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Tools Today.co.uk

# HORIZON





## **THE UNIVERSAL VISION**

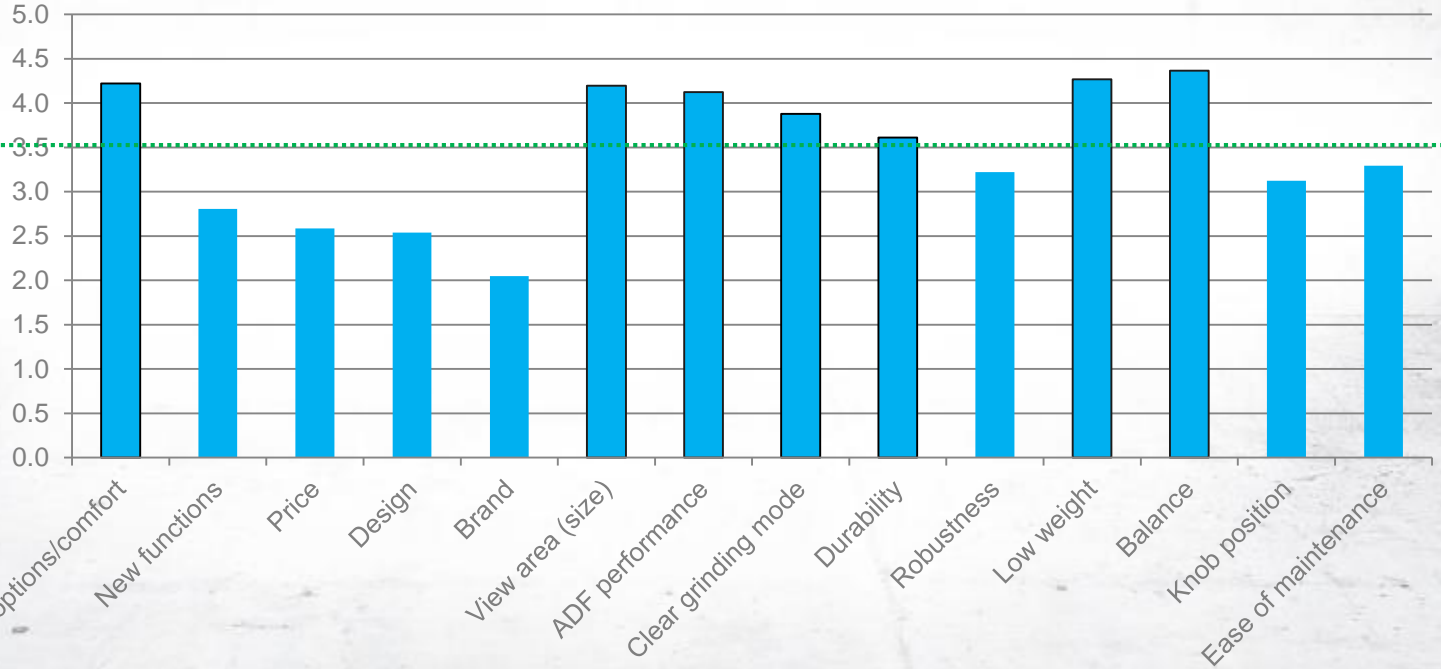
To create a quality, recognised brand name in welding PPE by offering a competitive and comprehensive range of Personal Protection Equipment. Universal's successful team experience combines to bring over 100 years' of know-how and proficiency to the welding PPE business. As a result, Universal Customers will maintain confidence and trust in our reliability, professionalism and safety standards, coupled with unrivalled Customer Service.

# WHAT MATTERS THE MOST

5 = Most Important

0 = Not Important

Critical



# STYLISH SHELL DESIGN WITH LIGHTWEIGHT PERFORMANCE

UNIVERSAL



Traditional welding helmets tend to be bulky and cumbersome. The Horizon's streamlined shell design is not too big and not too small, accounting for a range of different head sizes. The flush proportioned exterior also minimizes extrusions, so nothing catches when working in a tight space.

The black matte finish not only gives a smart and fresh look, but also prevents scratches and chips that can often occur on gloss finish helmets

"EN166 B Impact – For Grinding



490g Total Helmet Weight

# ERGONOMIC HEADGEAR

Comfort Rear Pad

3 x Longitudinal Adjustments

Soft Comfort Sweat Band

Quick Adjustable Ratchet

5 Rake Adjustments



COMFORT  
HEADGEAR

HEADGEAR  
COMFORT

# ADF PERFORMANCE

## Specifications / Technical Data

Cartridge Dimensions	110(W) x 90(H) x 9(T) mm
Viewing Area	98 x 48mm (3.85"x 1.88")
Lens Shade	DIN 9-13 (open state 4)
Power Supply	Solar Cells Batteries, Lithium Batteries (CR2450 1EA, Replaceable)
Sensors	4
Switch Time @ 23C	0.1
Optical Class	1/1/1/2
Standards	DIN EN379, AS/NZS 1338.1, ANSI Z87.1, CSA Z94.3
Delay Control Time	0.1 - 1.9 sec
Sensitivity / Delay Control	Internal
Lens Control	Auto-ON, Auto-OFF 15-20 minutes (when not on welding)
	Grind Mode selected via external switch

### Grind Mode



# EXTERNAL GRIND MODE



EXTERNAL  
GRIND BUTTON



TRUE COLOUR



Majority of welding helmets don't offer a grind mode function, and in the helmets that do, they are often located inside the helmet, which means having to remove the helmet to activate/deactivate.

Horizon's externally activated "GRIND" button allows for a quick and easy switch between welding and grinding applications, eliminating down time from having to remove the helmet, and also without removing the welding glove.

This combined with the True Colour + and large 98x48mm viewing area, allows for a clear grinding view.



*"Activated/deactivate with a simple push of the external button"*

*Green LED light will flash to indicate Grind Mode*



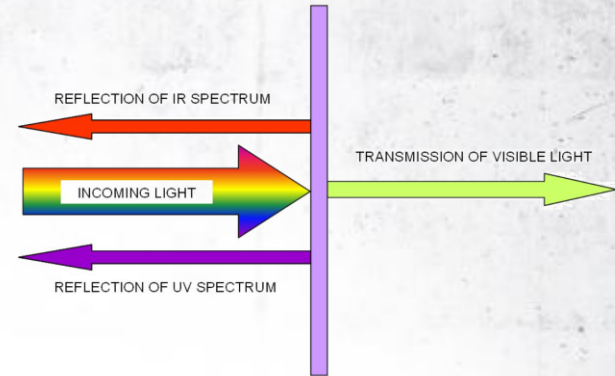


# CONSTRUCTION OF AN ADF



Polarizing Filter

UV / IR  
Band-Pass  
Filter



**ALWAYS ON!**

LC - Cells



# OPTICAL PERFORMANCE

General optical quality

Light scattering

Homogeneity

Angular dependence

1/1/1/2 EN379



Auto darkening cartridges undergo evaluation in four important categories, all referring to optical clarity. Each category is graded on a scale of 1 to 3, with a score of 1 being the best (perfect) and a score of 3 being the worst.

Experienced welders who have used a 1/1/1/1-rated helmet can immediately tell the difference in optical clarity. They report that they see better, the workpiece is clearer, and the experience is more comfortable than when they are wearing a helmet rated, for example, at 1/2/1/2. They see the arc without distortion in the higher-rated lens and notice clarity issues in the one that is rated lower.



# OPTICAL QUALITY

Optical class 1, 2 or 3 – Indicates optical quality of the ocular

Class 1 is the best

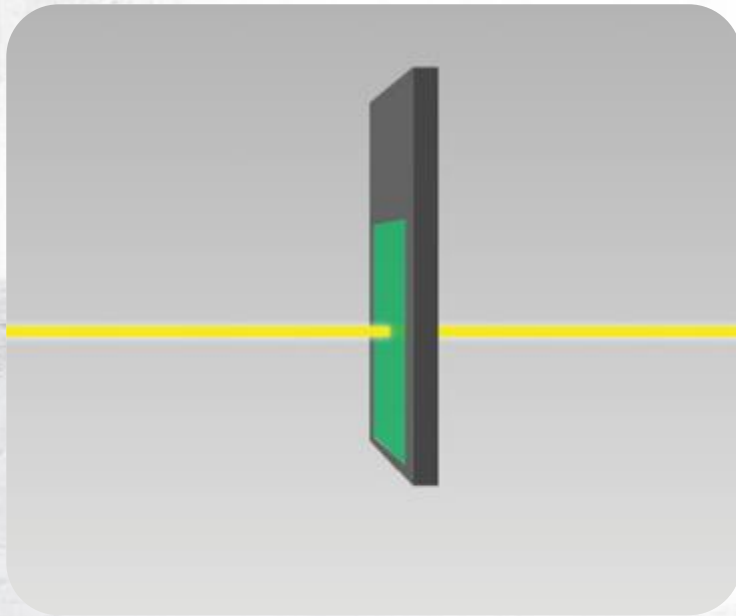


View through high quality ADF

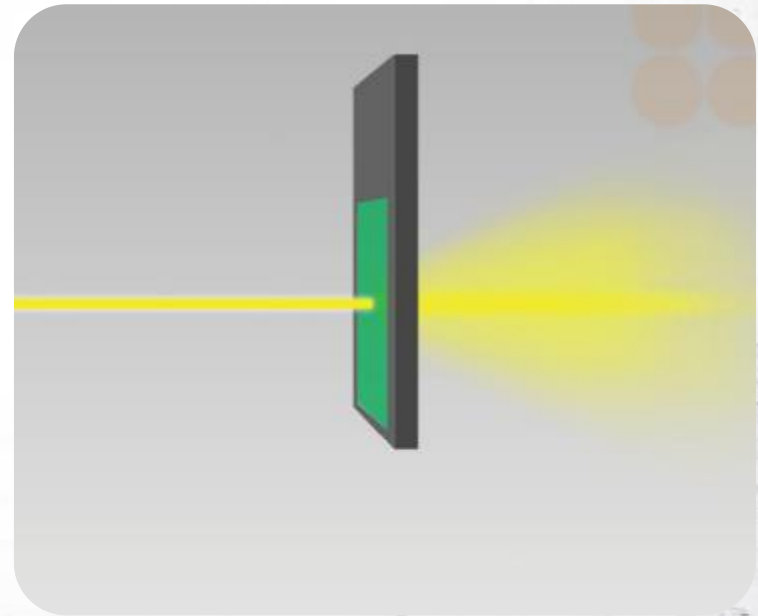
View through inferior ADF

# LIGHT SCATTERING

Light diffusion class – (switchable filters only) 1, 2 or 3  
Indicates the light diffusion / scattering by the ocular  
Class 1 is the best



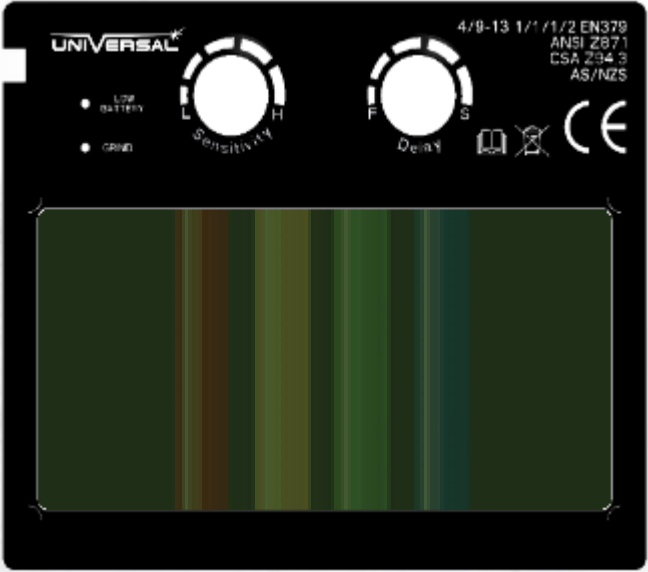
View through high quality ADF



View through inferior ADF

# HOMOGENEITY

Variations in luminous transmittance – (Switchable filters only)  
1, 2 or 3 – Indicates shade variability in the dark state of the ocular  
Class 1 is the best



View through high quality ADF



View through inferior ADF



# ANGULAR DEPENDENCE

Angular dependence of luminous transmittance class 1, 2 or 3 – Class 1 is the best



View through high quality ADF



View through inferior ADF

# TRUE COLOUR + TECHNOLOGY



TRUE COLOUR +



# HOW TO CHANGE THE BATTERY

*Red LED light will flash to indicate Low Battery*



3V Lithium Batteries CR2450





# DIOPTRE LENS OPTIONS



Diopetre lens can be fitted to the back to ADF retainer, no additional adapter required

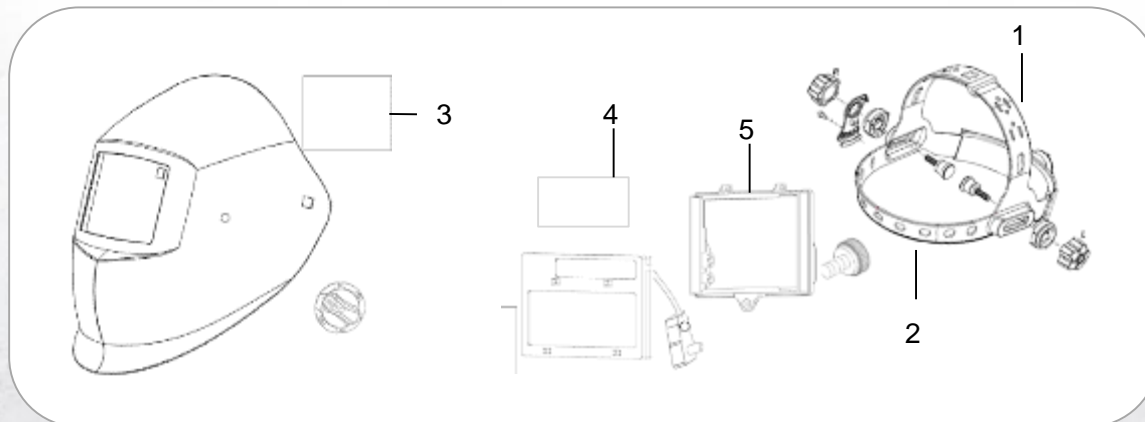
* Diopetre +1,0	EP158-000-041-D10
* Diopetre +1,5	EP158-000-041-D15
* Diopetre +2,0	EP158-000-041-D20
* Diopetre +2,5	EP158-000-041-D25

# BREAK DOWN OF PARTS



## Ordering Information

Description	Part Number
Horizon 9-13 helmet complete	EP235-000-005-000
1. Headgear complete	AC235-000-005-000
2. Sweatband	AC236-000-005-000
3. Front cover lens	EP236-000-041-000
4. Inside cover lens	EP237-000-041-000
5. Lens retainer with screws	AC237-000-005-000
* Dioptré +1,0	EP158-000-041-D10
* Dioptré +1,5	EP158-000-041-D15
* Dioptré +2,0	EP158-000-041-D20
* Dioptré +2,5	EP158-000-041-D25



# HORIZON SUMMARY



- ✓ Lightweight shell design 490g. High impact resistance Nylon
- ✓ 98x48mm 1/1/1/2 – 9-13 ADF
- ✓ 4 Sensors
- ✓ True colour + ADF technology
- ✓ Externally activated grind mode button
- ✓ Ergonomic multiple adjustable headgear, with rear pivot pad
- ✓ 2 year warranty



SENSORS



EXTERNAL GRIND BUTTON



TRUE COLOUR  
+ -



VARIABLE SHADE ADF



COMFORT HEADGEAR



LARGE VIEWING AREA  
98x48mm  
3.65" x 1.89"

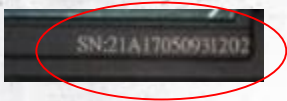


CONVEX COVER LENS



LIGHTWEIGHT  
490G

# SERIAL NUMBER



Serial number located on the back of the ADF cartridge

17: Year 2017

05: Month May

Example: 21A **1705** 0931202

# INTRODUCING...

# MOMENTUM AIR

## Key Features include:

- ✓ Adjustable air flow 180 - 210 l/min
  - ✓ Ultra light weight 1kg
  - ✓ Up to 8 hour duration at maximum airflow
  - ✓ International Intelligent charger
  - ✓ High efficiency P3 filter
  - ✓ Blocked filter alarm
  - ✓ Low battery alarm
- 
- ✓ CE EN 12941 THP3
  - ✓ The Momentum PAPR System has been designed and manufactured to comply with EN12941: 1998 as a TH / 3 P R SL device.



# OPERATING THE UNIT

Switch on the unit by pressing the ON/OFF button on the control panel. The airflow can be adjusted by pressing the + /- buttons from 180l/min up to 220 l/min in six speeds.. The Green LED diodes shows the actual airflow level. Please note that for every press of the buttons, it is necessary to hold the press for 2 seconds for the action to occur. This is to avoid accidental changes.



# ADJUSTABLE AIRFLOW



Air flow adjustment controls  
- Decrease

Air flow adjustment controls  
+ Increase

On/Off switch

Battery charge indicator

Filter indicator

✓ The Momentum unit will warn the user when the MDAF of 170 L/min, is not achieved with its audible alarm and flashing LED's.

# ADJUSTABLE AIRFLOW

The Momentum airoffers an electronically controlled constant air flow

The air flow indicator 6 x green LED's indicates the approximate air flow.

When switched on, it's default set to 180 l/min (one LED illuminates)

2 x LED	=	188 l/min (Approx)
3 x LED	=	196 l/min (Approx)
4 x LED	=	204 l/min (Approx)
5 x LED	=	212 l/min (Approx)
6 x LED	=	220 l/min (Approx)



Additional LED's will illuminate when the air flow increases  
 – blocked filter



# BATTERY EFFICIENCY

Slim profile Li Ion battery pack. The unit can run on high speed for up to 8 hours in a clean environment with a new filter and battery, working in a contaminated atmosphere can significantly reduce the run time'

On a HD battery the run times are:

Up to 14 hours on Maximum air flow & up to 21 hours on Minimum air flow



Other competitors come with a 4 h battery at 200 l/min – Pay extra to get an 8 h battery!



When the battery is low the LED will begin to flash and the alarm will sound

# COMPACT & LIGHTWEIGHT



**LIGHTWEIGHT**

Under 1kg



Adflo is bigger and heavier @ 1156 g



9cm

18cm

# SERIAL NUMBER



Serial number located on the back of the air unit body

18: Year 2018

01: Month January

Example: R900B **18 01** 441231

## READY FOR USE

### **“Ready to use” helmet fitted with:**

Proban head and Face seal.\*

Solid “overhead” air duct.



### **Momentum Delivered with:**

Air Unit with Air Hose & Hose Cover

Battery, Intelligent Charger, Comfort Pad, P3 Filter, Pre-Filter





# HELMET & AIR UNIT KIT BAG 1 PART NUMBER...



=



RP140-000-000-000

# 10 REASONS TO BUY MOMENTUM AIR

1. Comfortable design
2. Light weight
3. Compact
4. THP3 – highest protection level
5. Value for money
6. Simple To Use
7. User Friendly
8. High Air Flow
9. Long Filter Life with pre filter
10. Long Battery Duration



# **New PPE EU Regulation – 2016/425**

## **...What will change starting April 21st 2018:**

- Type examination certificates will be valid for a maximum of 5 years and must be issued accordingly to the new regulation
- Any new PPE products should comply to this regulation
- Some PPE products will be reclassified from category II to III, like hearing protection

## **...What will happen until April 21st 2019:**

- Products with a valid EC type certificate in accordance to the “old” Directive 89/686/EEC may continue to be sold if they were placed on the market before April 21<sup>st</sup> 2019, after that date, they must comply with requirements of the new regulation.

## **...What will happen until April 21st 2023**

- EC type examination certificates and approvals issued under the “old” Directive 89/686/EEC will remain valid for sales purposes until April 21<sup>st</sup> 2023, unless they become invalid before that day.