the visor can be removed from its remaining two anchor points.

### (ii) Disposable visors

These are supplied in packs and are fitted one at a time over the studs on the outside of the filter visor.

## Components

Quality assurance list of components specific to the 'Crusader range'

**Part No.**  
P1112 - 3 - H

**Unit**  
Crusader Lite

Air Fed Visor, inc. set of visors, belt & regulator, paint hose take off, acetate visor.

P1112 - 4 - H

**Crusader Phoenix**

Air Fed Metal Spray Visor, inc. set of visors, belt & pre-set regulator, Air take off point, Acetate visor, proban hood.

## Spares

**Part No.**  
P1112-H-002

**Unit**  
Adjustable flow control regulator with spray hose take off point.

P1112-D-004

Disposable visors (clear antistatic) pack of 50.

P1112-K-004

Phoenix shade 5 outer clip on filter lens.

P1112-L-004

Phoenix sticky disposable visors (clear antistatic) pack of 50.

P1112-E-015

Spray hose attachment with Rectus fitting.

P1112EU/HDTOP/PHOENIX

Headtop for Phoenix - everything from the belt up.

P1112EU/HDTOP/LITE

Headtop for Lite - everything from the belt up.

When ordering new equipment it is important to order the correct ones for the particular model.

Note : Only use approved Crusader spares else all approvals will be waived. Crusader spares are only available from our approved distributors NOT DIRECT FROM US.

Designed & manufactured at Supreme Visors,  
Unit 2, Astonfields Road  
Whitehouse Industrial Estate  
Runcorn  
Cheshire WA7 3DL  
U.K.



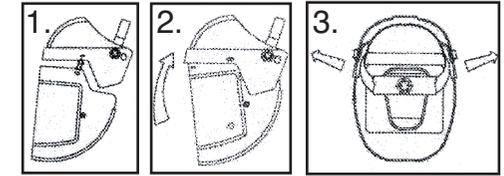
## QUALITY ASSURANCE NOTE

The overall quality of this product has been checked, designed and manufactured to EN1835:2000 by Supreme Visors Ltd, a BS EN ISO 9001:2000 registered company (FM 37564)

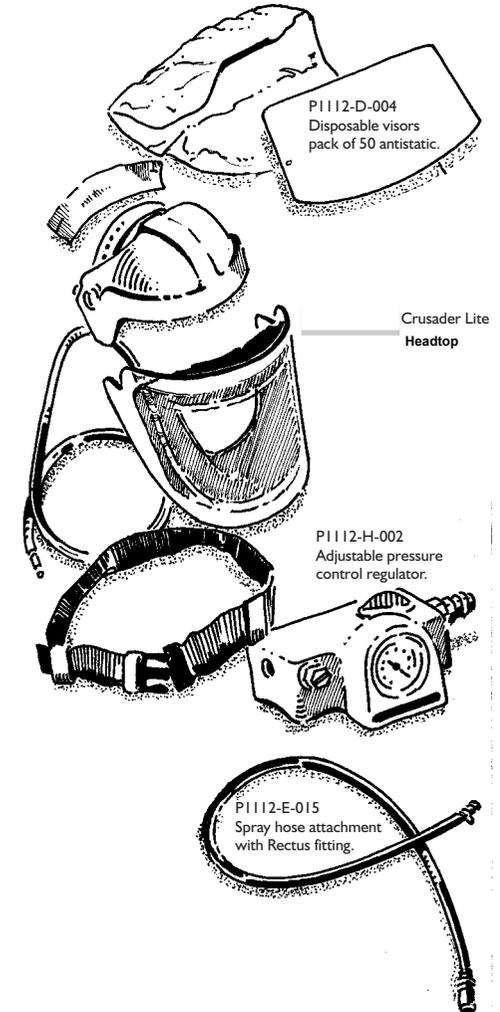
See Head top for batch number to order spares  
Please quote the batch and model Nos. when ordering spares

**CAUTION:**  
**DO NOT HANG THIS UNIT UP BY ITS AIR LINE.**

## Visor Replacement



## Crusader parts



Crusader Lite  
Headtop

P1112-H-002  
Adjustable pressure  
control regulator.

P1112-E-015  
Spray hose attachment  
with Rectus fitting.