

Sundstrom SR200 Mask



SR 200

ИНСТРУКЦИИ ЗА УПОТРЕБА • NÁVOD K POUŽITÍ • BRUGSANVISNING
GEBRAUCHSANLEITUNG • ΟΔΗΓΙΕΣ ΧΡΗΣΗΣ • INSTRUCTIONS FOR USE
INSTRUCCIONES DE USO • KASUTUSJUHEND • KÄYTTÖOHJEET MODE D'EMPLOI
MODE D'EMPLOI • HASZNÁLATI UTASÍTÁS • ISTRUZIONI PER L'USO
NAUDOJIMO INSTRUKCIJOS • LIETOŠANAS INSTRUKCIJAS
GEBRUIKSAANWIJZING • BRUKERVEJLEDNING • INSTRUKJA
UŻYTKOWANIA • INSTRUÇÕES DE USO • NAVODILA ZA UPORABO
NÁVOD NA POUŽITIE • BRUKSANVISNING • KULLANIM TALİMATLARI

EN

Full face mask SR 200

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1. Introduction

The SR 200 Full face mask can be used in three different configurations:

- Together with filters from the Sundström filter range.
- Together with fan unit SR 500/SR 500 EX or SR 700.
- Together with compressed air attachment SR 307 which then serves as a breathing apparatus with continuous flow for connection to a compressed air supply.

In addition, the SR 200 is available in a special version - the SR 200 Airline - that is designed for connection to compressed air, but is also provided with filter back-up.

The Sundström SR 200 Full face masks provide respiratory and eye protection against airborne pollutants, such as particles, micro-organisms, biochemical substances, gases/vapours and combinations of these substances to a user.

The respirator consists of an outer mask with polycarbonate or laminated glass visor that covers the user's face, an integrated inner mask with inhalation and exhalation valves that covers the user's nose, mouth and chin, a head harness with 6 mounting points that hold the respirator in place, and a filter adapter for connecting standard Sundström filters. The inhaled air flows through a filter and inhalation membrane into the inner mask. Part of the air flows past the inside of the visor in order to prevent misting. The exhaled air is discharged from the face piece through two exhalation valves. A wide range of accessories are available. See section 6, List of parts.

1.2 Warnings / Limitations

Note that there can be national differences in the regulations for use of respiratory protective equipment. The equipment must not be used:

- If you cannot make the mask a tight fit during the fitting test.
- If the ambient air does not have a normal oxygen content.
- If the pollutants are unknown or lack adequate warning properties.
- In environments that are Immediately Dangerous to Life and Health (IDLH).
- With oxygen or oxygen-enriched air.
- If you find that breathing is difficult.
- If you experience dizziness, nausea or other discomfort.
- If you smell or taste the pollutants.

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- If you experience any other noticeable physical effect.
- If you wear a beard or sideboards, you cannot expect the mask to seal well.
- If you have any hair growth between the skin and facepiece sealing surface such as stubble, beard growth, beard, moustache, or sideburns which cross the respirator surface.
- If scars or other physical characteristics may interfere with a proper fit of the respirator.
- Spectacle earpieces may also give rise to leakage. Instead of using your ordinary spectacles, have your prescription lenses fitted into the special Sundström spectacle frame.

Caution must be taken when using the equipment in explosive atmospheres. Follow the regulations that may be in force for such conditions.

If you feel uncertain about the selection and care of the equipment, consult your work supervisor or get in touch with the sales outlet.

You are also welcome to get in touch with the Technical Service Department at Sundström Safety AB. Use of a respirator must be part of a respiratory protection program. For advice see EN 529:2005 or AS/NZS 1715:2009. The guidance contained in these standards highlights important aspects of a respiratory protective device program but does not replace national or local regulations.

2. Use

2.1 Unpacking

Check that the equipment is complete in accordance with the packing list, and that no transport damage has occurred.

2.2 Packing list

- Full face mask
- Filter adapter
- Pre-filter holder
- Cleaning tissue
- ID-tag
- User instructions

2.3 Filter selection

You can identify various filters by the colour and protection designation of the filter label.

Note. A particle filter provides protection only against particles. A gas filter provides protection only against gases/vapours. A combined filter protects against both gases/vapours and particles.

2.3.1 Particle filters

The Sundström particle filter traps and holds particles in the filtering media. As the amount of the captured contaminant in the media increases, breathing resistance also increases. Replace the filter after 2 – 4 weeks or sooner if breathing resistance becomes noticeable. Filters are

consumables with a limited service life. A filter exposed to strong press or impact or with visible damage must immediately be scrapped.

2.3.2 Gas filters

Each gas filter is designed to provide respiratory protection against specific contaminants. A gas filter absorbs and/or adsorbs specific vapours and gases from a contaminated atmosphere. This process continues until the absorbent becomes saturated and allows the contaminant to break through.

We recommend that the gas filter/combined filter should be changed in accordance with the results of measurements carried out at the worksite. If this is impossible, change the filter every week or earlier if you can smell or taste the pollutants or if you experience any other discomfort. A filter exposed to strong press or impact or with visible damage must immediately be scrapped.

2.3.3 Combined filters

In environments in which both gases and particles occur, such as in spray painting, gas and particle filters must be combined.

- Place the particle filter on top of the cartridge. Grasp both protective elements.
- Squeeze hard until you hear the particle filter snap onto the gas filter. Fig. 1a.
- Place a pre-filter into the pre-filter holder.
- Snap the pre-filter holder on the filter or cartridge.

Note. The particle filter will always be snapped on the gas filter, but the gas filter will not snap onto the particle filter. The gas filter will always be inserted into the respirator.

Note. Particle filter SR 610 cannot be combined with a gas filter.

To separate the combined gas- and particle filter

- Place a coin in the space between the lower lip of the particle filter and the small tab moulded into the side of the gas filter.
- Push firmly and twist the coin until the filter pops off. Fig 1b.

2.3.4 Pre-filter SR 221

The Sundström pre-filter SR 221 is not a protective element and can never be used as primary protection or as a substitute for a particle filter. It is designed to prevent nuisance particles from reaching the filters. This increases the life span of the primary filter. The pre-filter holder protects the main filter against handling damage.

2.4 Compressed air attachment/fan unit

When the SR 200 with compressed air attachment SR 307 or fan units SR 500/SR 500 EX or SR 700 is used, the user instructions for the relevant equipment must be followed.

3. Donning/Doffing

3.1 To fit the filter in a mask

- Check that you have selected the right filter and that the use-by date has not been passed. (Specified on the filter and is valid provided that the filter packaging is unopened.)
- Check that the filter is in good condition and intact.
- Fit the filter/combined filter in the mask so that the arrows on the filter point towards the user's face. Carefully check that the edge of the filter is in the internal groove of the filter mounting all around.
- Fit pre-filter SR 221 in the pre-filter holder and press it into place on the filter.

See also the user instructions for the relevant filter.

3.2 Inspection before use

- Check that the mask is complete, correctly assembled and thoroughly cleaned.
- Check the mask body, membranes, valve seats and head harness for wear, cuts, cracks, missing parts, and other defects.
- Check that the appropriate filter is intact and installed properly.

3.3 Putting the mask on

- Fit the filter.
- Slacken the four elastic straps by moving the strap holders forward, at the same time pulling the straps. Fig. 2.
- Slacken the upper two inelastic straps by opening the buckles.
- Move the head harness upwards, place your chin in the facepiece chin support and pull the head harness over your head. Fig. 3.
- Tension the elastic straps in pairs by pulling the free strap ends towards the rear. Fig. 4.
- Adjust the fit of the mask on your face, so that it fits firmly but comfortably.
- Adjust the lengths of the upper pair of straps and fix by means of the buckles.

3.4 Fit check

Use the pre-filter holder to check if the mask is tight.

- Place the pre-filter holder to the filter.
- Put the mask on.
- Place the palm of your hand lightly over the hole on the pre-filter holder to make it tight. Fig. 18.

NOTE! Do not push so hard that the respirator's shape is affected.

- Take a deep breath and hold your breath for about 10 s.

If the mask is tight, it will be pressed against your face.

If any leakage is detected, check the inhalation and exhalation valves or adjust the straps of head harness. Repeat the fit check until there is no leakage.

3.5 Taking the mask off

Do not take off the mask until clear of the hazardous area.

- Slacken the four elastic straps in pairs by moving the strap holders forward. The two inelastic straps need not be released. Fig. 5.
- Pull the head harness forward over your head and remove the mask.

Clean and store the mask as required.

4. Maintenance

Personnel who are responsible for maintenance of the equipment must be trained and well acquainted with this type of work.

4.1 Cleaning

Sundström cleaning tissues SR 5226 which clean and disinfect are recommended for daily care. If the mask is heavily soiled, use a warm (up to +40 °C), mild soap solution and a soft brush, followed by rinsing with clean water and drying in air at room temperature. Proceed as follows:

- Remove the adapter and filter.
- Remove the covers for the exhalation valves and remove the membranes (two).
- Remove the inhalation membranes (three).
- Remove the head harness. (Optional – The harness can be washed, but takes extra time to dry.)
- If necessary, remove the visor. See section 4.4.1.
- Clean as described above. Critical areas are the exhalation membranes and the valve seats which must have clean and undamaged contact surfaces.
- Inspect all parts and replace with new parts as necessary.
- Leave the mask to dry, and then assemble it.

NOTE! Never use solvent for cleaning.

4.2 Storage

The best way to store the mask, clean and dry, is in the Sundstrom storage box SR 344. Keep it away from direct sunlight or other sources of heat.

4.3 Maintenance schedule

The schedule below shows the minimum requirements on maintenance routines, so that you will be certain that the equipment will always be in usable condition.

	Before use	After use	Annually
Visual inspection	•		
Functional check	•		
Cleaning		•	
Membrane change			•
Head harness change			•

4.4 Spare parts

Use only genuine Sundström parts. Don't modify the equipment. The use of 'pirate parts' or any modifications may reduce the protective function and will compromise the approvals granted to the product.

4.4.1 To change the visor

The visor is mounted in a groove running around the visor opening of the outer mask and is held in place by one upper and one lower frame half.

- Use a 2.5 mm Allen key to remove the two screws holding the frame halves together. Fig. 6.
- Carefully remove the upper frame half. Fig. 7.
- Carefully prise the top part of the mask off the visor, and remove the visor from the lower groove. Take this opportunity to clean the groove, if necessary. Fig. 8, 9.
- Markings are made to show the centres of the visor, frame halves and mask. Press the new visor into the groove, making sure that the centre markings are in line. To make assembly easier, coat the slot with a soap solution or similar liquid.
- Carefully prise the top half of the mask over the visor, and make sure that the visor is in the groove in the mask.
- Prise the upper frame half, making sure that the centre markings are in line. Fig. 10.
- Fit the screws and tighten them alternately until the two halves of the frame are firmly in contact.

Fitting a glass visor

Take great care to ensure that the visor is located accurately so that the centre markings on the visor, frame and mask are in line. This will prevent subjecting the visor to stresses that could lead to its damage.

To make assembly easier, it is important that the grooves in the mask and frame should be abundantly coated with a rich soap solution or with a similar liquid.

4.4.2 To change the inhalation membranes

One membrane is in the centre of the inner mask on a fixed dowel.

- Prise off the membrane and fit a new membrane. Fig. 11.

Two membranes are fitted, i.e. one on each inside of the inner mask. The dowels for these membranes are removable and should be changed whenever the membrane is changed.

- Prise off the membranes and dowels.
- Prise the new membranes onto the new dowels.
- The membrane should rest on the larger flange, i.e. thread the dowel with the membrane from the inside of the mask, through the valve seat, with the smaller flange first. Fig. 12, 13.

4.4.3 To change the exhalation membranes

The exhalation membranes are mounted on a fixed dowel on the inside of the valve covers on each side of the outer mask. The covers should be changed whenever the membranes are changed.

- Snap the valve covers off the valve seats. Fig. 14
- Prise off the membrane. Fig. 15
- Press the new membranes onto the dowels. Carefully check that the membranes are in contact with the valve seats all round.
- Press the valve covers into place. A clicking sound indicates that the cover has snapped into place.

4.4.4 To change the head harness

The head harness can be ordered as a spare part only as a complete harness.

- Snap the strap holders of the head harness off the mask strap mountings. Fig. 16, 17.
- Check that the straps are not twisted and fit the new head harness.

5. Technical specification

Classification according to ATEX-directive 94/9/EC and IECEx Scheme

See paragraph 8, Approvals.

Inhalation resistance with Particle filter

≈ 44 Pa at 30 l/min.

Exhalation resistance

≈ 56 Pa at 160 l/min.

Materials

The material and pigments of the mask body are approved for exposure to provisions, which minimizes the risk of contact allergies.

All plastic parts are marked with material codes and recycling symbols.

Shelf life

The equipment has a shelf life of ten years from the date of manufacture which can be established by examining the date wheel at the top of the outer mask body.

Size

Manufactured in one size.

Temperature range

- Storage temperature: from -20 to + 40 °C at a relative humidity below 90 %.
- Service temperature: from -10 to +55 °C at a relative humidity below 90 %.
- Service temperature when used together with fan SR 500 EX is -10 to +40 °C

Thread

Mask and filter adapter: Rd 40x1/7". EN 148-1:1999.

Weight

≈ 500 gram.

6. List of parts

The item numbers below refer to Fig. 1 at the end of these instructions.

Item No.	Part	Ordering No.
	Full face mask SR 200 w PC visor	H01-1212
	Full face mask w glass visor	H01-1312
1.	PC visor SR 366	R01-1201
1.	Laminated glass visor SR 365	T01-1203
2.	Mask body	-
3.	Upper frame half with screws	R01-1202
4.	Head harness, fabric	R01-1203
4.	Rubber head harness SR 340	T01-1215

5.	Membrane kit	R01-1204
	a) Exhalation membranes, two	-
	b) Valve covers, two	-
	c) Inhalation membranes, three	-
	d) Dowels, two	-
6.	Pre-filter holder	R01-0605
7.	Pre-filter SR 221	H02-0312
8.	Particle filter P3 R, SR 510	H02-1312
9.	Gas filter A1, SR 217	H02-2512
9.	Gas filter A2, SR 218	H02-2012
9.	Gas filter AX, SR 298	H02-2412
9.	Gas filter ABE1, SR 315	H02-3212
9.	Gas filter ABE2, SR 294	H02-3312
9.	Gas filter K1, SR 316	H02-4212
9.	Gas filter K2, SR 295	H02-4312
9.	Gas filter ABEK1, SR 297	H02-5312
	Combined filter ABEK1-Hg-P3 R, SR 299-2	H02-6512
10.	Filter adapter SR 280-3	H09-0212
11.	Seal for filter connection	R01-1205
12.	Particle filter adapter SR 611	T01-1223
	Peel-offs SR 343, for plastic visor*	T01-1204
	Peel-offs SR 353, for glass visor*	T01-1205
	Spectacle frame for corrective lenses SR 341, fig. 19	T01-1201
	Welding Cassette SR 84, fig. 20*	T01-1212
	Voice Amplifier SR 324, fig. 21*	T01-1217
	Test adapter SR 370, fig. 22*	T01-1206
	Storage box SR 344, fig. 23*	T01-1214
	Carrier strap	R01-1206
	ID-tag SR 368	R09-0101
	Cleaning tissues SR 5226, box of 50*	H09-0401

* Must not be used in potentially explosive atmosphere.

7. Key to symbols



See user instructions



Date wheel



CE approved by INSPEC Certification Ltd

8. Approvals

CE/EN

The SR 200 with polycarbonate visor is approved in accordance with EN 136:1998, class 3.

The plastic visor has been tested against EN 166:1995, class B.

The SR 200 with glass visor is approved in accordance with EN 136:1998, class 2.

The SR 200 in combination with fan unit SR 500/SR 700 is approved in accordance with EN 12942:1998, class TM3.




The SR 200 in combination with compressed air attachment SR 307 is approved in accordance with EN 14594:2005.

The SR 200 in combination with fan unit SR 500 EX is approved in accordance with EN 12942:1998, class TM3, ATEX Directive 94/9/EC and the IECEx scheme.


Australian StandardsMark

The full face mask SR 200 is tested and certified to comply to AS/NZS 1716:2012. The StandardsMark is issued under licence by SAI Global Pty Limited LIC No. 766 (ACN 108 716 669) ("SAI Global").

ATEX-codes:

-  II 2 G Ex ib IIB T3 Gb (SR 200 with glass visor).
-  II 2 G Ex ib IIA T3 Gb (SR 200 with PC visor).
-  II 2 D Ex ib IIIC 21 T195°C Db (SR 200 with PC/glass visor).

Key to ATEX markings:

-  Explosion protection mark.
- II** Equipment group (explosive atmospheres other than mines with fire damp).
- 2 G** Equipment category (2 = High level of protection for Zone 1, G = Gas).
- 2 D** Equipment category (2 = High level of protection for Zone 21, D = Dust).
- Ex** Explosion protected.
- ib** Type of protection (Intrinsic safety).
- IIA** Gas group (Propane).
- IIB** Gas group (Ethylene).
- IIIC** Dust material group (zone with conductive dust).
- T3** Temperature class, gas (maximum surface temperature +200°C).
- T195°C** Temperature class, dust (maximum surface temperature +195°C).
- Gb** Equipment Protection Level, gas (high protection).
- Db** Equipment Protection Level, dust (high protection).

IECEX-codes:

- Ex ib IIB T3 Gb (SR 200 with glass visor).**
- Ex ib IIA T3 Gb (SR 200 with PC visor).**
- Ex ib IIIC T195°C Db (SR 200 with PC/glass visor).**

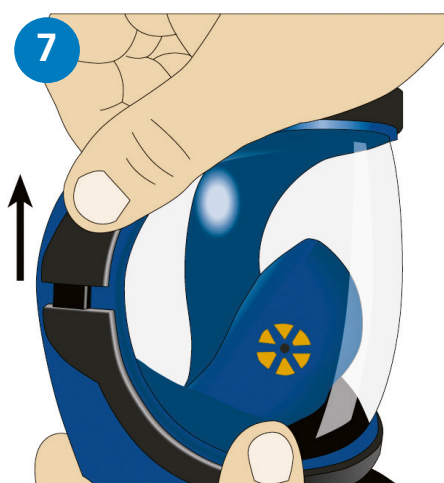
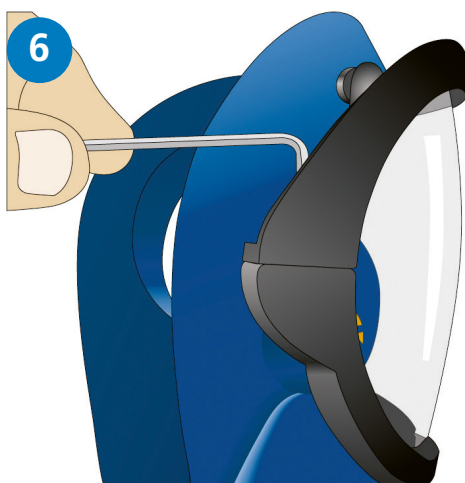
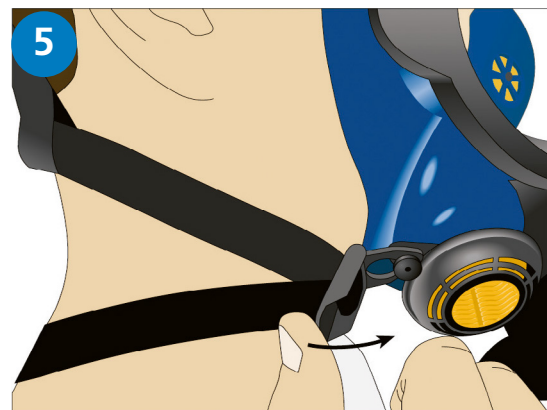
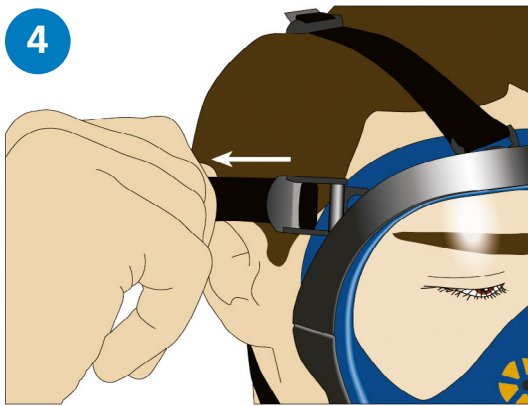
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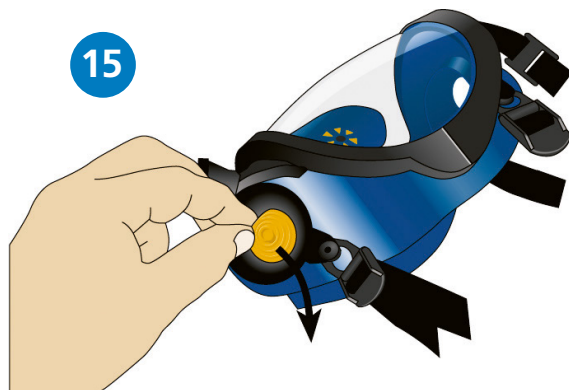
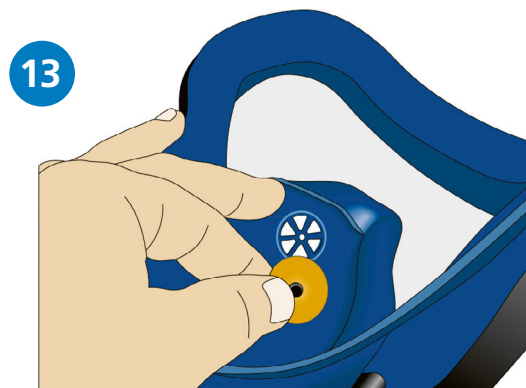
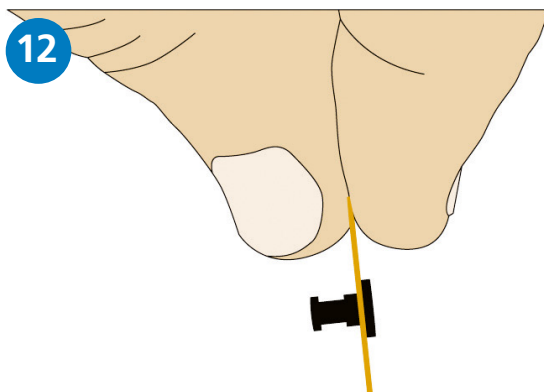
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- Gb** Equipment Protection Level, gas (high protection).
- Db** Equipment Protection Level, dust (high protection).

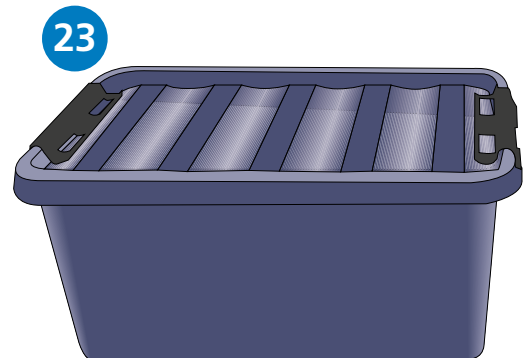
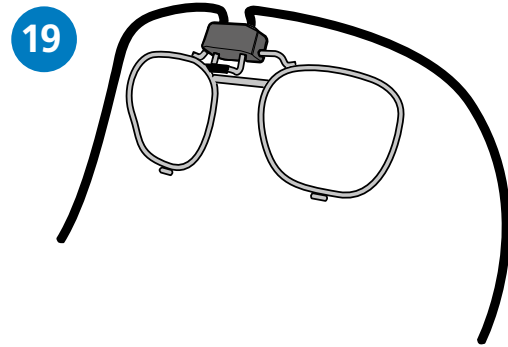
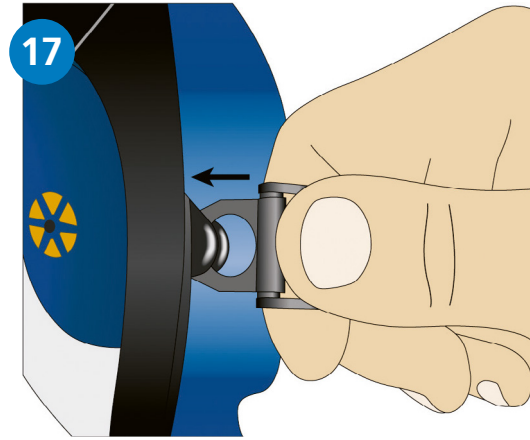
Type approval in accordance with PPE Directive 89/686/EEC has been issued by Notified Body No. 0194. For address, see back cover.

Type approvals in accordance with ATEX Directive 94/9/EC and IECEX Scheme have been issued by Notified Body No. 0470. NEMKO AS, Gaustadalléen 30, N-0314 Oslo, Norway.



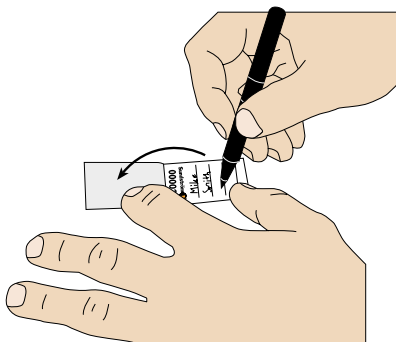
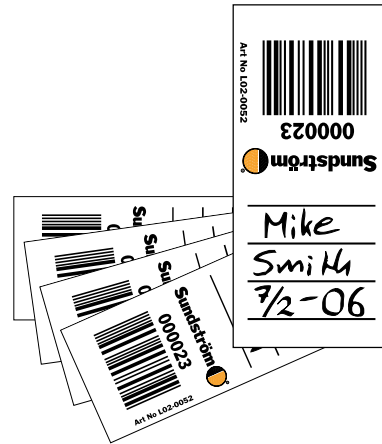




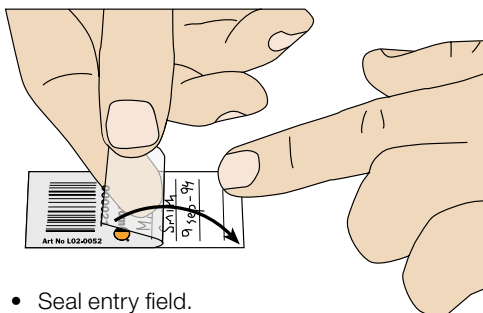


ID-tag • ID-etikett SR 368

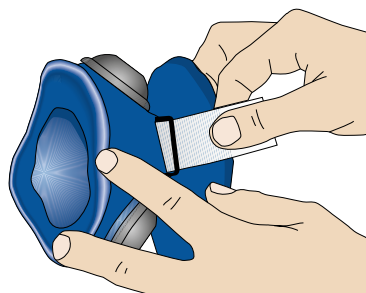
- The label can withstand washing and will normally last throughout the life of the mask.
- Das Etikett ist waschbeständig und hält gewöhnlich über die gesamte Lebensdauer der Maske.
- Etiketten tål tvätt (vask) och håller normalt hela maskens livslängd (levetid).
- Etiketti on pesunkestävä ja kestävä normaalisti naamarin koko käyttöiän.
- L'étiquette supporte le lavage et doit normalement durer autant que le masque.
- La etiqueta soporta el lavado y normalmente dura toda la vida de servicio de la careta.
- Етикетът може да издържи на миене и нормално ще трае през целия живот на противогаса.
- Štítek odolá při praní a obvykle vydrží po dobu životnosti masky.
- Silt kannatab pesemist ning peab tavaliselt vastu maski kasutusaja lõpuni.
- Το καρτελάκι αντέχει στο πλύσιμο και υπό κανονικές συνθήκες διατηρείται ανέπαφο για ολόκληρη τη διάρκεια ζωής της μάσκας.
- A címke ellenáll a mosásnak, élettartama normál esetben az álaró élettartamának végéig tart.
- L'etichetta è resistente al lavaggio e normalmente dura per tutta la vita utile della maschera.
- Markējumu drīkst mazgāt, un parasti tas saglabāsies visu maskas kalpošanas termiņu.
- Ši etiketė atspari skalbimui ir paprastai nesusidėvi visą kaukės tarnavimo laiką.
- Etykieta jest odporna na pranie, a jej trwałość w normalnym przypadku odpowiada żywotności maski.
- Эта метка может выдерживать мойку и обычно служит в течение всего срока службы маски.
- Nalepka je odporna na pranje in bo običajno obstala do konca roka uporabe maske.
- Štítok odolá pri praní a obvykle vydrží po dobu životnosti masky.



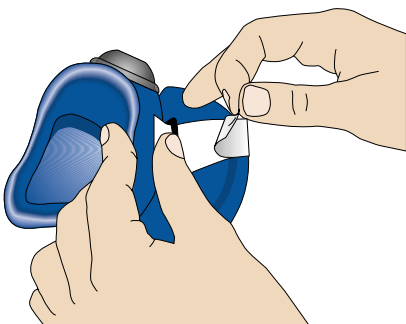
- Fold flap away before writing.
- Lasche hochklappen zum Schreiben.
- Vik (brett) undan (tilbake) fliken når du skriver.
- Käännä läppä sivuun kirjoittaessasi.
- Soulever la languette avant d'écrire.
- Aparte la solapa al escribir.
- Сгънете навън лентата, преди да пишете.
- Před psaním ohni stranou přehyb.
- Keerake pealmine ümbris üles, enne kui asute kirjutama.
- Διπλώστε το προστατευτικό φύλλο πριν γράψετε.
- Írás előtt hajtsa félre a címkét.
- Sollevare il lembo di protezione prima di scrivere.
- Pirms datu ierakstīšanas noņemiet aizsargājošo pārsegu.
- Prieš rašydami atlenkite.
- Przed zapisaniem odchylić klapkę.
- Перед написанием разверните.
- Pred pisanjem prepognite poklopec stran.
- Pred zápisom ohni prehyb stranou.



- Seal entry field.
- Schriftfeldt versiegeln.
- Försegla skrivfältet.
- Sinetöi kirjoitettu alue.
- Recouvrir la partie écrite.
- Precinte el espacio para escribir.
- Залепете полето с данните.
- Políčko zapečetění.
- Sulgege täidetud väljad tihedalt.
- Σφραγίστε το πεδίο καταχώρησης.
- Ragassza le az írott részt.
- Sigillare il campo di immissione.
- Pārklājiet ieraksta laukumu.
- Užklijuokite rašymo laukelį.
- Uszczelnic pole z wpisanymi danymi.
- Запечатайте поле записи
- Zaprite vnosno polje.
- Zapečatite pole zápisu.



- Insert label half-way.
- Etikett bis zur Hälfte einfädeln.
- För in (skyv) etiketten halvvägs.
- Työnnä etiketti sisään puoliväliin asti.
- Enfoncer à demi l'étiquette.
- Introduzca la etiqueta hasta la mitad.
- Пъхнете етикета наполовина залепете етикета.
- Štítek zasuňte napůl.
- Lükake siit poole pikkuseni hoidiku taha.
- Περάστε το καρτελάκι από την οπή κατά το ήμισυ.
- Helyezze be félig a címkét.
- Introdure l'etichetta a metà.
- Ievietojiet marķējumu līdz pusei.
- Etiketę įkiškite iki pusės galus.
- Wsunąć identyfikator do połowy.
- Частично вставьте бирку
- Vstavite nalepko do polovice.
- Štítok čiastočne zasuňte.



- Remove protective paper and stick label together.
- Schutzpapier abziehen und Etikett zusammenkleben.
- Avlägsna (fjern) skyddspapperet och klistra (kleb sammen) ihop etiketten.
- Poista suojapaperi ja teippaa etiketti yhteen.
- Enlever la papier protecteur et coller l'étiquette.
- Quite el papel de protección y adhiera ambas partes de la etiqueta.
- Махнете защитната лента и.
- Odstraňte ochranný papír a štítek přilepte.
- Eemaldage kaitsepaber ja kleepige siit kokku.
- Αφαιρέστε το χαρτί προστασίας και κολλήστε τα δύο τμήματα μεταξύ τους.
- Távolítsa el a védőpapírt, és ragassza össze a címkét.
- Rimuovere la pellicola di protezione e attaccare l'etichetta.
- Noņemiet aizsargājošo papīru un salīmējiet marķējuma galus kopā.
- Nuimkite apsauginį popierių ir suklijuokite etiketės.
- Zdjąć ochronny papier i skleić ze sobą obie połówki identyfikatora.
- Удалите защитную бумагу и приклейте бирку.
- Odstranite zaščitni papir in zlepite nalepko.
- Odstraňte ochranný papír a štítok prílepte

**The full face mask SR 200 is manufactured within a quality management system accepted by
Notified Body 0194: INSPEC International Ltd,
Certification Services, 56 Leslie Hough Way,
Salford, M6 6 AJ, England**



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