

3M Welding
3M™ Adflo™ Powered Air Respiratory System



Cooler,
cleaner

more comfortable
welding

 **Speedglas™**

3M

Notes



Product Overview



Speedglas™ Welding Shield Features

Welding shields incorporating:

- Choice of 4 Auto-Darkening Welding Filters (ADF) plus a constant filter.
 - A solution for every welding environment
- Unique side window design
 - Greater visibility
- Polyamide heat deflective front cover plate
 - Deflects radiated heat
- Unique air flow spreader
 - Diffuses air flow into the shield to ensure the whole face receives a good air flow
- Adjustable face seal



Adflo™ Powered Air Respirator Features

- Award winning comfortable ergonomic design
- Dual air flow 170 litres per minute or AirFlow Plus 200 l/min for hot environments
- Constant air flow
- Filter loading indicator
- Battery level indicator
- Low air flow and low battery alarm both audible and visual
- Choice of 2 batteries - standard or heavy duty
- Intelligent battery charger
- Perforated leather comfort belt

Constant flow of clean air

- User friendly constant filter monitoring device
- Ensure protection factor is maintained throughout working day

Technical Approvals

- EN166 Eye Protection
 - Grade F - Standard Shield, Grade B - Flexview no side windows
- EN175 Welding Shield
- EN12941 (TH2) Powered Respirator
- EN379 Auto Darkening Welding Filter

A. Filter cover: 83 80 30

Holds user-replaceable spark arrestor.

B. Prefilter: 83 60 10

Increases the service life of the particle filter.

C. Particle filter: 83 70 10

High efficiency particulate filtration.

D. Gas filter: 83 72 42

(A1B1E1 or A2) filters organic vapours (A) inorganic vapours (B) and acid gases (E).

E. Odour filter: 83 71 10

Removes unpleasant smells (not needed when the gas filter is installed).

F. NiMH battery: 83 76 20

Standard or 83 76 21 heavy-duty.

G. Brushless motor:

With an average life three times longer than conventional motors.

H. Ergonomic leather belt:

Designed for maximum comfort.

I. Filter Indicator:

Indicates the status of the particle filter.

J. Airflow Plus:

For hot, humid jobs, the user can increase the air flow from 170 l/min to 200 l/min with the push of a button.

K. Air Hose: Standard 83 40 00, Rubber 83 40 05

Fits all Speedglas models.

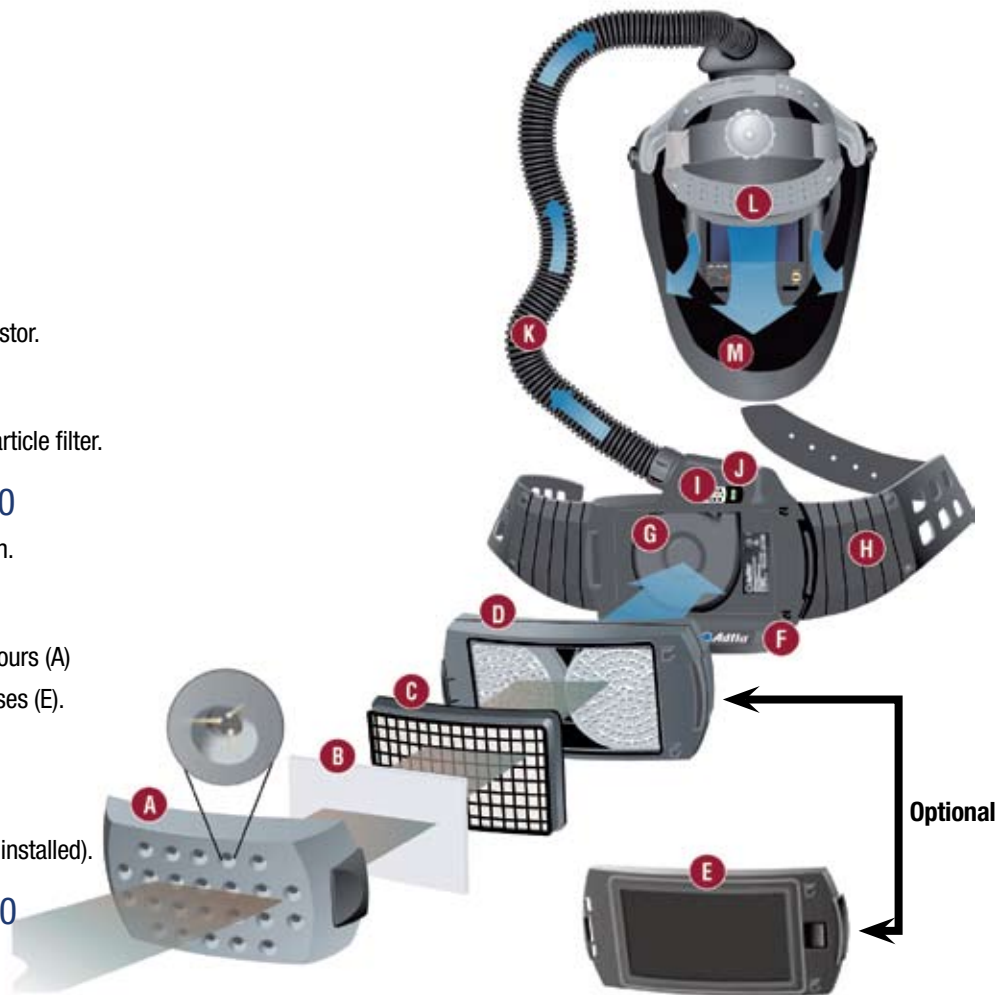
L. Exclusive airflow pattern:

Evenly distributes filtered air throughout the entire breathing zone of the shield.

The intelligent turbo unit keeps the airflow rate at a constant, preset level.

M. Soft, flexible face seal: 43 40 01

Creates a positive pressure environment within the shield, keeping the surrounding pollutants at bay. Adjustable for different face sizes.



3M™ Adflo™ Powered Air Respiratory Systems

Complete Speedglas™ welding shield or visor and Adflo powered air respirator with particle filtration. For lens details please see page 10.

3M Speedglas 9000 welding shield with Adflo



Award winning, ergonomic welder protection with optimal mobility and ease-of-use.

- Welding shield with auto-darkening filter
- Powered air respirator with an assigned protection factor of 20

Ordering Information

Part numbers for complete Adflo system

46 66 80 with Speedglas 9002X welding filter, variable shade 9-13

46 66 70 with Speedglas 9002V welding filter, variable shade 9-13

46 66 00 without welding filter

40 00 40 9002D Auto Darkening Lens

3M Speedglas Flexview shield with Adflo



- Welding shield with auto-darkening filter and a 120x90mm clear visor for weld prep
- Powered air respirator with an assigned protection factor of 20
- Excellent for low light conditions and continuous eye, face and respiratory protection

Ordering Information

Part numbers for complete Adflo system

44 66 80 with Speedglas 9002X welding filter, variable shade 9-13

44 66 70 with Speedglas 9002V welding filter, variable shade 9-13

44 66 00 without welding filter

40 00 40 9002D Auto Darkening Lens

3M Speedglas 9000 safety helmet with Adflo



Welder protection for areas with overhead hazards, with a powered air respirator for optimal mobility.

- Welding shield with auto-darkening filter and safety helmet
- Powered air respirator

Ordering Information

Part numbers for complete Adflo system

47 66 80 with Speedglas 9002X welding filter, variable shade 9-13

47 66 70 with Speedglas 9002V welding filter, variable shade 9-13

47 66 00 without welding filter

40 00 40 9002D Auto Darkening Lens

3M Speedglas Flexview safety helmet with Adflo



The complete mobile welder respiratory protection.

- Welding shield with auto-darkening filter safety helmet and a 120x90mm clear visor for weld prep
- Powered air respirator

Ordering Information

Part numbers for complete Adflo system

44 68 80 with Speedglas 9002X welding filter, variable shade 9-13

44 68 70 with Speedglas 9002V welding filter, variable shade 9-13

44 68 00 without welding filter

40 00 40 9002 Auto Darkening Lens

3M™ Speedglas™ Constant welding shield with Adflo™



For welders not currently in need of the advantages of an auto-darkening welding filter. Typical users include those that do a lot of long, continuous welds, rather than tack welding.

- Speedglas FlexView welding shield with a conventional filter shade 11
- Powered air respirator

Ordering Information

Part numbers for complete Adflo system

- 44 38 00** with Speedglas Constant welding shield
- 44 40 00** with Speedglas Constant welding shield and safety helmet

3M ClearVisor with Adflo



For manufacturing processes requiring eye, face and respiratory protection, including metal grinding, refinishing and other dusty environments.

- Clear protective visor
- Powered air respirator

Ordering Information

Part numbers for visor

- 89 90 30** visor in polycarbonate
- 89 90 31** visor in acetate (solvent resistant)
- 83 20 30** Adflo with std battery

3M Visor with Adflo



Eye, face and respiratory protection for bright lighting conditions, for example gas or plasma cutting.

- Protective visor in shade 5
- Powered air respirator

Ordering Information

Part numbers for visor

- 89 90 35** with visor in acetate, shade 5
- 83 20 30** Adflo with std battery

Spares Options



Adflo Turbo Units Options

Combine with a Speedglas Respirator Headtop for a Respiratory Protection System.

Part No.	Description
83 20 30	Adflo unit with air hose, air flow indicator, belt, spark arrestor, prefilter, particle filter, battery and battery charger.
83 20 31	Adflo unit with air hose, air flow indicator, belt, spark arrestor, prefilter, particle filter, heavy duty battery and battery charger.
83 20 10	Adflo unit with air hose, air flow indicator, prefilter, spark arrestor, particle filter and battery.
83 20 00	Adflo powered air turbo unit only.



Speedglas Respirator Headtop Options

Combine with the Adflo Turbo Unit for a Respiratory Protection System.

Part No.	Description
46 08 00	Speedglas welding headtop for respiratory protection (with SideWindows).
46 01 00	Speedglas welding headtop for respiratory protection (without SideWindows).
44 28 00	Speedglas FlexView welding headtop for respiratory protection (with SideWindows).
44 21 00	Speedglas FlexView welding headtop for respiratory protection (without SideWindows).
17 10 15	Speedglas 9002X magnifying lenses clip.



3M Speedglas Auto-Darkening Filters (ADF)

Part No.	Description
40 00 40	Speedglas 9002D filter shade 9 and 11.
40 00 70	Speedglas 9002V filter shade 9-13 .
40 00 80	Speedglas 9002X filter shade 9-13.

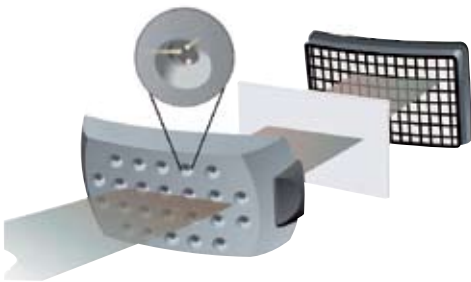
Filters

Included with the Adflo™



Particle Filter - Part No. 83 70 10

- Offering particulate protection from dust and welding fume hazards. For use with all welding applications.



Pre-Filter - Part No. 83 60 10

Spark Arrester - Part No. 83 60 00

Filter options



Odour Filter - Part No. 83 71 10

- Offering protection against nuisance odour. For use with oil coated metals.



Gas and Vapour Filter - Part No. 83 72 42

- Offering (A1B1E1) Organic, inorganic and acid gas protection.

Spares

Magnifying Lenses

Part No.	Description
17 10 20	Magnifying lens 1.0.
17 10 21	Magnifying lens 1.5.
17 10 22	Magnifying lens 2.0.
17 10 23	Magnifying lens 2.5.

Shield Spares

Part No.	Description
42 30 00	Protection plate 120 x 90mm, pkg of 10
42 60 00	Outside protection plate standard, pkg of 10 (marked 42 01 50)
42 70 00	Outside protection plate scratch resistant, pkg of 10 (marked 42 01 50)
42 70 71	Outside protection plate heat resistant, pkg of 10
42 80 00	Inside protection plate (42 x 91mm) Speedglas™ 9002D/9002V, pkg of 5
42 80 10	Inside protection plate (53 x 103mm) Speedglas 9002D/9000XF, pkg of 5
42 80 20	Inside protection plate +1 shade number Speedglas 9002D/9002V, pkg of 5
42 80 30	Inside protection plate +1 shade number Speedglas 9002D/9000XF, pkg of 5
42 80 40	Inside protection plate +2 shade number Speedglas 9002D/9000V, pkg of 5
42 80 50	Inside protection plate +2 shade number Speedglas 9002X/9000XF, pkg of 5

Shield Spares

Part No.	Description
43 10 00	Battery cover, pkg of 2
43 20 00	Outer welding hood
43 20 15	SideWindow cover plate 5 pairs
43 30 00	Headband with air duct
43 30 10	Air duct
43 30 60	Headband without air duct
43 40 01	Face seal
43 40 10	Face seal for visor
43 40 11	Helmet seal in leather for Speedglas with Peltor safety helmet
43 50 00	Air spreader
44 05 00	Speedglas FlexView conversion kit
42 20 00	Battery, pkg of 2

Head and throat protection

Our new generation of cloth protectors are made from Tecaweld™. A blend of 75% cotton and 25% Kevlar® fibres, Tecaweld offers improved resistance to flames and molten metal, as well as excellent flexibility and durability. Tecaweld cloth is certified to the following safety standards: EN 470-1, EN 531, prEN 343 and S-b Class.



16 91 00



16 40 09

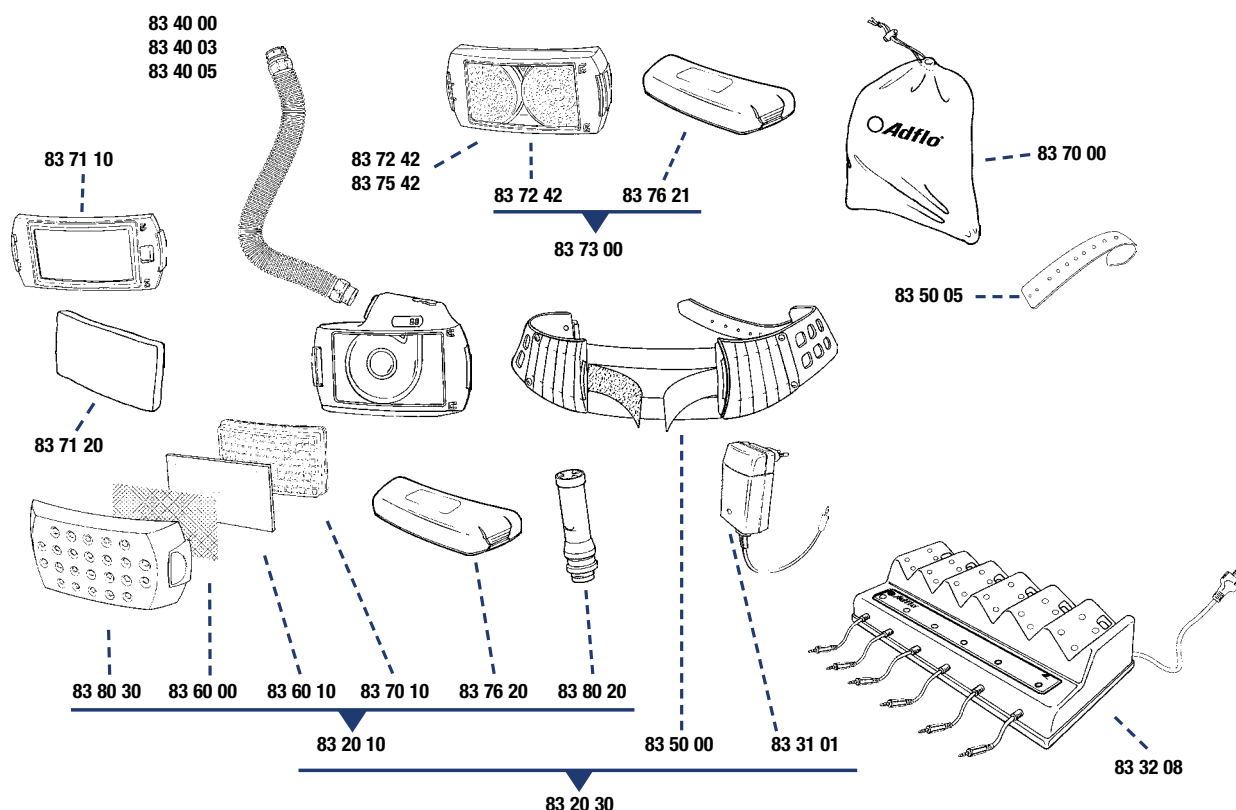


16 90 01

Part No.	Description
16 91 00	Hood Protector for Head and Throat: the areas most vulnerable to weld spatter are made from 100% Tecaweld.
16 40 09	Head Protector: 100% Tecaweld.
16 90 01	Throat Protector.

Accessories/Spare parts

3M™ Adflo™ Powered Air Respirator



Part No. Description

83 20 10 Adflo unit with breathing tube, air flow indicator, prefilter, spark arrestor, particle filter and battery

83 20 30 Adflo unit with breathing tube, air flow indicator, belt, spark arrestor, prefilter, particle filter, battery and battery charger

83 31 01 Battery charger

83 32 08 Charger 6 pos. UK

83 40 00 Breathing tube (standard)

83 40 03 Breathing tube cover

83 40 05 Breathing tube in rubber

83 50 00 Belt

83 50 05 Front part, belt

Part No. Description

83 60 00 Spark arrestor

83 60 10 Prefilter, pkg of 5

83 70 00 Storage bag

83 70 10 Particle filter P SL

83 71 10 Odour filter

83 71 20 Odour filter pad

83 72 42 Gas filter A1B1E1

83 73 00 Gas filter kit, A1B1E1 filter and Heavy-Duty battery

83 75 42 Gas filter A2

83 76 20 Battery (standard)

83 76 21 Battery Heavy-Duty

83 80 20 Air flow indicator

83 80 30 Filter cover



Speedglas™ 9002 Series Welding Filter Options

The most versatile welding filters ever! The 9002 series offers the welder even better comfort and productivity through variable shades and sensitivities. Some models have a delay function which allows the user to set the dark-to-light switching time.



Speedglas 9002D Welding Filter - Part No. 40 00 40

- Two dark shade levels (9 or 11).
- Two sensitivity levels - easy to adjust to the welders' preference.
- Fits into Speedglas 9000, Speedglas FlexView and Speedglas ProTop welding shields.



Speedglas 9002V Welding Filter - Part No. 40 00 70

- Four user selectable sensitivity levels handle all types of arc welding. Unsurpassed in intelligent switching during low-amp steady TIG welding.
- Three user selectable delay settings allow the welder to adjust the dark-to-light switching time.
- Five dark state levels (9-13).
- Fits into Speedglas 9000, Speedglas FlexView and Speedglas ProTop welding shields.



Speedglas 9002X Welding Filter - Part No. 40 00 80

- Four user selectable sensitivity levels handle all types of arc welding. Unsurpassed in intelligent switching during low-amp steady TIG welding.
- Three user selectable Delay settings allow the welder to adjust the dark-to-light switching time.
- Five dark state levels (9-13).
- Extra large viewing area: 55 x 107mm.
- Solar panel extends battery life to approximately 3000 hours.
- Fits into Speedglas 9000, Speedglas FlexView and Speedglas ProTop welding shields.

Technical Data Speedglas™ Welding Filters

Filter	Speedglas 9002D	Speedglas 9002V	Speedglas 9002X
Part Number	40 00 40	40 00 87	40 00 80
Production welding	MMAW, MIG/MAG and TIG (>20A)	All welding methods	All welding methods
Occasional welding	MMAW, MIG/MAG and TIG (>20A)	All welding methods	All welding methods
Technical Data			
Delay adjustment	No	Yes	Yes
Sensitivity adjustment	Yes	Yes	Yes
Viewing area	44 x 92mm	44 x 92mm	55 x 107mm
Light state	Shade 3	Shade 3	Shade 3
Dark state	Variable 9 or 11	Variable 9-13	Variable 9-13
Fail safe state	Shade 5-6	Shade 5-6	Shade 5-6
Battery lifetime	1500h	1500h	3000h



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