

The instruction manual describes the proper use of the product and serves to prevent hazards. It must be read and followed.

The warranties made by MSA with respect to the product are voided if the product is not used and serviced in accordance with the instructions in this manual.

Choice and use of respiratory protective devices are beyond the control of MSA but are the responsibility of the user. Therefore, the liability of MSA covers only the consistent quality of this product.

The above does not alter statements regarding the warranties and conditions of sale and deliveries.

1 Designation, Marking and Application

1.1 Designation

ADVANTAGE 3211 (S) small
ADVANTAGE 3221 (M) medium
ADVANTAGE 3231 (L) large
ADVANTAGE 3212 (S) small
ADVANTAGE 3222 (M) medium
ADVANTAGE 3232 (L) large

The full face masks are in accordance with Directive 89 / 686 / EEC. The type test approvals were performed at:

Berufsgenossenschaftliches Institut für Arbeitssicherheit, BIA D-53754 St. Augustin.

1.2 Marking

ADVANTAGE 3211	ADVANTAGE 3212
ADVANTAGE 3221	ADVANTAGE 3222
ADVANTAGE 3231	ADVANTAGE 3232
on faceblank	

1.3 Application

The Full Face Mask is not a complete respiratory protective device by itself, but serves as facepiece.

It is only used for valve breathing (two-way breathing) and serves as facepiece according to EN 136 class 2 for pairs of respiratory filters of the MSA ADVANTAGE series.

The relevant instructions for use of these filters and applicable national standards and regulations must be observed.

1.4 Requirements for Use

For safety measures that must be taken when using respiratory protective equipment, observe the respective local regulations. When using the mask in potentially explosive atmospheres, it must be treated with an antistatic spray, or a water screen must be used. The full face masks of the ADVANTAGE series are available in different sizes. Users must be equipped with the proper size mask. Users with facial hair like beards or

sideburns are not likely to achieve a tight seal since the hair will break the facepiece-to-face-seal. In order to achieve a tight fit for people requiring protective eyewear, the ADVANTAGE spectacle kit must be used.

The use as filtering device is subject to the following limitations:

- The type and concentration of the hazard in the ambient atmosphere must be known to the extent that use of a filtering device is permissible. The suitable type and class of filter must be selected.

In case of the following, leave the work area immediately and remove the filtering device in a clean air area:

- Traces of odor, taste or irritation
- Breathing difficulty
- Exhaustion or dizziness

2 Design, Operation and Use of Full Face Mask (see front page)

The inhalation air flows from the filter connector in the lens past the inhalation valve to the inside of the lens (thus keeping the lens largely fog-free) and then into the nose cup. The exhalation air passes through the exhalation valve directly to the ambient atmosphere.

2.1 Readiness

The mask is kept ready for use inside the carrier to protect it from dirt.

2.2 Filter Replacement

When changing filters, always replace both filters.

To replace the filters: Remove used filters and align new filters with opening on facepiece and turn clockwise until the stops are engaged.

To remove the filters proceed in reverse order.

2.3 Donning

The lateral straps of the head harness are preset and can be adjusted in length when required. This presetting is made only prior to the first use or with a different user. In order to don, the head harness is grasped with one hand by the eyelet of the head plate (Fig. 1), the chin placed into the chin stop and then the harness is pulled over the head until the entire head plate lies against the head (Fig. 2). After the head harness is in position (make sure it lies flat against the head), the neck straps are tightened evenly and firmly (Fig. 3).

2.4 Leak Test

In order to check the facepiece-to-face-seal, a leak test must be performed. To do this, cover the air intake of both filters with the palm of the hand (Fig. 4). When inhaling and holding the breath, no air shall leak in. The mask must pass the leak test before each use. A more reliable leak test is with the complete respirator in a suitable test chamber.

2.5 Removal

To loosen the head harness, the buckles of the neck straps are pushed forward with the thumbs. At the same time the mask is pushed forward and taken from the head.

3 Cleaning and Disinfection

Notice:

After each cleaning, disinfection and maintenance, a leak test according to Sect. 4.2 must be done!

Fig. 1



Fig. 2



Fig. 3



Fig. 4



3.1 Cleaning

The dirty mask is cleaned with lukewarm water containing a mild detergent. Prior to washing, remove inhalation valve discs, exhalation valve and unbutton the nose cup.

These components are cleaned separately and reassembled only after drying. Cleaned parts must

not be dried in radiant heat (sunlight, radiators). When using a drying cabinet, the temperature must not exceed 50 °C (see table 5 for cleaning intervals).

3.2 Disinfection

Masks should be disinfected after having been cleaned as described above.

The disinfectant MSA AUER 90 or MSA Cleaner Sanitizer is recommended. Information about the concentration and time is contained in the Instructions for Use of disinfectant. After disinfecting thoroughly, flush all components with water, dry and reassemble (see table 5 for disinfection intervals).

4 Maintenance

Maintenance of the full face mask must be performed by the maintenance technician (if there is none, by the user). It includes the visual check, the functioning and leak tests, as well as replacing components.

4.1 Visual and Function Test

The visual and function test serves to identify damaged components and functional disorders, especially at the valves and harness. In case of doubt about the functioning of a component, it must be replaced immediately or the MSA AUER customer service must be contacted.

Part of the visual test is to ensure adherence to the test intervals according to Sect. 5.

4.2 Leak Test

The leak test is performed with the MSA AUER leak test kit; its operation is described in the kit's Instruction Manual.

The MSA AUER Customer Service should be consulted prior to using leak test kits of other manufacturers.

4.3 Replacement of Components

Only MSA AUER spare parts must be used for repair. After the replacement of components a complete test must be done.

4.3.1 Replacing the Exhalation Valve Disc

To replace the exhalation valve disc, remove the cover from the connector and unbutton the exhalation valve. After fitting a new exhalation valve, the cover is reassembled. Make sure the cover snaps into place all the way.

4.3.2 Replacing the Lens

Loosen screws on lens ring, remove both lens ring halves (Fig. 5) and take out lens. Remove cover,

loosen clip (Fig. 6) and push connector (towards inside) out of lens.

Insert connector (from inside) into new lens, secure with clip and reassemble cover. Prior to inserting the new lens, assure that the groove of the faceblank is completely clean. Insert the lens, centrally aligned, into the faceblank, fit the lens ring, also centrally aligned, and reassemble.

4.3.3 Replacing the Head harness

Unbutton the buckles of the neck strap. Turn the flexible plastic harness that is in the hinge on the lens ring way downward (faceblank will deform) and remove from hinge. Assemble new head harness in reverse order.

Fig. 5



Fig. 6



5 Intervals (as required in Germany)

The maintenance intervals are recommended by MSA AUER. Applicable national regulations must be observed. If required, the local conditions during use must be considered for the work to be performed. In case of doubt, the local MSA representative should be consulted and the applicable national regulations be checked.

Work to be performed	Intervals					
	Before Use 1)	After Use	Semi-annually	Two Years	Four Years	Six Years
Cleaning and Disinfection		X		X		
Visual-, Function- and Leak Test		X	X	X ²⁾		
Exhalation Valve disc replacement					X	
Speech diaphragm replacement						X
Check by user (Tightness)	X					

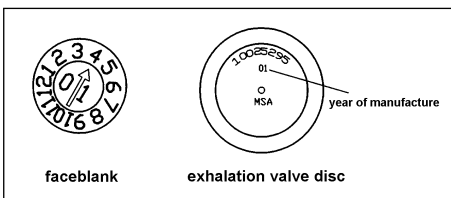
1) Facepieces which are regularly used should be cleaned and disinfected as often as required. They should be cleaned as soon as possible after each use because perspiration or saliva that dries unto the valves could cause malfunctions. The mask must be disinfected at least before it is used by another person.

2) For airtight packaged facepieces.

The manufacturing date of the full face mask is marked behind the harness clasp on the lateral flap of the faceblank. Example: Manufacturing date April 2001

The manufacturing date of the exhalation valve disc is marked on its outside,

Example: Manufacturing date 2001.



6 Storage

The mask should be stored in a carrier.

In order to prevent damage or distortion of the mask, no additional objects must be stored in the carrier.

Storage must be in clean, dry and normal climate, i.e. cool, dry and free from hazardous material, protected against light and radiant heat. It is recommended to observe German Standard DIN 7716: 1982, and ISO 2230: 1973.

7 Accessories

7.1 Carrying Strap

For carrying full face mask and suspending it in front of the chest.

8 Ordering Information

Description	Part No.
ADVANTAGE 3211 (S) small *)	100 27 727
ADVANTAGE 3221 (M) medium *)	100 27 726
ADVANTAGE 3231 (L) large *)	100 27 728
ADVANTAGE 3212 (S) small **)	100 42 732
ADVANTAGE 3222 (M) medium **)	100 42 733
ADVANTAGE 3232 (L) large **)	100 42 734
Nosecup M/L (for Full Face Masks ADVANTAGE 3221, 3231, 3222 and 3232)	100 32 104
Nosecup S (for Full Face Mask ADVANTAGE 3211, 3212)	100 32 103
Lens, Twin (with Gaskets, Dual Port)	100 32 112
Lens Ring, Kit	100 32 114
Inhalation Valve (20 pcs)	D2056 714
Exhalation Valve (10 pcs)	100 32 110
Gasket, Dual Port (10 pcs)	100 32 111
Connector Twin (with O-Ring and Clip)	100 32 106
Head Harness ADVANTAGE	100 32 102
Head Harness ADVANTAGE, Si	100 42 663
Cover for Connector	100 32 107
O-Ring for Connector (5 pcs)	100 32 108
Carrying Strap	100 32 100
Carrier ADVANTAGE	100 26 179
Prescription Spectacles ADVANTAGE	according to type
MSA AUER Disinfectant 90, 2 litres	D2055 765
MSA AUER Disinfectant 90, 6 litres	D2055 766
MSA AUER Leak Test Kit	D6063 705
Adapters ADVANTAGE (for leak test)	100 17 835
*) with head harness ADVANTAGE (textile neck strap)	100 32 102
**) with head harness ADVANTAGE, Si (silicone neck strap)	100 42 663