

 **Speedglas®**

 **Adflo®**



The Complete Catalog

HÖRNELL

What's New!	3
Introduction to Auto-Darkening Safety ...	6
“It Breathes!” (The Speedglas® 9000 Helmet)	8
Speedglas® SideWindows™	10
Speedglas® Utility	12
Speedglas® 9000F	14
Speedglas® 9000XF	16
Speedglas® 9000V	18
Speedglas® 9000X	20
Speedglas® FlexView	22
Speedglas® ProTop	24
Speedglas® with Adflo®	26
ClearVisor® with Adflo®	30
Speedglas® Fresh-air® II SA 9000	32
SA PRP 200-B Panel	34
Speedglas® Individual Supplied-Air Purification & Regulation System	36
Replacement Parts for Speedglas® Helmets	38
Replacement Parts for FlexView and ProTop	40
Replacement Parts for Speedglas with Adflo®	42
Replacement Parts for HWR (Hornell Welding Respirator) 9000 Helmet Assembly	43
Replacement Parts for ClearVisor® with Adflo®	44
Replacement Parts for Fresh-air® II P & G 9000	46
Replacement Parts for SA & PRP 200-B ..	48
Replacement Parts for Hornell Individual Supplied Air Protection System	50
Welding Lens Shade Guide	52
NIOSH List of Respirator Approval Labels	53
Warranty & Customer Support	54
Speedglas® Lens Selector Table	B/C

What's New!

Speedglas® with Adflo®



The most ergonomically perfect PAPR (powered air-purifying respirator) available to welders.



New “stackable” configuration allows welders to quickly add a vapor cartridge to the high efficiency particle filter. A Hornell exclusive! See page 26.

Now Available:



ClearVisor® with Adflo®

What's New!

Speedglas® FlexView



Ideal for low-light conditions: a quick lift of the silver front and welders get a clear, 4.75" x 3.6" (120 x 90 mm) view, great for weld prep in poorly-lit locations.

The Speedglas FlexView system is compatible with all Speedglas 9000 auto-darkening welding lenses.



The clear lens allows for precision grinding, cleaning and inspection. See page 22.

What's New!

Speedglas® ProTop



Plant Engineering
**PRODUCT
of the YEAR
2001**

A perfectly balanced hard hat for welders: the up position "nests" the helmet down low over the hard hat for a low center-of-gravity.



Patented pivot mechanism securely locks the helmet in both the up and down positions.

Low-profile design is perfect for welder protection in areas with overhead hazards. See page 24.



Introduction To Auto-Darkening Lenses



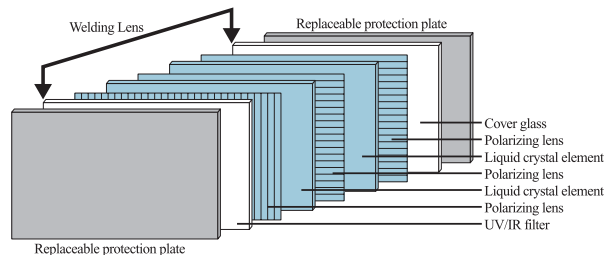
Independent arc-detectors instantly sense the welding arc, immediately triggering the Speedglas lens to change from the transparent state to the dark state.

Safety Products That Increase Your Performance

Now welders can always see their work, at comfortable light levels, with constant eye and face protection. Speedglas lenses turn dark the moment an arc is struck and transparent again when welding stops—all the time with full UV/IR protection.

Auto-darkening eliminates the neck-strain of “helmet flipping” while greatly increasing the accuracy of electrode placement.

This, in turn, reduces the need for grinding and rework. In addition, welders can get into tight, cramped spaces with full protection and have a clear view—in effect, making extremely awkward welds a lot easier.



How It Works

Each Speedglas lens is a laminate of seven different layers: a UV/IR filter, three polarizers, two liquid crystal elements and a cover glass. The UV/IR filter continually blocks harmful radiation, whether the lens is ON, OFF, light or dark. Aided by surface-mounted electronics, the proprietary liquid crystal elements act as shutters that detect and react to the welding arc by instantly shading the lens.



Constant UV/IR Protection:

This filter provides the same UV/IR filtration protection as a traditional, non-auto-darkening welding lens (as regulated by USA and Canadian welding safety standards).

Fail-Safe Darkening

When you pick up an unenergized Speedglas lens, it is in an intermediate dark shade; you must turn it ON to make it go into the light state. If anything catastrophic happens to the lens, it simply defaults back to the darker intermediate OFF shade.

As mentioned above, UV/IR protection is always present.

Meets Or Exceeds All Applicable Safety Standards/Approvals:

ANSI Z87.1

American National Standard for eye & face protection.



**CSA Z94.3
LM 90230**

National Standard of Canada for Industrial eye & face protection.

A Welding Helmet That Breathes!

But Keeps Out Smoke

The revolutionary Speedglas® 9000 helmet features aerodynamically-designed exhaust vents proven to remove exhaled air without letting in welding smoke.

For welders who keep their helmets in the down position for prolonged periods of time, the build-up of carbon dioxide (CO₂) is greatly reduced compared to traditional helmet designs.

Laboratory results, as well as extensive field tests, confirm the helmet's comfort, with welders experiencing lower humidity, less heat, and reduced "stiffness." The patented design results in welders feeling more energetic and clear-headed.

The welder's natural breathing action directs the exhaust airflow; no moving parts are involved. Fresh, incoming air is not drawn through the special vents; instead, it chooses the path of least resistance—the area around the welder's neck, which is typically further away from the smoke plume.



Exhaled air is directed through the four aerodynamic vents. It then exhausts through two thin openings created between the double-shell construction of the heat-reflecting silver front panel and the black helmet.

Increased Ease-Of-Use

We've eliminated those time-consuming lens fastener screws! Now you simply snap-off the helmet's front panel and squeeze two locking tabs together to quickly remove the lens cassette. Changing the inner and outer protective lens plates has never been



Speedglas 9000 construction: Note the aerodynamic exhaust vents that are located directly behind the front silver panel. The patented helmet is extremely comfortable, weighing only 17.4 ounces (including lens) and has excellent balance. Its narrow width is ideal for welding in tight spots. The polyamide nylon construction is heat and chemical resistant and extremely durable.



Speedglas 9000 Helmet Specifications

Helmet Material: polyamide nylon

Helmet Weight (without lens): 10.8oz (306g)

Headband: fully-adjustable, ratcheted design

Speedglas SideWindows™ option: see pages 10 & 11

Replacement Parts: see pages 38 & 39.

Peripheral Vision For Welders



SideWindows™ Lenses Improve Visibility, Safety & Comfort

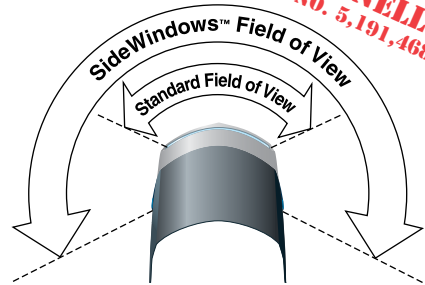
Now welders can have peripheral vision with Speedglas SideWindows™ helmets. The two shade 5 side lenses increase the viewing area by over 100%.

SideWindows lenses allow welders to see potentially-hazardous peripheral objects, such as protruding beams, vehicles, and other welders, with the helmet down.

The peripheral vision lenses also permit welders to easily move around their work area with constant protection from UV/IR radiation.

The two side lenses are designed solely for peripheral vision; the welder continues to view his own arc through the center (auto-darkening) lens.

**EXCLUSIVELY
FROM HORNELL**
U.S. PATENT NO. 5,191,468



Eliminate "tunnel vision"...try a Speedglas SideWindows helmet and see what you're missing!



SideWindows™ Specifications

Lens Materials: Impact resistant polycarbonate

Lens Shade: 5

Ordering Information

Part Numbers: for complete helmet with SideWindows, simply add "SW" after helmet part number.

Note: Very strong sunlight and light from very close, side-by-side welding may interfere with the welder's view of the workpiece; when practical, use welding partitions to separate welders. The SideWindows option is not available on the Speedglas Utility helmet.

An Entry-Level Auto-Darkening Lens & Helmet



The Speedglas® Utility

Our most affordable auto-darkening lens! The Speedglas Utility is especially designed for MIG (GMAW) and stick (SMAW) welding only.

The Speedglas Utility is perfect for the serious part-time welder, as well as for maintenance welding on farm equipment, automobiles, and any other MIG or stick project. Two lens models: dark shade 10 or 11.

It's the most affordable auto-darkening lens and helmet from the world's leading manufacturer, Hornell.



Auto Off—Turns off lens 30 minutes after last arc.

Immediate Off—Simply hold ON/AUTO OFF button down for two seconds.

- UV/IR protection is constant even when lens is OFF or in the shade 3 light state.
- Super durable, extremely lightweight, chemical and heat resistant nylon helmet.
- Outstanding optical clarity.
- Extremely dependable performance.

Speedglas Utility Specifications

Light Shade: 3

Dark Shade: factory-set at 10 or 11

Off (Fail-Safe) Shade: nominal 5

Viewing Area: 3.57" x 1.68" (91 x 43mm)

Weight, Helmet with Lens: 17.14oz (486g)

Battery Life (Average): 2000 hours

Operating Temperature: 23° to 131°F (-5° to 55°C)

Ordering Information

Part Numbers for complete package—helmet, headband and auto-darkening lens:

Shade 10: 04-0014-10U

Shade 11: 04-0014-11U

Replacement Parts: see pages 38 and 39.

NOTE: The complete Speedglas Utility Lens & Helmet package is not sold with the (vented) Speedglas 9000 helmet, SideWindows™ or Hard Hat options.

A Lens For All Arc Welding Processes



The Speedglas® 9000F

Do MIG, TIG, stick, and all other arc welding processes with one lens!

The Speedglas 9000F (“F” for “Fixed” dark shade) provides improved performance, greater ease-of-use, and remarkable optical clarity. Available in three factory-set dark shades: 10, 11 or 12.

Plus, all Speedglas 9000 helmets have four exhaust vents for CO₂ reduction (see page 8).



Auto Off—Turns off lens 30 minutes after last arc.

Immediate Off—Simply hold ON/AUTO OFF button down for two seconds.

- Works with all arc welding processes.
- Shade 3 light state.
- The world’s finest auto-darkening electronics and optical quality.
- Rugged: able to withstand harsh treatment better than any other automatic lens.

Speedglas 9000F Specifications

Light Shade: 3

Dark Shade: factory-set at 10, 11 or 12

Off (Fail-Safe) Shade: nominal 5

Viewing Area: 3.57" x 1.68" (91 x 43mm)

Weight, Helmet with Lens: 17.14oz (486g)

Battery Life (Average): 2000 hours

Operating Temperature: 23° to 131°F
(-5° to 55°C)

Ordering Information

Part Numbers for complete package—helmet, headband and auto-darkening lens:

Shade 10: 04-0012-10

Shade 11: 04-0012-11

Shade 12: 04-0012-12

Add “H” for Hard Hat and/or “SW” for SideWindows™.

Replacement Parts: see pages 38 and 39.

An X-tra Large Lens



The Speedglas 9000XF

For welders that want a really big view... the Speedglas 9000XF ("X-tra Large, Fixed Dark Shade").

It's 44% larger than most auto-darkening lenses, with outstanding optical clarity and very low angle dependency.

The Speedglas 9000XF can also be used on all arc welding processes. Available in three factory-set dark shades: 10, 11 or 12.



Auto Off—Turns off lens 30 minutes after last arc.

Immediate Off—Simply hold ON/AUTO OFF button down for two seconds.

Sensitivity Adjustment—Provides additional adaptability, under a variety of lighting conditions, when in the manual sensitivity mode.

Shade 3 Light State—For outstanding visibility.

Speedglas 9000XF Specifications

Light Shade: 3

Dark Shade: factory-set at 10, 11 or 12

Off (Fail-Safe) Shade: nominal 5

Viewing Area: 4.09" x 2.13" (104 x 54mm)

Weight, Helmet with Lens: 17.39oz (493g)

Battery Life (Average): 1750 hours

Operating Temperature: 23° to 131°F
(-5° to 55°C)

Ordering Information

Part Numbers for complete package—helmet, headband and auto-darkening lens:

Shade 10: 04-0012-10X

Shade 11: 04-0012-11X

Shade 12: 04-0012-12X

Add **"H"** for Hard Hat and/or **"SW"** for SideWindows™.

Replacement Parts: see pages 38 and 39.

“V” for Variable Dark Shades



The Speedglas® 9000V

For welders handling a variety of amperages and different arc welding processes, we offer the Speedglas 9000V.

The Speedglas 9000V provides five user-selectable dark shades for stick, MIG and TIG welding: 9, 10, 11, 12 and 13. For low-amp TIG and other welding conditions, the welder can select from three dark shades: 9, 11 and 13.



Auto Off—Turns off lens 30 minutes after last arc.

Immediate Off—Simply hold the ON/OFF button down for two seconds.

“V” for Variable Dark Shades—5 dark shades (gold numbers) for stick, MIG and TIG; plus 3 dark shades (red numbers) for low-amp TIG and other welding conditions.

Sensitivity Adjustment—Provides additional adaptability, under a variety of lighting conditions, when in the red (“low-amp TIG”) numbers.

Shade 3 Light State—For outstanding visibility.



Speedglas 9000V Specifications

Light Shade: 3

Dark Shades: user-selectable to 9, 10, 11, 12 and 13

Off (Fail-Safe) Shade: nominal 5

Viewing Area: 3.57" x 1.68" (91 x 43mm)

Weight, Helmet with Lens: 17.14oz (486g)

Battery Life (Average): 1500 hours

Operating Temperature: 23° to 131°F
(-5° to 55°C)

Ordering Information

Part Numbers for complete package—helmet, headband and auto-darkening lens:

04-0012-30

Add “H” for Hard Hat and/or “SW” for SideWindows™.

Replacement Parts: see pages 38 and 39.

The Top-Of-The-Line Speedglas® Lens & Helmet



The Speedglas® 9000X

An X-tra large viewing area, combined with five user-selectable dark shades for stick, MIG and TIG welding. For low amp TIG and other welding conditions, the welder can select from three dark shades: 9, 11 and 13.

The Speedglas 9000X has a big 4.09" x 2.13" viewing area, with clear, sharp optics and consistent shading across the entire viewing area.

A solar panel on the front of the lens cassette helps to power the unit, extending battery life to approximately 3000 hours.



Auto Off—Turns off lens 30 minutes after last arc.

Immediate Off—Simply hold the ON/OFF button down for two seconds.

5 Dark Shades—5 dark shades (gold numbers) for stick, MIG and TIG; plus 3 dark shades (red numbers) for low-amp TIG and other welding conditions.

Sensitivity Adjustment—Provides additional adaptability, under a variety of lighting conditions, when in the red ("low-amp TIG") numbers.

Shade 3 Light State—For outstanding visibility.

Solar Panel—Maximizes battery life.



Speedglas 9000X Specifications

Light Shade: 3

Dark Shades: user-selectable to 9, 10, 11, 12 and 13

Off (Fail-Safe) Shade: nominal 5

Viewing Area: 4.09" x 2.13" (104 x 54mm)

Weight, Helmet with Lens: 17.39oz (493g)

Battery Life (Average): 3000 hours

Operating Temperature: 23° to 131°F
(-5° to 55°C)

Ordering Information

Part Numbers for complete package—helmet, headband and auto-darkening lens:

04-0012-20

Add **"H"** for Hard Hat and/or **"SW"** for SideWindows™.

Replacement Parts: see pages 38 and 39.

Ideal For Poor Lighting Conditions



The Speedglas® FlexView

The new Speedglas® FlexView has a big, 4.75" x 3.6" (120 x 90 mm) clear polycarbonate lens that's ideal for precision weld preparation under low light conditions.

The user simply lifts up the spring-mounted Speedglas lens assembly for weld prep. The spring holds the auto-darkening lens securely on top of the helmet, giving the welder a big, clear view behind the FlexView protection lens.

The clear lens allows for precision grinding and cleaning, the careful alignment of electrodes and the inspection of newly-completed welds...all with constant eye and face protection, even in the darkest workshop.

The clear lens meets the ANSI Z87.1 industrial eye and face protection standard, which does not recommend "...filter or tinted lenses that restrict light transmittance..." when chipping or grinding (American National Standard Z87.1-1989, page 16, Selection Chart, Impact Protectors).*

*Impact resistant, primary eye protection, spectacles or goggles that meet current ANSI specifications, must be worn at all times when using any welding helmet.

Speedglas® FlexView in a "Breathable" Helmet

The FlexView system is the only product to offer users a clear visor combined with a "breathable," CO₂-reducing helmet: the Speedglas 9000.

The helmet's four aerodynamically designed exhaust vents have been proven to reduce carbon dioxide (CO₂), heat, and humidity. As a result, users feel more energetic and clear-headed all day long.

And with the exclusive Speedglas SideWindows™ model, users can increase the helmet's viewing area by 100% via two shade 5 peripheral lenses.



Speedglas FlexView Specifications

Safety Standards:	ANSI Z87.1
Helmet Material:	Polyamide nylon
Weight:	20oz (565g)
Part Number:	Speedglas FlexView complete 04-0016-(Lens Options)

Speedglas Lens Options

10, 11 or 12:	Speedglas 9000F Lens Shade 10, 11 or 12 Viewing Area 3.57" x 1.68" (91 x 43mm)
10X, 11X or 12X:	Speedglas 9000F Lens Shade 10, 11 or 12 Viewing Area 4.09" x 2.13" (104 x 54mm)
30:	Speedglas 9000V Lens Viewing Area 3.57" x 1.68" (91 x 43mm)
20:	Speedglas 9000X Lens Viewing Area 4.09" x 2.13" (104 x 54mm)

Add "SW" for SideWindows™.

Replacement Parts: see page 40.

A Perfectly Balanced Hard Hat For Welders



The Speedglas® ProTop

The new Speedglas® ProTop combination hard hat, welding helmet, and auto-darkening lens system is especially designed for welders working in areas with overhead hazards, such as cranes, protruding beams and moving machinery.

The key to the Speedglas ProTop system is the exclusive pivot mechanism that connects the welding helmet to the hard hat. Traditional welding hard hats create a very high center-of gravity when the welding helmet is raised; as a result, the user feels off-balance, and the leveraged weight puts additional strain on neck muscles. On the other hand, the ProTop pivot mechanism has two sets of axes: one to lift the welding helmet away from the welder's face, and another axis to "nest" the welding helmet down low over the hard hat, in a perfectly balanced, locked-down position. The welding helmet automatically unlocks when the welder pulls it back down into position over the face.

In addition to having a much more comfortable (lower) center-of-gravity, the nested welding helmet is much less likely to bump into obstacles as the welder moves around the work area.

Low-Profile Hard Hat Goes Into Tight Spaces

The special ABS hard hat has a low-profile that is excellent for entering space-restricted areas. Its short brim design means the welding helmet and lens are closer to the welder's face, which is ideal for precision welding. The hard hat has a ratcheting headband for fast, secure, top-of-the-head sizing. Its sweatband is made from terry cloth and soft foam and its six-point webbing system provides excellent shock absorption and comfort.

Speedglas ProTop Specifications

Safety Standards: ANSI Z87.1 (Eye & Face)
ANSI Z89.1 (Head Protection)

Hard Hat Material: White ABS Plastic

Headband Adjustments:
19.5" to 25" (50 to 64mm)

Weight: Hard Hat only
13.7oz (390 g)

Weight: Hard Hat with Speedglas 9000V lens
31.2oz (890 g)

**Part Number: Speedglas ProTop Welding Helmet
with Pivot mechanism, Hard Hat and Strap**
04-0015-(Lens Options)

Speedglas Lens Options

10, 11 or 12: Speedglas 9000F Lens
Shade 10, 11 or 12
Viewing Area
3.57" x 1.68" (91 x 43mm)

10X, 11X or 12X: Speedglas 9000F Lens
Shade 10, 11 or 12
Viewing Area
4.09" x 2.13" (104 x 54mm)

30: Speedglas 9000V Lens
Viewing Area
3.57" x 1.68" (91 x 43mm)

20: Speedglas 9000X Lens
Viewing Area
4.09" x 2.13" (104 x 54mm)

Add "SW" for SideWindows™.

Replacement Parts: see page 41.

The Most Advanced PAPR Available



Exclusive “stackable” configuration adapts to changing welding applications.



Environmentally-friendly NiMH battery charges in less than 3 hours with a smart charger that won't ever overcharge.



System Intelligence: Constant Airflow Rate, regardless of battery charge and filter loading. Audible and visual alarms signal low airflow and low battery charge.



The unique belt design has a solid leather front, cut narrow to allow the welder to bend forward easily. Along the welder's sides, the leather becomes wider, with large ventilation holes for maximum breathability. The turbo unit securely attaches to, and is nestled between, the two plastic arms of the belt so the turbo's weight is evenly distributed across the entire lower back and upper hips. The plastic arms are vertically rigid but with pleats so the welder can move and turn with freedom.



Exclusive airflow pattern means perfectly-distributed air throughout the entire breathing zone of the helmet.



Two Respirators In One!



We've reinvented the powered air-purifying respirator for welders. The result is Speedglas® with Adflo®: 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, sulfur dioxide, chlorine, and hydrogen chloride vapors.

In effect, it's two systems in one, allowing increased user flexibility to adapt to changing welding applications. And you can selectively replace either the particle filter or the Adflo OV/SD/CL/HC cartridge as needed: you don't have to change both filters at the same time!

The Adflo system has no external batteries, no battery cables, and no sharp corners. Its slim profile is designed to go into tight spaces. And it's the most ergonomically perfect PAPR available to welders.

Brushless Motor lasts 3x longer than traditional motors.

NiMH Battery fully charges in three hours.

Adflo Specifications

Assigned Protection Factor: 25

Airflow (nominal): 6+ cfm (170+ lpm) minimum

Battery, NiMH:

HE: up to 12 - 13 hrs/charge

HE + OV/SD/CL/HC: up to 5.5 - 6 hrs/charge

Battery Charging Time: 3 hours

System Weights

Helmet assembly w/ 9000X lens:

1.79 lbs (0.81 kg)

Adflo Turbo w/ Battery, Breathing Tube & Belt:

4.48 lbs (2.03 kg)

OV/SD/CL/HC Cartridge: 1.79 lbs (0.81 kg)

Operating Temperatures:

23° to 131°F (-5° to 55°C)

Respirator Approval: NIOSH 42 CFR 84

Complete Systems

Standard (HE): 15-1101-(Lens Options)

HE + OV/SD/CL/HC Cartridge:

15-3301-(Lens Options)

Lens Options:

10, 11 or 12 = Speedglas 9000F Lens shade 10, 11 or 12

10X, 11X or 12X = Speedglas 9000XF Lens shade 10, 11 or 12

30 = Speedglas 9000V lens

20 = Speedglas 9000X lens

Add "SW" for SideWindows™.

Replacement Parts: see pages 42 and 43.

Adflo®



WARNING

Not to be used in atmospheres classified as IDLH. Not to be used in atmospheres of less than 19.5% oxygen. Final determination of respirator applicability and filter selection must be made by an on-site safety specialist or industrial hygienist.

Eye, Face & Respiratory Protection



ClearVisor with Adflo®

The new ClearVisor with Adflo® system combines full eye and face protection with a slim, lightweight, powered air-purifying respirator.



The polycarbonate ClearVisor Face Shield has exceptional clarity and a wide viewing area, while providing workers protection from high impact hazards.



The system can be used in a variety of industrial settings, including woodworking, metal grinding, injection molding, petrochemical, pharmaceutical, mining, pulp and paper processing, sanding and refinishing, foundries, spray painting, grain and flour processing, and other dusty environments.*



⚠ WARNING

*Not to be used in atmospheres classified as IDLH. Not to be used in atmospheres of less than 19.5% oxygen. Final determination of respirator applicability and filter selection must be made by an on-site safety specialist or industrial hygienist. Impact resistant, primary eye protection, spectacles or goggles that meet current ANSI specifications must be worn at all times when using any face shield.



Continuous application of the optional Clear Window Strip-Off Shielding Film extends the useful service life of the polycarbonate face shield.

ClearVisor Specifications

Safety Standards:

ClearVisor Face Shield: ANSI Z87.1

ClearVisor Clear Window: EN 166.1.B.3.9

ClearVisor Brow Guard: EN 166.B.3.9

Weight, Face Shield Assembly: 1.3 lbs. (0.6 kg)

Clear Window Material: Polycarbonate

Brow Guard Material: Polycarbonate

Adflo® Specifications

Assigned Protection Factor: 25

Airflow (nominal): 6+ cfm (170+ lpm) minimum

Battery, NiMH:

HE: up to 12 - 13 hrs/charge

HE + OV/SD/CL/HC: up to 5.5 - 6 hrs/charge

Battery Charging Time: 3 hours

Weight, Adflo Turbo w/ Battery,

Breathing Tube & Belt: 4.48 lbs (2.03 kg)

OV/SD/CL/HC Cartridge: 1.79 lbs (0.81 kg)

Operating Temperatures: 23° to 131°F (-5° to 55°C)

Respirator Approval: NIOSH 42 CFR 84

Part Numbers

Complete Systems

ClearVisor with Adflo® HE

Particle Filter System: 16-1101-40

ClearVisor with Adflo® HE Filter

+ OV/SD/CL/HC Cartridge

System: 16-3301-40

Replacement Parts: see pages 44 and 45.



Supplied Air Protection



Speedglas Fresh-air® II SA 9000

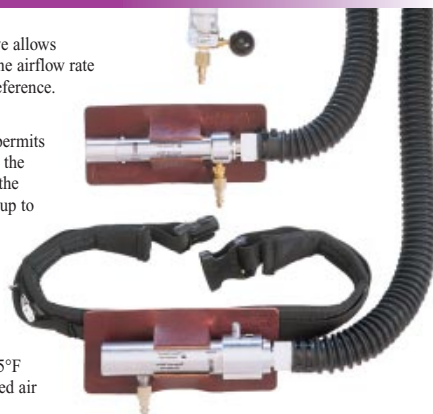
For highly contaminated welding environments, you need the Speedglas Fresh-air II Supplied Air (SA) 9000 system.

The NIOSH-approved Speedglas Fresh-air II SA 9000 system provides respiratory protection from high levels of particle fumes and gases. The lightweight, belt-mounted valves permit the welder to adjust the airflow levels anywhere from 6 to 15 cfm (170 to 425 lpm), making it ideal for very hot or strenuous jobs.



NOTE: Final determination of respirator applicability and filter selection must be made by an on-site safety specialist or industrial hygienist.

- Control-air valve allows adjustment of the airflow rate for personal preference.
- Cool-air valve permits welder to lower the temperature of the supplied air by up to 45°F (25°C).
- Temp-air valve allows either cooling or warming of the supplied air $\pm 45^\circ\text{F}$ from the supplied air temperature.



Valve Model	CFM Required	CFM Delivered	Pressure Range (psig)	Max. # of Hoses/Length*
Control-air	6-15	6-15	65-70	6 hoses/300'
Cool-air	12-25	6-15	70-105	4 hoses/100'
Temp-air	12-25	6-15	85-110	4 hoses/100'**

*Indicates maximum number of hoses and maximum total length.

**Temp-air valve is approved for use with Breather Hose only.

FA II SA 9000 Specifications

Assigned Protection Factor (APF): 25

Airflow: 6+ cubic feet per minute (170+ lpm)

System Weights

Helmet assembly with 9000X lens:

1.79 lbs (0.81 kg)

Control-air Valve with Breathing Tube, and Belt:

1.85 lbs (0.84 kg)

Cool-air Valve with Breathing Tube, and Belt:

2.11 lbs (0.96 kg)

Temp-air Valve with Breathing Tube, and Belt:

2.37 lbs (1.07 kg)

Operating Temperatures: 23° to 131°F (-5° to 55°C)

Respirator Approval: NIOSH 42 CFR 84

Complete Systems

Control-air: 14-5601-(Lens Options)

Cool-air: 14-5701-(Lens Options)

Temp-air: 14-5801-(Lens Options)

Lens Options:

10, 11 or 12 = Speedglas 9000F Lens shade 10, 11 or 12

10X, 11X or 12X = Speedglas 9000XF Lens shade 10, 11 or 12

30 = Speedglas 9000V Lens

20 = Speedglas 9000X Lens

Add **"H"** for Hard Hat and/or **"SW"** for SideWindows™.

Replacement Parts: see page 43 and 48.

Air Purification & Regulation Panels

SA PRP 200-B Panel Specifications

Outlet Air Quality:

- Dirt Particles less than 0.01 micron.
- Oil Mix/Mist/Aerosol less than 0.01 ppm.
- Vapor/Odor removal down to 0.003 ppm.

Inlet Connection: One 3/4" NPT (female).

Outlet Connections: Four Parker Hannifin Model B32-E Quick Disconnects.

Maximum Flow Rate: 110 scfm.

Maximum Inlet Pressure: 150 psig.

Pressure Relief Valve Setting: 125 psig.

Adjustable Outlet Pressure: to 100 psig.

Recommended Max. Working Temp.: 86°F(30°C).

Recommended Min. Working Temp.: 35°F (2°C).

Audible Alarm: Continuous at 90 dba; factory-set at 10 ppm CO.

Visual Alarm: CO alarm indicator LED. Filter maintenance indicator.

CO Monitor:

Display: 4 digit LCD.

Sensor: Electronic chemical cell type.

Power: 110 Volt AC power supply.

Dimensions: Length 36.6" (930 mm); Width 24.2" (615 mm); Depth 7.3" (185 mm).

Weight: 55 lbs (25 kg).

Compliance Standards:

USA 29 CFR 1910.134

CSA Z1801.1-00

ISO 8573.1: Class 1.-.1

OSHA specification 29 CFR 1910.134(i)(1)(ii) states:

"Breathing air shall meet at least the requirements of the specification for Grade D air as described in ANSI/Compressed Air Association Commodity Specification G-7.1-1989."

OSHA specification 29 CFR 1910.134(i)(7) states:

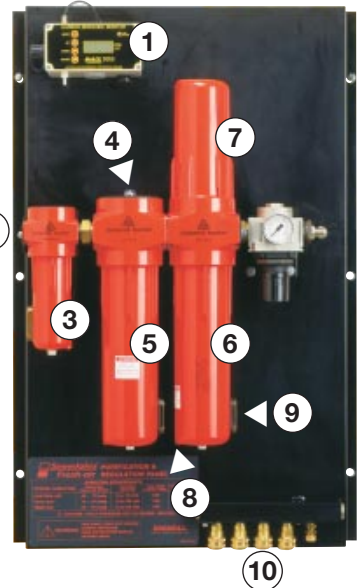
"For oil-lubricated compressors, the employer shall use a high temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm."

Ordering Information

SA PRP 200-B: 18-0902-00

Replacement Parts: see page 49.

1. Carbon monoxide monitor and alarm. Four-digit liquid crystal display indicates the carbon monoxide concentration. Should the level of CO exceed alarm set points, a warning LED light will turn on, as well as a 90 decibel audible alarm. The monitor also features an alarm test switch and external calibration and test gas inlet.
2. Compressed air inlet: one 3/4" NPT (female).
3. Stage 1 Filter: Water Separator with centrifugal action and impingement separation to remove large quantities of excessive liquid contamination.
4. Pressure differential indicator to indicate when filter element change is required.
5. Stage 2 Filter: General Purpose Protection Filter removes particulates down to 1.0 micron, including water and oil aerosols. Maximum remaining oil aerosol content is 0.5 ppm at 70°F. Recommended filter life of 6,000 hours.
6. Stage 3 Filter: High Efficiency Coalescing Filter removes particles down to 0.01 micron, including water and oil aerosols. Maximum remaining oil aerosol content is 0.01 ppm at 70°F. Recommended filter life of 6,000 hours.
7. Stage 4 Filter: Activated carbon filter removes oil vapor and hydrocarbon odors. Maximum remaining oil content of less than 0.003 ppm at 70°F. Recommended filter life of 1,000 hours.
8. De-pressurization valve to vent the compressed air in the filter housing prior to filter element change.
9. Liquid level indicator for confirmation that automatic condensate drain is operational.
10. Breathable air outlets: four Parker Hannifin quick disconnects supply air for up to 4 welders.



Individual Supplied-Air Purification & Regulation System

The Speedglas® Individual Supplied-Air Purification & Regulation System is especially designed for welders requiring supplied-air respiratory protection.

The compact, single-user system connects to standard “shop” compressed air sources that are free of carbon monoxide and are not oxygen-deficient. The purification system removes oils, particulates, and odors from the air supply, providing filtered air that meets or exceeds OSHA, CSA and ISO standards. With a 100 psig compressed air supply, the system will provide a welder with 27 scfm of breathable air at 100 psig.

The Speedglas® Individual Supplied-Air Purification & Regulation System includes a Breathing Air Purifier and Regulator (BA-2013) and a Carbon Monoxide Monitor (CO-2013) with power supply.

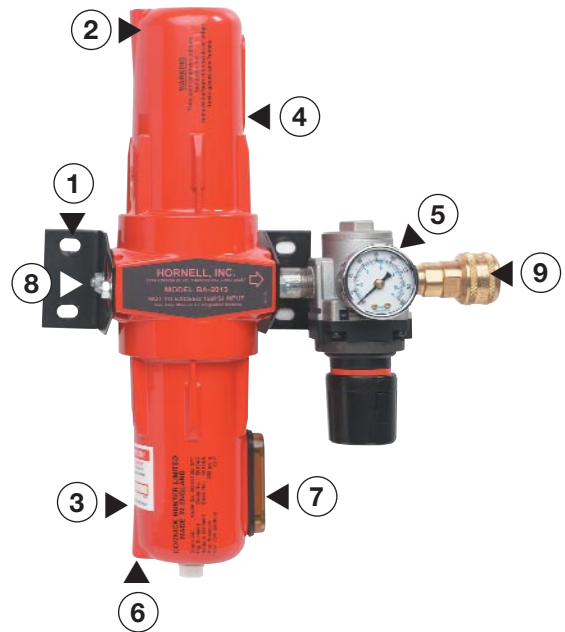
The CO Monitor has a 90-decibel alarm that warns users of unacceptable CO levels in the compressed air line. **With the CO Monitor installed, one air supply line can provide air to numerous BA-2013 Purifiers, which can then be added to the supply line in a modular fashion for increased work area flexibility.** This modular, one welder/one Purifier approach also provides for significant cost savings due to the shared CO Monitor.

The BA-2013 Purifier is a simple yet very rugged system:

1. Designed for wall-mounting.
2. Two heavy-duty metal cylinders protect the two-stage filter elements.
3. A particulate/coalescing element that removes particles and oil down to 0.01 micron size.
4. An activated carbon/absorption element that removes odors and any remaining oil content down to 0.003 ppm.
5. A pressure gauge on its outlet side.



Carbon Monoxide Monitor (CO-2013).



Breathing Air Purifier and Regulator (BA-2013).

6. A de-pressurization valve to vent the compressed air in the filter prior to a filter change.
7. A liquid level indicator for confirmation that the automatic condensate drain is operational.
8. A standard 3/8" NPT inlet.
9. A Parker Hannifin B32 quick disconnect outlet.

Ordering Information & Replacement Parts

See page 50.

Replacement Parts for Speedglas Utility & Speedglas 9000 Lens & Helmets

Complete Helmets & Lenses

04-0012-(shade 10, 11 or 12)	Complete Speedglas 9000F Lens & Helmet
04-0012-(shade 10, 11 or 12)X	Complete Speedglas 9000XF Lens & Helmet
04-0012-30	Complete Speedglas 9000V Lens & Helmet
04-0012-20	Complete Speedglas 9000X Lens & Helmet

For any of the above part numbers, add "H" for Hard Hat and/or "SW" for SideWindows™

04-0014-(shade 10 or 11)U	Complete Speedglas Utility Lens & Helmet
---------------------------	--

Lenses

04-0000-(shade 10, 11 or 12)	Speedglas 9000F Lens only
04-0000-(shade 10, 11 or 12)X	Speedglas 9000XF Lens only
04-0000-30	Speedglas 9000V Lens only
04-0000-20	Speedglas 9000X Lens only

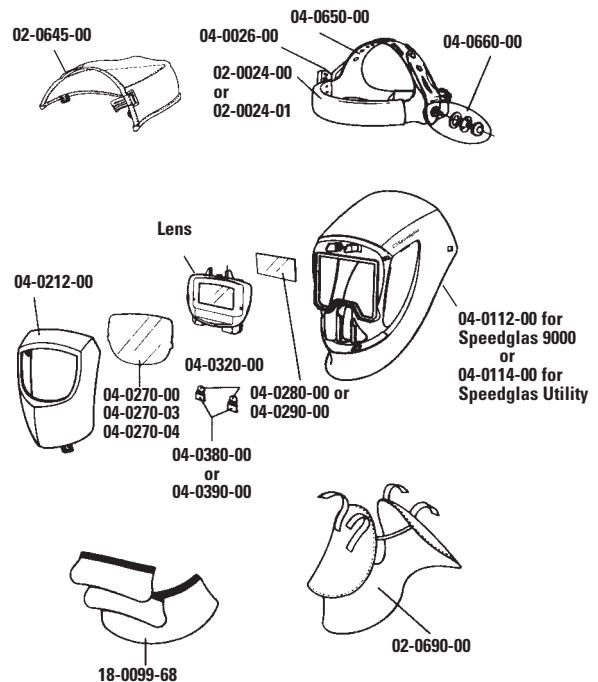
Lens Replacement Parts

04-0270-00	Outside Protection Plate Standard-package of 10
04-0270-10X100	Outside Protection Plate Standard-package of 100
04-0290-00	Inside Protection Plate for Utility, 9000F and 9000V-package of 5
04-0280-00	Inside Protection Plate for 9000X and 9000XF-package of 5
04-0480-00	9000XF and 9000X Accessory Kit (10 Outside, 5 Inside Plates and 2 Batteries)
04-0490-00	Utility, 9000F and 9000V Accessory Kit (10 Outside, 5 Inside Plates and 2 Batteries)
04-0320-00	Battery-package of 2
04-0380-00	Battery Holders (Blue)-package of 2
04-0390-00	Battery Holders (Black)-package of 2

Lens Accessories

04-0290-01	Inside Protection Plate, Passive Filter #1, for Utility and 9000F models-package of 5*
04-0290-02	Inside Protection Plate, Passive Filter #2, for Utility and 9000F models-package of 5*
04-0280-01	Inside Protection Plate, Passive Filter #1, for 9000XF-package of 5*
04-0280-02	Inside Protection Plate, Passive Filter #2, for 9000XF-package of 5*
04-0270-03	Outside Protection Plate HD (Heavy Duty)-package of 5
04-0270-04	Outside Protection Plate High Heat-package of 5

*Total shade level must not exceed shade #13.
Do not use Shaded Inside Protection Plates for either 9000V or 9000X lenses.



Helmet Replacement Parts

04-0012-00	Speedglas 9000 Welding Helmet with Headband
04-0112-00	Speedglas 9000 Inner Welding Helmet only

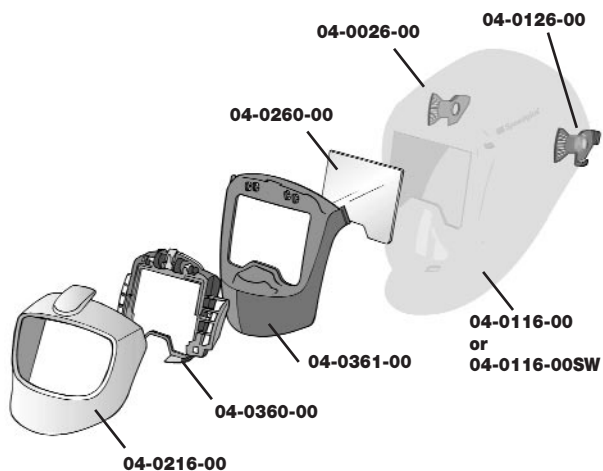
For any of the above part numbers, add "H" for Hard Hat and/or "SW" for SideWindows™

04-0014-00	Speedglas Utility Welding Helmet with Headband
04-0114-00	Speedglas Utility Inner Welding Helmet only
04-0212-00	Silver Front Panel
04-0650-00	Headband; complete with mounting hardware
04-0660-00	Mounting Hardware
04-0026-00	Speedglas 9000 and Utility helmet/headband "S" stop-package of 10
02-0024-00	Sweatband in plastic
02-0024-01	Sweatband in leather

Helmet Accessories

02-0645-00	Head Protector
18-0099-68	Throat and Side Protector, Leather (3 parts)
02-0690-00	Throat Protector
02-0014-00NR	Hard Hat Adapter
02-0023-00	Hard Hat with Mounting Hardware

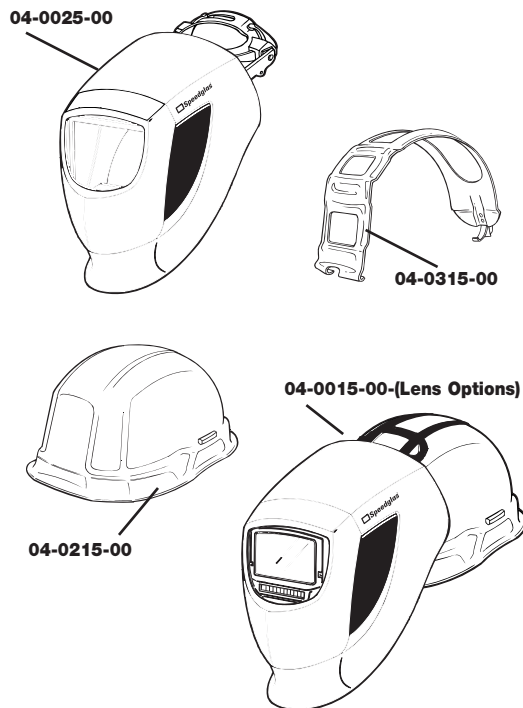
Replacement Parts for Speedglas FlexView



04-0016-(Lens Options) Complete Speedglas FlexView
 04-0016-00 Complete Speedglas FlexView With No Lens
 Add "SW" for SideWindows™.

04-0116-00 Speedglas FlexView Shell Only
 04-0116-00SW Speedglas FlexView Shell Only
 with SideWindows™
 04-0126-00 FlexView Helmet/Headband
 "S" Stop Left-package of 10
 04-0026-00 FlexView Helmet/Headband
 "S" Stop Right-package of 10
 04-0216-00 FlexView Silver Front Panel Only
 04-0360-00 FlexView Welding Lens Holder
 04-0361-00 FlexView Middle Helmet Panel
 04-0260-00 FlexView Protection Plate-package of 10

Replacement Parts for Speedglas ProTop

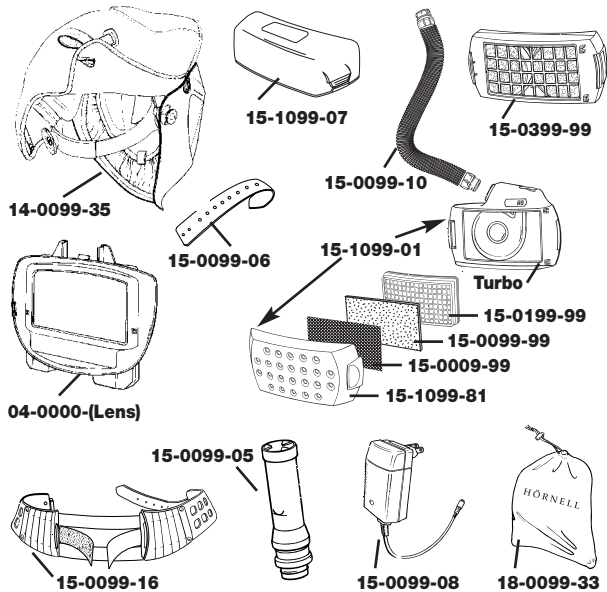


04-0015-(Lens Options) Complete Speedglas ProTop
 04-0025-00 Speedglas ProTop welding
 helmet with pivot mechanism

Add "SW" for SideWindows™.

04-0215-00 Speedglas ProTop hard hat
 with headgear
 04-0315-00 Speedglas ProTop strap
 04-0024-02 Speedglas ProTop replacement
 sweatband- package of 2

Replacement Parts For Speedglas with Adflo®



Replacement Filters & Cartridges

15-0099-99X06 6-pack Adflo Prefilter
15-0099-99X12 12-pack Adflo Prefilter

15-0199-99X02 2-pack Adflo HE Particle Filter
15-0199-99X06 6-pack Adflo HE Particle Filter
15-0199-99X36 36-pack Adflo HE Particle Filter

15-0399-99X02 2-pack Adflo OV/SD/CL/HC Cartridge
15-0399-99X06 6-pack Adflo OV/SD/CL/HC Cartridge
15-0009-99X02 2-pack Adflo Spark Arrestor

Adflo Turbo Replacement Parts

15-1099-01 Adflo Turbo Assembly and Filter Cover without Filter or Cartridge or Battery
15-1099-81 Adflo Turbo Filter Cover
15-5401-01 Adflo Turbo, complete with Breathing Tube Assembly, Flow Indicator, Belt, Spark Arrestor, Adflo Turbo Filter Cover, Prefilter, HE Particle Filter, Battery and Smart Charger.

Miscellaneous Replacement Parts and Accessories

15-0099-05 Flow Indicator
15-1099-07 Adflo Battery Pack
15-0099-08 Adflo Battery Smart Charger
15-0099-10 Adflo Breathing Tube Assembly (Rubber)

15-0099-16 Adflo Leather Belt
15-0099-06 Adflo Leather Belt Front Piece Replacement
18-0099-33 Carry Bag

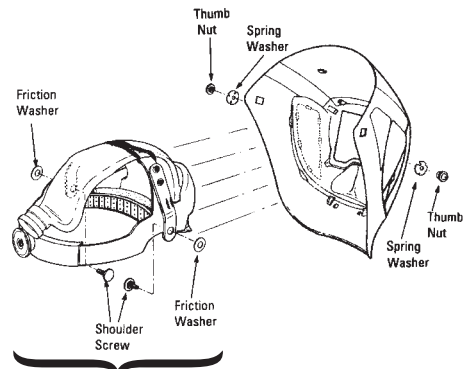
Replacement Parts for HWR (Hornell Welding Respirator) Helmet Assembly

Head Cover
18-0099-30



Face Seal
14-0099-28

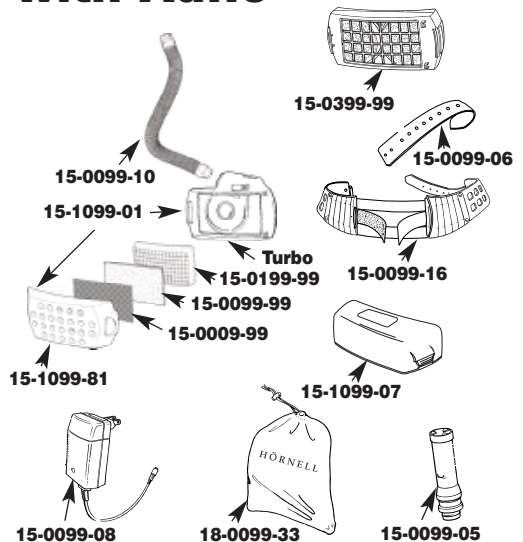
HWR/FA II 9000 Helmet with Velcro® & Foam: 14-0099-32 (Hardware: 14-0099-70 & Face Seal: 14-0099-28 sold separately)



HWR/FA II 9000 Headband Assembly with Air Duct: 14-0099-29 (Hardware sold separately: 14-0099-70)

18-0099-27	Elastic Duct Retainer (pair)
14-0099-28	HWR/FA II 9000 Face Seal
14-0099-29	HWR/FA II 9000 Headband Assembly with Air Duct
18-0099-30	Head Cover, cloth
14-0099-35	HWR/FA II 9000 Helmet Assembly Complete
14-0099-35SW	HWR/FA II 9000 SideWindows™ Helmet Assembly Complete
14-0099-32	HWR/FA II 9000 Helmet (with Velcro® and foam only)
14-009932SW	HWR/FA II 9000 SideWindow™ Helmet (with Velcro and foam only)
14-0099-70	HWR/FA II 9000 Helmet Assembly Hardware Kit
04-0212-00	Silver Front Panel
04-0000-10	Speedglas 9000F Lens only, shade 10
04-0000-11	Speedglas 9000F Lens only, shade 11
04-0000-12	Speedglas 9000F Lens only, shade 12
04-0000-10X	Speedglas 9000XF Lens only, shade 10
04-0000-11X	Speedglas 9000XF Lens only, shade 11
04-0000-12X	Speedglas 9000XF Lens only, shade 12
04-0000-30	Speedglas 9000V Lens only
04-0000-20	Speedglas 9000X Lens only
04-0000-22	Speedglas 9000Xi Lens only

Replacement Parts For ClearVisor with Adflo®



Replacement Filters & Cartridges

- | | |
|---------------|--|
| 15-0009-99X02 | 2-pack Adflo® Spark Arrestor |
| 15-0099-99X06 | 6-pack Adflo® Prefilter |
| 15-0099-99X12 | 12-pack Adflo® Prefilter |
| 15-0199-99X02 | 2-pack Adflo® HE Particle Filter |
| 15-0199-99X06 | 6-pack Adflo® HE Particle Filter |
| 15-0199-99X36 | 36-pack Adflo® HE Particle Filter |
| 15-0399-99X02 | 2-pack Adflo® OV/HE/SD/CL/HC Cartridge |
| 15-0399-99X06 | 6-pack Adflo® OV/HE/SD/CL/HC Cartridge |

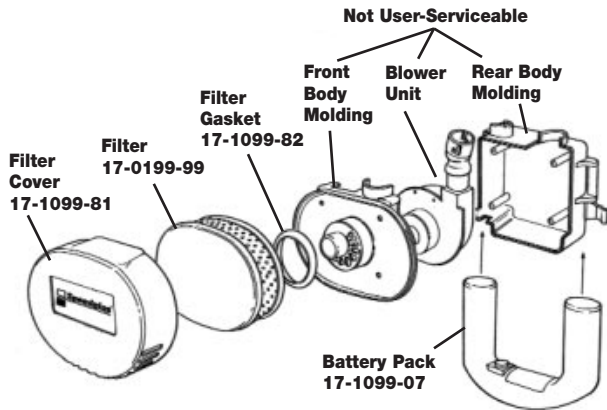
Adflo Turbo Replacement Parts

- | | |
|------------|---|
| 15-1099-01 | Adflo® Turbo Assembly and Cover without Filter/Cartridge or Battery |
| 15-1099-81 | Adflo® Turbo Filter Cover (No Prefilter, No Spark Arrestor) |
| 15-5401-01 | Adflo® Turbo Complete with Breathing Tube Assembly, Flow Indicator, Belt, Spark Arrestor, Adflo® Turbo Filter Cover, Prefilter, HE Particle Filter, Battery and Smart Charger |

15-0099-05	Flow Indicator
15-1099-07	Adflo® Battery
15-0099-08	Adflo® Battery Smart Charger
15-0099-08N6	Adflo® Multiple Battery Smart Charger (6)
15-0099-10	Adflo® Breathing Tube Assembly (Rubber)
15-0099-16	Adflo® Leather Belt
15-0099-06	Adflo® Leather Belt Front Piece Replacement
17-0099-54	Carry Bag

15-1101-99	Adflo® HE Starter Kit - (2- HE filters, 6- Prefilters, 2- Spark Arrestors)
15-3301-99	Adflo® HE + OV/SD/CL/HC Starter Kit - (2- OV/SD/CL/HC Cartridge, 2- HE Filters, 6- Prefilters, 2- Spark Arrestors)

Replacement Parts for Speedglas Fresh-air II P 9000 Systems



Replacement Filters

17-0199-99X02 2-pack of HE (P3) Particle Radial Filter
Replacements for FA II Turbo Unit "P"

Turbo Unit Replacement Parts

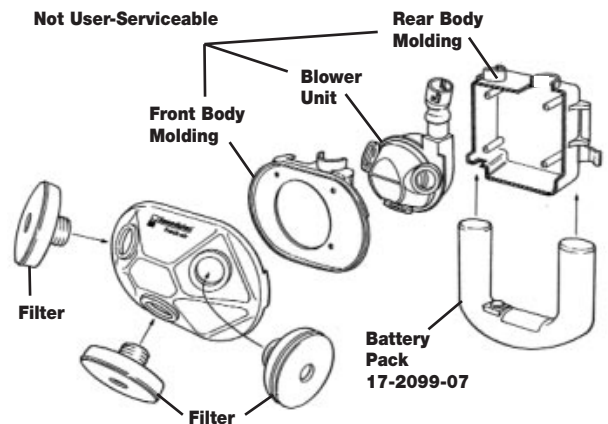
17-1099-01	FA II Turbo Unit "P" Assembly without Filters or Battery Pack
17-1099-81	FA II Turbo Unit "P" Filter Cover
17-1099-82	FA II Turbo Unit "P" Filter Gasket

Miscellaneous Replacement Parts and Accessories

17-0099-05	FA II Air Flow Indicator
17-1099-07	FA II Turbo Unit "P" 3-Cell Battery Pack
17-0099-08	FA II Battery Charger
17-0099-08N10	FA II 10-Unit Battery Charger (Smart Charger)
17-0099-10	FA II Breathing Tube Assembly
17-0099-54	FA II Breathing Tube Cover
18-0099-16	Comfort Belt
18-0099-33	Carry Bag

For HWR (Hornell Welding Respirator) Helmet Assembly Replacement Parts & Accessories, see page 43.

Replacement Parts for Speedglas Fresh-air II G 9000 Systems



Complete Fresh-air II G 9000 Hard Hat Systems

14-3301-(Lens Options)H; comes with three HE/OV/SD/CL/HC (AEP3) Cartridges

14-3201-(Lens Options)H; comes with three HE (P3) Filters
Lens Options:

- 10, 11 or 12 = Speedglas 9000F Lens shade 10, 11 or 12
- 10X, 11X or 12X = Speedglas 9000XF Lens shade 10, 11 or 12
- 30 = Speedglas 9000V Lens
- 20 = Speedglas 9000X Lens

add "SW" for SideWindows™

Replacement Filters & Cartridges

17-0299-99X06	6 pack of HE (P3) Particle Filters
17-0299-99X36	36 pack of HE (P3) Particle Filters
17-0399-99X06	6 pack of HE/OV/SD/CL/HC (AEP3) Cartridge Filters

Turbo Unit Replacement Parts

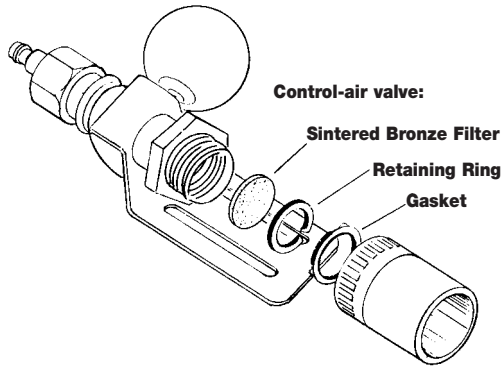
17-3099-01	FA II Turbo Unit "G" Assembly without Filters/Cartridges or Battery Pack
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Miscellaneous Replacement Parts and Accessories

17-0099-05	FA II Air Flow Indicator
17-2099-07	FA II Turbo Unit "G" 4-Cell Battery Pack
17-0099-08	FA II Battery Charger
17-0099-08N10	FA II 10-Unit Battery Charger (Smart Charger)
17-0099-10	FA II Breathing Tube Assembly
17-0099-54	FA II Breathing Tube Cover
18-0099-16	Comfort Belt
18-0099-33	Carry Bag

For HWR (Hornell Welding Respirator) Helmet Assembly Replacement Parts & Accessories, see page 43.

Replacement Parts for Speedglas Fresh-air II SA 9000 Systems



Complete Fresh-air II SA 9000 Systems

Control-air: 14-5601-(Lens Options)

Cool-air: 14-5701-(Lens Options)

Temp-air: 14-5801-(Lens Options)

Lens Options:

10, 11 or 12 = Speedglas 9000F Lens shade 10, 11 or 12

10X, 11X or 12X = Speedglas 9000XF Lens shade 10, 11 or 12

30 = Speedglas 9000V Lens

20 = Speedglas 9000X Lens

add "H" for Hard Hat and/or "SW" for SideWindows™

Replacement Valves and Valve Parts

18-0099-46 Control-air Valve Assembly

18-0099-47 Cool-air Valve Assembly

18-0099-48 Temp-air Valve Assembly

18-0099-52 Sintered Bronze Disk (Control-air Valve only)

18-0099-55 Valve Shield

18-0099-63 Breathing Tube (Supplied Air) Hard Hat

Air Supply Hoses

18-0099-40 25 feet Breather Hose, with Couplings

18-0099-41 50 feet Breather Hose, with Couplings

18-0099-42 100 feet Breather Hose, with Couplings

18-0099-43 25 feet Nycoil™ Hose, with Couplings

18-0099-44 50 feet Nycoil™ Hose, with Couplings

18-0099-45 100 feet Nycoil™ Hose, with Couplings

18-0902-06 Air Source Quick Connect

Miscellaneous Replacement Parts and Accessories

18-0099-16 Comfort Belt

18-0099-33 Carry Bag

**For HWR (Hornell Welding Respirator) Helmet
Assembly Replacement Parts & Accessories,
see page 43.**

Replacement Parts for Supplied Air Purification & Regulation Panels



18-0902-00 Air Purification & Regulation Panel SA PRP 200-B

18-0099-82 Filter Element Kit for SA PRP 200 and SA PRP 200-B

18-0099-83 K145AO Filter Element

18-0099-84 K145AA Filter Element

18-0099-85 K065AC Filter Element

18-0099-86 Automatic Drain for SA PRP 200, PRP 200-B and BA-2013

18-0099-87 DPI Filter Differential Indicator for SA PRP 200 and PRP 200-B

18-0099-88 SKG1 Bowl Sight Glass (with gaskets and screws) for SA PRP 200, PRP 200-B and BA-2013

18-0099-89 MAK3 Service Kit for SA PRP 200 and PRP 200-B

18-0902-01 CO Calibration Kit for SA PRP 200, PRP 200-B and BA-2013

18-0902-03 Zero Gas Cylinder (Nitrogen)

18-0099-91 CO Cylinder (50 ppm) for SA PRP 200, PRP 200-B and BA-2013

18-0902-04 CO Sensor for SA PRP 200-B and CO-2013

18-0099-94 MAK2 Service Kit for SA PRP 200, PRP 200-B and BA-2013

Replacement Parts for Hornell Individual Supplied Air Purification System



Carbon Monoxide Monitor (CO-2013).



Breathing Air Purifier and
Regulator (BA-2013).

- 14-0902-00 Individual Supplied Air Purification and Regulation System: CO-2013 CO Monitor with Power Supply, and one BA-2013 Breathing Air Purifier and Regulator
- 14-0902-05 CO-2013 CO Monitor with Power Supply and Filter/Regulator
- 14-0902-01 BA-2013 Breathing Air Purifier
- 14-0099-84 KO17AA Particulate/Coalescing Filter Element
- 14-0099-85 KO13AC Activated Carbon/Absorption Filter Element
- 14-0099-82 Filter Element Kit for BA-2013 (AA and AC elements)
- 18-0099-86 Automatic Drain for SA PRP 200, PRP 200-B and BA-2013
- 18-0099-88 SGK1 Bowl Sight Glass (with gaskets and screws) for SA PRP 200, PRP 200-B and BA-2013
- 18-0099-94 MAK2 Service Kit for SA PRP 200, PRP 200-B and BA-2013
- 14-0099-88 CO Monitor Filter/Regulator only
- 18-0902-05 CO Monitor with Power Supply
- 14-0902-85 CO Monitor Power Supply Only
- 18-0902-04 CO Monitor Sensor Element Replacement for SA PRP 200, PRP 200-B and BA-2013
- 14-0099-83 Filter Element Grade 6 for CO Monitor Filter/Regulator
- 18-0902-03 Zero Gas Cylinder (Nitrogen)
- 18-0902-01 CO Calibration Kit for SA PRP 200, PRP 200-B and BA-2013
- 18-0099-91 CO Cylinder (50ppm) for SA PRP 200, PRP 200-B and BA-2013
- 18-0902-06 Quick Connect, Parker Hannifin (F)

Featured Products

Accessory Kits: 10 outside and 5 inside protection plates, plus 2 lens batteries. See page 38.



Outside Protection Plates: standard, HD (Heavy Duty) and High Heat. See page 38.



Throat Protector: "Bib" made from flame-resistant cloth. See page 39.



Leather Protectors: one throat and two side protectors made from leather. See page 39.



Head Protector: made from flame-resistant cloth. See page 39.



Welding Lens Shade Guide*

Welding Process	Arc Current (Amperes)	Minimum Protective Shade	Suggested Protective Shade (Comfort)
Shielded Metal Arc Welding (SMAW)	Less than 60	7	—
	60 to 160	8	10
	160 to 250	10	12
	250 to 550	11	14
Gas Metal Arc Welding and Flux Cored (GMAW)(MIG)	Less than 60	7	—
	60 to 160	10	11
	160 to 250	10	12
	250 to 550	10	14
Gas Tungsten Arc Welding (GTAW)(TIG)	Less than 50	8	10
	50 to 150	8	12
	150 to 500	10	14
Air Carbon (light)	Less than 500	10	12
Air Carbon (heavy)	500 to 1000	11	14
Plasma Arc Welding (PAW)	20 to 100	8	10
	100 to 400	10	12
	400 to 800	11	14
Plasma Arc Cutting (PAC)			
Light	Less than 300	8	9
Medium	300 to 400	9	12
Heavy	400 to 800	10	14
Carbon Arc Welding (CAW) —		—	14

*Based on ANSI/ASC Z49.1, AWS F2.2-89. Shade numbers are given as guide only and may be varied to suit application needs. Consult your on-site training officer, industrial hygienist, or safety manager.

Complete List of Allowed Standard Protections, Cautions and Limitations for Approval Labels*

Protection

N100-Particulate Filter (99.97% filter efficiency level) effective against particulate aerosols free of oils; time use restrictions may apply	R100-Particulate Filter (99.97% filter efficiency level) effective against all particulate aerosols; time use restrictions may apply	P100-Particulate Filter (99.97% filter efficiency level) effective against all particulate aerosols
N99-Particulate filter (99% filter efficiency level) effective against particulate aerosols free of oil; time use restrictions may apply	N99-Particulate filter (99% filter efficiency level) effective against all particulate aerosols; time use restrictions may apply	N99-Particulate filter (99% filter efficiency level) effective against all particulate aerosols
N95-Particulate filter (95% filter efficiency level) effective against particulate aerosols free of oil; time use restrictions may apply	N95-Particulate filter (95% filter efficiency level) effective against all particulate aerosols; time use restrictions may apply	N95-Particulate filter (95% filter efficiency level) effective against all particulate aerosols

HE-High Efficiency Particulate Air filter for powered, air-purifying respirators

*(From page 53 of NIOSH's "Standard Application Procedures for the Certification of Respirators" Rev. 7/98)

Web Links to Welding & Safety Standards Organizations

www.ansi.org

(American National Standards Institute)

www.csa.ca

(Canadian Standards Association)

www.cdc.gov/niosh

(National Institute for Occupational Safety & Health)

www.osha.gov

(Occupational Safety & Health Administration)

www.aws.org

(American Welding Society)

AG -Acid Gas (gas mask only)

CF -Continuous flow

CO -Carbon monoxide

EO -Ethylene oxide

HF -Hydrogen fluoride

MA -Methylamine

OV -Organic vapor

SA -Supplied-air

SD -Sulfur dioxide

AM -Ammonia

CL -Chlorine

CS -Chlorobenzylidene

malononitrile

FM -Formaldehyde

HN -Hydrogen cyanide

MV -Mercury vapor

PD -Pressure demand

SB -Supplied-air

Abrasive Blast

VC -Vinyl chloride

CD -Chlorine dioxide

CN -Chloroacetophenone

DE -Demand

HC -Hydrogen chloride

HS -Hydrogen sulfide

(escape only)

ND -Nitrogen dioxide

PH -Phosphine

SC -Self-contained

Speedglas with Adflo system uses an **HE**

Particulate Air Filter. An additional **OV/SD/CL/HC** cartridge can be added to the **HE** filter.

Speedglas Fresh-air II SA 9000 system is a supplied air (**SA**) respirator.

Customer Support

If you have any questions about your Speedglas products, contact Hornell's Customer Service at: 800-628-9218 or Fax: 330-425-4576. (Canada: 800-676-6930 or Fax: 905-664-1402.)

Speedglas® Lens Warranty

Hornell, Inc. warrants all Speedglas lenses for 24 months from the date of purchase against all manufacturing defects resulting from materials or workmanship.

Adflo® Warranty

Hornell, Inc. warrants all Adflo products obtained hereunder to be free from defects in material and workmanship in normal service and under normal conditions for 12 months from the date of delivery.

Speedglas® Fresh-air® II SA 9000 Warranty

Hornell, Inc. warrants all Fresh-air® products obtained hereunder to be free from defects in material and workmanship in normal service and under normal conditions for 180 days from the date of delivery.

Hornell Individual Supplied Air Purification System Warranty

Hornell, Inc. warrants all Hornell Individual Supplied Air Purification System obtained hereunder to be free from defects in material and workmanship in normal service and under normal conditions for 180 days from the date of delivery.

These warranties are void in the case of operator misuse, abuse, or neglect. Read your instruction manual to avoid certain situations which could void this warranty (for example, cracked lenses and lenses covered with weld spatter are not covered under the warranty policy).

The foregoing warranties shall not apply, and Hornell, Inc. shall be held harmless and relieved

of any obligation or liability to the buyer, if the equipment has been repaired or altered in a manner not authorized by Hornell, including the use of replacement components not approved by Hornell, or if the equipment has been subject to abuse, negligence or accidental mishandling.

The foregoing warranties are in lieu of all other warranties expressed, implied, or statutory, including warranty of merchantability or fitness for a particular purpose.

Warranty Return Procedure

- 1) Make a photocopy of your proof-of-purchase; include the serial number of the product being returned.
- 2) Call the Hornell Warranty Department toll-free at 888-773-3345 (Canada: 800-676-6930) to describe the warranty problem and receive a warranty return number.
- 3) Write the warranty return number on the proof-of-purchase photocopy and fax to Hornell Warranty Department at 330-487-5326 (Canada: 905-664-1402).

Upon receipt, Hornell will send out a replacement product that will, in most cases, arrive the next business day.

Send the original product via UPS third party billing or a call tag issued by Hornell; clearly write the warranty return number on the outside of the package.

Out-Of-Warranty Repairs & Service

For repair pricing and procedures, call the Service, Repair & Warranty Dept. toll-free: 888-773-3345 or Fax: 330-487-5326. (Canada: 800-676-6930 or Fax: 905-664-1402.)

WARNING: These welding safety products must be used only by qualified persons trained in their use and maintenance and only in strict accordance with and adherence to the detailed instructions and precautionary statements provided in the Instruction Manual which accompanies each product. Failure to comply with these instructions could result in serious bodily injury or loss of life. Any questions concerning proper use of these units should be directed to your on-site training specialist or industrial hygienist.



Speedglas® Lens Selector Table

	Utility	9000F	9000XF	9000V	9000X
Light Shade	3	3	3	3	3
Dark Shade(s)	10 or 11	10, 11 or 12	10, 11 or 12	9, 10, 11, 12 & 13	9, 10, 11, 12 & 13
Viewing Area inches/mm	3.57 x 1.68 91 x 43	3.57 x 1.68 91 x 43	4.09 x 2.13 104 x 54	3.57 x 1.68 91 x 43	4.09 x 2.13 104 x 54
Weight, Lens & Helmet oz/grams	17.14 486	17.14 486	17.39 493	17.14 486	17.39 493
SideWindows™ Available?	No	Yes	Yes	Yes	Yes
Helmet has CO ₂ Exhaust vents	No	Yes	Yes	Yes	Yes
Part #'s (complete helmet with lens)	04-0014-10U or 04-0014-11U	04-0012-10 or 04-0012-11 or 04-0012-12	04-0012-10X or 04-0012-11X or 04-0012-12X	04-0012-30	04-0012-20
Page Number	12	14	16	18	20

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