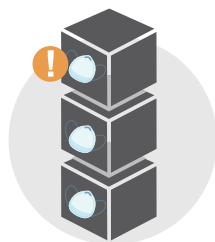
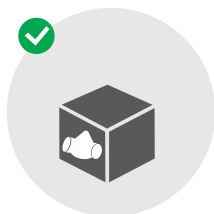




Photo courtesy of Allegheny Health Network

What Are The Advantages of Reusable Elastomeric Respirators?

Healthcare workers have faced a severe shortage of disposable N95 respirators during the COVID-19 pandemic. Given these shortages, and in light of the Emergency Use Authorization by the FDA¹, some are using reusable elastomeric respirators as a complement to their respiratory protection programs. *Here are a few key reasons why elastomerics make sense:*



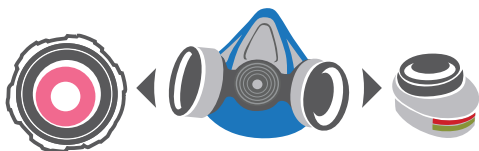
REDUCTION OF STORAGE SPACE

Because elastomeric respirators are reusable, they may occupy a fraction of the storage space needed for stockpiling disposable N95 respirators.



LOWER TOTAL COST OF OWNERSHIP

When all costs are considered, reusable elastomeric respirators are an economical solution for regular and surge use. Authors of a comparative cost analysis found reusable elastomeric half-face respirators to be less costly to stockpile than disposable masks.² The study concluded stockpiling an adequate amount of N95 respirators alone to distribute to all first responders is prohibitive in terms of both cost and volume, but stockpiling both disposable N95 respirators and reusable half-face respirators may be the best option.



FLEXIBILITY IN PROTECTION

Elastomeric respirators offer further flexibility for use in other national emergencies ranging from natural disasters to national security threats or other novel public health emergencies. Filter cartridges are interchangeable, so you can fit the same respirator with filters appropriate to a wide array of hazards.

¹ United States Food and Drug Administration. <https://www.fda.gov/media/135763/download>

² Baracco, G., Eisert, S., Eagan, A., & Radonovich, L. 2015. Comparative Cost of Stockpiling Various Types of Respiratory Protective Devices to Protect the Health Care Workforce During an Influenza Pandemic. *Disaster Medicine and Public Health Preparedness*, 9(3), 313-318. doi:10.1017/dmp.2015.12

OptimAir® TL Powered Air-Purifying Respirator

MSA's NIOSH-approved powered air-purifying respirator (PAPR) with loose-fitting hoods and tight-fitting facepieces helps to protect against particulates, toxic gases and vapors, or a combination.

Smart Features for Intuitive Use:

- The OptimAir TL's flow rate can adjust automatically for altitude, and cartridge type through built in smart sensors
- Both audible and visual alarms alert the user if there is a low flow, or low battery voltage

Comfort:

- Low profile system reduces bulk for mobility in tight spaces
- Waist belt helps distribute weight evenly for worker comfort

Versatility:

- Low-profile hood options reduce ear coverage area, allowing for the use of a stethoscope, while also maintaining eye and face protection.
- Full hood applications are also available for application where a higher assigned protection factor (APF), and full head, face and neck protection is required.



NIOSH-APPROVED

A variety of hood materials, styles and configurations are **all** NIOSH-approved, including DuPont Tychem SL and QC with single and double bib. A choice of hose connection is also available. Unit has an APF of 1,000 (Assigned Protection Factor) for tight-fitting facepieces and full coverage single and double bib hoods. Low Profile Hoods have an APF of 25.



Key components

- 1** Audible and visible low-flow alarm
- 2** Standard battery has a minimum run time of 4-hours regardless of cartridge being used
- 3** Audible and visible low-battery voltage alarm
- 4** Combination cartridge switch adjusts for proper air-flow requirements.
- 5** Blower, battery, and cartridges share common platform with no external cables required
- 6** Ergonomic housing design includes contoured blower housing for secure and comfortable fit against user's back



Advantage® 200 LS and 3200 Respirators

Advantage 200 LS Half-Mask Respirator

Comfortable Fit and Balance

Mask can be adjusted to the wearer for a comfortable fit, helping to reduce potential pressure points throughout the day.

Swept back cartridge design helps to provide stability and weight distribution on the face.

Lower Total Cost of Ownership

The Advantage 200LS keeps replacement, and maintenance costs down by only having 4 main components.

1. Facepiece blank
2. 4-point yoke
3. Inhalation/exhalation valves
4. Head harness



Advantage 3200 Full-Facepiece Respirator

Comfortable Fit and Balance

The Advantage 3200 design includes a nose cup, to help reduce fogging in low temps or high humidity, so that you are able to focus on the task at hand.

The wrap around scratch-resistant face piece lens provides wide field of vision while also meeting ANSI Z87.1 high-impact performance requirements.

Reduce Respirator Downtime

All components of the Advantage 3200 can be replaced without special tools - for quick maintenance and limited downtime of your respirator.



Advantage 290 Respirator with Source Control

User Protection & Source Control—with all the Benefits of Elastomeric Respirators

The MSA Advantage 290 Elastomeric Half-Mask Respirator provides healthcare professionals with an innovative and secure respiratory solution. With the elimination of an exhalation valve, the Advantage 290 Elastomeric Respirator achieves source control by filtering exhaled breath to help reduce the likelihood of contaminating the surrounding area. It also enables user protection up to P100 level and is designed for easy cleaning and decontamination. For the healthcare industry, the MSA Advantage 290 Elastomeric Respirator offers a cost-effective and eco-friendly alternative over disposable filtering facepiece respirators.



Advantage 420 Half-Mask Respirator

Comfortable Fit and Balance

Mask can be adjusted to wearer for a comfortable fit, helping to reduce potential pressure points throughout the day. Adjustable crown strap adapts to different head sizes.

Ease of Use

Patented yoke and harness design enables quick and easy switch between lock-down and drop-down modes. Drop-down mode allows users to remove the facepiece and rest it safely against the chest until respiratory protection is required again. Lock-down harness mode allows the user to lock in personal fit so that the respirator can be donned without further adjustments.



Completely latex-free



Air-Purifying Respirators **for Healthcare**

Elastomeric Facepiece Ordering Information


Advantage 290 and 200LS Respirators

				<ul style="list-style-type: none"> • Cost-efficient • Thermoplastic rubber is soft and lightweight • Nosecup design provides stability and comfort
	Small	Medium	Large	
ADVANTAGE 200 LS FACEPIECES	815696	815692	815700	Advantage 290 Respirator with 2 piece neckstrap
	815448	815444	815452	Advantage 200 LS Respirator, with single neckstrap
	Small	Medium	Large	
ADVANTAGE 290 FACEPIECES	10217165	10217166	10217167	Advantage 290 Respirator with 2 piece neckstrap

Advantage 3000 Series Full-Facepiece Respirators



















				<ul style="list-style-type: none"> • Integrated nosecup helps to reduce lens fogging • Scratch-resistant, optically correct wraparound lens enables wide field-of-vision • Easy cleaning and decontamination
	Small	Medium	Large	
ADVANTAGE 3200 FACEPIECES <i>Twin-Port</i>	10028996	10028995	10028997	Advantage 3200 Facepiece, with rubber head harness
	10031340	10031309	10031341	Advantage 3200 Facepiece, with European-style harness

Advantage® 420 Half-Mask Respirator

				<ul style="list-style-type: none"> • Facepiece design provides stability and soft feel • Facepiece design is optimized to fit a wide variety of face shapes and sizes • Easily switches between lock-down and drop-down mode • Built-in moisture release chin cup hole, and extra-wide head and neck straps • Designed for easy integration with other personal protective equipment such as safety glasses and welding shields • Faceblank is latex free
	Small	Medium	Large	
ADVANTAGE 420 RESPIRATOR	10102182	10102183	10102184	Advantage 420 Assembly (includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve)

Cartridges and Filters for Advantage Respirators

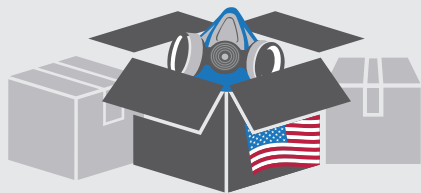
These low-profile, flexible pads fit well under a welding hood and with other personal protective equipment. They offer great balance and weight distribution.

MSA Filter Description	Part No.	Color Coding	Filter Type & Efficiency			See Notes Below
			P100	P95	N95	
Flexi-Filter/P100	818342					1,2
Flexi-Filter/P100 w/Nuisance Level OV, Ozone Removal	818343					1,2
Flexi-Filter/P100 w/Nuisance Level AG, HF Removal	818344					1,2
Flexi-Filter/N95	818346					1
Flexi-Filter/N95 w/Nuisance Level OV Removal	818347					1
Flexi-Filter/P95	818354					1
Flexi-Filter/P95 w/Nuisance Level OV Removal	818355					1
Low-Profile P100 (Pack of 2)	815369					1,2
P100 with Splash Guard (Pack of 2)	10146939					1,2



Notes

1. 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.
2. 99.97 percent efficient against 0.3 micron DOP.



DOMESTIC PRODUCTION AND SUPPLY CHAIN

MSA manufactures its NIOSH-approved respirators in the United States. Our supply chain focuses on US sourced materials whenever possible so that our supply continuity is managed to the best extent possible. MSA plants in Jacksonville, NC and Murrysville, PA employ over 500 workers in the production of top quality respiratory protection and PPE.

OptimAir TL PAPR Ordering Information



RESPONSE KITS (Include PAPR, Extended Life Battery, Charger, Breathing Tube, Hood and 2 Type HE cartridges)

10214805	Optimair TL Kit with Low Profile White Hood and Type HE Cartridges
10214891	Optimair TL Kit with Full Single Bib Hood and Type HE Cartridges

STANDARD KITS (PAPR, Battery, Charger & Appropriate Breathing Tube)

10081117	Optimair TL Kit, for Hoods, Extended-Life battery
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HOOD AND HOOD ACCESSORIES

10083329	Tychem QC Hood, single bib, threaded connector, w/susp. (4 pack)
10083330	Tychem QC Hood, double bib, threaded connector, w/susp. (4 pack)
10083381	Tychem SL Hood, single bib, threaded connector, w/susp. (4 pack)
10083382	Tychem SL Hood, double bib, threaded connector, w/susp. (4 pack)
10083383	Tychem QC Hood, single bib, standard, w/suspension (4 pack)
10083384	Tychem QC Hood, double bib, standard, w/suspension (4 pack)
10083385	Tychem SL Hood, single bib, standard, w/suspension (4 pack)
10083386	Tychem SL Hood, double bib, standard, w/suspension (4 pack)
10086926	Tychem QC Hood, single bib, threaded connector, yellow, (4 pack)
10086925	Tychem QC Hood, double bib, threaded connector, yellow, (4 pack)
10095739	Tychem QC Hood, single bib, threaded connection (20 pack)
10095740	Tychem QC Hood, single bib, standard connection, (20 pack)

LOW PROFILE HOODS

10215118	HOOD, LOW PROFILE, WHITE, OPT TL, 4/PKG
10215120	HOOD, LOW PROFILE, WHITE, OPT TL, 20/PKG

NOTE: Tychem QC is a general purpose hood material. Tychem SL hoods include taped seams and are designed for increased chemical resistance. Hood materials with similar performance may be substituted as required.

CARTRIDGES

10154877	Cartridge, HE, 54 Pack
10080455	Cartridge, HE (hi-efficiency), (6 pack)
10080454	Combination Cartridge (OV/AG/HE), (6 pack)
10080456	Combination Cartridge (AG/AM/FM/HE), (effective against OV), (6-pack)
10068152	Spark and water protective cover, cartridge (single unit) (2 required)