

**ADVANTAGE**®

**Half-Mask Respirator**

**420**



**MSA**  
The Safety Company

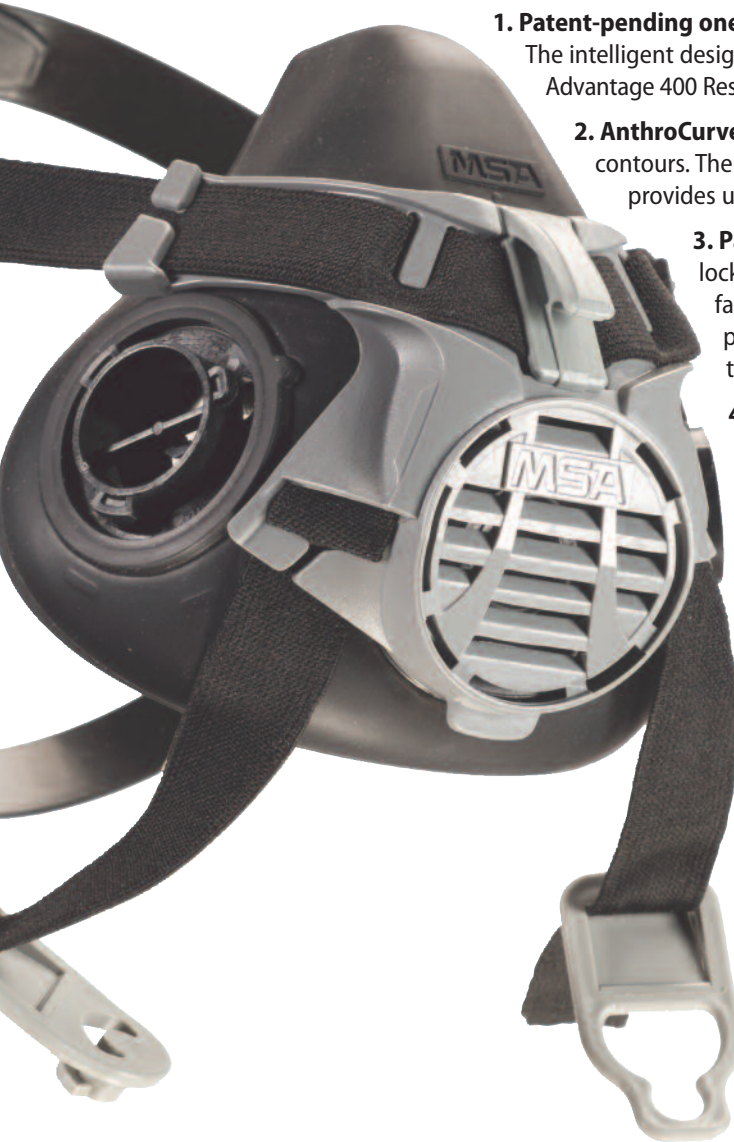
# Advantage 400 Series Half-Mask Respirator



The innovative Advantage 400 Respirator, the latest addition to MSA's Advantage Respirator family, offers users exceptional comfort and sophisticated design. The Advantage 400 Respirator raises the bar for ease of use, as users can quickly adjust the mask according to their individual needs.

## Top 5 reasons why you should purchase the Advantage 400 Half-Mask Respirator:

- 1. Patent-pending one-piece UniBond over-mold** facepiece offers stability, comfort, and superior fit. The intelligent design eliminates multiple leak paths and with only three major components, the Advantage 400 Respirator significantly reduces the cost of ownership.
- 2. AnthroCurve™ II Sealing Surface** adapts perfectly to multi-ethnic head sizes and facial contours. The facepiece design is based upon the new proposed NIOSH fit test panel and provides users in many global regions with excellent fit and superior comfort.
- 3. Patent-pending 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 while maintaining use of head protection. *Lock-down harness mode* allows the user to lock in a personal fit; the respirator can be donned without further adjustments.
- 4. Low-profile design integrates extremely well with other personal protective equipment (PPE)** such as hardhats, eyewear, goggles, and faceshields. Unique, one-piece ComforTop headband and harness assembly eliminates pressure points when head protection is worn.
- 5. Comfort and adjustability** with our form-fitting neck buckles and wide straps that eliminate discomfort around the neck, and the adjustable crown strap which adapts to different head sizes.



## Completely Latex-free!

### Choices and Flexibility

The Advantage 420 Respirator can be used with plastic Advantage Cartridges or threaded metal Comfo® Cartridges.



## Easily convertible for use with Comfo Cartridges



# Only three major components make a complete respirator...

Head Harness

Facepiece

4-point Yoke

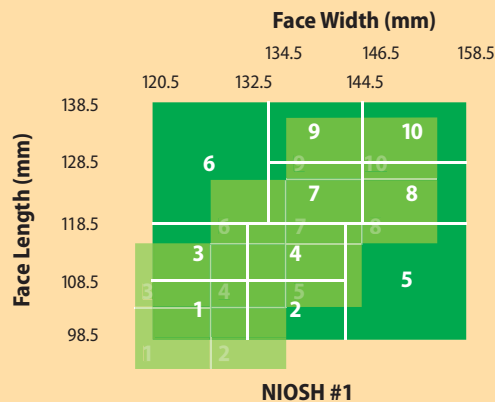


*resulting in reduced cost of ownership!*

## Evolutionary AnthroCurve II Sealing Surface

Compared to other half-mask respirators available today, the Advantage 420 Respirator fits a much broader range of users with unique facial features and dimensions. Through years of research and facial measurements of different ethnicities, the National Institute of Occupational Safety and Health (NIOSH) has proposed a new fit test panel shown here. MSA is proud to say that the Advantage 400 Respirator face seal design is based upon this panel.

***What it means to you is a higher degree of protection for a larger number of workers.***



Old NIOSH Fit Test Panel    New Proposed NIOSH Fit Test Panel

### 3-step Donning Process

*Flexible, patent-pending, one-piece Easy-Don Head Harness assembly simplifies donning and doffing.*



Place cradle on head.



Place facepiece into position and lock down.



Attach neck buckle.

### The Harness Assembly:

*Unique combination of innovative features are highlights of the Advantage 400 Series Respirator.*



**ComforTop harness assembly** eliminates pressure points on user's head and improves comfort, especially when wearing head protection.



**Form-fitting neck buckles** make an audible "snap" when properly fastened; curved design adds comfort at back of neck.



**Adjustable headband** adapts quickly to different head sizes.



**Wide straps** minimize twisting and neck abrasion and add to overall robust design.

### The Facepiece:

*One-piece UniBond facepiece is made of soft over-molded LIM silicone and rigid plastic, offering unparalleled wearer comfort and durability.*



**Low-profile design** integrates easily with other PPE, such as head, eye, and hearing protection.



**Over-molded LIM silicone and plastic** offer extraordinary stability on user's face and eliminate additional leak paths.



**AnthroCurve II Sealing Surface** fits a broad population of users in different global regions. Meets new proposed NIOSH fit test panel.



**Downward-facing exhalation valve** avoids projection of exhaled humid air to reduce faceshield fogging.

### The 4-point Yoke and Lever Assembly:

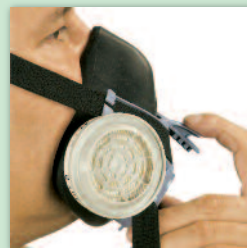
*4-point yoke provides maximum stability and guides harness straps to a perfect fit.*



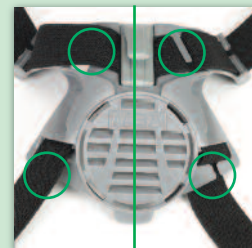
**Sure-lock Yoke Lever** enables drop-down mode and aids user in fitting respirator.



**Drop-down mode** allows mask removal by lifting Sure-lock Yoke Lever; user carries it safely on chest while still wearing head protection.



**Lock-down mode** permits setting harness to the proper fit by closing lever; respirator can then be used without further adjustments.



**Easy adjustment tabs** provides for quick change from drop-down to lock-down mode.

## Advantage Respirator Spare Parts and Accessories

Reorder PN	Item Description	Qty
10102182 - small 10102183 - medium 10102184 - large	Advantage 420 Respirator Assembly (includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve)	1
10119574 - large 10119575 - medium 10119576 - small	Advantage 420 Respirator Threaded Cartridge Assembly (Includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve, two (2) threaded cartridge adapters)	1
10097807	Harness assembly with buckles (includes head cradle, elastic straps, and buckle set)	1
10097883	Maintenance valve set (includes one (1) exhalation valve and two (2) inhalation valves)	1
10097886	Advantage 420 Respirator Maintenance Kit (includes harness assembly with buckles, one (1) exhalation valve, and two (2) inhalation valves)	1
10097810	Yoke with lever	1
10097881	Lever	5
10097888	Inhalation valve	10
10097891	Exhalation valve	10
10097884	Buckle set	5
10097887	Storage poly bag	1
468730	Vinyl storage bag with belt loops	1
809999	Advantage Respirator Adapter, pkg of 2, for threaded cartridges	1
10009971	MSA Confidence Plus® Cleaning Solution (32 oz.)	1
697383	Cleaning Towelettes (individually wrapped), pk 100	1
697444	Bitrex Qualitative FitTest Kit	1
10056424	Advantage Respirator Quantitative Fit Test Adapter	1
10097899	Instructional CD	1

## Flexi-Filter® Pads for Advantage Respirators

MSA Filter Description	Part No.
Flexi-Filter P100	818342
Flexi-Filter P100 w/nuisance level OV, ozone removal	818343
Flexi-Filter P100 w/nuisance level AG, HF removal	818344
Flexi-Filter N95	818346
Flexi-Filter N95 w/nuisance level OV removal	818347
Flexi-Filter P95	818354
Flexi-Filter P95 w/nuisance level OV removal	818355

## Specifications

### Materials

Facepiece	Liquid silicone and nylon
Yoke	Polyoxymethylene [POM]
ComforTop Harness	Polyester [PES] and LYCRA
Inhalation valve	Neoprene
Exhalation valve	Liquid silicone
Neck buckles	Polypropylene [PP]

## Advantage Respirator Cartridges

MSA Cartridge Description	Reorder Part Number
GMA (organic vapors)	815355
GMA with N95 prefilter	815355 with 815394 or 816357
GMA with R95 prefilter	815355 with 815397
GMA P100	815362
GMB (acid gases)	815356
GMB with N95 prefilter	815356 with 815394 or 816357
GMB with R95 prefilter	815356 with 815397
GMB P100	815363
GMC (OV, AG)	815357
GMC with N95 prefilter	815357 with 815394 or 816357
GMC with R95 prefilter	815357 with 815967
GMC P100	815364
GMD (ammonia)	815358
GMD with N95 prefilter	815358 with 815394 or 816357
GMD with R95 prefilter	815358 with 815397
GMD P100	815365
GME (multigas)	815359
GME with N95 prefilter	815359 with 815394 or 816357
GME with R95 prefilter	815359 with 815397
GME P100	815366
GMI P100 (iodine vapor)	815641
Mersorb® Cartridge (mercury vapor)	815361
Mersorb Cartridge with N95 prefilter	815361 with 815394 or 816357
Mersorb Cartridge with R95 prefilter	815361 with 815397
Mersorb Cartridge P100	815368
Low-Profile P100	815369
N95 snap-on prefilter and cover	815394 pack of 10 816357 box of 50 815392 reusable snap-on cover, 2 per package
R95 snap-on prefilter and cover	815397 box of 20 815401 reusable snap-on cover, 2 per package

*Cartridges sold in pairs unless noted.*

## Threaded Respirator Cartridges

The Comfo Respirator 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.

Threaded Respirator Cartridges	
MSA Cartridge Description	Reorder Part Number
GMA (organic vapors)	464031 (10 in pkg.)
GMA P100 (organic vapors)	815178 (6 in pkg.)
GMA P100 (organic vapors short stack)	815186 (6 in box)
GMB (acid gases)	464032 (10 in box)
GMB P100 (acid gases)	815179 (6 in box)
GMC (organic vapors, acid gases)	464046 (10 in pkg.)
GMC P100 (organic vapors, acid gases)	815180 (6 in box)
GMC P100 (organic vapors, acid gases short stack)	815188 (6 in box)
GMD (ammonia/methylamine)	464033 (10 in box)
GMD P100 (ammonia/methylamine)	815181 (6 in box)
GME (multigas)	492790 (10 in box)
GME P100 (multigas)	815182 (6 in box)
GMI P100 (iodine vapor)	815184 (6 in box)
Mersorb Cartridge (mercury vapor)	466204 (10 in box)
Mersorb Cartridge P100 (chlorine/mercury vapor)	815185 (6 in box)
P100	815175 (10 in box)
Sparkfoe® P100	815176 (10 in box)
Low-Profile P100	815177 (10 in box)
N95 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.)
N95 prefilter and cover	816662 N95 (10 in pkg.) 816661 N95 (50 in pkg.) 489353 reusable snap-on cover (1 in pkg.; 2 req.)
R95 prefilter and cover	816287 R95 (20 in box) 489219 R95 reusable snap-on cover (1 in pkg.; 2 req.)

Cartridges sold in pairs unless noted.

### For more information about MSA products, check out these two great resources:



MSA-U® Training Center is a feature-rich online training center offering programs on MSA products, product technologies, and safety industry standards.

[www.msanet.com/msau](http://www.msanet.com/msau)



MSA TV offers a wide variety of informative videos on our products. So log in, lean back, and learn!

**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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