

AUTO DARKENING & POWERED AIR WELDING HELMETS CATALOGUE



Contents

- 4.1 Optrel OSE Shell Auto Darkening Helmets
- 4.2 3M Speedglas Auto Darkening Helmets
- 4.3 Huntsman Scorpion Auto Darkening Helmet
- 4.4 Optrel OS100 Powered Air Purifying Respirator
- 4.5 3M Adflo / Flexview Systems PAPR
- 4.6 3M Speedglas Respiratory Protection Powered Air
- 4.7 3M Respiratory Protection Powered Air
- 4.8 Optrel Classic Solarmatic Shell Auto Darkening Helmets



Glossary Of Terms

1. ADF - Auto Darkening Filter
2. PAPR - Powered Air Purifying Respirator
3. TIG -Tungsten Inert Gas
4. MIG/MAG - Metal Inert Gas / Metal Active Gas
5. MMA - Manual Metal Arc
6. QRS - Quick Release System
7. Dark-Light delay adjustment - Allows a comfort factor adjustment of the time period after the arc has stopped until light shade returns allowing the arc glow to fade
8. Sensitivity adjustment - Allows flexibility in the sensitivity levels of the ADF. Reducing reaction to ambient light sources at low settings and increasing when arc brightness is low or obscured
9. Solar Powered - Light from the welding arc powers the ADF cartridge
10. Light Shade Level - All helmets even in their light shade provide protection against UV & IR rays
11. APF - Asssigned Protection Factor

Standards & Certification

EN379 - ADF Cartridge Certification Standard

EN175 - Eye & Face Protection during welding & allied processes (Welding Helmet)

EN12941 - Respiratory Protection, powered filtering devices incorporating a helmet or hood (PAPR)

CE - Certifies only that the product and its manufacture has met the basic safety requirements under directive 89/686/EEC. The product must therefore be checked to ensure it has certification in the relevant EN standard above for its required use.

Products without legitimate certification may damage your health irreversibly

All products in the catalogue are independently tested to meet their EN standards and copies of test certification are available on request.

Optrel - OSE ADF Helmets



The OSE helmet shell:

- An ergonomic and perfectly balanced shell with minimal strain on the neck
- High quality material for resistance to extreme temperature (220°C) and surface damage by fine particles.
- Colour options include heat reflecting paints ensuring a comfortable temperature is maintained in the helmet
- Contoured profile channelling fumes away
- A spherical front cover lens shaped to extend its lifetime, equipped with an elastic foam gasket to prevent inbound leakage of gas, fumes or particles
- Telescoping adjustability of the headgear enables individual choice of positioning
- Extended coverage protecting neck, chest and ears from UV radiation & flying particles.

Code	Description	Pack
OPT1007305	Inside cover lens	PK 5
OPT1007306	OSE outer spare lens	PK 5
OPT1007304	Optrel Sweat Band	PK 2

Optrel OSE Satellite (Pictured Left)

The exclusive design, functional colour and new optoelectronic filter combine comfort, safety, versatility and quality. Thanks to its highly sensitive electronics and its wide shade range 5-13, it is the first optoelectronic product that can be used in all types of electric arc welding and grinding.

- Solar powered
- 2 switchable ranges - automatic shades 5-9 and 9-13
- Adjustable sensitivity
- Adjustable dark to light delay
- Uses - MMA, TIG, MIG/MAG, Plasma welding & Plasma cutting.
- **Grinding protection**

Optrel OSE Orion

The unique new intelligent sensor technology automatically adjusts the shade level between DIN 9-13 depending on the measured light intensity of the arc.

Can also be used in manually selected mode

- Solar powered
- Automatic shades 9-13
- Uses - MMA, TIG, MIG/MAG.



Optrel OSE Mira+

Entry level OSE helmet. A switchable filter darkening to either shade 10 or shade 11

- Solar powered
- 2 switchable settings - fixed shades 10 or 11
- Uses - MMA, MIG/MAG.



Code	Description	Pack
OPT1007314	Satellite OSE blue	EA
OPT1007310	Satellite OSE green	EA
OPT1007313	Satellite OSE silver	EA
OPT1007311	Satellite OSE black	EA
OPT1012590	Orion OSE black	EA
OPT1012591	Orion OSE blue magic	EA
OPT1012592	Mira+ OSE black	EA
OPT1012589	Mira Plus OSE blue	EA

OPTREL OSE SHELL AUTO DARKENING HELMETS



3M Speedglas Helmets



Speedglas

Utility Welding Shield

- Auto-darkening welding shield
- Suitable for MMA and MIG welding
- Shade 10 or Shade 11 version
- Light Shade 3
- Viewing area 44 x 92mm



Speedglas

9002X Welding Shield
(Xtra View)

- Auto-darkening welding shield
- Suitable for MMA, MIG and TIG welding
- Variable Shades 9 - 13
- Light Shade 3
- Viewing area 55 x 107mm
- Side windows and CO₂ reduction system

Code	Description	Pack
HOR408110	Utility Shade 10	EA
HOR408111	Utility Shade 11	EA

Code	Description	Pack
HOR401180	9002X Shades 9-13	EA
HOR401880	9002X Shades 9 -13 c/w side window	EA



Speedglas

9002V Welding Shield
(Variable)

- Auto-darkening welding shield
- Suitable for MMA, MIG and TIG welding
- Variable Shades 9 - 13
- Light Shade 3
- Viewing area 44 x 92mm
- Side windows and CO₂ reduction system



Speedglas

9002D Welding Shield
(Dual)

- Auto-darkening welding shield
- Suitable for MMA and MIG welding
(plus TIG welding down to 20 Amps)
- Shades 9 or 11
- Light Shade 3
- Viewing area 44 x 92mm
- Side windows and CO₂ reduction system

Code	Description	Pack
HOR401170	9002V Shades 9-13	EA
HOR401870	9002V Shades 9 -13 c/w side window	EA

Code	Description	Pack
HOR401140	9002D Shades 9 or 11	EA
HOR401840	9002D Shades 9 or 11 c/w side window	EA

3M Speedglas Common Consumables

Code	Description	Pack
HOR426000	Outside protection plate	PK 10
HOR427000	Scratch Resistant outside protection plate	PK 10
HOR428000	Inside Protection Plate	PK 5
HOR422000	Battery (2pcs = 1pkt)	PK 2

Huntsman Scorpion ADF Helmet



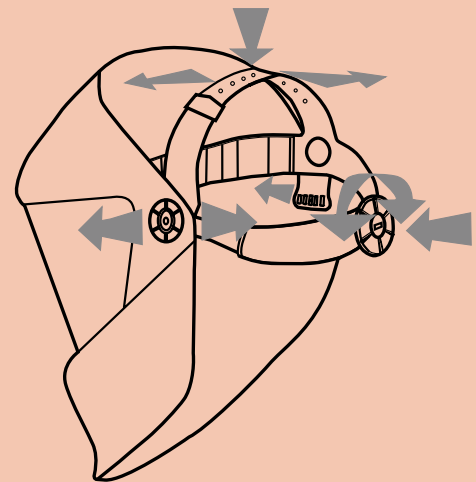
A new budget ADF from Huntsman, a division of Jackson Safety. The Scorpion provides an entry level ADF meeting all CE & EN standards backed by a global leader in ADF helmets.

- Certified EN175, 379 and CE
- Lightweight 420g Helmet
- Fully Variable Sensitivity Adjustment
- Fully Variable Dark-Light Delay Adjustment
- Twin Sensor
- Solar Powered
- 12 Month Warranty

Special Features

- Angled helmet front - reduces spatter build up and preserves helmet life
- Large shade adjustment knob - Easy to use with gloved hands
- Forwards & Backwards Adjustment - Allows for flexibility in distance of helmet from face
- 5 Angle positions - Allows helmet to be positioned at desired angle to face

Stable down to 20amps



Forwards, backwards & angle adjustment

Code	Description	Pack
HUN4000	Scorpion Shade 9-13	EA
HUN4700	Outer Replacement Lens	PK 10
HUN4701H	Inner Replacement Lens	PK 10



Optrel OS 100 Powered Air Purifying Respirator



OS100 Technical Data

Protection Level

- Classification TH2
 - Nominal Protection Factor 50
 - Assigned Protection Factor 20
- Blower unit - 150 l/min minimum
- Certification
- EN12941:1998 TH2



OS100 Standard Kit includes:

- OSE Satellite helmet & shade cartridge
- OS100 Blower Unit
- Air hose & flame retardant cover
- Face seal
- Short airduct
- Standard battery & charger
- TH3P Filter
- Flow indicator tube
- Fabric belt
- Leather back support.

Especially designed for welders, the OS100 provides ideal protection against IR/UV radiations, flying particles, metal fumes and dusts emitted during welding and associated processes.

How it works: A blower powered by a rechargeable battery draws ambient air through a fine particle filter and ventilates the shade 5-9 and 9-13 optoelectronic welding helmet with clean and refreshing air. For outstanding wearer comfort and a perfect seal, the face seal is knitted from a soft flame retardant material.

A comfortable flame retardant waist belt including leather lumbar support fits the system to the users body.

Blower Unit Features

- Optical & audible alarms for low power, low air flow & missing filter
- 1350g including filter & standard battery
- Single filter design
- Long battery life (8hr normal use)
- Fast 3 hour smart charge
- 1 year warranty

OSE Satellite Helmet Features:

- Permanent eye protection from dangerous UV & IR radiation even in light state
- Variable air vents
- Shade ranges 5-9 or 9-13
- Soft knitted flame resistant face seal
- Ergonomically balanced helmet with minimal strain on the neck
- Grinding mode for grinding or brazing without helmet removal
- Contoured profile to channel away fumes
- Extended coverage protecting the chest, neck and ears
- 2 Years Warranty

Code	Description	Pack
OPT4140000	OS100 Standard kit	EA
OPT4088000	TH3P Filter	EA
OPT4160000	Face Seal	EA

3M Adflo / Flexview Systems

3M Speedglas



Adflo

Adflo Technical Data

Protection Level

- Classification TH2

- Nominal Protection Factor 50

Blower unit - 160 l/min standard &

200 l/min high flow

Certification

- EN12941:1998 TH2



FlexView System

The 3M Speedglas with Adflo System is a lightweight compact, all-in-one system. Its exclusive "stackable" configuration means that the Adflo cartridge can be "stacked" onto the High Efficiency (HE) particle filter for additional protection against organic, sulphur dioxide, chlorine and hydrogen chloride vapors.

In effect it is two systems one allowing increased user flexibility to adapt to changing welding applications. The Adflo system has no external batteries, no battery cables and no sharp corners. Its slim profile is designed to go into tight spaces.

Turbo Unit Features

- Audible & visual alarms signal low flow and battery charge and now also filter loading level
- 1150g including standard battery & filter
- Stackable filter design and filter life prolonging spark filter allows for replacement only of used filter
- Long life environmentally friendly NIMH battery (8hr normal use)
- 4 hour smart charge
- 1 year warranty

Speedglas Helmet Features:

- Permanent eye protection from dangerous UV & IR radiation even in light state
- Exclusive airflow pattern throughout breathing zone
- Aerodynamic breath exhaust valves
- Narrow shell width for ease of access
- Shade ranges 9-13 in two window sizes
 - 9002V 44x92mm viewing area
 - 9002X 55x107mm viewing area
- Light state shade 3
- User selectable sensitivity & dark-light delay settings
- Also available in FlexView with slide away section to allow grinding with an EN166 clear facescreen without helmet removal
- 2 Years Warranty

Code	Description	Pack
HOR466670	9002V Adflo System Shades 9-13	EA
HOR466680	9002X Adflo System Shades 9 -13	EA
HOR446670	9002V FlexView with Adflo System Shades 9-13	EA
HOR446680	9002X FlewView with Adflo System Shades 9 -13	EA

Code	Description	Pack
HOR837010	Particle Filter PSL	EA
HOR837620	Battery Standard	EA
HOR836010	Pre-filter	PK 5
HOR837242	Gas filter A1B1E1	EA

3M - Speedglas - Powered Air With Jupiter Or Dustmaster

New - Available Late 2006

These Headtops when connected to either the Dustmaster Turbo Unit or the Jupiter Turbo Unit, offers lung and face/eye protection. Just follow steps 1 - 3 to build your Powered Air System:-

1

Speedglas Headtop

- The most versatile welding filters ever. Various options: fixed or variable shade, large or normal viewing area.
- Speedglas side windows fitted as standard, in order to enable good peripheral visibility an important factor for both comfort and safety.
- The exclusive airflow pattern that evenly distributes filtered air throughout the entire breathing zone of the shield.
- A soft, flexible face seal creates a positive pressure environment within the shield, keeping the surrounding pollutants at bay.
- Approved according to EN 175:B and EN 379.
- Breathing hose included
- Optional FlexView kit available



Speedglas 9000 Welding Shield approved for use with 3M Dustmaster or 3M Jupiter.

Code	Description	Pack
HOR460500	Speedglas 9000 Welding Shield	EA



2

Speedglas Cartridges



Code	Description	Pack
HOR400040	9002D DIN 9 or 11 Dual	EA
HOR400070	9002V DIN 9 to 13 Variable	EA
HOR400080	9002X DIN 9 to 13 Variable + Xtra View	EA



3a

3M Dustmaster

- The Dustmaster systems provide protection against airborne particulates, nuisance odours & welding fumes. Dustmaster powered respirators are simple and easy to use and now compatible with the popular Speedglas headtop
- Wipe clean, belt mounted air filter unit, enclosing motor-fan, battery & long-life filter
- Charging socket - no need to remove battery for charging
- Dustmaster powered systems meet European Standards for respiratory, head, eye and welding protection as appropriate
- Comes complete with battery pack, belt, air flow indicator and P2 filters



Code	Description	Pack
R021-00-38P	Dustmaster Powered Turbo	EA
R003-00-38P	Battery Charger for Dustmaster	EA
R451-00-02P5	Pleated Filter	PK 5

3M Dustmaster Speedglas

Protection Level Classification: TH1

- APF: 10
- Minimum airflow = 150 l/min
- Certification EN12941 TH1



3b

3M Jupiter

- The Jupiter turbo unit provides protection against particulates, gas and vapours and any combination of these hazards and now compatible with the popular Speedglas headtop
- The turbo is compact and lightweight, allowing maximum ease and freedom of movement, even in small spaces
- The Jupiter is easy to maintain with only 3 replaceable parts and its smooth shape allows easy cleaning
- The turbo unit is supplied with a comfort belt
- Battery, filters, battery charger, Speedglas headtop must be ordered separately



Code	Description	Pack
R085-00-10P	Jupiter Powered Turbo	EA
R003-00-58P	Battery Charger for Jupiter	EA
R450-00-25P2	Jupiter P3 filter	PR
R007-00-63P	Four hour battery	EA

3M Jupiter Speedglas

Protection Level Classification: TH2

- APF: 20
- Minimum airflow = 150 l/min
- Certification EN12941 TH2





3M - HT638 & HT616 With Jupiter Or Dustmaster

These Headtops when connected to either the Dustmaster Turbo Unit or the Jupiter Turbo Unit, offers lung and face/eye protection. Just follow steps 1 - 3 to build your Powered Air System:-

1

3M QRS Headtops



- The HT-616 - (DM16) offers lightweight and comfort combined with welding and respiratory protection
- The welding shield houses the Optrel Solarmatic Comfort solar-powered, auto-darkening welding lens which is adjustable from shade 9 to 13
- The HT-616 provides the wearer with a clear view of the workpiece both before and after the arc is struck



- The HT-638 is a well-balanced shield giving superb coverage, with 90x110mm filter holder
- The flip-up 90x110mm filter holder enables the welder to inspect the weld without losing respiratory protection
- The design emphasises both comfort and productivity
- Also available with an optional ADF Cartridge - enquire for details

Code	Description	Pack
R049-00-28P	HT-616 - (DM16)	EA
3M-HT638	HT-638	EA



2

QRS Breathing Tube



Code	Description	Pack
R008-00-42P	Lightweight Breathing Hose	EA



3a

3M Dustmaster

- The Dustmaster systems provide protection against airborne particulates, nuisance odours & welding fumes. Dustmaster powered respirators are simple and easy to use
- Wipe clean, belt mounted air filter unit, enclosing motor-fan, battery & long-life filter
- Charging socket - no need to remove battery for charging
- The air-filter unit fits all Dustmaster headtops
- Dustmaster powered systems meet European Standards for respiratory, head, eye and welding protection as appropriate
- Comes complete with battery pack, belt, air flow indicator and P2 filters



Code	Description	Pack
R021-00-38P	Dustmaster Powered Turbo	EA
R003-00-38P	Battery Charger for Dustmaster	EA
R451-00-02P5	Pleated Filter	PK 5

3b

3M Jupiter

- The Jupiter turbo unit provides protection against particulates, gas and vapours and any combination of these hazards
- The turbo is compact and lightweight, allowing maximum ease and freedom of movement, even in small spaces
- The Jupiter is easy to maintain with only 3 replaceable parts and its smooth shape allows easy cleaning
- The turbo unit is supplied with a comfort belt
- Battery, filters, battery charger, QRS headtop and hose must be ordered separately



Code	Description	Pack
R085-00-10P	Jupiter Powered Turbo	EA
R003-00-58P	Battery Charger for Jupiter	EA
R450-00-25P2	Jupiter P3 filter	PR
R007-00-63P	Four hour battery	EA



Optrel Classic Solarmatic Shell ADF Helmet



Optrel Solarmatic Comfort

- The Optrel Solarmatic Comfort solar powered optical cartridge is activated the instant the arc is struck and is fully adjustable from shades 9-13
- Once the welding stops the optical cartridge rapidly returns to shade 4 and allows the welder to see their work clearly

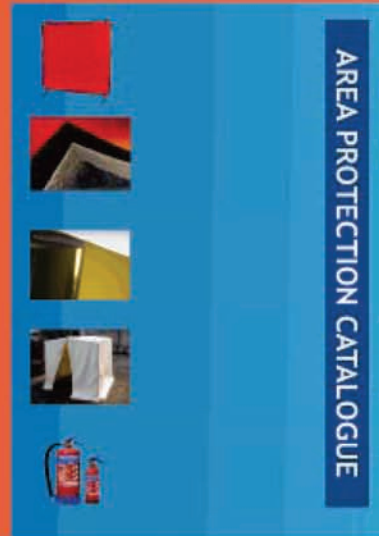


Optrel Solarmatic Twisty

- The Optrel Solarmatic Twisty welding shield is a high quality unit which combines durability with comfort
- The solar powered optical cartridge is activated the instant the arc is struck and is fully adjustable from shades 10-11 and 11-12 to enable MIG or MAG welders to compensate for varying arc intensities

Code	Description	Pack
OPT1007300	Optrel Solarmatic Comfort	EA
OPT1007309	Optrel Solarmatic Twisty	EA
OPT1007307	Optrel outer OSC cover lens	PK 10
OPT1007305	Optrel inside OSC cover lens	PK 5

Also
Available



 **Speedglas**[®]

HUNTSMAN[®]

optrel[®] 
Switzerland



 **Adflo**[®]

3M