

Comfo® Twin-Cartridge Respirators

Protection against a variety of respiratory hazards



*Because every life has a **purpose...***

MSA Comfo **Twin-Cartridge Respirators**

MSA Comfo Twin-Cartridge Respirators provide protection against a variety of respiratory hazards. The respirators use chemical cartridges, aerosol filters, or a combination of the two, to remove specific contaminants from the inhaled air. The cartridges are interchangeable among all MSA Comfo Twin-Cartridge Respirators and are constructed of high-strength metal.

The respirators are available in a half-mask facepiece version (Comfo Classic®) and two full-facepiece styles (Ultra-Twin® and Ultra Elite®). In addition, with the Twin-Cartridge Adapter, the user can convert any demand-style Ultravue® or Ultra Elite Full-Facepiece into a twin-cartridge respirator.

All MSA Comfo Twin-Cartridge Facepieces are available in hycar rubber or silicone, which has a unique sealing surface designed to reduce facepiece slippage. All are formulated to maximize comfort and minimize the possibility of skin irritation, yet are resistant to chemicals and facial oils. They all come in small, medium and large sizes. Parts can be quickly connected and disassembled for ease of maintenance.

Applications

Applications for MSA Comfo Twin-Cartridge Respirators include welding, smelting, construction and hazardous waste remediation, as well as others in the chemical, oil and gas, marine, and pulp and paper industries. These comfortable respirators are ideal for both intermittent and extended exposure situations.

Limitations

As an air-purifying device, all MSA twin-cartridge respirators must not be used in atmospheres containing less than 19.5 percent oxygen, or in atmospheres immediately dangerous to life and health (IDLH).

Twin-cartridge respirators must not be worn for protection against gases or vapors with poor warning properties.

Twin-cartridge respirators must not be used in atmospheres containing more than 100 times the exposure limit for the contaminant present.





Comfo Classic Half-Mask Respirator

- SoftFeel rubber and Silicone facepieces enhance softness, increasing wearer comfort
- Face seal design provides secure, comfortable fit

	Small	Medium	Large	
COMFO CLASSIC RESPIRATOR	808075	808074	808076	Comfo Classic Facepiece, SoftFeel hycar
	808072	808071	808073	Comfo Classic Facepiece, SoftFeel silicone

See page 5 for threaded Comfo cartridges and filters.



Ultra-Twin Full-Facepiece Respirator

- Feature an inturned lip, large chin cup, and 5 headstraps with roller buckles for secure, comfortable fit
- Wide polycarbonate lens is coated for scratch and chemical resistance
- Speaking diaphragm provides clear communications
- Nosecup reduces lens fogging

	Small	Medium	Large	
ULTRA-TWIN FACEPIECES	471298	471286	471310	Ultra-Twin Facepiece, hycar
	480263	480259	480267	Ultra-Twin Facepiece, silicone

See page 5 for threaded Comfo filters and cartridges.



MSA Comfo **Twin-Cartridge Respirators**

Ultra Elite/Ultravue Twin-Cartridge Respirators

Ultra Elite Facepiece

- State-of-the-art mask provides excellent comfort and protection
- Distortion-free lens allows wide field-of-view
- 5-point harness allows easy on/off
- Models include Hycar rubber and silicone versions
- Unique airflow prevents lens fogging

Ultravue Facepiece

- 5-point harness allows easy on/off
- Models include Hycar rubber and silicone versions

	Small	Medium	Large	
ULTRA ELITE FACEPIECES <i>with twin-cartridge adapter</i>	10016758	10016759	10016770	Ultra Elite Facepiece, SoftFeel hycar
	10016755	10016756	10016757	Ultra Elite Facepiece, SoftFeel silicone
ULTRA ELITE FACEPIECES <i>less twin-cartridge adapter</i>	493064	493020	493108	Ultra Elite Facepiece, SoftFeel hycar
	493072	493928	493116	Ultra Elite Facepiece, SoftFeel silicone
ULTRAVUE FACEPIECES <i>less twin-cartridge adapter</i>	471218	457126	471230	Ultravue Facepiece, hycar
	480251	480247	480255	Ultravue Facepiece, silicone
TWIN-CARTRIDGE ADAPTER	803622	Twin-Cartridge Adapter, converts any demand Ultra Elite or Ultravue Facepiece to a twin-cartridge respirator		

See page 5 for threaded Comfo filters and cartridges.

Note: Ultra Elite and Ultravue Facepieces must be fitted with a Twin-Cartridge Adapter P/N 803622 to be used as a twin-cartridge respirator.



Ultra Elite Facepiece, shown with Twin-Cartridge Adapter and Comfo P100 Cartridges



Ultravue Facepiece, shown without Twin-Cartridge Adapter or cartridges

Comfo Respirator Cartridges

Users can choose from a complete line of cartridges that protect against a wide variety of contaminants. Filter cartridges protect against dusts, particles and mists. Chemical cartridges protect against gases and vapors. Combination cartridges deliver protection from both particulate and gaseous contaminants.

The GME and GME-P100 Cartridges from MSA are designed to be used for any applications where GMA, GMB, GMC, or GMD cartridges are currently being used.

The GME-P100 Cartridge is NIOSH-approved for 16 specific compounds including gases, vapors, toxic dusts and mists.

The GME Cartridge provides protection from 10 specific gases and vapors. Adding a prefilter to the GME adds protection against paints, pesticides, dusts, mists and fumes.

Designed for easy installation, Comfo Cartridges thread directly to the cartridge receptacles on Comfo and other twin-cartridge respirators. All cartridges are interchangeable and are color-coded to indicate the type of protection offered.

The cartridges are made of metal, which allows for easy detection of damage. The cartridge holders securely retain the screw-in cartridges and resist damage from impact, corrosion and most chemicals. The color of each cartridge indicates the type of protection for which it is approved.

The complete Comfo line of particulate, chemical and combination cartridges is approved under 42 CFR Part 84.

Comfo Respirator Cartridges

The Comfo line of particulate, chemical and combination cartridges is NIOSH-certified (to 42 CFR, Part 84). Cartridges fit Comfo Classic, Ultra-Twin, Ultra Elite Twin-Cartridge and Duo-Twin Respirators, and certain half-mask and full-face Advantage Respirators with Adapter (P/N 809999).

MSA Cartridge Description	Re-Order Part Number	Color Coding	Acid Gases										Filter Type & Efficiency See Definitions below	See Notes below
			Organic Vapor	Chlorine	Sulfur Dioxide	Chlorine Dioxide	Hydrogen Chloride	Hydrogen Sulfide	Ammonia	Methylamine	Formaldehyde	Hydrogen Fluoride	Mercury Vapor	
			OV	CL	SD	CD	HC	HS	AM	MA	FM	HF	MV	
Organic Vapor (GMA)	464031 (10 in pkg.)													P100 R95 N95 2,3,5
Organic Vapor/P100 (GMA)	815178 (6 in pkg.)													P100 R95 N95 2,3,4
Organic Vapor/P100 Short Stack (GMA)	815186 (6 in box)													P100 R95 N95 2,3,4
Acid Gas (GMB)	464032 (10 in box)													P100 R95 N95 2,5
Acid Gas/P100 (GMB)	815179 (6 in box)													P100 R95 N95 2,4
Organic Vapor/Acid Gas (GMC)	464046 (10 in pkg.)													P100 R95 N95 2,3,5
Organic Vapor/Acid Gas/P100 (GMC)	815180 (6 in box)													P100 R95 N95 2,3,4
Organic Vapor/Acid Gas/P100 Short Stack (GMC)	815188 (6 in box)													P100 R95 N95 2,3,4
Ammonia/Methylamine (GMD)	464033 (10 in box)													P100 R95 N95 2,3,5
Ammonia/Methylamine/P100 (GMD)	815181 (6 in box)													P100 R95 N95 2,3,4
Multigas (GME)	492790 (10 in box)													P100 R95 N95 2,3,5
Multigas/P100 (GME)	815182 (6 in box)													P100 R95 N95 2,3,4
Iodine Vapor/P100 (GMI)*	815184 (6 in box)													P100 R95 N95 2,4
Chlorine/Mercury Vapor/P100 (Mersorb)	815185 (6 in box)													P100 R95 N95 2,4
P100	815175 (10 in box)													P100 R95 N95 1,4
Sparkfoe® P100	815176 (10 in box)													P100 R95 N95 1,4
Low-Profile P100	815177 (10 in box)													P100 R95 N95 1,4
Stand-alone and cover N95 and covers required for Comfo Respirators	816662 N95 (10 in pkg.) 816661 N95 (50 in box) 489353 Reusable snap-on cover (1 in pkg.; 2 req.)													P100 R95 N95 1
Prefilter and Cover N95	816662 N95 (10 in pkg.) 816661 N95 (50 in pkg.) 489353 Reusable snap-on cover (1 in pkg.; 2 req.)													P100 R95 N95 1
Prefilter and Cover R95	816287 R95 (20 in box) 489219 R95 Reusable snap-on cover (1 in pkg.; 2 req.)													P100 R95 N95 1

* Effective against, but not NIOSH-approved for Iodine Vapor.

⚠ WARNING

An appropriate cartridge change-out schedule must be developed by a qualified professional, unless the cartridge/canister utilizes an end-of-service-life indicator. The change-out schedule must take into account all factors that may influence respiratory protection including specific work practices and other conditions unique to the worker's environment. If using against substances having poor warning properties, there is no secondary means of knowing when to replace the cartridges/canister. In such cases, take appropriate additional precautions to prevent overexposure, which may include a more conservative change-out schedule or using an air-supplied respirator or SCBA. Failure to follow this warning can result in serious personal injury or death. As a reference, below is a partial list of substances having poor warning properties:

Acrolein	Hydrogen cyanide	Nitric acid	Phosphorus trichloride
Aniline	Hydrogen selenide	Nitro compounds	Stibine
Arsine	Methanol	Nitrogen oxides	Sulfur chloride
Bromine	Methyl bromide	Nitroglycerin	Urethane or other diisocyanate-containing paints
Carbon monoxide	Methyl chloride	Nitromethane	Vinyl chloride
Diisocyanates	Methylene chloride	Phosgene	
Dimethyl sulfate	Nickel carbonyl	Phosphine	

Definitions

N95-Particulate Filter (95% filter efficiency level)

effective against particulate aerosols free of oil; time use restrictions may apply.

R95-Particulate Filter (95% 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.

Notes

- Do not use in atmospheres containing less than 19.5 percent oxygen, in atmospheres containing gases or vapors or in atmospheres immediately dangerous to life and health.
- Do not use in atmospheres containing less than 19.5 percent oxygen, or in atmospheres immediately dangerous to life and health.
- Do not wear for protection against organic vapors with poor warning properties or those which generate high heats of reaction with the sorbent material in the cartridge.
- 99.97 percent efficient against 0.3 micron DOP.
- Both a prefilter and cover must be used with the cartridge in order to obtain R95 or N95 particulate protection.

Twin-Cartridge Respirator Accessories

Carrying Pouch

Belt-mounted carrying pouch with Velcro closures.

CARRYING POUCH	468730	Carrying pouch for Comfo half-mask respirators
	817040	Carrying pouch for Comfo full facepiece respirators

Nosecup to Reduce Fogging

Molded from a soft rubber compound that is resistant to facial oils, the optional nosecup helps reduce the possibility of lens fogging. The nosecup is particularly effective under conditions of high humidity and/or low temperatures by inhibiting contact of moist exhalation with the facepiece lens. A nosecup can be easily affixed to the facepiece without tools, and any size nosecup may be installed in any size MSA facepiece, resulting in a customized facepiece for more comfortable use.

NOSECUP	813138	Ultravue/Ultra-Twin, black, small
	813139	Ultravue/Ultra-Twin, black, medium
	813140	Ultravue/Ultra-Twin, black, large

MSA Confidence Plus® Germicidal Cleaner

Mix with warm water for a germicidal cleaner that is effective against various micro-organisms including immunodeficiency virus Type 1 (HIV-1, associated with AIDS). EPA-approved for use on safety equipment.

CONFIDENCE PLUS CLEANER	10009971	MSA Confidence Plus Germicidal Cleaner, 32 oz bottle
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Personal Safety Equipment Towelettes

Provides an excellent method for wiping and refreshing respirators, hard hats and other safety equipment between full cleaning periods.

TOWELETTES	697382	Canister with 220 towelettes
	697383	Box of 100 individually wrapped towelettes

Cover Lens for Full Facepiece Respirators

Lens covers protect the facepiece lens from scratches during storage, handling and use. The self-adhesive covers can be easily installed and removed when necessary. Tinted versions are intended for applications in direct sunlight.

COVER LENS	491500	Cover lens for Ultra Elite, clear, 25/pkg
	805456	Cover lens for Ultra Elite, smoke tint, 25/pkg
	456975	Cover lens for Ultravue, clear, 25/pkg
	480326	Cover lens for Ultravue, smoke tint, 25/pkg

Spectacle Kits for Full Facepiece Respirators

For use by workers who must wear corrective lenses, the Spectacle Kit can be easily inserted into the facepiece. The kit includes a wire support, rubber guide and pair of metal-frame spectacles. Desired adjustment is obtained by moving the spectacles in and out of the rubber guide and up and down the wire support. One size of spectacle frame is used (S-7 shape, 44-mm lens size) with Universal Bridge Corrective Lenses that can be obtained from local sources. The Spectacle Kit can be used in conjunction with a nosecup. There are two kits for the Ultra Elite facepiece; one uses a side wire support to hold the lenses in the facepiece while the other uses a center support to position the unit (spectacle adjustments are similar).

SPECTACLE KITS	804638	Ultra Elite Spectacle Kit (side wire support)
	493581	Ultra Elite Spectacle Kit (center support)
	454819	Ultravue/Ultra-Twin Facepiece Spectacle Kit

Welder's Adapter

For eye protection in welding applications where respiratory protection is required, a welder's adapter can be installed easily over an Ultravue Facepiece lens. The clip-on style adapter can be easily removed as necessary, whereas the integral adapter model is used in place of the facepiece lens. Both models are made of polycarbonate and feature a flip-up lens with large 4 1/2" x 5 1/4" (11.4 cm x 13.3 cm) vision area.

WELDER'S ADAPTER AND FILTER PLATES	472859	Clip-On Welder's Adapter for Ultravue and Ultra Twin Facepieces; with cover lens, less filter plate
	806482	Clip-On Welder's Adapter for Ultra Elite Facepiece; with cover lens, less filter plate
	38347	Rayfoe Filter Plate, shade 10, heat-treated, 4-1/2 x 5-1/4
	38277	Rayfoe Filter Plate, shade 12, heat-treated, 4-1/2 x 5-1/4
	696095	Cover Lens
	486328	Welder's Hood, Kevlar

QuikChek™ II Adapter

The QuikChek II Fit Test Adapter allows quantitative fit testing of any Comfo Classic, Duo-Twin or Ultra-Twin Respirator.

QUIKCHECK II ADAPTER	812022	QuikChek II Fit Test Adapter
	803196	Replacement Kit with 25 feet of sampling tubing and 25 connectors, clips and suction cups

Qualitative Fit Test Kits

The Occupational Safety and Health Administration (OSHA) requires fit tests to ensure proper fit for workers who use respirators. The Qualitative Fit Test Kits allow you to qualitatively check the fit of MSA respirators. NOTE: Qualitative testing methods rely on objective data to determine a proper fit, are subjective in nature and rely on the judgment of the test subject.

Bitrex and Saccharin Qualitative Fit Test Kits

Both the Bitrex and Saccharin Qualitative Fit-Test Kits contain everything needed to implement a qualitative respirator fit-test program in accordance with OSHA requirements. The kits include a test hood, two nebulizer bulbs, fit-test solution, sensitivity solution and two sets of replacement nebulizer inserts. Also included is a 10-minute instructional DVD.

Banana Oil Fit Test Kit

MSA's Banana Oil Fit-Test Kit relies on a test subject's ability to detect a 95% pure solution of Isoamyl Acetate (banana oil).

MSA RESPIRATOR FIT TEST KITS	697287	Saccharin Qualitative Fit Test Kit
	697444	Bitrex Qualitative Fit Test Kit
	697285	Replacement (Saccharin) Sensitivity Test
	697445	Solution, 55 ml bottle (Bitrex)
	697286	Replacement Fit-Test (Saccharin) Solution, 55 ml bottle
	697446	Replacement Fit-Test (Bitrex) Solution, 55 ml bottle
	697447	#1 Sensitivity Nebulizer
	697459	#2 Fit-Test Nebulizer
	697448	Test Hood (Same for Both)
	697325	"Using the Qualitative (Saccharin) Fit Test Kit" DVD
	697449	"Using the Qualitative (Bitrex) Fit Test Kit" DVD
	801628	Banana Oil Qualitative Fit Test Kit

Probed Respirator Facepieces for Fit Testing

All Models Available

To make it easy for you to perform quantitative fit tests, MSA offers a full line of specially-modified facepiece assemblies. Each probed facepiece is equipped with a built-in probe assembly, sampling line, and a clothing clip to hold the sampling line. The probes are made of solid brass. In all MSA half-facepiece models, the probe is attached to the body of the respirator. Full-facepiece respirators are probed through the lens and sealed with a neoprene washer and brass fittings.

MSA also offers probed lenses for use with existing Ultravue facepieces. These lenses come completely assembled with the same brass probe, sealing hardware, and sampling line as the probed full-facepieces. All respirators use standard MSA high-efficiency filters for tests.

Hycar Rubber Facepieces

	Small	Medium	Large
COMFO CLASSIC	808253	808247	808259
ULTRA-TWIN	471683	465457	471684
ULTRAVUE	471681	465425	471682
ULTRA ELITE	813210	813208	813212

Silicone Facepieces

	Small	Medium	Large
COMFO CLASSIC	808258	808252	808264
ULTRA-TWIN	482025	482024	482026
ULTRAVUE	482009	482008	482010
ULTRA ELITE	813211	813209	813213

Cradle Conversion Kit

For simple, snap-on replacement of elastic headstraps with a cradle headband and/or neckstrap.

CRADLE CONVERSION KIT	479875	Cradle headband only
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Comfo Cartridge Adapter for Advantage® Respirators

This adapter allows for the use of threaded Comfo Cartridges on the Advantage 200 LS or 420 Half-mask Respirator or Advantage 2000, 3000, or 4000 Full-face Respirator.

ADVANTAGE ADAPTER	809999	Advantage adapter for threaded cartridges
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Training Aids

MSA offers DVD training aids on the proper care, use and maintenance of MSA Twin-Cartridge Respirators.

TRAINING AIDS	697282	Proper Care and Use of the Comfo Classic Respirator
	696820	Proper Care and Use of the Ultra-Twin Respirator

MSA Response® Guide

Available at www.MSAafety.com/responseguide

- Has chemical database with exposure limit, respirator type selector, and gas detectors
- Has a cartridge service life calculator
- Has information on managing a respiratory protection program

MSA-U® Training Center

MSA-U is a feature-rich online training center that offers courses anytime, anywhere to maximize the users' competencies on MSA products, product technologies, and safety industry standards.

Benefits

- Complete training, anytime, anywhere
- Easy course navigation
- Link to 'New' Training from the home page
- Select certificates achieved, from the home page
- From the home page, view courses you accessed
- Immediate feedback on test performance
- Detailed training reports available for managers
- Receive feedback on incorrect test answers
- www.msafety.com/msau



www.msafety.com/msau

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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